

# SQIP

## Stormwater Quality Improvement Plan

FOR THE COUNTY OF SACRAMENTO  
AND THE CITIES OF CITRUS HEIGHTS, ELK GROVE, FOLSOM, GALT, AND RANCHO CORDOVA

JUNE 2007 DRAFT

*Submitted to:*

**State of California Regional Water Quality Control Board**

Central Valley Region, 11020 Sun Center Drive #200, Rancho Cordova, CA 95670-6114

# Stormwater Quality Improvement Plan (SQIP)

For Sacramento County and Cities of Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova

June 2007 (DRAFT)

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*To be provided for the final SQIP (anticipated late 2007/early 2008)*

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# Glossary

Commonly Used Acronyms and Terms for the Sacramento County Stormwater Quality Improvement Plan

## COMMONLY USED ACRONYMS

| <i>Acronym</i> | <i>Full Name</i>  |
|----------------|---|
| AGC            | Associated General Contractors of California                        |
| AIA            | American Institute of Architects                                    |
| AR             | Annual Report   |
| ASCE           | American Society of Civil Engineers                                 |
| ASLA           | American Society of Landscape Architects                            |
| BASMAA         | Bay Area Stormwater Management Agencies Association                 |
| BERC           | Business Environment Resource Center (for Sacramento area)          |
| BIA            | Building Industry Association                                       |
| BMP            | best management practice  |
| Cal Fed        | California Bay-Delta Authority                                      |
| CASQA          | California Association of Stormwater Quality Agencies               |
| CBSCP          | Complaint-Based Stormwater Compliance Program                       |
| CCC            | California Conservation Corps                                       |
| CELSOC         | Consulting Engineers and Land Surveyors of California               |
| CEQA           | California Environmental Quality Act                                |
| CIP            | Capital Improvement Project   |
| CISCP          | Commercial and Industrial Stormwater Compliance Program             |
| CMID           | Construction Management and Inspection Division (Sacramento County) |
| CMO            | Communication and Media Officer                                     |
| CMP            | Sacramento Coordinated Monitoring Program                           |
| COC            | Constituents of Concern   |
| CUBS           | Consolidated Utilities Billing Service (Sacramento County)          |
| CWA            | Clean Water Act   |
| CWBP           | Clean Water Business Partner  |

|       |  |
|-------|--|
| DERA  | Department of Environmental Review and Assessment (Sacramento County)  |
| DOC   | dissolved organic carbon   |
| DOT   | Department of Transportation (Sacramento County)   |
| DPR   | Department of Pesticide Regulations  |
| DSP   | Development Standards Plan   |
| DWR   | Department of Water Resources (Sacramento County)  |
| EIR   | environmental impact report  |
| EMD   | Environmental Management Department (Sacramento County)  |
| EPA   | U.S. Environmental Protection Agency   |
| ESC   | Erosion and Sediment Control   |
| FTE   | full-time equivalent   |
| HHW   | Household Hazardous Waste  |
| ICBO  | International Conference of Building Officials   |
| IPM   | Integrated Pest Management   |
| LCWC  | Laguna Creek Watershed Council   |
| LDSIR | Land Development and Site Improvement Review (Sacramento County)   |
| MCL   | maximum contaminant level  |
| MEP   | maximum extent practicable   |
| MOU   | Memorandum of Understanding  |
| MS4   | Municipal Separate Storm Sewer System  |
| MRP   | Monitoring and Reporting Program (section of the Sacramento NPDES Municipal Stormwater Permit No. CAS082597) |
| NOI   | Notice of Intent   |
| NPDES | National Pollutant Discharge Elimination System  |
| NWQA  | National Water Quality Assessment  |
| OP    | Organophosphorus (e.g., OP Pesticides)   |
| OWOW  | Our Water Our World  |
| RWA   | Regional Water Authority   |
| RWQCB | Regional Water Quality Control Board (California, Central Valley Region)                                     |
| RWQE  | Report of Water Quality Exceedance   |
| SIC   | Standard Industrial Classification   |
| SRCSD | Sacramento Regional County Sanitation District   |



|       |  |
|-------|--|
| SRWP  | Sacramento River Watershed Program               |
| SQIP  | Stormwater Quality Improvement Plan              |
| SWAMP | Surface Water Ambient Monitoring Program         |
| SWO   | Stormwater Ordinance                             |
| SWPPP | Stormwater Pollution Prevention Plan             |
| SWRCB | State Water Resources Control Board (California) |
| SWQ   | stormwater quality                               |
| SYRCL | South Yuba River Citizens League                 |
| TIE   | Toxicity Identification Level                    |
| TMDL  | total maximum daily load                         |
| TOC   | total organic carbon                             |
| TSS   | Total Suspended Solids                           |
| UPC   | Urban Pesticide Committee                        |
| USGS  | United States Geological Survey                  |
| WEF   | Water Environment Federation                     |
| WWPC  | Water Wise Pest Control                          |

#### COMMONLY USED TERMS

**303(d) List** : Section 303(d) of the Clean Water Act requires that each State in the U.S. create and maintain a list of Waters of the State that are not attaining water quality standards after technology-based limits are put into place. This list is commonly referred to as the “303(d) List”. In California, 303(d) Lists are developed and updated on an approximately triennial basis by the nine Regional Water Quality Control Boards (Regional Water Boards). For waters on this list (and where the EPA administrator deems they are appropriate) each Regional Board is to develop total maximum daily loads (TMDLs). EPA is required to review and approve updates to each 303(d) List, or establish an alternative list.

**Adverse Impact**: a detrimental effect upon water quality or beneficial uses caused by a discharge or loading of a pollutant or pollutants.

**Authorized Discharge**: any discharge that is authorized pursuant to a National Pollutant Discharge Elimination System (NPDES) permit or meets the conditions set forth in this Order.

**Bacteria**: Single-celled microorganisms that lack chlorophyll; some cause disease, others are necessary to sustain life.

**Baseflow**: Portion of stream flow that is not due to storm runoff and is supported by groundwater seepage into a channel.

**Basin Plan:** the *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins*. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin.

**Best management practice (BMP):** methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and nonstructural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

**Bioassessment (biological assessment):** The use of biological community information, along with the measure of the physical/habitat quality, to determine the integrity of a water body. The EPA defines biological integrity as “*the ability of an aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity and functional organization comparable to that of the natural habitats of a region.*”

**Biochemical oxygen demand (BOD):** Quantity of dissolved oxygen used by microorganisms (e.g., bacteria) during the biochemical oxidation of matter (both organic and oxidizable inorganic matter) over a specified period of time.

**Biofiltration:** Use of natural materials and vegetation to trap and remove pollutants from stormwater.

**Channel:** Natural or artificial waterway that periodically or continuously contains moving water. Channels have a definite bed and banks that confine the water.

**Channel erosion:** Widening, deepening, and headward cutting of small channels and waterways due to erosion caused by moderate to larger floods.

**Check dam:** Small dam placed perpendicular to a stream to enhance aquatic habitat or placed perpendicular in swales to reduce water velocities, promote sediment deposition, and enhance infiltration.

**Chemical oxygen demand (COD):** Quantity of maximum oxidizable matter in a sample.

**Clean Water Act (CWA):** (33 U.S.C. 1251 et seq.) Requirements of the National Pollutant Discharge Elimination System (NPDES) program are defined under Sections 307, 402, 318, and 405 of the CWA.

**Commercial Facilities/Development:** related to the Commercial/Industrial Element, refer to the Environmental Management Department’s Fee Ordinance (Appendix F) and related to the New Development Element, refer to the Stormwater Quality Design Manual for Sacramento and South Placer Regions.

**Construction:** clearing, grading, excavating, etc. that results in soil disturbance. Construction includes structure teardown.

**Construction General Permit:** NPDES permit issued by the State Water Resources Control Board for the discharge of stormwater associated with construction activity from soil disturbance of one or more acres.

**Control:** to minimize, reduce, eliminate, or prohibit by technological, legal, contractual or other means, the discharge of pollutants from an activity or activities.

**Culvert:** Covered channel or a large diameter pipe that crosses under a road, sidewalk, etc.

**Debris:** Any material, organic or inorganic, floating or submerged, moved by a flowing stream.

**Design storm:** Rainfall event of specified size and return frequency that is used to calculate the runoff volume and peak flows to a stormwater quality treatment facility.

**Detention basin:** Constructed basin that temporarily stores stormwater runoff and releases it at controlled rates.

**Detention time:** Time required for detention of stormwater runoff in a stormwater quality facility.

**Development:** any construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail and other non-residential projects, including public agency projects; or mass grading for future construction.

**Development Standards:** standards that the Permittees must develop and implement for new development and significant redevelopment projects to control the discharge of storm water pollutants.

**Discharge:** Release or flow of stormwater or other substance from a conveyance system or storage container.

**Dissolved oxygen:** Oxygen that is present (dissolved) in water and available for use by fish and other aquatic animals.

**Diversion:** Channel, embankment or other man-made structure constructed to divert water from one area to another (Soil Conservation Society of America, 1982).

**Drawdown:** Gradual reduction in water level in a detention basin due to discharge by the outfall or combined effect of infiltration and evaporation.

**Drop inlet:** Entrance to the piped storm drain system, located at the curb and gutter, designed to collect runoff from streets and pavements.

**Dry weather flow:** Flow occurring during the dry season (generally considered to be May through September) that may be associated with reservoir releases or releases of water from industrial, commercial, or residential activities.

**End-of-pipe control:** Water quality control technologies suited for control of existing urban stormwater at the point of stormwater discharge to a waterway.

**Energy dissipation:** Loss of kinetic energy of moving water due to internal turbulence, boundary friction, change in flow direction, contraction, or expansion.

**Erosion:** Wearing away of land surface by wind or water. Occurs naturally from weather or runoff, but can be intensified by land-clearing practices relating to farming, residential or industrial development, road building, or timber cutting.

**Floodplain:** Any low land that borders a stream or waterway and is inundated periodically by its waters.

**Freeboard:** Vertical distance between design water surface elevation and elevation of the bank, levee or revetment that contains the water.

**General Construction Activities Storm Water Permit (Construction General Permit):** the general NPDES permit adopted by the State Board, which authorizes the discharge of stormwater from construction activities under certain conditions.

**General Industrial Activities Storm Water Permit (Industrial General Permit):** the general NPDES permit adopted by the State Water Board which authorizes the discharge of stormwater from certain industrial activities under certain conditions.

**Grading:** Cutting and/or filling of land surface to a desired slope or elevation.

**Gravitational settling:** Tendency of particulate matter to “drop out” of stormwater runoff as it flows downstream when runoff velocities are moderate and/or slopes are not too steep.

**Groundwater table:** Level below which the soil is saturated (i.e., where pore spaces between individual soil particles are filled with water).

**Habitat:** Place where a biological organism lives. The organic and non-organic surroundings that provide life requirements such as food and shelter.

**Hazardous material or substance:**

1. Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive, or chemically reactive.
2. Any substance named by EPA to be reported if a designated quantity of the substance is spilled in the waters of the United States or otherwise emitted into the environment.

**Hazardous waste:** By-products of society that can pose a substantial or potential hazard to human health or the environment when improperly managed. Possesses at least one of four characteristics (flammable, corrosive, reactive, or toxic) or appears on special EPA lists.

**Heavy metals:** Metals of relatively high atomic weight, including but not limited to chromium, copper, lead, mercury, nickel, and zinc. These metals are found in minimal quantities in stormwater, but can be highly toxic even at trace levels.

**Illegal discharges:** Any discharge to the storm drain system that is not composed entirely of stormwater except conditionally allowed non-stormwater discharges listed in the municipal stormwater permit and stormwater ordinances, or discharges authorized by an NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from emergency fire-fighting activities.

**Illicit Connection:** any man-made conveyance that is connected to the storm drain system without a permit, excluding roof drains and other similar type connections. Examples include channels, pipelines, conduits, inlets, or outlets that are connected directly to the storm drain system.

**Illicit Discharge:** any discharge to the storm drain system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non storm-water discharges except discharges pursuant to an NPDES permit, discharges that are identified in **Discharge Prohibitions** of this Order, and discharges authorized by the Regional Water Board.

**Impermeable:** Properties that prevent the movement of water through the material.

**Impervious surface:** Material that resists or blocks the passage of water.

**Industrial Facilities/Development:** related to the Commercial/Industrial Element, refer to the Environmental Management Department's Fee Ordinance (Appendix F) and related to the New Development Element, refer to the Stormwater Quality Design Manual for Sacramento and South Placer Regions.

**Industrial General Permit:** NPDES permit issued by the State Water Resources Control Board for the discharge of stormwater associated with industrial activity.

**Infiltration:** the downward entry of water into the surface of the soil.

**Infiltration basin:** A basin where incoming stormwater runoff is stored until it gradually exfiltrates through the soil of the basin floor.

**Inlet:** Entrance into a ditch, storm drain system, stormwater treatment facility, or other waterway.

**Inspection:** entry and the conduct of an on-site review of a facility and its operations, at reasonable times, to determine compliance with specific municipal or other legal requirements. The steps involved in performing an inspection, include, but are not limited to:

- a. Pre-inspection documentation research.;
- b. Request for entry;
- c. Interview of facility personnel;
- d. Facility walk-through.
- e. Visual observation of the condition of facility premises;
- f. Examination and copying of records as required;
- g. Sample collection if necessary or required;
- h. Exit conference to discuss preliminary evaluation; and,
- i. Report preparation, and if appropriate, recommendations for coming into compliance.

**Level spreader:** Device used to spread out stormwater runoff uniformly over the ground surface as sheet flow (i.e., not through channels). The purpose of level spreaders is to prevent concentrative, erosive flows from occurring and to enhance infiltration.

**Maximum Extent Practicable (MEP):** Section 402(p)(3)(B) of the Clean Water Act requires the Regional Water Board to issue NPDES Municipal Stormwater Permits which require the dischargers to develop and implement programs with the goal of reducing the discharge of pollutants in stormwater runoff to the maximum extent practicable (MEP). Originally, the term was not clearly defined by the CWA and subsequent regulations, in order to allow dischargers the flexibility to design programs tailored to unique conditions and needs of the community. However, the State Water Board has since attempted to define the term. The State Water Board's Office of Chief Counsel (OCC) issued a memorandum interpreting the meaning of MEP to include *technical feasibility, cost, and benefit derived with the burden being on the municipality to demonstrate compliance with MEP by showing that a BMP is not technically feasible in the locality or that BMP costs would exceed any benefit to be derived* (dated 11 February 1993). Finding 38 of the Sacramento NPDES Stormwater Permit No. CAS082597 states: Implementation of BMPs and compliance with performance standards in accordance with the Permittees' SQIPs and their schedules constitutes compliance with the MEP standard. For a fuller discussion of this standard, see State Water Board Orders WQ 1000-11 and 91-03.

**Method Detection Limit (MDL):** the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR 136, Appendix B.

**Municipal Separate Storm Sewer System (MS4):** a conveyance or system of conveyances (including roads with drainage systems, municipal streets, alleys, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned by a State, city, county, town or other public body, that is designed or used for collecting or conveying storm water, which is not a combined sewer, and which is not part of a publicly owned treatment works, and which discharges to Waters of the United States.

**Natural buffer:** Low sloping area of maintained grassy or woody vegetation located between a pollutant source and a waterbody. A natural buffer is formed when a designated portion of a developed piece of land is left unaltered from its natural state during development.

**National Pollutant Discharge Elimination System (NPDES):** the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits under CWA §307, 402, 318, and 405.

**Natural Drainage Systems:** unlined or unimproved (not engineered) creeks, streams, rivers or similar waterways.

**New Development:** land disturbing activities; structural development, including construction or installation of a building or structure, and creation of impervious surfaces.

**Non-storm water discharge:** any discharge to a storm drain that is not composed entirely of storm water. Certain non-stormwater discharges are authorized per the Sacramento NPDES Municipal Stormwater Permit.

**Non-structural source control measure:** Low-technology, low-cost activity, procedure or management practice designed to prevent pollutants associated with site functions and activities from being discharged with stormwater runoff. Examples include good housekeeping practices, employee training, standard operating practices, inventory control measures, etc.

**Notice of Intent (NOI):** Formal notice to State Water Resources Control Board submitted by the owner/developer that a construction project is about to begin. The NOI provides information on the owner, location and type of project, while certifying that the permittee will comply with the conditions of the construction general permit.

**NPDES Permit:** Authorization, license or equivalent control document issued by EPA or an approved state agency to implement requirements of the NPDES program. An NPDES stormwater permit relates to discharge of stormwater runoff to waters of the United States.

**Nutrients:** Elements or substances such as nitrogen or phosphorous that are necessary for the growth and development of living things (e.g., plants). Large amounts of these substances reaching water bodies can lead to reduced water quality and eutrophication by promoting excessive aquatic algae growth. Some nutrients can be toxic at high concentrations.

**Outfall:** Point where stormwater discharges from a pipe, channel, ditch, or other conveyance to a waterway.

**Performance Standard:** a narrative or measurable number specifying the minimum acceptable outcome for a pollution control practice.

**Permeability:** Quality of a soil horizon that enables water or air to move through it.

**Pollutants:** those substances defined in CWA §502(6) (33.U.S.C.§1362(6)), and incorporated by reference into California Water Code §13373.

**Pollution:** Impairment of water quality caused by man-made waste discharges or natural processes.

**Precipitation:** Any form of rain or snow.

**Pretreatment:** Treatment of wastewater before it is discharged to a wastewater collection system.

**Process wastewater:** Wastewater that has been used in one or more industrial processes.

**Rain Event or Storm Event:** means any rain event greater than 0.1 inch in 24 hours except where specifically stated otherwise

**Receiving Waters:** means all surface water bodies in the Central Valley Region that are identified in the Basin Plan.

**Redevelopment:** land-disturbing activity that results in the creation, addition, or replacement of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of a routine maintenance activity; and land disturbing activities related to structural or impervious surfaces.

**Restaurant:** a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812).

**Retail Gasoline Outlet:** any facility engaged in selling gasoline and lubricating oils.

**Retention:** Temporary or permanent storage of stormwater to prevent it from leaving the development site.

**Retrofit:** Creation/modification of stormwater management systems in developed areas through construction of water quality basins, stream plantings, stream bank stabilization, and other techniques for improving water quality and creating aquatic habitat. A retrofit can mean construction of a new stormwater quality treatment facility in the developed area, enhancement of an older stormwater management structure, or a combination of improvement and new construction.

**Riparian:** Relatively narrow strip of land that borders a stream or river, which often coincides with the maximum water surface elevation of the one-hundred year storm.

**Riprap:** Combination of large stones, cobbles, and boulders used to line channels, stabilize banks, reduce runoff velocities, or filter out sediment.

**Runoff:** means any runoff including storm water and dry weather flows from a drainage area that reaches a receiving water body or subsurface. During dry weather it is typically comprised of base flow either contaminated with pollutants or uncontaminated, and nuisance flows.

**Runon:** Stormwater or other surface flow which enters property other than that where it originated.

**Scour:** Concentrated erosive action of flowing water in streams that removes material from the bed and banks.

**Sedimentation:** Process of sand and mud settling and building up on the bottom of a creek, river, lake, or wetland.

**Sediments:** Soil, sand and minerals washed from land into water, usually after rain, that accumulate in reservoirs, rivers and harbors, destroying aquatic animal habitat and clouding the water so that adequate sunlight might not reach aquatic plants.

**Sheet flow:** Water, usually storm runoff, flowing in a thin layer over the ground surface (Soil Conservation Society of America, 1982).

**Slope:** Degree of deviation of a surface from the horizontal, measured as a percentage, a numerical ratio, or in degrees (Soil Conservation Society of America, 1982).

**Source control BMPs:** means any schedules of activities, prohibitions of practices, maintenance procedures, managerial practices or operational practices that aim to prevent storm water pollution by reducing the potential for contamination at the source of pollution.

**Storm drains:** Above and below ground structures for transporting stormwater to streams or outfalls for flood control purposes.

**Stormwater:** Stormwater runoff, snow melt runoff, surface runoff, and drainage.

**Stormwater conveyance system or storm drain system:** Any channel or pipe for collecting and directing stormwater.

**Stormwater discharge associated with industrial activity:** Discharge from any conveyance that is used for collecting and conveying stormwater which is directly related to manufacturing processing or raw materials storage areas at an industrial plant [40 CFR 122.26(b)(14)].

**Stormwater runoff:** Excess precipitation that is not retained by vegetation, surface depressions or infiltration, which thereby collects on the surface and drains into a surface water body.

**Stormwater treatment:** Detention, retention, filtering, or infiltration of a given volume of stormwater to remove urban pollutants.

**Stream buffer:** Variable width strip of vegetated land adjacent to a stream that is preserved from development activity to protect water quality, aquatic, and terrestrial habitats.

**Structural BMP:** any structural facility designed and constructed to mitigate the adverse impacts of stormwater and urban runoff pollution (e.g. canopy, structural enclosure). The category may include both Treatment Control BMPs and Source Control BMPs.

**Sump:** Sediment trap used as pretreatment upstream of a filtration or infiltration device. Sump can have many configurations. The word “sump” has also been used in reference to drywells.

**Swale:** Natural depression or wide shallow ditch used to temporarily store, route or filter runoff. (See also vegetated swale)

**Target Pollutants :** Pollutants identified by the permittees as most likely to impair local receiving waters, based on evaluation of available monitoring data and other information that describe its surface configuration (Soil Conservation Society of America, 1982).

**Total Maximum Daily Load (TMDL):** the sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background. A TMDL is the maximum pollutant load a waterbody can assimilate each day from all sources combined and still maintain applicable water quality standards for that pollutant.

**Toxic:** Related to or caused by a poison, hazardous waste or toxin.



**Toxicity Identification Evaluation (TIE):** a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

**Toxicity Reduction Evaluation (TRE):** a study conducted in a step-wise process to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity.

**Treatment:** the application of engineered systems that use physical, chemical, or biological processes to remove pollutants. Such processes include, but are not limited to, filtration, gravity settling, media absorption, biodegradation, biological uptake, chemical oxidation and UV radiation.

**Treatment Control BMP:** any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process.

**Urban runoff:** Stormwater that passes through and out of developed areas to a stream or other body of water.

**Vegetated filter strip:** Vegetated section of land designed to accept runoff as overload sheet flow from upstream development. It may adopt any natural vegetated form, from grass meadow to small forest. The dense vegetative cover facilitates pollutant removal. Filter strips cannot treat high velocity flows; therefore, they have generally been recommended for use in agriculture and low density development. A vegetated filter strip differs from a natural buffer in that the strip is not “natural;” rather, it is designed and constructed specifically for pollutant removal.

**Vegetated swale:** An earthen conveyance system in which the filtering action of grass and soil infiltration are utilized to remove pollutants from urban stormwater. An enhanced grass swale, or biofilter, utilizes check dams and wide depressions to increase runoff storage and promote greater settling of pollutants.

**Velocity:** Distance that water travels in a given direction in a stream during an interval of time.

**Watershed or drainage basin:** Geographic area within which all surface water drains into a particular body of water (e.g., a river or stream).

**Water Quality Standards and Water Quality Objectives:** water quality criteria contained in the Basin Plan, the National Toxics Rule, the California Toxics Rule, and other state or federally approved surface water quality plans. Such plans are used by the Regional Board to regulate all discharges, including storm water discharges.

**Waters of the State:** any surface water or groundwater, including saline waters, within boundaries of the state.

**Waters of the United States:**

- a. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- b. All interstate waters, including interstate wetlands;

- c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
  - 1. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - 2. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - 3. Which are used or could be used for industrial purposes by industries in interstate commerce;
- d. All impoundments of waters otherwise defined as waters of the United States under this definition;
- e. Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- f. The territorial sea; and
- g. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraph (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.22(m), which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to man-made bodies of water, which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland.

Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with U.S. EPA.

**Wet Season:** the calendar period beginning October 1 and ending April 30.

**Weir:** Structure that extends across the width of a channel and is intended to impound, delay or in some way alter the flow of water through the channel. Dams of any kind, including check dams, are considered weirs.

**Wet weather flow:** Water derived primarily from rain, melting snow or irrigation during the wet season (generally considered to be October through April) that flows over the ground surface.

# Executive Summary

to be included in final SQIP  
(anticipated late 2007/early 2008)

DRAFT

# Chapter 1

## Introduction

### 1.1 Overview

This Stormwater Quality Improvement Plan (SQIP) describes the stormwater pollution prevention efforts implemented either jointly or individually by the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova.

Those agencies, plus the City of Sacramento, are collectively referred to as the Sacramento Stormwater Quality Partnership and together they implement the Sacramento Stormwater Management Program (Program). The Program has been established to satisfy regulatory permit requirements and protect local waterways, as described later in this chapter.

This SQIP provides regulatory and historical context and serves as the blueprint for Program activities planned for the period 2008 to 2013 (dates to be revised when final Order is adopted). This document describes how activities are planned, developed, implemented, and evaluated, through both cooperative and individual efforts of the participating agencies.

This SQIP supercedes and replaces all previous management plans developed for the Program, including the 1994 Comprehensive Stormwater Management Plan, the 1995 Effectiveness Evaluation Plan, and the July 2003 SQIP and its amendments.

The City of Sacramento is involved in the joint Program activities described in this document (in Chapter 3), but the City of Sacramento's efforts are described in a separate SQIP, prepared in coordination with this one.

### 1.2 Background

This section briefly discusses background for the Program, including information on the Sacramento Stormwater Quality Partnership, relevant clean water regulations driving the efforts, and a discussion of the impacts of urban runoff on receiving waters. Additional details are included in the appendices.

#### Sacramento Stormwater Quality Partnership

The Sacramento Stormwater Quality Partnership (Partnership) is a collaborative of public agencies that protects and improves water quality in local waterways for the benefit of the community and the environment. The Partnership's main charge is to oversee compliance with the Sacramento Areawide Municipal Stormwater Permit (stormwater permit) which is designed to comply with state and federal clean water regulations, as discussed in the following section. The Partnership has established these goals (not in any particular priority order):

- improve the quality of urban runoff;
- increase public awareness about water quality and encourage pollution prevention behavior;
- strive for countywide consistency between permittee agencies' programs;
- improve internal communication and coordination to facilitate agency-wide compliance;
- use public funds efficiently and effectively; and
- keep apprised of new and evolving regulations that may affect the Program in the future.

Table 1.2-1 describes how these major goals have been translated into strategies for the Program.

Refer to Appendix A for a complete history of the Program, including the permitting history and the Partnership's efforts to manage urban runoff quality over the years.

### Regulatory Background and the Stormwater Permit

Under the federal Clean Water Act (CWA), stormwater discharges are regulated through National Pollutant Discharge Elimination System (NPDES) stormwater permits. Such permits require municipalities to regulate and manage the quality of stormwater throughout their jurisdictions.

In California, the State Water Board and its nine Regional Water Boards oversee implementation of the Clean Water Act. The Central Valley Regional Water Quality Board (Regional Water Board) issues and enforces NPDES municipal stormwater permits in the Sacramento area.

The County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova are subject to the Sacramento Areawide NPDES Municipal Stormwater Permit (stormwater permit), issued by the Regional Water Board. The stormwater permit was issued originally in 1990 and has been reissued several times since.

This SQIP describes a comprehensive plan to address the following discharge prohibitions of the stormwater permit:

1. *Discharges from municipal separate storm sewer systems (MS4s) in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in § 13050 of the California Water Code) in waters of the state are prohibited.*
2. *Discharges from MS4s that cause or contribute to the violation of water quality objectives or water quality standards are prohibited.*
3. *Discharges from MS4s containing pollutants that have not been reduced to the maximum extent practicable (MEP) are prohibited.*

In addition, the stormwater permit contains prescriptive requirements that must be satisfied related to monitoring and reporting and the various program elements (e.g., public outreach and municipal operations).

This SQIP proposes compliance activities to be conducted during the five-year term of the stormwater permit (January 2008 – December 2013; *update dates when new Order is adopted*). As specified in the stormwater permit, once the SQIP is approved by the Regional Water Board Executive Officer, it is considered part of the permit and is enforceable as such.

Appendix B presents greater details about relevant regulations.

### Impacts of Urban Runoff

Stormwater and other urban runoff discharges are regulated under the federal Clean Water Act and State Porter Cologne Act (as described in the previous section and Appendix B), because pollutants in urban runoff potentially reach and harm our creeks, rivers, and other protected "Waters of the State". Urbanization can profoundly impact the quality of water and beneficial uses of local water bodies.

In addition, in recent years, regulators have become increasingly concerned about the adverse impacts of runoff discharges to waterways in terms of habitat degradation. Studies have demonstrated that the volumes of runoff from the frequent small storm events (two year events and less) occurring over a longer period of time, are causing downstream erosion, sedimentation and habitat impairment. Conventional flood detention approaches have targeted control of the large storm event volumes and peak flow rates, but have largely neglected to address the chronic erosion and habitat impacts. The recent stormwater permit, therefore, has requirements pertaining to both the quality and quantity of urban runoff discharges.

Table 1.2-1  
**Major Goals and Strategies for the  
 Sacramento Stormwater Management  
 Program**

| Goal   | Strategies   |
|--|--|
| Comply with Sacramento NDPES Municipal Stormwater Permit No. CAS082597, which has been designed to ensure compliance with the federal Clean Water Act and its amendments and the California Porter Cologne Act | <ul style="list-style-type: none"> <li>• Fully implement the Stormwater Quality Improvement Plan</li> <li>• Continue to use Annual Work Plans and Annual Reports to communicate Program compliance status to the Regional Water Board, thus giving the Regional Water Board and the public regular opportunities to comment on Program activities</li> </ul>   |
| Reduce stormwater pollution to the maximum extent practicable.   | <ul style="list-style-type: none"> <li>• Continue to emphasize the Target Pollutant Reduction activities (see Chapter 3) in order to ensure the Program is addressing the most significant local problems</li> <li>• Use evaluation activities (see Chapter 3) as a means of ensuring continuous improvement and efficient use of resources</li> <li>• Coordinate with related watershed efforts such as the Coordinated Monitoring Program and the Sacramento River Watershed Program to enhance the cost effective collection of data, and to provide appropriate stakeholder input on watershed-wide problems related to Sacramento urban runoff discharges</li> <li>• Continue information sharing and communication with other stormwater programs and groups, which is vital to maintaining cost-effectiveness</li> <li>• Continue to seek partnering opportunities, grant funds, and coordination with other watershed programs, vital to maintaining cost effectiveness</li> </ul> |
| Effectively eliminate illegal non-stormwater discharges.   | <ul style="list-style-type: none"> <li>• Investigate and eliminate illicit discharges through the Commercial/Industrial (Section 4.4) and Illicit Discharge (Section 4.6) program elements. Educate the public about proper waste disposal through the Public Outreach program element (Section 4.7)</li> </ul>  |
| Promote consistent countywide requirements for the construction, development, business, and industrial communities.  | <ul style="list-style-type: none"> <li>• Coordinate on development and implementation of outreach, training, and standards as part of the Construction (Section 4.3), Commercial/Industrial (Section 4.4), and New Development (Section 4.8) elements</li> </ul>   |
| Integrate Permit compliance activities into appropriate department activities with agency personnel routinely practicing pollution prevention.   | <ul style="list-style-type: none"> <li>• Conduct annual refresher training for all affected agency managers and staff, including periodic informational briefings for elected officials</li> <li>• Continue to evaluate and improve routine maintenance activities under the Municipal Operations element (Section 4.5) so that the County is a model of pollution prevention for the community</li> </ul>   |
| Keep apprised of other federal and state regulatory programs that could impact this Program in the future (see Appendix B).  | <ul style="list-style-type: none"> <li>• Actively participate in the California Association of Stormwater Quality Agencies (CASQA), which serves as an advisory group to the State Water Resources Control Board on issues related to proposed regulations affecting statewide stormwater programs</li> <li>• Continue to support and participate in efforts which study and influence future regulations, such as the Urban Pesticide Committee and the Brake Pad Partnership (see Chapter 3)</li> </ul>  |

Urbanization typically results in the replacement of vegetation with impervious surfaces such as streets and rooftops. In this scenario, when it rains, water can no longer soak into the ground to the extent it previously could. As a result, there is more runoff sent directly to the local waterways in street gutters, stormwater pipes and channels and less water available to naturally recharge the groundwater aquifer and creeks. The natural hydrologic regime for the site has been modified (i.e., hydromodification).

Runoff will collect pollutants from impervious surfaces as it travels toward the storm drain pipes. Streets and other auto-related areas are known to accumulate sediments and other contaminants such as metals, oils and petroleum hydrocarbons. Urban runoff itself may also contain pollutants, for example, detergents in car washing rinsate or pesticides in lawn watering runoff. In the Sacramento area, storm drain pipes carry polluted runoff directly to creeks and rivers without any treatment.

The pollutants that are potentially exposed to/picked up by runoff vary depending on land use and activities. Table 1.2-2 shows the typical pollutants associated with different land uses and associated activities.

The Program is designed to reduce pollutants in both wet weather (stormwater) and dry weather urban runoff discharges. In the urban setting, dry weather discharges, also referred to as “nuisance flows” typically are comprised of landscape irrigation water and runoff from maintenance and car washing activities.

The Program must also prohibit and effectively eliminate illegal non-stormwater discharges such as used oil dumped into storm drain inlets or yard debris dumped into creeks.

To tackle urban pollution problems, the Program relies on:

- activities that **prevent pollution** such as public awareness campaigns designed to change polluting behaviors, and
- activities that **remove pollution** such as water quality detention basins, which remove litter, sediment, and other pollutants attached to sediment after they have already been mobilized in the runoff.

### 1.3 Permit Area

The stormwater permit does not apply to all areas within Sacramento County. Rather, it applies to all the land inside the Sacramento County Urban Service Area boundary, as well as the City of Galt and the Sacramento International Airport, as shown on Figure 1.3-1. Land within the Urban Service Area includes the cities of Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Sacramento, and unincorporated Sacramento County.

Sacramento County lands outside of the Urban Service Area, to which the stormwater permit does not apply, include Isleton (very small community not subject to NPDES regulations) and Rancho Murieta (covered by a separate Phase II NPDES permit). The Yolo, El Dorado, and Placer County urban areas, which are contiguous with the greater Sacramento area, are permitted separately by the Regional Water Board.

The storm drain system within the stormwater permit area includes a constructed system of storm drain inlets, pipelines, open channels, detention basins, and roadside ditches that discharge for the most part into various local creeks and the American and Sacramento Rivers. For the City of Galt, the major receiving waters are Dead Man Gulch and the Cosumnes River. All the rivers ultimately drain to the Sacramento-San Joaquin Delta and from there to the San Francisco Bay and the Pacific Ocean.

A watershed is an area of land draining to a particular water body. The entire stormwater permit area is located within the Sacramento River Watershed, but there are many smaller contributing watersheds which are encompassed by the permit area either entirely or partially. Appendix C includes a map showing the waterways and watersheds in the stormwater permit area.

Table 1.2–2  
**Typical Pollutants Associated with Urban  
 Land Use Activities**

| <b>Land Use Type</b>                                 | <b>Activities</b>   | <b>Typical Pollutants</b>   |
|--|---|---|
| Residential  | <ul style="list-style-type: none"> <li>• Landscape/yard maintenance</li> <li>• Car washing</li> <li>• Car maintenance (e.g., oil changing)</li> <li>• Painting and remodeling</li> <li>• Contaminants, storage and disposal of household chemicals and hazardous/non-hazardous wastes</li> <li>• Pet management</li> </ul>  | Pesticides, herbicides, fertilizers, concrete waste, landscape debris, detergents, oil and grease, solvents, paints, and other household wastes<br>Note: Excess runoff from over watering is a problem, since this water carries additional pollutants to local creeks and rivers |
| Commercial/Light Industrial                          | <ul style="list-style-type: none"> <li>• Landscape maintenance</li> <li>• Outdoor (exposed) loading areas</li> <li>• Outdoor (exposed) material and equipment storage</li> <li>• Public parking areas</li> <li>• Painting and remodeling</li> <li>• Contaminants, storage and disposal of household chemicals and hazardous/non-hazardous wastes</li> </ul>   | Pesticides, herbicides, fertilizers, detergents, oil and grease, solvents, paints, metals, sediments/gravels (from landscape and parking areas) and other wastes  |
| Heavy Industrial                                     | <ul style="list-style-type: none"> <li>• Outdoor (exposed) loading areas</li> <li>• Outdoor (exposed) material and equipment storage (including aboveground storage tanks)</li> <li>• Outdoor (exposed) manufacturing/ processing areas</li> <li>• Fueling areas</li> <li>• Facility Maintenance</li> <li>• Vehicle and equipment washing, maintenance, and/or parking areas</li> <li>• Contaminants, storage and disposal of household chemicals and hazardous/non-hazardous wastes</li> </ul> | Oil and grease, hydraulic fluids, petroleum hydrocarbons, solvents, metals, sediment/gravel, detergents and other materials, and wastes used at the facility  |
| Construction Sites                                   | <ul style="list-style-type: none"> <li>• Clearing and grading</li> <li>• Concrete and asphalt work</li> <li>• Painting</li> <li>• Dewatering activities</li> <li>• Exposed storage of materials on-site</li> <li>• Landscaping</li> <li>• Pool construction/repair</li> </ul>   | Sediment/gravel (from eroded surfaces or stored materials), concrete slurry, paints, oil and grease, hydraulic fluids, petroleum hydrocarbons, pesticides, herbicides and fertilizers, contaminated pumped groundwater, and other waste materials                                 |
| Transportation Corridors                             | <ul style="list-style-type: none"> <li>• Continuous automobile, truck, and bus use</li> <li>• Utility company trenching and construction activities</li> <li>• Road repair and resurfacing activities</li> <li>• Roadside vegetation maintenance</li> <li>• Truck spills</li> </ul>   | Oil and grease, hydraulic fluids, petroleum hydrocarbons, metals (e.g., copper, lead, zinc) sediment/gravel, pesticides, herbicides and fertilizers, spilled waste materials  |
| Parks and Recreational Areas (includes golf courses) | <ul style="list-style-type: none"> <li>• Landscape maintenance</li> <li>• Use by pets and livestock</li> </ul>  | Fertilizers, herbicides, pesticides, sediment/gravel, landscape debris, fecal waste (bacteria/pathogens)  |



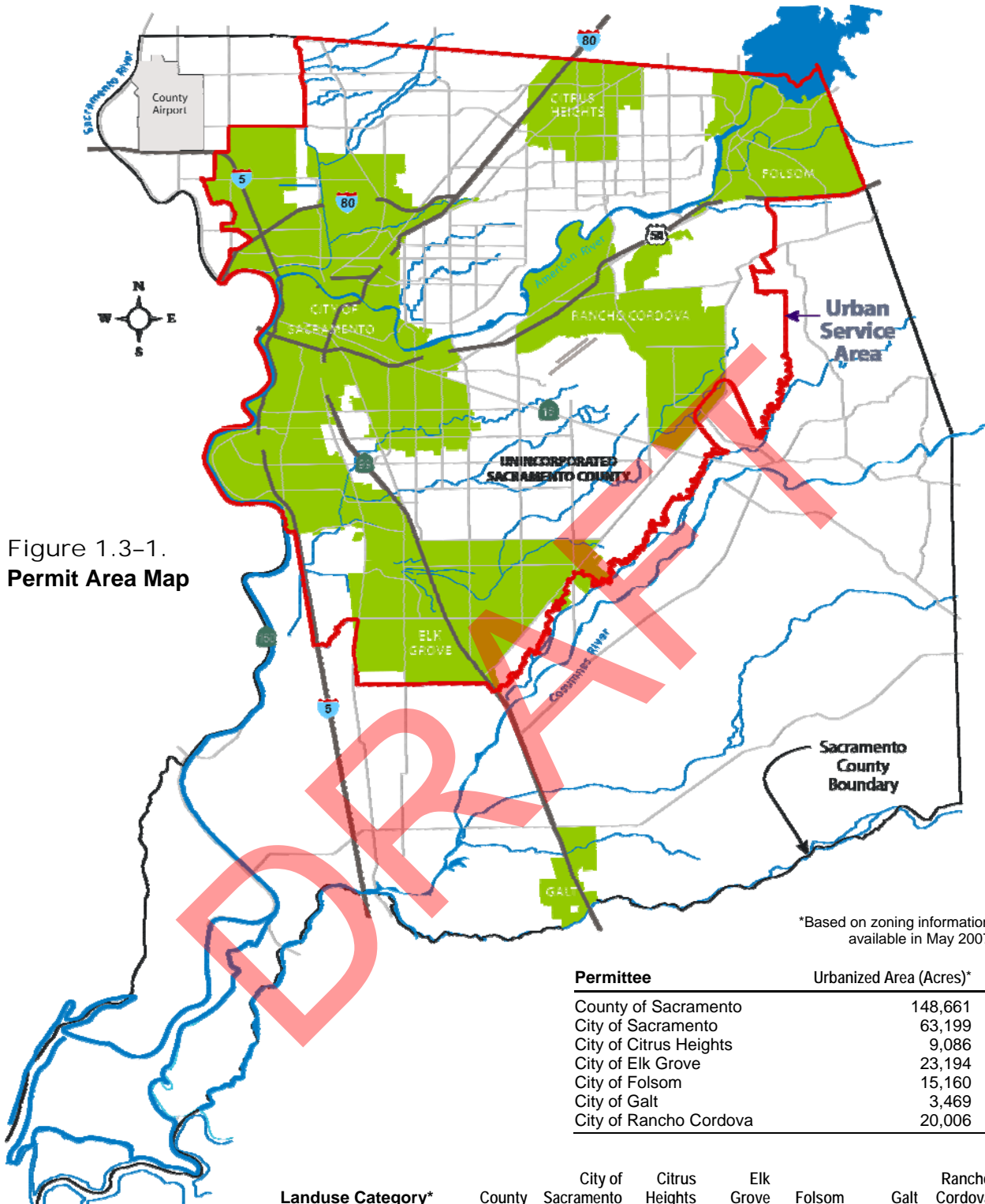


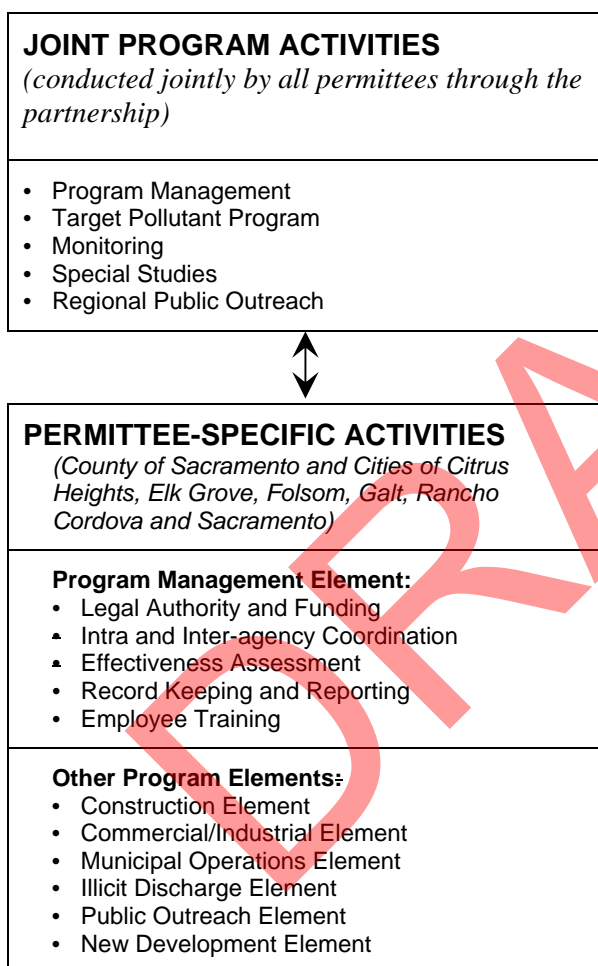
Figure 1.3-1. Permit Area Map

\*Based on zoning information available in May 2007

## 1.4 Joint and Individual Agency Activities

The Program, as outlined in this SQIP, includes joint activities conducted on behalf of all the permittees as well as activities conducted by each individual permittee (see Figure 1.4-1).

Figure 1.4-1  
**Sacramento Stormwater Quality Partnership Organizational Structure**



### Joint Activities

Sharing resources for some Program activities provides for efficient use of limited funds and facilitates a consistent approach to urban runoff management in the greater Sacramento area. The County or City of Sacramento typically serve as the lead permittee on behalf of the cities of Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova. In this role, the County or City

of Sacramento is the main point of contact with the Regional Water Board and other regulators (e.g., EPA, State Water Resources Control Board). The permittees have entered into a memorandum of understanding (MOU) which defines responsibilities and cost-share arrangements for joint program work.

The following major categories of activities are conducted jointly by the Partnership; refer to Chapter 3 for details about each:

- Program Management (under the leadership of a Permittee Committee)
- Target Pollutant
- Monitoring Program
- Special Studies
- Regional Public Outreach

Additionally, the permittees may share resources related to selected program element activities, such as commercial/industrial inspections. Examples of these types of joint activities are presented in Table 1.4-1.

### Individual Permittee Activities

Each permittee contributes to funding to joint Program activities, but each is also responsible for providing adequate staffing and funding to conduct stormwater pollution prevention activities in compliance with the stormwater permit within its own jurisdiction. Each agency

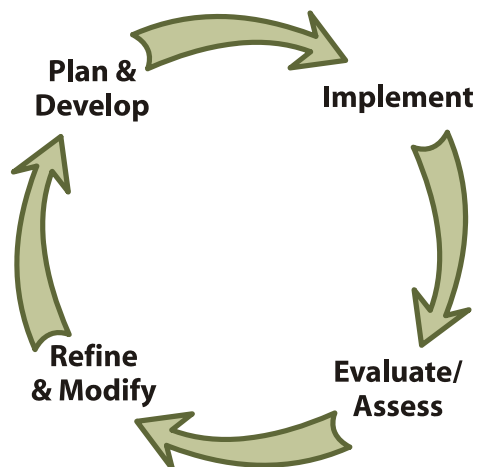
Program activities implemented by individual permittees primarily involve activities related to the following seven program elements, as illustrated on Figure 1.4-1:

- Program Management (e.g., legal authority, funding, regulatory liaison, compliance reporting, training and coordination within and outside of the organization)
- Construction
- Commercial/Industrial
- Municipal Operations
- Illicit Discharges
- Public Outreach
- New Development

Specific program element activities differ from one agency to another according to that organization's internal structure, resources, and individual priorities and goals.

Chapters 4-9 of this SQIP describe the individual permittees' activities for the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova. The City of Sacramento's activities are described in its separately- bound SQIP.

## 1.5 Program Implementation



The Partnership implements the Program in an iterative process, as described and illustrated below:

In the **first step** (plan and develop), the Program is planned and developed to meet regulatory and local goals. This step includes describing activities in annual work plans, including priorities, schedules, and budgets, and allocating resources to conduct the work. The **second step** involves conducting the activities as outlined in the work plans. The **third step** of evaluating and reporting is important to document progress, assess effectiveness of the efforts and recommend refinements for continuous improvement. Annual Reports are generated and submitted to the Regional Water Board during the third step. In the **fourth step**, activities are refined and modified as needed based on the results of the effectiveness assessment. Some activities may get dropped off, or new activities adopted, during this phase. Continuing on the cycle, continued and new activities are described in the coming year's annual work plan, as part of the "plan and develop" step.

## 1.6 Future SQIP Amendments

New and evolving regulations, knowledge from local and national studies and programs, and changes within the participating agencies' organizations and programs will affect the Program priorities and direction. The SQIP, which serves as the blueprint for Program activities, must therefore also be dynamic.

This SQIP is intentionally general in some areas, because decisions regarding funding and priorities will be made by the Partnership and the individual participating agencies on an annual basis. Specific tasks and details will be defined every year in the Annual Work Plans and Reports described in Chapter 3 (Section 3.2). The Annual Report submitted on October 1 each year will serve as the mechanism for proposing modifications to this SQIP for review and approval by the Regional Water Board.

Table 1.4-1.  
**Sacramento Stormwater Management Program Elements**

| <b>Program Element</b>    | <b>Objective/Mission</b>   | <b>Primary Area of Responsibility/<br/>Target Audiences</b>   | <b>Types of Individual Activities*</b>   | <b>Types of Joint Activities</b>   |
|---------------------------|--|---|--|--|
| Construction              | Prevent sediment and other construction-related pollutants from entering the storm drain system and local waterways.   | <ul style="list-style-type: none"> <li>• Construction sites at all stages of development from plan development to initial grading and through to the final close of construction</li> <li>• Contractors</li> <li>• Developers</li> <li>• Engineers</li> <li>• Erosion and Sediment Control Specialists</li> <li>• Agency inspectors, design engineers, and project managers</li> </ul>  | <ul style="list-style-type: none"> <li>• Develop and enforce ordinances for erosion and sediment control</li> <li>• Inspect construction sites to ensure compliance</li> <li>• Train and provide ongoing education for public agency inspectors, plan reviewers, and project managers</li> <li>• Coordinate with Regional Water Board re: local construction projects</li> </ul> | <ul style="list-style-type: none"> <li>• Continue multi-agency committee coordination to review and approve local use of new techniques for erosion and sediment control</li> <li>• Co-sponsor training workshops for construction community</li> </ul>  |
| Commercial/<br>Industrial | Reduce the discharge of pollutants in runoff from priority commercial and industrial sites and effectively eliminate non-stormwater discharges associated with commercial and industrial activities. | <ul style="list-style-type: none"> <li>• Retail and service businesses</li> <li>• Industrial facilities</li> <li>• Industrial-like activities conducted by public agencies</li> </ul>   | <ul style="list-style-type: none"> <li>• Conduct outreach to local businesses</li> <li>• Print and distribute brochures and other informational materials to businesses in the local community</li> </ul>  | <ul style="list-style-type: none"> <li>• Inspect industries (conducted by County inspectors with fees paid by regulated industries)</li> <li>• Develop brochures and BMP guidance materials for industries and businesses</li> <li>• Implement Clean Water Business Partners Program (targeted incentive program for selected businesses)</li> <li>• Conduct outreach to identified priority industries</li> </ul> |
| Municipal<br>Operations   | Control stormwater pollution potentially resulting from the operation and maintenance of publicly-owned facilities. Set an example of model pollution prevention to the public.                      | <ul style="list-style-type: none"> <li>• Operation and maintenance of:</li> <li>• Publicly owned buildings and associated parking lots</li> <li>• Transportation corridors and associated facilities</li> <li>• Stormwater and drainage pipelines, channels, detention basins, pump stations, and other facilities</li> <li>• Sanitary sewage and water supply pipelines, pump stations, wells, and other facilities</li> </ul> | <ul style="list-style-type: none"> <li>• Maintain inventory of publicly owned facilities</li> <li>• Conduct annual refresher training for affected agency staff</li> <li>• Provide technical assistance as needed</li> <li>• Evaluate facility conditions and field activities</li> </ul>  | <ul style="list-style-type: none"> <li>• Generally none</li> </ul>   |

Table 1.4-1. Sacramento Stormwater Management Program Elements

| Program Element   | Objective/Mission  | Primary Area of Responsibility/<br>Target Audiences   | Types of Individual Activities*   | Types of Joint Activities  |
|-------------------|--|---|---|--|
| Illicit Discharge | Effectively eliminate illegal non-stormwater discharges to the storm drain system and local creeks and rivers.     | <ul style="list-style-type: none"> <li>Illegal non-stormwater discharges from the general public (i.e., dumping materials into storm drain inlets and illegal wastewater cross-connections to the storm drain system)</li> </ul>              | <ul style="list-style-type: none"> <li>Detect, investigate, cleanup, and report illicit discharges affecting the agency's storm drain system</li> <li>Conduct annual refresher training for affected agency staff</li> </ul>  | <ul style="list-style-type: none"> <li>Conduct regional coordination as needed to respond to spills and illegal discharges</li> </ul>  |
| Public Outreach   | Raise awareness and foster community stewardship to help prevent pollution and protect local creeks and rivers.    | <ul style="list-style-type: none"> <li>Residents</li> <li>Public officials and agency managers</li> <li>Schools, including school districts, teachers, and schoolchildren</li> </ul>  | <ul style="list-style-type: none"> <li>Sponsor stormwater booths at local community events</li> <li>Distribute brochures and other educational materials in local community</li> <li>Provide educational grants to schools</li> <li>Promote volunteer stenciling program</li> <li>Install signs discouraging illegal dumping</li> </ul>                                     | <ul style="list-style-type: none"> <li>Conduct public awareness surveys</li> <li>Sponsor radio and TV advertisements</li> <li>Support zoo stormwater displays</li> <li>Conduct outreach to schools through Sacramento SPLASH &amp; SYRCL programs</li> <li>Maintain partnership website</li> <li>Participate in public outreach events</li> <li>Conduct IPM outreach through the Waterwise and Our Water Our World programs</li> </ul>   |
| New Development   | Mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment. | <ul style="list-style-type: none"> <li>Development and redevelopment projects</li> <li>Developers</li> <li>Engineers</li> <li>Architects</li> <li>Landscape Architects and Designers</li> <li>Agency planners and design engineers</li> </ul> | <ul style="list-style-type: none"> <li>Review and evaluate existing development standards, General Plan, and CEQA procedures</li> <li>Establish and enforce development standards and requirements for on-site and regional stormwater quality control measures</li> <li>Conduct training and provide ongoing education for public agency planners and engineers</li> </ul> | <ul style="list-style-type: none"> <li>Prepare and update technical guidance manuals</li> <li>Educate and provide technical guidance to the development community, including presentations and workshops to local professional organizations</li> <li>Conduct special studies to assess local effectiveness of selected new development BMPs (see Monitoring Section in Chapter 3)</li> <li>Investigate new and innovative treatment control measures as requested.</li> </ul> |

\*See Chapters 4-9 for listing of activities for each permittee

# Chapter 2

## Program Effectiveness Assessment

### 2.1 Introduction and Overview

Evaluation of the Sacramento Stormwater Management Program is required by the stormwater permit and is necessary in order to:

- Demonstrate compliance with the stormwater permit, which is designed to reduce pollutants in stormwater discharges to the maximum extent practicable (MEP) and ensure that these discharges do not cause or contribute to violations of water quality standards established for local rivers and creeks.
- Assess effectiveness of the Program at meeting the above MEP and water quality standard goals, including, where possible, providing direct or surrogate measurements of water quality and awareness/behavior changes as a result of the overall Program or individual actions.
- Provide data and feedback to inform management decisions related to continuous improvement of the Program in order to satisfy the above goals and ensure effective and efficient use of public funds. This continuous feedback loop is described more below in the context of the iterative process.

The permittees rely on the iterative process illustrated in Figure 2.1-1 to better understand and improve upon their efforts to protect water quality. Effectiveness assessments are an integral part of this cyclic process, where actions are planned, implemented, assessed and refined in repeated cycles until a certain accomplishment or goal is achieved.

This chapter presents the assessment strategy used by the permittees (also collectively referred to as the Sacramento Stormwater Quality Partnership, or Partnership), results of the assessment of 2002–

07 permit term activities and proposed assessment methods for the 2008–13 permit term.

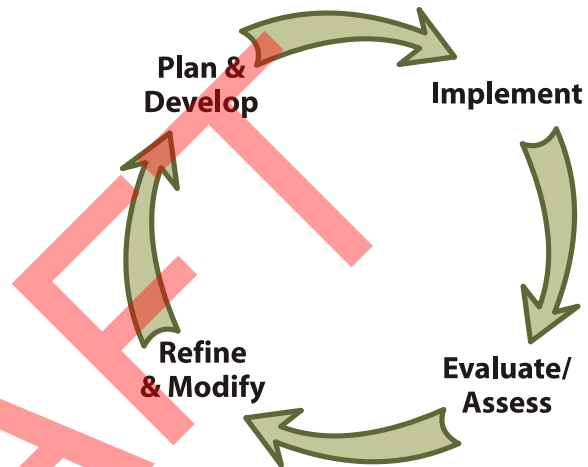


Figure 2.1-1.  
**Stormwater Program Iterative Process**

### 2.2 Assessment Strategy

The Partnership evaluates the Program on various tiers, moving from a holistic program-wide evaluation to assessment of specific activities:

**Overall program** — *permit term evaluation* conducted by the Partnership and submitted with the Report of Waste Discharge/NPDES permit application, 180 days prior to expiration of the current permit term.

**Program element** — *annual evaluations* conducted by individual permittees and reported in individual permittee Annual Reports, except for Monitoring, Target Pollutant and Regional Public Outreach elements, which are joint efforts conducted by the Partnership. Evaluations of these three elements are included in the Joint Program Annual Report.

**Activity, Task, Project or BMP —**

*ongoing/periodic evaluations* conducted mainly by individual permittees with annual summaries reported in individual permittee Annual Reports. In addition, special studies of selected projects and BMPs are often undertaken by the Partnership; these results are reported in the Joint Program Annual Report.

This basic assessment strategy was used during the 2002–07 permit term and will be continued into the 2008–13 permit term. However, the approaches and methods have been refined using guidance provided by the California Stormwater Quality Association (CASQA) as described in the next section. Annual reports will continue to be used as the primary mechanism for summarizing effectiveness assessment results.

## 2.3 CASQA Assessment Approach

This section provides background and briefly describes the new CASQA approach to assessing program effectiveness. The *CASQA Effectiveness Assessment Guidance* document (CASQA, 2007)<sup>1</sup> was created by a committee of experienced stormwater professionals as a tool for use statewide by stormwater program managers in evaluating their programs. An understanding of these concepts and terms is necessary before proceeding to the rest of this chapter.

### Performance Standards

A performance standard is a design objective or goal that quantifies the progress of program implementation and the performance of the activities. It typically identifies the level of effort required. In other words, the performance standard is the desired outcome.

### Outcome Levels

A program or activity is effective if it is producing a desired outcome. Figure 2.3-1 shows that outcomes can be characterized in terms of six levels and illustrates the progression of each successive level toward the ultimate goal of environmental improvement. In general, Levels 1-4 have *implementation endpoints* and Levels 5 and 6 have *water quality endpoints*. Table 2.3-1 provides additional information about each level. While each level has value in informing management decisions, it bears emphasis that not all are necessary or possible in every instance (CASQA, 2005).<sup>2</sup> It will not be possible to measure changes in awareness, behavior or water quality for some program elements and activities undertaken as required by the stormwater permit. Indeed, some activities will never move beyond Level 1. This does not mean that the activity was not meaningful and did not contribute toward the ultimate goal in some way.

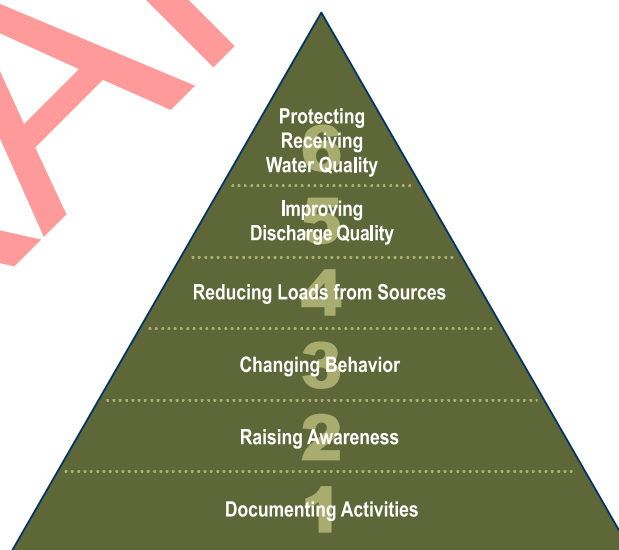


Figure 2.3-1.  
**General Classification of Outcome Types**  
(adapted from CASQA, 2007)

<sup>1</sup> California Stormwater Quality Association (CASQA). 2007. "Effectiveness Assessment Guidance" March 2007 Draft Final.

<sup>2</sup> California Stormwater Quality Association (CASQA). 2005. "An Introduction to Stormwater Program Effectiveness Assessment (white paper)." [www.casqa.org](http://www.casqa.org).

Table 2.3-1.  
**Summary of Outcome Types**  
 (adapted from CASQA, 2007)

| Level | Description                     | Goal   | Examples   |
|-------|---------------------------------|--|--|
| 1     | Document Activities             | Program development and implementation and basic compliance with the NPDES stormwater permit.                                  | <ul style="list-style-type: none"> <li>• # training events</li> <li>• # media impressions</li> <li>• new program implemented</li> <li>• brochure created or translated</li> <li>• # brochures distributed</li> </ul>                       |
| 2     | Raise Awareness                 | Raise a target audience's awareness and understanding of an issue.   | <ul style="list-style-type: none"> <li>• % residents who know that stormwater runoff is not treated</li> <li>• % inspectors who understood concepts presented</li> </ul>   |
| 3     | Change Behavior                 | Change a target audience's behavior which results in the implementation of actions related to stormwater pollution prevention. | <ul style="list-style-type: none"> <li>• % construction sites with erosion and sediment controls in place</li> <li>• % businesses with BMPs in place</li> <li>• adoption of new agency policies and standards re: WQ protection</li> </ul> |
| 4     | Reduce Pollutant Loads          | Reduce the load of pollutants from sources into the municipal storm drain system. Can be real (measured) or estimated.         | <ul style="list-style-type: none"> <li>• amount of material removed from streets by street sweepers</li> <li>• Quantity of used oil collected</li> <li>• Estimates of sediment kept on site due to use of erosion controls.</li> </ul>     |
| 5     | Improve Discharge Quality       | Improve the quality of stormwater/urban runoff discharges from the municipal storm drain system to the receiving water.        | <ul style="list-style-type: none"> <li>• Decrease in pollutant levels measured at a particular outfall</li> </ul>  |
| 6     | Improve Receiving Water Quality | Measure improvement in receiving water quality   | <ul style="list-style-type: none"> <li>• Decrease in pollutant levels (typically associated with urban runoff) in rivers/creeks</li> <li>• Improvement in biota richness</li> </ul>  |

### Types of Effectiveness Assessments

In assessing the effectiveness of a stormwater program using the outcome levels described above, it is helpful to differentiate between the types of assessment. The CASQA *Effectiveness Guidance* document recognizes three types: implementation, water quality and integrated, described in Table 2.3-2.

It should be recognized that evidence of positive environmental outcomes can be elusive because:

- Water quality changes in response to program implementation are likely to be very slow; and
- Establishing a link between receiving water condition and program activities is difficult at the watershed scale when programs are being implemented incrementally.

### Baseline or Reference Conditions

Effectiveness assessment beyond Outcome Level 1 requires the establishment of a set of baseline (reference) conditions. Thereafter effectiveness can be determined by comparisons of successive years (or other defined periods) of indicator information against the baseline data. This will not be possible for the first few years of a new program, whereby there is not sufficient data to establish the baseline condition.

### Assessment Methods

CASQA identifies six methods that can be used for assessing effectiveness, as described in Table 2.3-3. A program element manager may choose to use other methods not shown on this table.



Table 2.3-2.  
**Assessment Types**  
*(adapted from CASQA, 2007)*

| Type           | Description  | Program Tier                  | Outcome Level* | Notes   |
|----------------|--|-------------------------------|----------------|---|
| Implementation | The analysis of the effectiveness of a program element or activity at meeting desired programmatic outcomes or goals                                   | Program Element, Activity     | 1-4            | Typically focus on specific activities such as inspections and maintenance.   |
| Water Quality  | Use of environmental data and related information to characterize the quality of stormwater discharges and the water bodies receiving such discharges. | Overall Program, Project, BMP | 5-6            | Can include a variety of chemical, biological and physical parameters or outcomes. Usually requires extended periods of monitoring to yield statistically significant results.  |
| Integrated     | The process of evaluating if program implementation is resulting in the protection or improvement of water quality.                                    | Overall Program, Project, BMP | all            | In this process, relationships between program activities and water quality improvements are explored. Can be difficult due to external factors outside of permittees' control. |

\*see Figure 2.3-1

Table 2.3-3.  
**Assessment Methods Suitable for Various Outcome Levels**  
*(adapted from CASQA, 2007)*

| Assessment Method        | Description  | 1 – Document Activities | 2 – Raise Awareness | 3 – Change Behavior | 4 – Reduce Loads | 5 – Improve Discharge Quality | 6 – Protect Receiving Waters |
|--------------------------|--|-------------------------|---------------------|---------------------|------------------|-------------------------------|------------------------------|
| Confirmation             | Document that an activity has been completed.                                  | •                       |                     |                     |                  |                               |                              |
| Tabulation               | Track the number of actions or items associated with an activity.              | •                       | •                   | •                   |                  |                               |                              |
| Surveys                  | Gain specific information about a group or representative sample of the group. |                         | •                   | •                   |                  |                               |                              |
| Inspections/Observations | Determine if desired actions are being taken/outcomes are being achieved.      | •                       | •                   | •                   | •                |                               |                              |
| Quantification           | Track quantities or estimate pollutant loadings.                               |                         |                     |                     | •                | •                             | •                            |
| Monitoring               | Collect representative environmental samples and analyze to measure changes.   |                         |                     |                     | •                | •                             | •                            |

## 2.4 Assessment of 2002-07 Permit Term Activities

### Assessment and Reporting Methods

The Work Plans submitted by the permittees each May 1 during the 2002–07 permit term outlined performance standards (essentially the activities and BMPs prescribed by the 2002 stormwater permit). The Work Plans also proposed evaluation measures to track efforts related to each activity during the upcoming fiscal year. The Annual Reports submitted on October 1 each year reported on the permittees' ability to satisfy the performance standards (i.e., complete the activity/BMP).

In preparing the Annual Reports, records and data were compiled and analyzed from various internal departments in each permittee's organization. Accomplishments were reported in the Annual Reports. For example, if the performance standard was to make 2.3 million impressions per year (i.e., 2.3 million people reached) via media outreach, the Annual Report reported on methods of media outreach conducted and the actual number of impressions made.

### Assessment Results

Due to the prescriptive nature of the 2002 stormwater permit and the large number of required activities and compliance deliverables, the Partnership's focus during the 2002–07 permit term was on implementing activities, generating reports and plans, and documenting compliance. The new CASQA effectiveness approach was not available until the very end of the 2002–07 permit term, but applying the approach now, one could say that 2002–07 permit term activities were implemented and assessed at CASQA outcome levels 1 and 2, with little effort to assess level 3 behavior changes and level 4 load reductions or beyond. Exceptions include the public outreach element, which has always had as its goal to raise awareness (level 2) and change behavior (level 3) and to measure the change through surveys compared to a baseline, and of course the monitoring program, which provides data to show improvements in urban runoff discharge quality (level 5) and demonstrate protection of receiving water quality (level 6).

From a compliance standpoint, the Partnership has been successful at performing all of the outreach, inspections, trainings, studies, and monitoring required by the 2002 stormwater permit.

The focus in the 2008–13 permit term will be to perform certain activities (e.g., trainings and inspections) with an eye toward raising awareness, changing behaviors and then if possible, measuring or estimating the resultant load reduction.

### Assessment of the Overall Program

The main tool for assessing effectiveness of the overall Program is the Monitoring Program, discussed in Chapter 3 (Section 3.4). Since 1989, the Partnership has continued to fund a comprehensive monitoring program with the goal of one day being able to measure trends in discharge and receiving water quality. A statistical analysis conducted several years ago indicated that 20 years' of representative data would be necessary to draw statistically valid conclusions about changes in discharge and receiving water quality. Therefore, the Partnership will be in a position in the next permit term to demonstrate those trends, if they exist.

Appendix E presents a summary of monitoring results to date. The following can be shown with current data:

- Urban tributary monitoring has shown that concentrations of chlorpyrifos and diazinon have been reduced below WQO, largely due to pesticide registration changes.
- Urban runoff results show that results from the 2002-2007 monitoring period are lower than those from the 1990-2002 period for key constituents (i.e. cadmium, copper, lead and mercury). See Table 1 in Appendix E for complete list.
- Although river monitoring results haven't shown any significant trends during this permit term, there have been relatively few WQO exceedences during this period.

In the 2008–13 permit term, efforts will be made to identify other tools, in addition to monitoring, that could be used to assess the overall program effectiveness.

### Assessment of Program Elements and Individual Activities

**Target Pollutant Reduction.** In the late 1990s the Partnership identified pollutants of concern or “target pollutants” and began focused efforts to develop and implement control strategies for each of the targeted pollutants. Pesticides and mercury were two of the pollutants which received the most attention through that process. Chapter 3 (Section 3.3) provides additional information about assessment of completed target pollutant activities. In the 2008–13 permit term the Partnership will continue the target pollutant efforts began during the last term, and will begin to assess the effectiveness of the various control strategies.

**Regional Public Outreach.** During the 2002–07 permit term, the Partnership conducted a public survey (2004) and convened several focus groups (2006) to measure public awareness of stormwater quality issues. The results from the survey and focus groups will be utilized as a “baseline” and will be compared to the results of surveys conducted during the 2008–13 permit term to assess the effectiveness of the Partnership’s public outreach activities in raising awareness (outcome level 2) and changing behaviors (outcome level 3).

The following were the major findings from the 2004 survey and 2006 focus groups:

- There is still a lack of awareness among some audiences (particularly non-English speakers) about urban runoff pollution. One in five respondents gave an incorrect answer when asked where everything that gets into the gutters finally ends up. More outreach is needed to inform residents about urban runoff pollution and that the water ends up (untreated) in local creeks and rivers.
- Residents feel that the City and County are most responsible for preventing water pollution.
- Residents are more likely to participate in environmentally friendly activities if there is a personal incentive.
- Pet waste and fluorescent lights were identified as materials most likely to be disposed of improperly.

- Television public service announcements, storm drain markings and creek signs are the best means for delivering basic messages, and the Internet and telephone information lines are the best sources for more detailed information.

The survey and focus groups also helped identify improvements and refinements needed for the regional public outreach program, which will be addressed in the 2008–13 permit term. Additional details are included in Chapter 3 (Section 3.7).

**Other Program Elements.** See the individual agency SQIPs (Chapters 4-9) for 2002–07 permit term assessment results related to the various program elements. Where possible, activities were assessed using the new CASQA guidance, although these results are marginally useful given that the CASQA method was not available until recently and in many cases, baseline or reference data was not available for comparison purposes.

## 2.5 Effectiveness Assessment Strategy for the 2008-13 Permit Term

The Partnership used CASQA’s new *Effectiveness Assessment Guidance* as a reference guide in developing a strategy for 2008–13 permit term assessments, as defined in this section.

### Overall Program Assessment

As in past years, the Partnership will evaluate the overall program as part of the process to prepare the Report of Waste Discharge/NPDES Permit application during the fifth year of the permit term. The main component of this assessment will be an analysis of the environmental data (chemical and biological) and trends. To the extent possible, the Partnership will conduct an integrated assessment, whereby program implementation data are correlated with environmental results, to answer the question: “Are improvements in runoff quality and receiving water health the result of program implementation?”

## Program Element and Activity Assessment

The following assessment strategy will be used to evaluate each of the program elements during the 2008–13 permit term (see Table 2.5-1 for example):

- Step 1 – Identify the performance standard or desired goal** – A performance standard is a design objective or goal that quantifies the progress of program implementation and the performance of the activities. It typically identifies the level of effort required. For this step, determine what change or outcome is being sought by the program element or activity.
- Step 2 – Identify the outcome level** for the performance standard
- Step 3 – Determine the focus of the assessment** – who or what is the target of the assessment.
- Step 4 – Select assessment method(s)** - decide which of the assessment methods shown in Table 2.3-3 (or some other method) is most appropriate for the target of the assessment and can be used to determine if the performance standard is being achieved
- Step 5 – Establish baseline/reference conditions** (for Outcome Levels 2-6; not applicable to Level 1) - define baseline data needs and put mechanisms in place to collect that data
- Step 6 – Interpret and report the information**
- Step 7 – Recommend program changes** if warranted (part of the iterative process illustrated earlier in Figure 2.1-1).

## 2.6 Future Updates to the Assessment Strategy

While program effectiveness assessment is a key step in the iterative process of program implementation, it should be realized that effectiveness assessment tools are still evolving. Assessing program effectiveness is recognized as a challenge for program managers across California, and the Partnership is supporting CASQA's efforts to develop and refine statewide guidance tools. As CASQA publishes additional information, the Partnership's strategy may be further refined. Changes could also be made based on Regional Water Board feedback, including the results of any future regulatory audits.

Table 2.5-1.

**Sacramento Stormwater Quality Partnership Effectiveness Assessment Strategy–  
Industrial/Commercial Element (Sacramento County Example)**

| Activity/Task  | (Step 1)<br>Performance<br>Standard (Goal)                                     | (Step 2)<br>Outcome<br>Level | (Step 3)<br>Focus                         | (Step 4)<br>Baseline<br>Information  | (Step 5)<br>Assessment<br>Method   |
|--|--|------------------------------|---|--|--|
| <b>Legal Authority</b>   |  |                              |   |  |  |
| Stormwater Ordinance   | Adopt revisions as needed  | 1                            | Board of Supervisors, Department Managers | NA   | Confirmation - report revisions in AR  |
| <b>Identify Priority Industries</b>  |  |                              |   |  |  |
| List of Priority Industries - inspection   | Develop list; Refine as needed based on evaluation of enforcement-related data | 1                            | Agency Staff                              | NA   | Confirmation - report revisions in AR  |
| List of Priority Industries - outreach   | Develop list; Refine as needed based on evaluation of enforcement-related data | 1                            | Agency Staff                              | NA   | Confirmation - report revisions in AR  |
| <b>Commercial and Industrial Stormwater Compliance Program (CISCP) – EMD</b>                   |  |                              |   |  |  |
| Develop enforcement policy   | Create/adopt policy; revise as needed  | 1                            | Agency Staff                              | NA   | Confirmation - report revisions in AR  |
| Conduct CISCP inspections  | Inspect priority industries included in program at least once every 3 years    | 1                            | Agency Staff                              | NA   | Confirmation - report on completion of next cycle, 2007-10                             |
|  | Decrease in number of violations observed                                      | 3                            | Facility operators                        | No. of violations per facility inspection observed during previous inspection cycle          | Tabulation – track number of violations observed and inspections conducted             |
|  | Decrease in follow-up inspections required                                     | 3                            | Facility operators                        | Percentage of follow-up inspections in previous inspection cycle                             | Tabulation – track the percentage of follow-up inspections conducted                   |
| Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries) | Decrease in enforcement actions  | 3                            | Facility operators                        | No. of enforcement actions per facility inspection observed during previous inspection cycle | Tabulation – track number of enforcement actions issued and inspections conducted      |
|  | Conduct quality control reviews of stormwater compliance inspection forms      | 1                            | Agency Staff                              | Percentage of inspection forms reviewed during previous inspection cycle                     | Tabulation – track percentage of inspection forms reviews for quality control purposes |

Table 2.5-1. Sacramento Stormwater Quality Partnership Effectiveness Assessment Strategy (Example)

| Activity/Task   | (Step 1)<br>Performance Standard (Goal)   | (Step 2)<br>Outcome Level | (Step 3)<br>Focus | (Step 4)<br>Baseline Information   | (Step 5)<br>Assessment Method  |
|---|---|---------------------------|-------------------|--|--|
|   | Decrease in the number of people requiring supplemental training as a result of quality control reviews of inspection forms | 3                         | Agency Staff      | Percent of forms reviewed requiring supplemental training during previous inspection cycle | Tabulation - track number people requiring supplemental training in AR   |
| Create/Maintain CISC database (EMD) to track facility inventory, inspections, enforcement and outreach materials distributed (facilities included to be based on list of priority industries) | Create database, update annually  | 1                         | Agency Staff      | NA   | Confirmation - include updated list in AR  |
|   | Use data as tool to identify business categories that need not be included in the CISC                                      | 3                         | Agency Staff      | NA — Internal programmatic change based on data evaluation                                 | Confirmation/Tabulation – evaluate data to identify whether to add or remove business categories to CISC or Educational Outreach     |
| <b>Complaint-Based Stormwater Compliance Program (CBSCP) – County DWR/Stormwater Section</b>  |   |                           |                   |  |  |
| Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)  | Decrease in enforcement actions   | 3                         | Businesses        | No. of enforcement actions during previous permit term                                     | Tabulation – track number of enforcement actions issued  |
| Distribute educational materials  | Document/<br>Quantify materials   | 1                         | Agency Staff      | NA   | Tabulation – Track number of brochures distributed   |
| Outside Training  | Conduct workshops, upon request, for the regulated community  | 1                         | Agency Staff      | NA   | Tabulation - track number workshops held, number people reached in AR  |
| Create/Maintain CBSCP database to track inspections, enforcement and outreach materials distributed   | Use data as tool for program enhancement  | 3                         | Agency Staff      | NA   | Confirmation/Tabulation – evaluate data to identify whether to add or remove new business categories to CISC or Educational Outreach |
| <b>Outreach</b>   |   |                           |                   |  |  |
| Produce educational materials   | Document/<br>Quantify materials produced  | 1                         | Agency Staff      | NA   | Tabulation - track number of revised/new materials; number materials distributed in AR   |

Table 2.5-1. Sacramento Stormwater Quality Partnership Effectiveness Assessment Strategy (Example)

| <b>Activity/Task</b>  | <b>(Step 1)<br/>Performance<br/>Standard (Goal)</b> | <b>(Step 2)<br/>Outcome<br/>Level</b> | <b>(Step 3)<br/>Focus</b> | <b>(Step 4)<br/>Baseline<br/>Information</b>                      | <b>(Step 5)<br/>Assessment<br/>Method</b>  |
|---|---|---------------------------------------|---------------------------|---|--|
| Conduct Targeted Outreach   | Increased awareness of pollution prevention         | 2                                     | Businesses                | Number of businesses reached in previous permit term              | Tabulation – Track number of businesses outreached   |
| Create/Maintain business outreach database (based on list of priority industries) | Create database Update annually                     | 1                                     | Agency Staff              | NA  | Confirmation - include updated list in AR  |
| Clean Water Business Partner Program  | Increased participation in the CWBP                 | 2,3                                   | Businesses                | Percent of eligible businesses participating during previous year | Tabulation – track percent of eligible businesses participating in CWBP (compare to no. businesses that could qualify, according to outreach database) |

AR = Annual Report; EMD = Environmental Management Department; NA = Not Applicable; SWO = Stormwater Ordinance

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# Chapter 3

## Joint Program Activities

### 3.1 Introduction and Overview

#### Introduction

This chapter describes activities conducted collectively by all the permittees in the Sacramento Stormwater Quality Partnership (Partnership) under the leadership of a Management Committee with representation by each agency.

Following this chapter, agency-specific SQIPs for the County and the small cities (Chapters 4-9) describe individual activities conducted by each of the agencies within their jurisdiction. The City of Sacramento's SQIP is described in a separate document.

#### Overview of Joint Program Activities

Sharing resources for selected activities provides for efficient use of limited funds and facilitates a consistent approach to management of urban runoff quality in Sacramento County. Joint activities are generally conducted under the leadership of one of the two largest permittees, either the County or City of Sacramento. See Table 3.1-1 for examples of activities completed jointly since 1990 by the agencies in the Partnership.

The following major categories of activities are described in this chapter:

#### **Program Management (Section 3.2)**

Program management activities required to support the Partnership include legal authority, funding, effectiveness assessment, compliance reporting, regulatory liaison and coordination with other programs. All of these activities are conducted by the Partnership under the leadership of a management committee (Permittee Committee) with representation from each of the individual permittee agencies.

The permittees operate according to a memorandum of understanding (MOU) which defines responsibilities and cost-share arrangements for Joint Program activities. See Appendix D for this document.

#### **Target Pollutant Program (Section 3.3)**

A key program strategy is to identify and prioritize target pollutants for the Sacramento area (i.e., those pollutants found to be of concern for local waterways, based on local data and other information). This innovative approach helped win the Program the EPA Excellence Award for Municipal Stormwater Programs in 1997, and it allows for the most cost-effective use of resources by focusing efforts on the pollutants of most concern.

#### **Monitoring Program (Section 3.4)**

The Partnership initiated their comprehensive monitoring program just after the first stormwater permit was issued in 1990. Various types of monitoring have been performed over the years, and a database has been developed including river, creek and urban runoff discharge quality characterization results. This chapter describes the history and accomplishments of the monitoring efforts to date, summarizes the results and outlines the proposed activities for the 2008-13 permit term.

#### **Special Studies (Section 3.5)**

The Partnership conducts various special studies, either as required by the stormwater permit, or to provide data and information for assessing the effectiveness of a program or stormwater quality control measure. Although generally conducted in a specific part of the county and watershed, the results of these types of special studies can be extrapolated to other areas of the county.



**Regional Public Outreach (Section 3.6)**

Outreach activities conducted collectively by the permittees in the Partnership target various audiences throughout the county, as well as the

general population of the county as a whole. The regional media campaign, which includes TV and radio public services announcements and billboard advertisements, is one example of a regional public outreach activity.

Table 3.1- 1  
**Examples of Joint Program Activities Completed To Date**

| <b>Program Element</b>   | <b>Examples of Activities Completed To Date</b>   |
|--|---|
| <b>Program Management (Section 3.2)</b>                                      | Executed the permittee memorandum of understanding (MOU) to define responsibilities and cost-share arrangements<br>Prepared joint program annual work plan and annual report each year  |
| <b>Target Pollutant Program (Section 3.3)</b>                                | Prepared the Pesticide and Mercury Plans<br>Periodically updated target pollutant list and ranking methodology using available monitoring data  |
| <b>Monitoring (Section 3.4)</b>  | Conducted river, urban runoff discharge and urban creek monitoring<br>Conducted toxicity and bioassessment monitoring   |
| <b>Special Studies (Section 3.5)</b>   | Implemented a special study to assess pollutant removal effectiveness of a wet water quality detention basin<br>Conducted a study of accumulated sediments in several dry water quality detention basins  |
| <b>Regional Public Outreach (Section 3.6)</b>                                | Developed and implemented the Regional Media Campaign: Radio and TV advertisements<br>Partnered with community organizations/non-profit groups to provide education to children<br>Developed brochures and other targeted educational pieces in English and Spanish<br>Conducted public awareness surveys |
| <b>Construction Element (Sections 4.3, 5.3, 6.3, 7.3, 8.3, 9.3)</b>          | Co-sponsored pre-wet season forums and other training workshops for Sacramento area construction community  |
| <b>Commercial/Industrial Element (Sections 4.4, 5.4, 6.4, 7.4, 8.4, 9.4)</b> | Established the Clean Water Business Partners Program (targeted incentive program for selected businesses)  |
| <b>Municipal Operations Element (Sections 4.5, 5.5, 6.5, 7.5, 8.5, 9.5)</b>  | None (see County/City sections for municipal operations activities)   |
| <b>Illicit Discharge Element (Sections 4.6, 5.6, 6.6, 7.6, 8.6, 9.6)</b>     | None (see County/City sections for illicit discharge activities)  |
| <b>New Development Element (Sections 4.8, 5.8, 6.8, 7.8, 8.8, 9.8)</b>       | Prepared the <i>Development Standards Plan (12/03)</i><br>Prepared the <i>Stormwater Quality Design Manual for Sacramento and South Placer Regions (5/07)</i>   |

## 3.2 Program Management

### Permittee Committee

The permittees coordinate and make decisions primarily through the Permittee Committee. Meetings are held approximately bi-monthly throughout the fiscal year. Considerable coordination is also conducted via electronic mail and telephone. Decisions are made by consensus or by majority view when no strong objections are voiced. When consensus is not reached, no joint action is taken: each permittee may then pursue action individually, if desired.

The Permittee Committee sets a common direction for the Program, by developing and periodically refining mission and vision statements, as well as the goals and strategies discussed in Chapter 1.

The Permittee Committee identifies the scope of work and resource needs for joint activities and explores cost-saving ideas and grant opportunities. A lead agency (usually the County or City of Sacramento) is authorized by the group to administer and manage consultant contracts for some of the work. The committee is responsible for executing and updating any agreements necessary to ensure continued interagency coordination and a good working relationship.

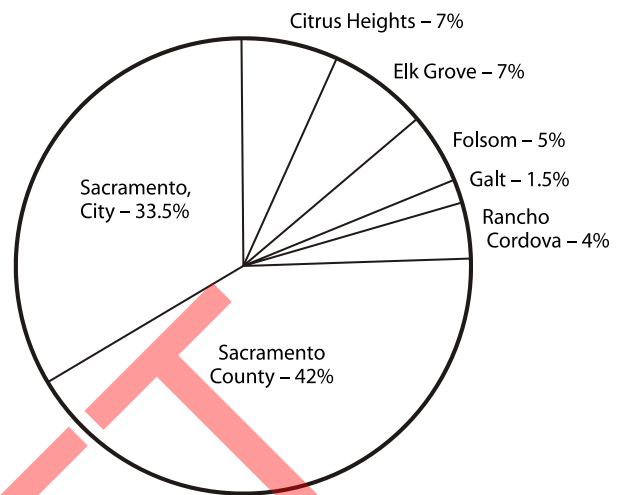
Permittee Committee meetings are an effective means for continual Program improvement. The meetings allow for problem discussion and resolution so that Program goals are met in the most cost-effective manner possible.

### Legal Authority and Funding

The permittees have established a Memorandum of Understanding (MOU) to describe roles and responsibilities and cost-share arrangements for managing and implementing joint activities. The MOU was last updated in 2003 (see Appendix D) and will be updated again during the 2008-13 permit term as needed.

The MOU cost-share percentage (based on population) for each permittee is shown on Figure 3.2-1. This cost-share arrangement applies to joint activities only. Additional permittee-specific activities are conducted over and above joint activities and are described in the permittees' SQIPs (Chapters 4-9).

Figure 3.2-1  
**Permittee Share of Joint  
Program Activity Costs**



Some of the permittees have established stormwater utilities to fund all or most of their stormwater activities. Others rely on their General Fund and other funding sources. Descriptions of funding sources for all permittees can be found in the individual permittee SQIPs (Chapters 4-9).

Each permittee adopted a stormwater ordinance to provide the legal authority to prohibit unauthorized non-stormwater discharges into its storm drain system and to conduct other stormwater-related activities. In compliance with the Stormwater Permit, each agency's legal counsel completed a certified statement describing the authority held by the permittee. These certified statements are included in the appendices as referenced by the permittees' SQIPs (Chapters 4-9).

### Effectiveness Assessment

The permittees coordinate on the evaluation of the overall program effectiveness. These efforts were previously described in Chapter 2.

### Regulatory Liaison and Compliance Reporting

In most cases, either the County or the City of Sacramento take the lead in providing liaison with the Central Valley Regional Water Quality Control Board (Regional Water Board) on behalf of the whole Program. However, individual

agencies may also contact the Regional Water Board at any time.

There are typically various compliance deliverables required by the Stormwater Permit, in addition to the following two standard reports due every year:

**Annual Work Plan – May 1**

The Work Plan describes proposed activities and performance standards for the coming fiscal year (July 1- June 30). The Work Plan also includes the performance measures to be used to assess and report progress and accomplishments, the fiscal year implementation schedule, the budget, and source(s) of funding. Each permittee submits its own Work Plan to describe individual permittee activities.

A single separate Joint Program Work Plan is prepared and submitted each year to describe joint Program activities such as monitoring and target pollutant reduction.

**Annual Report – October 1**

The Annual Report describes accomplishments for the preceding fiscal year (July 1 – June 30). The report documents tasks completed by the permittees to satisfy the requirements of the stormwater permit. Each permittee submits its own Annual Report to describe individual permittee activities and accomplishments, using a standardized reporting form for consistency.

As with the Work Plan, a single separate Joint Program Annual Report is prepared and submitted each year to describe joint Program activities such as monitoring and target pollutant reduction.

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## 3.3 Target Pollutant Program

### Overview

The permittees implement the Target Pollutant program to identify and focus resources on the pollutants most likely to impair local receiving waters. Pollution control strategies and best management practices (BMPs) that address target pollutants complement more general BMPs that are not driven by specific local water quality concerns. The latter, which include control measures such as water quality detention basins and industrial inspections, may also reduce target pollutants, but have a broader focus.

The target pollution program employs a target pollutant identification and control process, which is a stepwise process summarized below and illustrated in Figure 3.3-1.

### Target Pollutant Process

#### Step 1. Identification and Ranking of Target Pollutants

The permittees identify target pollutants by using water quality monitoring data to rank the observed constituents through comparison to various indicators of actual or potential water quality impacts. The data used is primarily from the permittees monitoring program, and includes water chemistry, toxicity, and bioassessment data. The constituents identified as target pollutants are those receiving the highest rankings, using a weighted scoring scheme based on best available science and professional judgment.

The ranking methodology has become increasingly sophisticated over time. It considers available data regarding measured pollutant levels in local urban runoff, inferred impacts, and the relative contribution of urban runoff to the American and Sacramento Rivers. Another important consideration is whether or not a pollutant is found to impair a water body per section 303(d) of the Clean Water Act). Urban runoff, urban creek, and river constituent levels are compared to levels in the U.S. Environmental Protection Agency (EPA) California Toxics Rule, Regional Board Basin Plan, EPA Safe Drinking Water MCLs, California Department of Health Services Guidance Levels, California Department

The purpose of the Target Pollutant Program is to identify and prioritize Sacramento's most significant urban runoff pollutants and their sources. Once defined, the permittees develop, implement and evaluate strategic activities to control and reduce those pollutants.

of Fish and Game Guidance Levels, and EPA Criteria for the Protection of Aquatic Life.

#### Step 2. Identification and Prioritization of Sources

Once target pollutants are identified, the permittees identify and rank likely pollutant sources based on a review of available local, statewide, and national literature. Sources include specific products and activities that contain or are likely to contribute target pollutants to urban runoff. The sources are ranked so that control strategies can be focused on those sources with the greatest potential for reducing local pollutant levels.

#### Step 3. Development of Target Pollutant Control Strategies

The permittees work together to develop and periodically update area-wide strategies for controlling the top-ranked sources of each target pollutant. This involves selecting the most technically effective, practical, and cost-effective combination of control measures, and therefore begins with a review of potentially applicable ones.

Control measures are identified based on experience and knowledge of program consultants and staff as well as research of regional, statewide, and national programs.

For sources that cannot be effectively controlled at the local level, the permittees actively seek ways to influence regional policy, participate in State and Federal regulatory processes, or support other agency or stakeholder efforts to effect pollution reduction. For example, Permittee staff lead the effort of the California Association of Stormwater Quality Agencies (CASQA) to submit comments on State and Federal pesticide registration and evaluation activities.

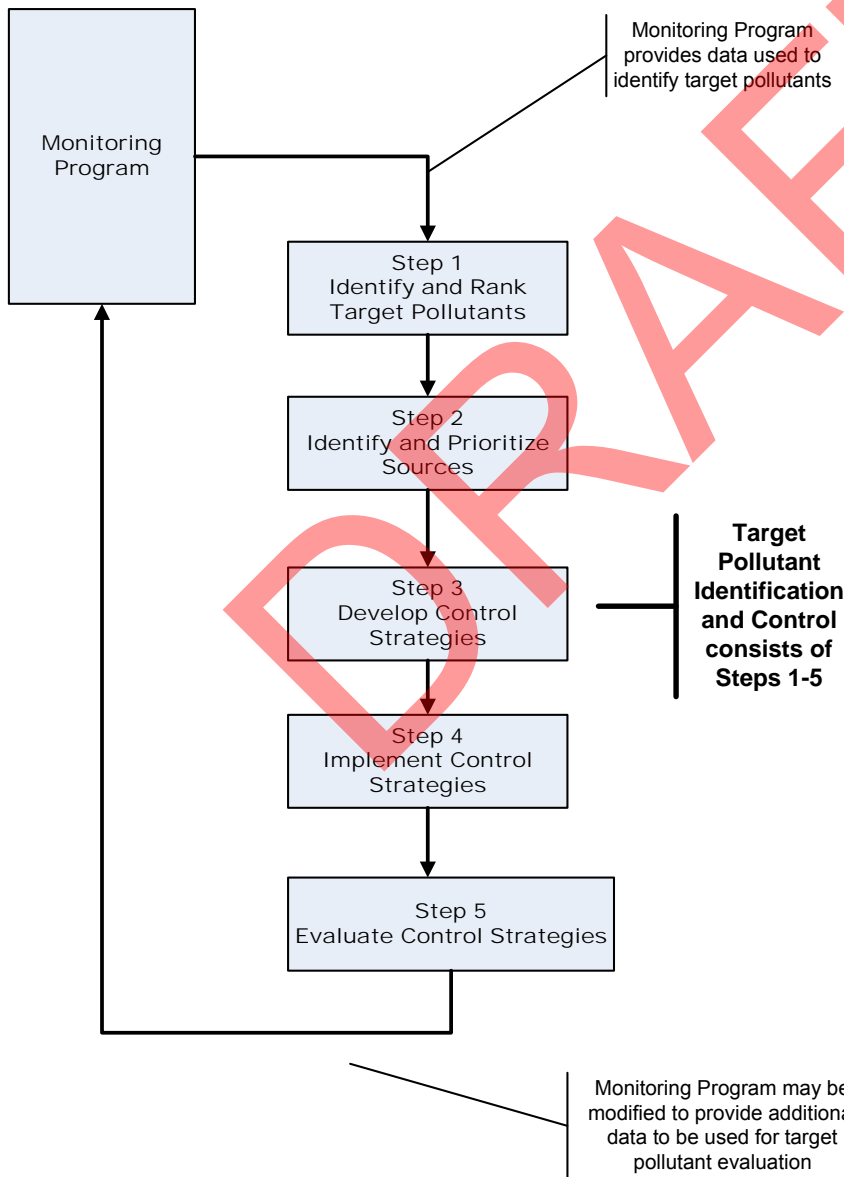
**Step 4. Implementation of Target Pollutant Control Strategies**

Identified control strategies are implemented as part of other program elements, when appropriate; otherwise, they are implemented under the Target Pollutant element. Selected best management practices (BMPs) and activities may be implemented under one program element or several program elements, and may be done jointly by all permittees or individually.

**Step 5. Effectiveness Evaluation for Target Pollutant Control Strategies**

As described in Chapter 2, the permittees are adopting the CASQA methodology for evaluating the effectiveness of their program, including control strategies for target pollutants.

Figure 3.3-1. **Target Pollutant Identification and Control Process**



## History and Accomplishments

This section provides a brief history of the Target Pollutant element. (For a detailed history through 1999, refer to the 1998/99 Annual Monitoring Report.<sup>1</sup> For details of work conducted since 1999, refer to the Annual Monitoring Reports and Annual Reports for the year 2000 and later.)

During the first Stormwater Permit term (1990-1996), the permittees initiated the process to identify target pollutants (formerly referred to as “constituents of concern” or “COCs”) and made target pollutant control a distinct and important Program strategy.<sup>2</sup> The 1992/93 Annual Monitoring Report first introduces the concept and includes the first pollutant ranking results (based on a simpler process than the one now used).

The permittees developed guidance procedures to identify and rank pollutant sources and to identify control strategies addressing the likely sources.<sup>3,4,5</sup> The guidance procedures recommend using available national, state, and/or local literature and data.

The permittees have developed comprehensive plans to address pesticides (including diazinon and chlorpyrifos), fecal coliform/pathogens, and mercury. In addition, the permittees identified sources and control measures for copper and lead.

A third round of target pollutant prioritization occurred in early 2007. The most recent prioritization results show a continued high ranking for diazinon, chlorpyrifos, mercury, copper, lead, and bacteria. Notable additions to the higher ranks include aluminum and the PAH compounds chrysene, benzo (a) fluoranthene, and benzo (k) fluoranthene.

Table 3.3-1 shows the target pollutant results for both the 2002 and 2007 ranking processes.

## Target Pollutant Activities for 2008-2013

### Overview of Planned Activities

This section describes the planned target pollutant control activities for the 2008-13 permit term, and in some cases, brief background information to provide context. Table 3.3-2 at the end of this section summarizes all the proposed activities.

The planned activities are a continuation of those conducted in the 2002-07 permit term. Significant alterations of activities are not planned, pending the results of effectiveness evaluations that will be conducted during the 2008-13 permit term. Activities will be modified as necessary based on the results of the evaluations.

### General Process Activities

During the 2008-13 permit term, the permittees plan to:

- Periodically review new information such as recent monitoring data and revised water quality criteria to determine if there are any changes that are so substantial that they may affect the ranking of target pollutants. Such reviews are not intended to be a comprehensive review of the target pollutant rankings.
- Once during the five-year permit term, conduct a comprehensive review of the target pollutant prioritization procedures (and revise as necessary).
- Re-prioritize the target pollutants using the revised process and incorporating new pertinent data (including the latest monitoring data).

<sup>1</sup> Sacramento Stormwater Management Program, December 1999. *1998/99 Annual Monitoring Report and Comprehensive Evaluation, 1990–1999*. Prepared by Larry Walker Associates.

<sup>2</sup> Sacramento Stormwater Management Program, March 1995. *Effectiveness Evaluation Report*. Prepared by Brown and Caldwell.

<sup>3</sup> Sacramento Stormwater Management Program, November 1996. *1995/1996 Annual Monitoring Report - Appendix C: Stormwater Pollutant Source Identification, Source Prioritization, and Best Management Practices Identification and Evaluation*. Prepared by Archibald & Wallberg Consultants.

<sup>4</sup> Sacramento Stormwater Management Program, December 1997. *1996/1997 Annual Monitoring Report - Appendix D: Source Prioritization Methodology*. Prepared by Archibald & Wallberg Consultants.

<sup>5</sup> Sacramento Stormwater Management Program, December 1997. *1996/1997 Annual Monitoring Report - Appendix E: Control Measure Identification*. Prepared by Archibald & Wallberg Consultants.

Table 3.3-1  
**Target Pollutant Ranking, 2002 and 2007**

| Rank | 2002 Constituent            | 2002/2003 Score | 2007 Constituent                                | 2006/2007 Score |
|------|-----------------------------|-----------------|---|-----------------|
| 1    | Diazinon                    | 67.9            | Diazinon  | 59.3            |
| 2    | Chlorpyrifos                | 59.8            | Chlorpyrifos                                    | 52.5            |
| 3    | Mercury, Total              | 43.1            | Mercury, Total                                  | 33.5            |
| 4    | Copper, Dissolved           | 14.0            | Aluminum, Total                                 | 16.2            |
| 5    | Zinc, Dissolved             | 10.7            | Escherichia Coli                                | 13.6            |
| 6    | Coliform, Fecal             | 10.3            | Coliform, Fecal                                 | 13.3            |
| 7    | Coliform, Total             | 10.2            | Copper, Dissolved                               | 11.5            |
| 8    | Solids, Total Dissolved     | 5.8             | Zinc, Dissolved                                 | 8.2             |
| 9    | Lead, Dissolved             | 5.2             | Chrysene  | 7.3             |
| 10   | Bis2(ethylhexyl)phthalate   | 5.1             | Solids, Total Dissolved/EC                      | 6.6             |
| 11   | Cadmium, Dissolved          | 3.1             | Benzo(b)fluoranthene                            | 6.2             |
| 12   | Solids, Total Suspended     | 3.0             | Benzo(k)fluoranthene                            | 5.4             |
| 13   | Organic Carbon              | 2.2             | Bis2(ethylhexyl)phthalate                       | 3.4             |
| 14   | Pentachlorophenol           | 1.4             | Solids, Total Suspended                         | 3.0             |
| 15   | Benzo(b)fluoranthene        | 1.1             | Lead, Dissolved                                 | 2.8             |
| 16   | Chrysene                    | 1.0             | Trash   | 1.0             |
| 17   | Methyl Tertiary Butyl Ether | 1.0             | Iron, Dissolved                                 | 0.8             |
| 18   | Trash                       | 1.0             | Pentachlorophenol                               | 0.5             |
| 19   | Malathion                   | 0.8             | Hexachlorocyclohexane (Lindane and by-products) | 0.1             |
| 20   | Simazine                    | 0.8             | Simazine  | 0.0             |
| 21   | Benzo(k)fluoranthene        | 0.6             | Malthion  | 0.0             |
| 22   | Iron, Dissolved             | 0.4             | Carbon, Total Organic                           | 0.0             |
| 23   | 2,4-Dinitrotoluene          | 0.3             |   |                 |
| 24   | Benzo(a)anthracene          | 0.3             |   |                 |

The target pollutant prioritization process outlined previously in this section uses comparisons to threshold values (such as water quality objectives) as the primary method for prioritizing target pollutants. Although this method is a very useful screening tool, the permittees believe that refining the process may provide a better, more holistic way to identify the most important pollutants.

The planned comprehensive review/revision of the target pollutant prioritization process will consider additional information and analyses such as the following:

- new data sources, such as urban creek, bioassessment, and habitat monitoring;
- trend information;

- biotic ligand model<sup>6</sup>;
- influence on scoring results by regulatory factors such as the Sacramento River Basin Plan tributary rule<sup>7</sup> and U.S. EPA drinking water secondary maximum contaminant levels; and
- beneficial use analysis.

### Coordination with Notice and Report of Water Quality Exceedance Processes

The permittees plan to coordinate the evaluation of target pollutant control strategies with the Notice of Water Quality Exceedance and Report of Water Quality Exceedance processes, described in Section 3.4. As part of that effort, the permittees will develop and document the decision process used to determine when observed exceedances call for amendments to existing control programs.

### Activities Addressing Pesticides

#### Background

In the mid-1990s, the pesticides diazinon and chlorpyrifos were found in local urban creeks at concentrations chemical and toxicity data implicated these two pesticides as significant pollutants in Sacramento waterways. These two pesticides were the first and second highest ranked target pollutants in both the 1993 and 2002 target pollutant prioritization.

Permittee efforts to address diazinon and chlorpyrifos evolved into an effort to address urban pesticides in general. The permittees and other stakeholders (including Regional Water Boards and California Department of Pesticide Regulation or DPR) recognized that solely reducing the use of these pesticides might result in threats to water quality by other pesticides used to replace them.

That concern has subsequently been realized as pyrethroid insecticides have largely replaced diazinon and chlorpyrifos in urban areas. Studies by Dr. Donald Weston of UC Berkeley showed that pyrethroid insecticides used in urban areas are causing sediment toxicity to test organisms in the sediment in northern California urban creeks.

Urban uses of diazinon and chlorpyrifos were almost completely eliminated by 2004 as a result of actions taken by US EPA and the pesticide manufacturers, primarily based on issues identified under the Federal Food Quality Protection Act. Stocks of these pesticides purchased before they were pulled from the market may still be used legally.

Since 2004, these pesticides are still detected in urban creeks and urban runoff, although generally at levels below water quality objectives<sup>8</sup>. This represents a significant improvement over previous years when diazinon and chlorpyrifos were frequently detected in urban creeks at levels above water quality objectives. It is anticipated that observed concentrations will continue to drop as existing stocks are depleted and relinquished to household hazardous waste programs.

Pyrethroid monitoring has not been included in the permittees' monitoring program to date, because the dramatic increase in urban pyrethroid uses is very recent, and because pyrethroid analytical methods with adequate detection limits have not been readily available from commercial laboratories. Due to the lack of data, pyrethroids have not yet been included in the permittees' formal target pollutant prioritization process.

<sup>6</sup> The biotic ligand model is a methodology recently incorporated by U.S. EPA into its water quality criteria process. It considers additional factors that affect the toxicity of metals in water, such as total organic carbon and pH. See USEPA. Office of Water. Office of Science and Technology *Aquatic Life Ambient Freshwater Quality Criteria – Copper*. February 2007 Revision. EPA-822-R-07-001

<sup>7</sup> The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region, the Sacramento River Basin and the San Joaquin River Basin. Fourth edition, February 2007.

<sup>8</sup> Sacramento Stormwater Quality Partnership. May 15, 2007. *Evaluation of Additional Pesticide Monitoring Data – 2007 Update*. Prepared by Larry Walker Associates



Primarily through taking a leadership role in CASQA’s Pesticides Subcommittee (and using Dr. Weston’s data), the permittees helped persuade DPR to place pyrethroids in a regulatory process called re-evaluation. Information generated in this process will be used by DPR, and probably eventually U.S. EPA, to establish mitigation measures as necessary to reduce pyrethroid impacts.

*Planned Pesticide Activities for 2008 to 2013*

The permittees will continue to implement their comprehensive Pesticide Plan, which was submitted to the Regional Board in 2004 and received final approval in 2006. The plan’s pesticide control strategies include:

- Reducing pesticide use associated with Permittee operations, including by adopting in-house policies promoting integrated pest management (IPM).
- Promoting integrated pest management (IPM) among the public and industry, including by supporting *Water Wise* and *Our Water Our World* IPM outreach programs; developing IPM guidance and training for landscape professionals; and helping to develop EcoWise Certifice, an IPM certification for structural pest control operators. Enforcing existing pesticide regulations.
- Monitoring, including water quality monitoring and evaluating pesticide sales and use patterns.
- Influencing State and Federal pesticide policy and regulations to improve water quality protection, including by leading CASQA efforts to improve State and Federal pesticide policy and regulation to better protect water quality.
- As pyrethroid analytical methods become more readily available, the permittees will integrate pyrethroids in the pesticide monitoring program.

The following lists the key ways that pesticide control activities will be evaluated during the 2008-13 permit term:

- Pesticide use data will be used to estimate load reduction associated with in-house IPM programs.

- Pesticide use and sales data, as well as telephone surveys, will be used to load reductions associated with programs to promote IPM among pest control operators and the public.
- Analysis of regulatory actions will be used to evaluate behavior changes (such as pesticide use restrictions) associated with regulatory initiatives.

**Activities Addressing Copper**

*Background*

Copper occurs naturally in local soil and water and its release to the urban environment is a by-product of everyday human activities. Copper can cause toxic effects to aquatic life if it is in a bio-available form (i.e., usually a dissolved form) at a sufficiently high concentration and a sufficient length of exposure.

Through the NWQE/RWQE process (discussed in more detail in the monitoring section of this chapter), the permittees have reported a number of exceedances of copper in urban creeks, in both dissolved and recoverable forms. These exceedances were based on the California Toxics Rule objective, which allows for a hardness adjustment but does not consider other significant water quality parameters that affect copper aquatic toxicity. Through application of the U.S. EPA’s recently adopted Biotic Ligand Model, the permittees have determined that copper toxicity occurs much less frequently than previously believed.<sup>9</sup>

In 1997, the permittees identified and prioritized sources of copper, as well as potentially effective BMPs.<sup>10,11,12</sup> This effort identified several potential

<sup>9</sup> Sacramento Stormwater Quality Partnership. March 2007. *Results of Initial Biotic Ligand Model analysis of Sacramento Urban Tributary Data*. Prepared by Larry Walker Associates.

<sup>10</sup> Sacramento Stormwater Management Program, December 1998. *1997/98 Annual Monitoring Report - Appendix D: Identification of the Sources of Copper in Sacramento Urban Runoff*. Prepared by Larry Walker Associates.

<sup>11</sup> Sacramento Stormwater Management Program, December 1998. *1997/98 Annual Monitoring Report - Appendix E: Copper Source Prioritization*. Prepared by Larry Walker Associates.

sources of copper: rainfall, potable water used outdoors, naturally occurring copper in soils, brake pad wear, and possibly pesticide use.

In the 1990's, Bay Area stormwater programs estimated that approximately 80% of copper in urban runoff may originate from brake pad wear. Therefore, the likely most effective control measure for copper involves reducing the content of copper in manufactured brake pads. Subsequently, brake pad industry representatives and water quality interests (environmental organizations; and state, federal, and local government agencies) voluntarily formed the Brake Pad Partnership. The permittees contribute financial support to the partnership, which examines the link between copper in automotive brake pads and copper in surface waters.

The partnership has been developing rigorous methods for studying the release of copper from brake pads, and estimating copper releases from other sources. Its 2006 reports on copper sources in the San Francisco Bay area<sup>13,14</sup> have confirmed the earlier estimate that brake pads are the major source of copper in that watershed. This confirmation helps clear the way toward industry reduction of brake pad copper content.

Although brake pads are the major source of copper in the waterways, the permittees are also pursuing control measures for other sources. In 1998, the permittees held a workshop to integrate the identified copper BMPs (for the targeted sources) into the activities of the various program elements.

### *Planned Activities for 2008 to 2013*

The permittees will continue to implement copper control strategies. The Program's control strategy for copper is summarized in Table 3.3–2.

The permittees will:

- Conduct special studies to evaluate street sweeping and detention basin effectiveness, utilizing data from existing studies, to estimate copper load reductions.
- Conduct a special study, utilizing existing documentation, to estimate behavior changes associated with the industrial inspection program.
- Evaluate progress of the Brake Pad Partnership in reducing brake pad copper content.

### **Activities Addressing Lead**

#### *Background*

Historically, lead has had numerous uses in the urban environment. This resulted in a large reservoir of lead that remains as a legacy, even though the main uses of lead have been abandoned. The largest sources of lead in urbanized areas were gasoline and lead paint. Many buildings painted before 1978 include lead paint which remains on houses and thus continues to be a source of lead in urban runoff. Lead gasoline was phased out in the 1970s and 1980s, but lead levels in soil in urban areas continue to exceed background levels. Lead contained in soils and subsequently mobilized in urban runoff may contribute to the amount of lead observed in local waterways.

Identified local potential sources of lead include weathering and erosion of lead-painted structures, small aircraft and vehicle exhaust emissions, tire wear, use of leaded pavement marking paints, erosion of soil with past accumulations of lead, shooting ranges, and several types of industries (auto and radiator repair shops; airports; auto dismantlers; machinery, electrical, and transportation equipment manufacturers; landfills and transfer stations; rail yards; and metal recyclers). The BMP identification work led to a list of potentially applicable good housekeeping practices, structural controls, and education and training activities for the identified sources.

<sup>12</sup> Sacramento Stormwater Management Program, December 1998. *1997/98 Annual Monitoring Report - Appendix F: Copper Control Measure Identification*. Prepared by Larry Walker Associates.

<sup>13</sup> Rosselot, Kirsten S. January 2006. *Copper Released from Brake Lining Wear in the San Francisco Bay Area*. Prepared for the Brake Pad Partnership

<sup>14</sup> Rosselot, Kirsten S. January 2006. *Copper Released from Non-Brake Sources in the San Francisco Bay Area*. Prepared for the Brake Pad Partnership

In 1998/99, a joint Lead/Copper Workshop was held with Permittee staff to integrate the results of the source and BMP identification work into the activities of the various program elements.<sup>15</sup> The workshop was designed to address both copper and lead target pollutants because there are BMPs which address both constituents.

#### *Planned Lead Activities for 2008 to 2013*

The permittees will continue to implement lead control strategies. The Program's control strategy for lead is summarized on Table 3.3–2.

Key ways the permittees will evaluate lead control activities are as follows:

- Special studies of street sweeping and detention basin effectiveness will be used to estimate lead load reductions.
- A special study will be used to estimate behavior changes and possibly load reductions associated with the industrial inspection program.

#### **Activities Addressing Coliform/Pathogens**

##### *Background*

Fecal coliform bacteria are frequently found in urban runoff at high levels. These bacteria are widely accepted as indicators of fecal contamination, and such levels indicate that a significant amount of fecal material is probably discharged in urban runoff. Sources of fecal contamination in the urban environment are widespread, as they include both wild and domestic animals.

The primary impact of fecal contamination on water bodies is the potential presence of pathogens that may be associated with feces. However, due to limitations inherent to the use of indicator organisms, the actual amount of pathogens in urban runoff cannot be determined by extrapolation. In addition, direct analyses for pathogens in a matrix as complex as urban runoff is difficult, expensive, and inaccurate. As a result, despite high levels of fecal coliform bacteria,

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<sup>15</sup> Sacramento Stormwater Management Program, December 1999. *1998/99 Annual Monitoring Report and Comprehensive Evaluation, 1990-1999 - Appendix E: Lead/Copper Workshop Summary*. Prepared by Larry Walker Associates.

there is little direct evidence of pathogens in Sacramento urban runoff.

Despite the lack of adequate information on the presence of pathogens, the permittees are focusing on measures that will reduce the discharge of fecal material to the storm drain and creeks.

#### *Planned Coliform/Pathogen Activities for 2008-2013*

The permittees will continue to implement the Fecal Waste Reduction Strategy, which includes BMPs addressing human and domestic animal sources in four main areas:

- illicit cross-connections from the sanitary sewer system to the storm drain system
- sanitary sewer overflows to local waterways
- pet waste
- manure management at livestock facilities in the urbanized area

The permittees will:

- Conduct a special study to determine the effectiveness of the industrial inspection program for reducing coliform/pathogen discharges from commercial kennels.
- Include questions in the regional telephone survey to measure awareness and behavior changes among pet owners regarding pet waste disposal practices.

#### **Activities Addressing Mercury**

##### *Background*

The permittees identified mercury as a top-ranked target pollutant in 2002. Mercury is a problem due to the high level of methyl mercury<sup>16</sup> measured in several species of edible fish in the Delta. Methyl mercury content poses a threat to humans and wildlife that consume the fish, and thus impairs the fisheries beneficial use. This has led to the listing of the Delta as a high priority impaired water body on the State's 303(d) list, and a draft Total Maximum Daily Load (TMDL) for mercury in the Delta has been released for public comment.

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<sup>16</sup> Methyl mercury is a highly toxic form of mercury that is formed by biogeochemical processes acting on various forms of inorganic mercury found in the environment. It accumulates in the bodies of organisms that ingest it, and magnifies in concentration as it moves up the food chain.

The dominant sources of mercury now found in the Delta are historical mercury and gold mining upstream of Sacramento, as well as geologic sources such as soils and springs located throughout the Coast Ranges. Atmospheric deposition from remote sources such as coal fired power plants and volcanoes is also believed to be a significant contributor to mercury levels in the Delta.

It is unlikely that even complete removal of all mercury from urban runoff would have a significant effect on the levels of mercury in the water column and sediment, and or on the levels of methyl mercury in fish tissues of the Delta. This is because of two main factors. The first is that mass loading of mercury discharged from the permittees' storm drain systems to local waterways is very small, when compared to the amount of mercury being discharged by other sources in the watershed and the amount already present in sediments of the Delta and the rivers. The other factor is that the amount of mercury discharged by the permittees is greatly overshadowed by biogeochemical processes occurring in the river and the Delta, that generate methyl mercury from mercury already present in water and sediments

The permittees have developed a Mercury Plan that describes activities to address key mercury sources identified in the urban environment.

#### *Planned Mercury Activities for 2008-2013*

The permittees will continue to implement their Mercury Plan. Broad categories of control measures include control of mercury sources associated with municipal operations, industrial inspections, public outreach, participation in initiatives to increase mercury recycling, participation in BeMercuryFree (a mercury source control program established by the Sacramento Regional County Sanitation District), and participation in efforts to address mercury on a regional or watershed basis.

Evaluation levels for key examples of mercury BMPs are shown below:

- Conduct special studies to evaluate street sweeping and detention basin effectiveness, utilizing data from existing studies, to estimate mercury load reductions.

- Conduct a special study, utilizing existing documentation, to estimate behavior changes associated with the industrial inspection program.
- Inclusion of questions in the permittees' regional telephone survey to measure awareness and behavior changes regarding disposal of mercury-containing fluorescent lamps.

#### **Addressing Other Target Pollutants**

The permittees will begin work to address new top-ranked target pollutants identified in the re-evaluation process, as resources allow.

Table 3.3-2  
**Planned Target Pollutant Activities — 2008-2013 Permit Term**

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**General Target Pollutant Assessment**

Integrate NWQE/RWQE process with Target Pollutant Prioritization.  
 Establish a decision/evaluation methodology to determine if additional actions are necessary to address exceedances as they are discovered.  
 Review and revise target pollutant prioritization process.  
 Update ranked list of target pollutants  
 Select ranked pollutant and conduct source identification and control process.

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**Continue Lead Control Activities**

Continue street cleaning.  
 Continue operation of detention basins  
 Continue maintenance of drainage facilities  
 Continue to require erosion and sediment control BMPs for construction projects  
 Continue new development requirements for on-site and regional stormwater treatment BMPs  
 Continue implementation of industrial inspection program.

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**Continue Copper Control Activities**

Continue participating in funding and supporting the Brake Pad Partnership  
 Continue street cleaning.  
 Continue operation of detention basins  
 Continue maintenance of drainage facilities  
 Continue erosion and sediment control BMPs  
 Continue new development requirements for on-site and regional stormwater treatment BMPs  
 Continue implementation of industrial inspection program.  
 Review and update swimming pool discharge brochure to ensure that copper is adequately addressed.

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**Continue Coliform/Pathogen Control Activities**

Continue prohibiting discharges of pet waste into the MS4  
 Continue kennel inspection programs for appropriate waste handling procedures  
 Continue outreach promoting appropriate disposal of pet waste  
 Continue implementation of sewer enforcement, inspection and spill response BMPs described in other elements of the Stormwater Management Program  
 Conduct three Coliform/Pathogens Workgroups to review current status of coliform/pathogen control efforts in the state and identify additional actions, if any.

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**Implement Mercury Plan**

Continue street cleaning.  
 Continue operation of detention basins  
 Continue maintenance of drainage facilities  
 Continue erosion and sediment control BMPs  
 Continue new development requirements for on-site and regional stormwater treatment BMPs  
 Update Mercury Plan for consistency with final TMDL, include methodology for calculating mercury load reductions  
 Continue participation with the DTMC on mercury watershed programs  
 Continue tracking urban runoff and HHW mercury reduction programs  
 Continue tracking mercury air deposition and emission studies relevant to the Sacramento area  
 Continue providing review and input for Delta and Sacramento River TMDLs  
 Incorporate mercury recycling messages into general materials/events  
 Supply fact sheet for distribution to County EMD staff  
 Conduct outreach to other commercial/ industrial businesses, as appropriate through BERCC

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**Implement Pesticide Plan**

Establish authority to implement Pesticide Plan tasks  
Document and evaluate municipal pesticide use  
Require oversight by Certified Pesticide Applicator  
Establish/conduct training program for public agency pesticide applicators  
Establish Permittee-specific IPM policies or ordinances  
Begin establishment of operation/department specific IPM plans and procedures.  
Ensure that Permittees have coverage under Aquatic Pesticide Permit if required.  
Coordinate structural BMP design and maintenance with Sacramento-Yolo Mosquito and Vector Control District as needed  
Continue to support local IPM outreach and education programs, such as Water Wise Program, and Our Water Our World.  
Continue to support Household Hazardous Waste programs.  
Continue to include pesticide information in stormwater media campaign  
Encourage incorporation of IPM in design of new development landscaping and buildings.  
Provide training and promote implementation of IPM by Institutional Pesticide Users.  
Continue regulation by the County Agricultural Commissioner  
Continue to enforce local prohibitions against illegal discharges  
Promote IPM implementation by PCOs.  
Continue conducting water quality monitoring  
Continue tracking relevant monitoring programs by other agencies  
Review findings of residential pesticide sales and use surveys and utilize in outreach efforts.  
Evaluate PCO pesticide use data  
Continue tracking and commenting on State and Federal regulatory activities that pertain to pesticides of significance to urban stormwater discharges  
Continue providing input for pesticide product risk assessments for surface water quality  
Continue participating in the development of TMDLs for pesticides in Sacramento urban creeks  
Continue supporting improvements in State and Federal pesticide regulations

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DRAFT

## 3.4 Monitoring Program

### Introduction

The Sacramento Stormwater Monitoring Program (Monitoring Program) is designed to comply with requirements of the municipal stormwater permit and to provide data to characterize runoff and receiving water quality conditions and assess effectiveness of the overall stormwater program.

This chapter:

- summarizes current urban runoff discharge and receiving water quality for the permit area;
- describes historical monitoring efforts with an emphasis on accomplishments from the 2002-07 permit term;
- outlines the planned Monitoring Program strategy and monitoring components for the 2008-13 permit term; and
- describes how data analysis, effectiveness assessments and other tools are used to manage and refine the Monitoring Program over time.

### Current Receiving and Urban Runoff Discharge Water Quality Conditions

A detailed analysis of Monitoring Program data was prepared as part of the June 2007 Report of Waste Discharge (ROWD)<sup>17</sup>. An executive summary of this work is included in Appendix E for easy reference. In general, the data analysis indicated that American and Sacramento River water quality continued to be high with few reported exceedances of water quality objectives (WQOs)<sup>18</sup> during the 2002-07 permit term.

The downstream monitoring locations on the Sacramento River generally had lower pollutant concentrations measured than the monitoring location upstream of the urban area (Veterans Bridge). This is in great part due to the input from the American River, as the confluence of the two rivers is downstream from Veterans Bridge. The downstream monitoring location on the American River (Discovery Park) generally had higher concentrations measured than the monitoring locations upstream of the urban area (Nimbus Dam).

The urban tributaries had a higher WQO exceedance rate during the third Permit term. The exceedances generally involved constituents already identified as Target Pollutants. Additional analysis included as part of the 2007 Report of Waste Discharge (ROWD) indicated:

- Data collected to date are insufficient to characterize trends except in the case of chlorpyrifos and diazinon where pesticide registration changes have clearly reduced concentrations of these pesticides below WQO concentrations.
- When adjusted to consider site specific conditions using the BLM, copper, zinc, and cadmium observed concentrations generally do not exceed WQOs or site specific LC50s, even in cases where the observed concentrations exceeded the California Toxics Rule WQO.
- Arcade Creek and Morrison Creek are distributionally similar for most constituents; Willow Creek tends to have lower concentrations of most constituents.

Urban discharge trends were also evaluated as part of the detailed data summary discussed previously (see executive summary in Appendix E). In general, median concentration values were lower during the 2002-07 permit term than during previous permit terms (1990-2002). This may be attributable to better sampling techniques or the implementation of other management program activities (e.g., changed pollution behaviors through effective public outreach). But this correlation has not been made conclusively yet.

<sup>17</sup>Sacramento Stormwater Quality Partnership. May 2007. *Executive Summary– Discharge and Receiving Water Characterization*. Prepared by Larry Walker Associates. (copy included in Appendix E)

<sup>18</sup>Water quality objectives are set forth in water quality control plans (basin plans) by the Regional Water Boards to provide the basis for reasonable protection of beneficial uses and the prevention of nuisance for Waters of the State.

## Monitoring Program History

The Permittees established their comprehensive Monitoring Program during the 1989-90 fiscal year, and it has been ongoing since. The Monitoring Program is primarily focused on water quality characterization at three long-term urban runoff sites, river monitoring, and more recently urban tributary monitoring. Monitoring and analytical techniques are evaluated continually to ensure that the highest quality data are collected and properly archived for future use. Field practices are documented in annually revised sampling and analysis plans included in the Permittees' Annual Monitoring Report.

Table 3.4-1 summarizes Monitoring Program efforts over the past eighteen years by study type. Also, see Appendix A for a more detailed description of historical accomplishments.

Table 3.4-1.

### Historical Monitoring Efforts

| Monitoring Year | Urban Runoff Characterization | Urban Tributary Assessment | Receiving Water Characterization | Water Column Toxicity | Bioassessment | BMP Evaluation |
|-----------------|-------------------------------|----------------------------|----------------------------------|-----------------------|---------------|----------------|
| 1989/90         |                               |                            | •                                |                       |               |                |
| 1990/91         | •                             |                            | •                                | •                     |               |                |
| 1991/92         | •                             |                            | •                                | •                     |               |                |
| 1992/93         | •                             | •                          | •                                | •                     |               |                |
| 1993/94         | •                             |                            | •                                | •                     |               |                |
| 1994/95         | •                             | •                          | •                                | •                     |               |                |
| 1995/96         | •                             | •                          | •                                | •                     |               |                |
| 1996/97         | •                             | •                          | •                                | •                     |               |                |
| 1997/98         | •                             |                            | •                                |                       |               | •              |
| 1998/99         | •                             |                            | •                                |                       |               | •              |
| 1999/00         | •                             |                            | •                                |                       |               | •              |
| 2000/01         | •                             |                            | •                                |                       |               | •              |
| 2001/02         |                               |                            | •                                |                       |               | •              |
| 2002/03         | •                             | •                          | •                                |                       | •             |                |
| 2003/04         | •                             | •                          | •                                | •                     | •             |                |
| 2004/05         |                               | •                          | •                                |                       | •             |                |
| 2005/06         | •                             | •                          | •                                |                       | •             |                |
| 2006/07         | •                             | •                          | •                                |                       | •             |                |

During the 2002-07 permit term, the Permittees continued monitoring of urban runoff, urban tributaries and rivers. Urban runoff monitoring was performed at three long term characterization sites and included characterization of discharge quality for a wide range of constituents. Urban tributary monitoring was performed at three sites for general characterization in one event per year. At these three sites and at six additional urban tributary sites, pesticides and other 303(d) listed constituents were sampled four times annually. River monitoring was performed in the Sacramento and American Rivers at five different locations during two storm events and two dry weather events per year.

The Permittees also conducted water column toxicity and bioassessment monitoring. To further understand WQO exceedances in the urban tributaries, the Permittees initiated studies for pesticide persistence, metals persistence, an assessment of metals toxicity using the Biotic Ligand Model for recalculation of site-specific metals criteria<sup>19</sup> (BLM, 2006/07 joint annual report), follow-up monitoring related to exceedances of Basin Plan WQOs for pH, temperature, and dissolved oxygen (DO) in urban tributaries, and a pathogen source identification effort.

Data analysis work of significance was completed in the third permit term to better characterize discharge quality, compare diazinon and chlorpyrifos concentrations in urban tributaries, target pollutant calculation updates, continuous simulation regression load modeling, and development of a process to compare monitoring data to WQOs for the purpose of the event-based and stormwater permit-required Notices of Water Quality Exceedance (NWQE).

### Description of Monitoring Program

This section describes the Monitoring Program strategy and major components of the program.

<sup>19</sup> USEPA, Office of Water. February 2007. *Aquatic Life Ambient Freshwater Quality Criteria –Copper*. EPA-822-R-07-001.



## Strategy

The Monitoring Program for the 2008-13 permit term was designed following a new strategy, as recommended by consultants<sup>20</sup> and discussed in planning workshops with representative permittee staff. The basic strategy is to provide data and other information to answer the key management questions outlined on Table 3.4-2.

Table 3.4-2.

### Management Questions and Outcome Levels

| Management Question   | Outcome Level* |
|---|----------------|
| A. What is the existing condition of receiving water quality and is it protective of beneficial uses? | 6              |
| B. What is the quality of urban discharge in new developed areas?                                     | 5              |
| C. What is the trend of urban discharge quality?  | 5              |
| D. What is the relative urban runoff contribution to receiving water quality?                         | 5              |
| E. What are the sources to urban runoff that affect receiving water quality?                          | 4              |
| F. Are conditions in receiving waters getting better or worse?  | 6              |
| G. How can changes in urban water quality affect receiving water quality?                             | 6              |

\*Outcome levels are based on CASQA 2007 and are discussed in more detail in Chapter 2: 4 – reducing loads from sources, 5- improving water quality, and 6 – protecting receiving water quality.

The management process flowchart (Figure 3.4-2) presented toward the end of this section also illustrates how the seven management questions are incorporated into the process. In addition to the management questions, the Permittees may also consider and integrate other studies as needed based on monitoring data analysis or other external programs (TMDLs, regulatory changes, etc.) to answer more specialized questions such as

<sup>20</sup> Sacramento Stormwater Quality Partnership. March 27, 2007. *Draft Sacramento Stormwater Quality Partnership Monitoring Planning for Upcoming Permit Renewal*. Prepared by Larry Walker Associates.

the pollutant removal effectiveness of a specific BMP, or as follow-up to determine the cause or factors contributing to a specific impact on receiving waters. The Permittees are in the process of developing monitoring data evaluation protocols to assist in answering the management questions shown in Table 3.4-2.

## Monitoring Program Components

Table 3.4-3 lists the components of the Monitoring Program to be completed during the 2008-13 permit term. The annual Monitoring Program Work Plans submitted during the 2008-13 Permit term will list the specific activities to be completed in any given year. In general, the monitoring effort for the 2008-13 Permit term includes most all the same components as in the 2002-07 Permit term with some modifications to the sites monitored, frequency monitored, and the constituents monitored.

As indicated in Table 3.4-3, both area-wide monitoring and more localized monitoring are included in the planned fourth Permit term monitoring to address the management questions shown in Table 3.4-2. The Permittees have also developed a “core list” of constituents for general water quality characterization and a more comprehensive list of constituents to be sampled twice during the Permit term. The two lists of constituents are described on Table 3.4-3. A map of planned monitoring locations is included as Figure 3.4-1.

Area-wide (general characterization) data will quantify long term trends of the core list of constituents and includes less frequent monitoring of a longer list of constituents for “screening” efforts to modify the core constituent list. This includes characterization of urban runoff and receiving waters. Localized watershed monitoring provides additional information on the affect of management activities, BMP effectiveness, and direct impacts on receiving waters and provides for integrated assessments discussed later in this section.

In addition to area-wide and localized monitoring activities, work plans will be developed and implemented to address sediment toxicity and unique conditions in Morrison Creek.

Table 3.4-3.  
**Planned 2008-13 Permit Term Monitoring Components**

| Type                             | Sites   | No. Sites | Total Events Over 5 Year Permit Term at Each Site | Constituent List  | Management Goals Addressed [1] |
|----------------------------------|---|-----------|---|---|--------------------------------|
| Historic Monitoring Urban Runoff | Sump 111 and Strong Ranch Slough                                  | 2         | 15 (5 are dry events)                             | Core List. Comprehensive list for the first event twice per permit term.  | C, D, E, G                     |
|                                  | Sump 104  | 1         | TBD   | Monitoring frequency and constituent list to be determined following completion of a power analysis in 2007/08. |                                |
| New Development Urban Runoff     | North Natomas   | 1         | TBD   | Monitoring frequency and constituent list to be determined following completion of a power analysis in 2007/08. | B, D, E, G                     |
| Urban Tributary                  | Arcade Creek and Willow Creek                                     | 2         | 15 (5 are dry events)                             | Core List. Comprehensive list for the first event twice per permit term.  | A, F                           |
|                                  | Morrison Creek  | TBD       | TBD   | Monitoring frequency and constituent list to be determined by follow-up to RWOE study in 2007/08.               | A, F                           |
| River                            | Sacramento River and American River                               | 4         | 15 (5 are dry events)                             | Core List. Comprehensive list for the first event twice per permit term.  | A, F                           |
| Bioassessment                    | Arcade Creek, Willow Creek, and Laguna Creek                      | 3         | 2 to 3  | Coordinated with water quality sampling of Core List.   | A, C, F, G                     |
| Sediment Toxicity                | As part of bioassessment and wet detention basin                  | TBD       | Varies  | Monitoring sites and frequency to be determined during the development of a monitoring work plan in 2007/08.    | A, E, F, G                     |
| Water Column Toxicity            | Sacramento River, American River, Arcade Creek and Willow Creek   | 6         | 2 (1 is dry event)                                | Fathead and Ceriodaphnia.   | A, E, F, G                     |
| Localized Watershed Monitoring   | Laguna Creek New Development BMP Effectiveness Evaluation         | 1         | TBD   | Monitoring frequency and sites to be determined during development of monitoring work plan in 2007/08.          | B, D, E, G                     |
|                                  | Laguna Creek BMP Effectiveness Evaluation of developed urban area | 1         | TBD   |   | D, G                           |

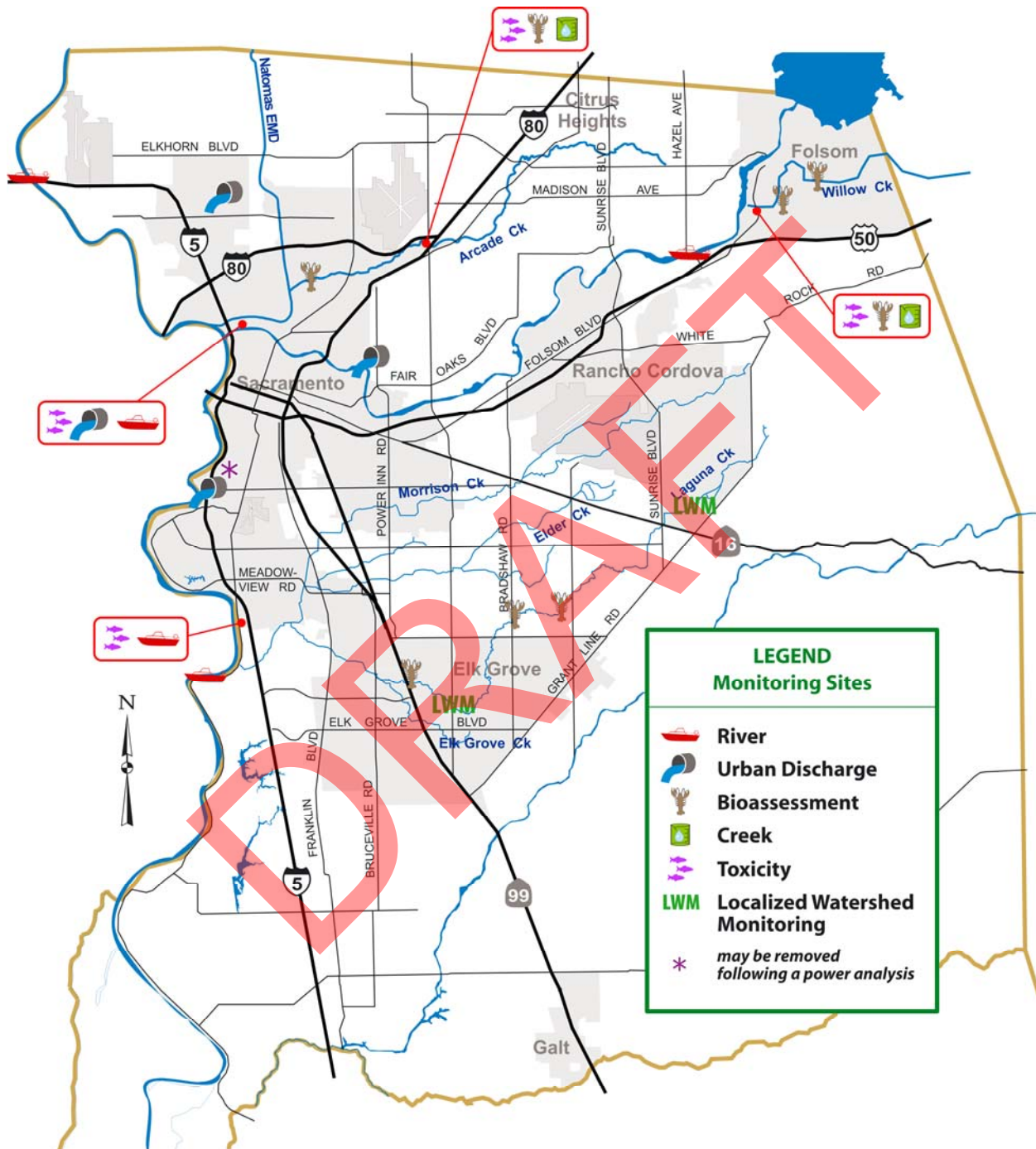
  

Notes:  
 TBD - to be determined  
 [1] Management Goals  
 A. What is the existing condition of receiving water quality and is it protective of beneficial uses?  
 B. What is the quality of urban discharge in new developed areas?  
 C. What is the trend of urban discharge quality?  
 D. What is the relative urban runoff contribution to receiving water quality?  
 E. What are the sources to urban runoff that affect receiving water quality?  
 F. Are conditions in receiving waters getting better or worse?  
 G. How can changes in urban water quality affect receiving water quality?

| CORE CONSTITUENT LIST   |  |   |
|---|--|---|
| <b>Field</b><br>Dissolved Oxygen<br>pH<br>Temperature<br><b>Bacteriological</b><br>Total Coliform<br>Fecal Coliform<br>E. coli. | <b>General</b><br>TSS<br>TOC<br>DOC<br>Nitrate-Nitrite<br>TKN<br>Total Phosphorus<br>Total Hardness<br>EC<br>Turbidity<br>Methyl Mercury                         | <b>Metals (filtered and unfiltered)</b><br>Copper<br>Lead<br>Zinc<br>Iron<br>Aluminum<br>Mercury (unfiltered only)<br><b>Semivolatile Organics</b><br>Acid Extractible<br>Base/Neutral Extractible<br>PAHs<br><b>Chlorinated Pesticides/PCBs</b><br><b>Organophosphate Pesticides</b><br><b>Herbicides (not glyphosate)</b> |
| COMPREHENSIVE CONSTITUENT LIST (IN ADDITION TO CORE LIST)   |  |   |
|   | <b>General</b><br>TDS<br>Total Petroleum Hydrocarbons<br>Cyanide<br>Total Phenols<br>Dissolved Phosphorus<br>Fluoride<br>Chloride<br><br><b>Organics</b><br>MTBE | <b>Metals (filtered and unfiltered)</b><br>Arsenic<br>Cadmium<br>Chromium (total)<br>Chromium (Hexavalent)<br>Nickel<br>Antimony<br>Beryllium<br>Selenium<br>Silver<br>Thallium<br><b>Glyphosate</b><br><b>Carbamates</b>   |

Figure 3.4-1.  
**Planned 2008-13 Permit Term Monitoring Sites**



## Urban Runoff Characterization

Urban runoff monitoring began in 1989/90 to characterize the quality of urban runoff in the Sacramento area. Early urban runoff monitoring was conducted at various sites; since 1994/95, long-term urban runoff monitoring has continued at three sites – Sump 104, Sump 111 and Strong Ranch Slough. Sampling frequency has followed the recommendations developed from a 1995/96 power analysis and an evaluation in 1997/1998 that determined data requirements necessary to assess the overall long term effectiveness of the management program.<sup>21</sup> While these long term urban discharge monitoring activities have sufficiently characterized discharges in the existing developed areas of the Program, these monitoring locations are not representative of discharges in areas of new development.

The Permittees are considering changes to the urban discharge monitoring effort that would better characterize discharges from newly developed areas. Possible changes include the addition of a new development urban discharge monitoring site in North Natomas and the elimination of a historic urban discharge monitoring site. No changes will be made, however, until the completion of an analysis in 2007/2008 evaluating the effects of the proposed changes on the long term effectiveness objective of the Monitoring Program. Urban discharge monitoring will proceed as it has during the 2002-07 Permit term pending the results of the 07/08 data analysis.

## Urban Tributary Characterization

Urban tributary monitoring was performed in support of regulatory efforts<sup>22</sup> and as screening level studies. In the third Permit term, the primary investigative emphasis was related to diazinon and

chlorpyrifos monitoring and annual screening at three sites – Arcade Creek, Morrison Creek and Willow Creek. Additional pesticide monitoring was performed at six more sites for comparison purposes. An analysis of these data demonstrated that diazinon and chlorpyrifos concentrations at sites downstream of urban runoff were statistically similar<sup>23</sup> and could be characterized by the primary three sites.

In addition to Permit-required urban tributary monitoring, follow-up actions related to Report of Water Quality Exceedances preparation included development of a work plan to address the cause and nature of dissolved oxygen (DO), pH, and temperature exceedances in several urban tributaries. Multiple steps in the work plan have been completed<sup>24,25,26</sup> and the Permittees are preparing for Phase II monitoring beginning in fall 2008. It is expected that much of this work will be performed in Morrison Creek.

Fourth Permit term monitoring activities at the urban tributaries include more frequent monitoring of core list constituents (10 storm and 5 dry weather events during the Permit term) with twice per permit comprehensive constituent list storm monitoring events at two of the three urban tributary sites. Morrison Creek will be part of a separate study effort as follow-up to the RWQE and is not included in the ongoing characterization. The ongoing characterization at the Willow and Arcade Creek locations will be used to characterize streams representative of other streams in the permitted area (region-wide monitoring). Additional watershed monitoring in the Laguna Creek watershed will be performed as

<sup>21</sup> Sacramento Stormwater Management Program, 1996. *Technical Memorandum: An Evaluation of Methods for the Assessment of Long Term Effectiveness of the Sacramento Comprehensive Stormwater Management Program*. Prepared by Larry Walker Associates.

<sup>22</sup> Central Valley Regional Water Quality Control Board. September 2004. *Total Maximum Daily Load (TMDL) Report for the Pesticides Diazinon & Chlorpyrifos In: Arcade Creek, Elder Creek, Elk Grove Creek, Morrison Creek, Chicken Ranch Slough, and Strong Ranch Slough, Sacramento County, California*.

<sup>23</sup> Larry Walker Associates. May 25, 2007. Memorandum from Brian Laurensen. *Evaluation of Additional Pesticide Monitoring Data – 2007 Update*.

<sup>24</sup> Larry Walker Associates. September 20, 2006. Memorandum from Brian Laurensen. *Assessment Strategy for Dissolved Oxygen, Temperature and pH in Sacramento Urban Tributaries*.

<sup>25</sup> Larry Walker Associates. November 13, 2006. Memorandum from Brian Laurensen. *Urban Tributary Dissolved Oxygen, pH and Temperature Investigation Sampling and Analysis Plan – Phase 1*.

<sup>26</sup> Larry Walker Associates. May 2007. Memorandum from Iain Clark. *Phase I Investigation Results - Willow Creek and Morrison Creek pH, Dissolved Oxygen, and Temperature*

part of the local watershed monitoring effort that will be used to address local conditions, as discussed later in this section.

### River Characterization

River monitoring began in 1989/90 through the Coordinated Monitoring Program (CMP) that is managed by the Sacramento Regional County Sanitation District (SRCSD) in partnership with the Stormwater Program. Sampling frequency has followed the recommendations developed from a 1995/96 power analysis and an evaluation in 1997/1998 that determined data requirements necessary to assess the overall long term effectiveness of the management program and characterize Sacramento and American river water quality.

During the 2002–07 Permit term, river sampling was performed at five sites on the Sacramento and American Rivers. In the fourth 2008–13 Permit term, the number of dry weather events will be decreased to five per Permit term at four proposed monitoring sites. The constituent list for the planned river stormwater monitoring would conform to the core list for every event except the twice per permit comprehensive monitoring. Finally, the American River at Highway 80 site will be omitted in future monitoring as it is difficult to collect samples in a consistent location because of variations in river depth at different times in the year, and it does not provide additional useful information beyond what is already provided by the American River at Discovery Park site.

### Bioassessment

Bioassessment sampling was initiated in the current Permit and was performed in spring 2003 for the first time. Sampling is performed on two or three reaches of Arcade Creek, Morrison Creek, Willow Creek, and Laguna Creek. Two creeks are monitored each year on a rotational basis. Bioassessment monitoring provides metrics for physical habitat, geomorphology, and benthic biota. Changes in these over time can be used as an additional indication of impact or improvements in urban runoff. In the next Permit term it is expected that bioassessment monitoring will be performed concurrently with water column, toxicity and sediment sampling. With the shift of Morrison Creek from general characterization to a

localized work plan development study; bioassessment monitoring would be discontinued at this site. Efforts and data collected by other groups in the Laguna Creek watershed will be more closely reviewed and considered in any data analysis that is possible.

### Sediment Toxicity

Sediment toxicity for pyrethroids was recently identified in Sacramento urban tributaries through a state grant-funded study<sup>27</sup> performed by U.C. Davis. Based on these study findings, the Permittees plan to conduct pyrethroid sampling as part of the wet detention basin study, localized watershed monitoring and bioassessment sampling. The results will be evaluated with the intent of better understanding the spatial distribution of sediment associated with pyrethroids. The sediment samples will be analyzed for various other constituents as well, as described on Table 3.4-3.

### Water Column Toxicity

Water column toxicity analysis is useful in conjunction with other water quality information to determine whether exceeded threshold concentrations actually cause toxicity in site water. However, results from the testing can sometimes be inconclusive with regard to the cause and extent of toxicity. Toxicity monitoring was completed in the current Permit term at all urban tributary and river downstream sites, not including additional pesticide monitoring locations. Toxicity requiring follow-up toxicity identification evaluation (TIE) analyses was not observed in either monitoring event.

In the fourth Permit term, fathead minnow and *Ceriodaphnia* toxicity sampling will be performed for each bioassessment monitoring event and at the receiving water locations during the two comprehensive monitoring events during the Permit term. If significant mortality is observed in the samples, follow-up sampling will be performed during a subsequent event to determine the cause of toxicity.

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<sup>27</sup> Weston, D. P., Holmes, R. W., *et.al.* *Aquatic Toxicity Due to Residential Use of Pyrethroid Insecticides*. Environmental Science and Technology. 2005, 39, 9778-9784.

## Localized Watershed Monitoring

Because of the large number of factors that affect urban runoff and receiving water quality, it can be difficult to directly connect a management action or program with changes in water quality. This effect is magnified when the watershed area is increased during the 2008-13 permit term. Local watershed monitoring will be conducted to examine a smaller area where specific management activities or BMPs are directed. Trends over time as well as comparisons to other watersheds (e.g., the long-term urban runoff sites) would provide insight into program effectiveness and associated costs.

The Permittees will work closely with the Laguna Creek Watershed Council and the Upper Laguna Creek Collaborative to develop a work plan to perform such local watershed monitoring in two locations in the Laguna Creek watershed.

## Monitoring Coordination

Over the last seventeen years, the Monitoring Program has increasingly supported the efforts of other agencies and programs such as:

- Central Valley Regional Water Quality Control Board (Water Board)
- Drinking water agencies
- Sacramento River Watershed Program (SRWP), a stakeholder effort concerned with Sacramento River watershed resources that conducts various monitoring activities within the watershed
- U.S. Geological Survey (USGS) National Water Quality Assessment (NAWQA) Program
- The CMP, which is managed by the SRCSD and funded in part by the Sacramento Stormwater Quality Partnership
- Calfed funded water quality investigations within the Sacramento area

The Surface Water Ambient Monitoring Program (SWAMP) administers statewide monitoring efforts through the State Water Resources Control Board (State Water Board) and more regionally through SWAMP efforts administered by the Regional Water Boards. The SWAMP serves as a large scale coordination effort for all the Water Boards and provides standards for sample collection and data archiving. As necessary and feasible, the (stormwater) Monitoring Program coordinates activities to support the SWAMP.

Coordinating with and/or supporting other endeavors is considered the most cost-effective means of collecting certain types of data and will continue during the fourth Permit term. Such coordination and cooperation also provides an open forum for the exchange of ideas with others working in the field.

## Monitoring Program Methods

Various methods are used in the Monitoring Program to collect and analyze data. In the fourth permit term, the Permittees will review the Data Quality Evaluation Plan (DQEP) and all Permittee sampling and analysis plans (SAPs) for consistency with SWAMP standards. The Permittees will make all reasonable efforts to collect and archive data that is *comparable* with the SWAMP standard.

The Permittees have been employing the following monitoring methods since the 1990s and plan to continue using them during the upcoming Permit term with consideration to SWAMP standards:

- Collect urban runoff data from representative long-term urban discharge monitoring sites
- Coordinate with the CMP to monitor representative sites in the American and Sacramento Rivers
- Implement a variety of receiving water monitoring techniques to characterize creek and river water quality, verify target pollutant levels, and determine the status of beneficial uses
- Use the best available analytical methods from commercial laboratories or governmental and university laboratories when feasible.

- Use equipment handling and sample collection techniques that minimize contamination potential; appropriately monitor sources of contamination or bias and include report discussions of any known issues.
- Coordinate and participate with other agencies regarding other local and regional monitoring activities and sampling methodologies

Data quality evaluations are performed on data collected by the Permittees according to the DQEP. The standards in this document meet or exceed 90% completeness and acceptability goals. Rejected data may still be reported with appropriate data qualification as documentation of the overall data quality evaluation effort.

### Monitoring Program Management and Refinement

Management of the Monitoring Program is an ongoing activity required to ensure continued compliance with stormwater permit requirements and provision of meaningful characterization and effectiveness data. Historically, changes to the Monitoring Program have been made due to changing permit requirements or based on proactive support of regulatory programs (e.g., TMDLs). Findings from the Target Pollutant Program and the RWQE process were additional tools used to determine when and what kinds of refinements were needed.

For the 2008-13 permit term, the Permittees have developed an approach for processing monitoring data, responding to identified issues, and modifying the Monitoring Program on a more frequent, continuous basis. This process, as shown in Figure 3.4-2, incorporates consideration of the seven management questions previously discussed, findings from the Target Pollutant Program and RWQE process, and existing/anticipated permit requirements.

Regular data analysis efforts are critical and will be primarily performed through threshold comparisons, trend analysis, loading calculations, the Target Pollutant updates, and regular assessments of the management questions. These multiple information sources (discussed in more detail in the following paragraphs) will be considered as a whole in a weight-of-evidence approach before modifications to the Monitoring Program will be made.

### Notice of Water Quality Exceedance

The NWQE process was first included in the third Permit term as a threshold comparison of receiving water data against a prescribed set of WQOs. Each NWQE is due to the Water Board within 90 days of the monitoring event. This approach can be helpful in identifying potential impacts on beneficial uses, but does not consider site specific conditions, the contribution of urban runoff, or the applicability of downstream beneficial uses. The NWQE reporting schedule will be on a quarterly basis, unless a shorter timeframe is prescribed in the fourth Permit, for available data. This will allow for laboratories with longer turn-around-times.

### Report of Water Quality Exceedance

The annual RWQE identifies constituents that exceed receiving WQOs where urban runoff may cause or contribute to the exceedance. The year-end RWQE considers the extent to which urban runoff causes or contributes to exceedances of receiving water WQOs has generally been a subset of the target pollutant list. The current list of RWQE constituents compiled through October 2006 is as follows:

- Coliform/Pathogen
- Solids, Total Dissolved (TDS)
- Diazinon
- Copper
- Turbidity
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Dichlorodiphenyl-trichloroethane (DDT)
- Mercury, Total
- Pentachloropenol
- Chlorpyrifos
- Gamma-hexachlorocyclohexane and By-Products

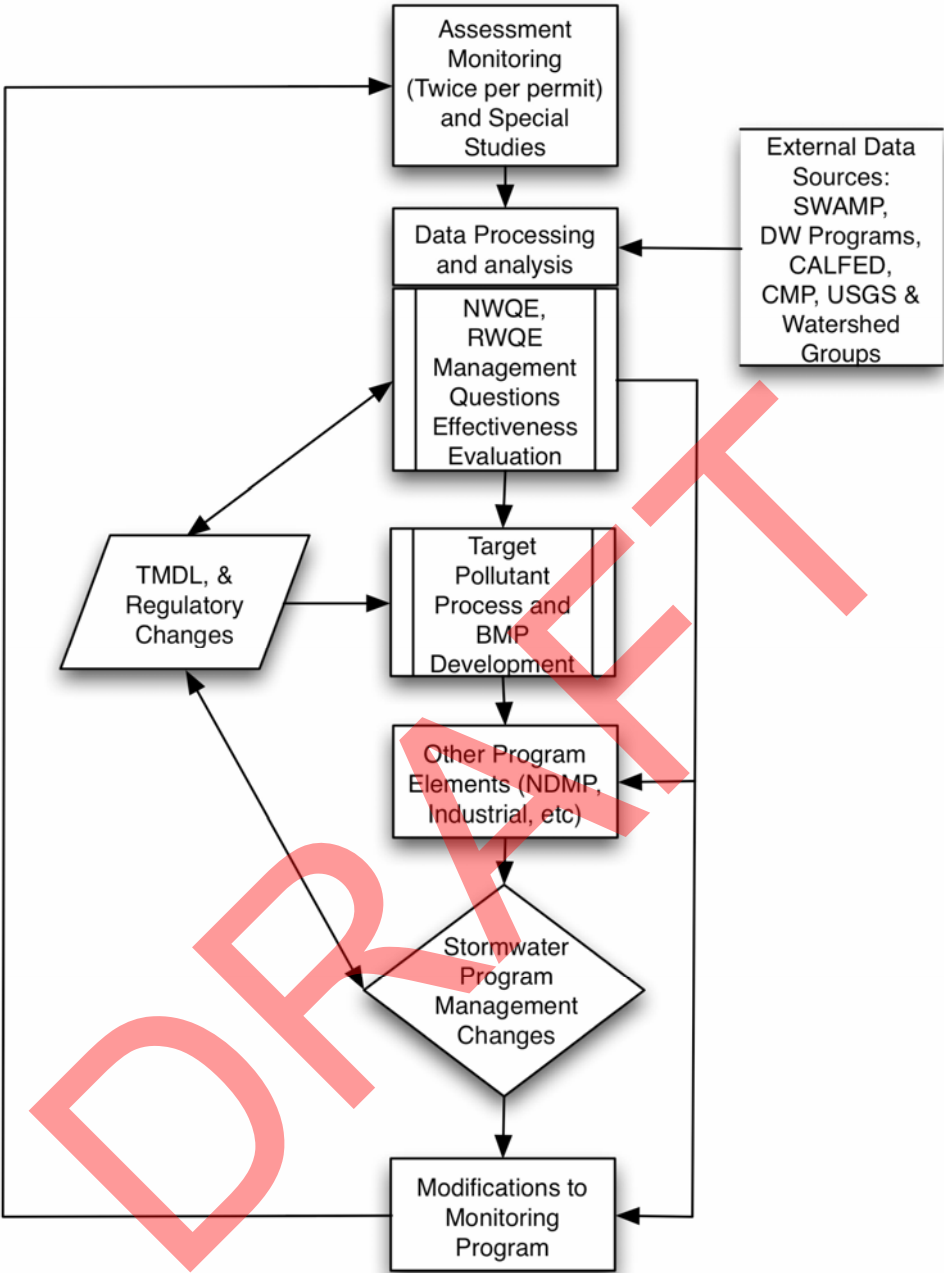


Figure 3.4-2. Monitoring Management Process



Table 3.4-4.  
**Monitoring Tools and Effectiveness Evaluation (CASQA, May 2007)**

| Outcome Level                          | Potential Management Questions  | Data Types  | Analysis Tools   |
|--|---|---|--|
| 4 – Reducing Loads from the Sources    | What are the sources to urban runoff that affect receiving water quality?                                       | <ul style="list-style-type: none"> <li>• Characterization (urban runoff)</li> <li>• Source surveys</li> <li>• Land use map</li> <li>• Permitted point sources</li> <li>• Hydrologic</li> <li>• System maps of physical plant</li> </ul> | <ul style="list-style-type: none"> <li>• Load modeling</li> <li>• Comparison of loads between sources</li> </ul>                                 |
|  | How effective are the BMPs in reducing the pollutant loads?   | <ul style="list-style-type: none"> <li>• Characterization (BMP in vs. out and sediment)</li> </ul>  | <ul style="list-style-type: none"> <li>• Load modeling (mass balances) on treatment control</li> </ul>   |
| 5 – Improving Runoff Quality           | What is the relative urban runoff contribution to receiving water quality?                                      | <ul style="list-style-type: none"> <li>• Characterization (water column urban runoff and receiving water)</li> <li>• Permitted point sources</li> <li>• Hydrologic</li> </ul>   | <ul style="list-style-type: none"> <li>• Load modeling</li> <li>• Comparison of loads</li> </ul>   |
|  | What is the trend of urban discharge quality?<br>What is the quality of urban discharge in new developed areas? | <ul style="list-style-type: none"> <li>• High quality long-term water column characterization under structured to capture key 'variable' conditions (antecedent conditions)</li> </ul>  | <ul style="list-style-type: none"> <li>• Trends analysis</li> <li>• Power analysis and statistical modeling of key variables</li> </ul>          |
| 6 – Protecting Receiving Water Quality | Are conditions in receiving water protective of beneficial uses?  | <ul style="list-style-type: none"> <li>• Characterization (water column and sediment)</li> <li>• Toxicity (water column and sediment)</li> </ul>  | <ul style="list-style-type: none"> <li>• Threshold comparisons</li> <li>• Weight-of-evidence (status)</li> </ul>                                 |
|  | What is the extent and magnitude of the current or potential receiving water problems?                          | <ul style="list-style-type: none"> <li>• Bioassessment</li> <li>• Special study to consider specific process or spatial impacts</li> </ul>  |  |
|  | Are conditions in receiving waters getting better or worse?   | <ul style="list-style-type: none"> <li>• Characterization (water column and sediment)</li> <li>• Bioassessment</li> </ul>   | <ul style="list-style-type: none"> <li>• Trends analysis</li> <li>• Power analysis and statistical modeling of key variables (trends)</li> </ul> |
|  | How can changes in urban water quality affect receiving water quality?  | <ul style="list-style-type: none"> <li>• All data types</li> </ul>  | <ul style="list-style-type: none"> <li>• Load modeling</li> <li>• Integrated Assessments</li> </ul>  |

### Data Analysis and Effectiveness Evaluation

The Permittees will continue to analyze data to assess trends and evaluate the effectiveness of stormwater management activities. For the purposes of this Monitoring Program, trends analysis is the process of measuring change in water quality conditions over time. Effectiveness evaluations are intended to quantify the impact of the management program through BMPs, public outreach, product use rulemaking, infrastructure maintenance practices, and new development standards. The effectiveness of the Monitoring

Program itself is reviewed on an event-by-event basis, and through the annual reporting cycle. The Permittees plan to evaluate the effectiveness of the Monitoring Program utilizing the management tools listed in Table 3.4-4 that was based on the recent California Stormwater Quality Association (CASQA) guidance.<sup>28</sup>

<sup>28</sup> CASQA, May 2007. *Stormwater Program Effectiveness Assessment Guidance*.

The Permittees will perform trends analysis on a regular basis through visual inspection, regression techniques, and the long term effectiveness study. The long term effectiveness study is a comprehensive effort to consider data using multiple variable regression techniques. The basis for this work will include data quality reviews, data summary assessments, a power analysis update, and multiple variable regressions with variable “pruning” efforts.

An “integrated assessment”, described further in the CASQA *Effectiveness Assessment* guidance (March 2007), is the process of evaluating whether program implementation is resulting in the protection or improvement of water quality. In this process, causal relationships between program activities and water quality improvements are explored and defined where possible. In the fourth Permit term, the Permittees will develop a work plan to perform localized watershed monitoring coupled with extensive management and outreach activities targeted at the watershed. Also, introduction of a new development urban runoff characterization site will provide a comparison point for the new development standards used within the Permitted area.

If relationships are identified between specific program elements or activities and water quality, these elements/activities may be considered effective by having a defined water quality benefit. However, due to a variety of complicating factors, these relationships generally have not been established for municipal stormwater programs, even though they are incredibly important to understanding the effectiveness of implementation actions. If relationships can be established between implementation and water quality, it may allow predictions of water quality resulting from implementation of certain types of programs or activities. Over time, correlating water quality improvement to programmatic results will also assist stormwater managers in identifying the most expedient and cost-effective approaches to planning, implementing and assessing their programs.

The Monitoring Program also measures the effectiveness of monitoring activities themselves to ensure that the highest quality data are collected and that the requirements of the Permit are met. The following activities ensure that the

Monitoring Program performs adequately (i.e., exceeds 90% quality and completeness):

- Annual review of sampling and analysis plans (SAPs) for analytical method updates and adherence to quality control sampling frequency
- Annual review of the Data Quality Evaluation Plan (DQEP) data quality objectives (DQO) acceptance criteria and data qualification procedures
- Event-based review of laboratory performance for minimum levels (MLs), method detection limits (MLs), and completeness
- Complete quality assurance/quality control (QA/QC) review of all water quality and related (bioassessment, toxicity, etc.) data as reported in annual data reports
- Annual review of monitoring studies to determine if the collected data are meeting the needs and goals of the Monitoring Program.

### Target Pollutant Program Findings

The Target Pollutant Program is discussed in Chapter 5 of this SQIP. The data compilation and analysis step in the Target Pollutant Process is based on several “outcomes” of the management questions, and is directly linked to the Monitoring Program as a data source. In other words, the Target Pollutant Program will be used to consider the monitoring data analysis and prioritize constituent-based issues for consideration by the management program.

### Reporting

Monitoring Program activities are planned annually by the Permittees to address current information needs. This planning results in a proposed Monitoring Program work plan, which is submitted to the Regional Board by May 1 of each year, with final approval by July 1. This early schedule is necessary to give the Permittees sufficient time to allocate resources and execute contracts and agreements required for the proposed Monitoring Program. Results of each year’s monitoring are compiled and reported annually as part of the Annual Report that is submitted by October 1 of each year.

## 3.5 Special Studies

### Introduction

The Permittees have conducted various research studies over the years to evaluate BMP effectiveness as well as to provide information for management decisions. These studies have been in the form of literature reviews, monitoring studies funded by the Permittees and research studies funded through grants. Examples of the types of information gathered through special studies include the following:

- Assessment of BMP effectiveness
- Maintenance frequency for BMPs or other municipal facilities
- Verification of pollutant contributions from uncontrolled sources
- Target pollutant source identification
- Follow-up to questions identified during monitoring efforts

The information gathered from these studies continues to be used in many of the program elements to guide decisions and influence policies.

### History and Accomplishments

Over the years, special studies have been conducted to address a variety of topics, such as water quality detention basin effectiveness, vegetated swale effectiveness, air deposition of pollutants and proprietary structural BMP pollutant removal evaluation. Information regarding the history and accomplishments for the special studies is included in Appendix A and in the annual reports prepared by the Partnership each year.

### Proposed Special Studies for 2008-2013

During the 2008-13 permit term, the Permittees propose to continue working on several special studies and initiate work on a few new studies, as outlined on Table 3.5-1.

### Effectiveness Evaluation

Special Studies have been used historically to contribute to the overall effectiveness of the Program by answering identified questions and assisting management in the decision making process. These studies help the Program to achieve varying levels of effectiveness depending on the study outcome and the use of the data.

For example, the dry extended detention basin study results showed that these basins are effective at removing many of the pollutants bound to particulate matter in urban runoff. The Permittees were able to utilize this information to allow the continued use of this BMP for treating urban runoff, achieving a Level 3 effectiveness, where behavior is changed or impacted by the activity. Refer to Chapter 2 for a full description of the effectiveness levels referred to in this section.

Table 3.5-1 includes a summary of the effectiveness outcomes and/or goals for the various special studies that the Permittees will continue to work on in the upcoming Permit term.

Table 3.5-1. Proposed Special Studies for 2008-13 Permit Term

| Special Study                                  | Description   | Status  | Program Element (Section)                  | Effectiveness Outcome/Goal   |
|--|---|---|--|--|
| Wet Water Quality Detention Basin Study        | Monitoring study to determine the effectiveness of a wet water quality detention basin in removing common urban runoff pollutants in the City of Sacramento.  | Monitoring began in 2006/07 wet season; anticipated completion during 07/08 fiscal year | New Development (4.8) and Monitoring (3.4) | Level 3 – changed behavior   |
| Proprietary Structural BMP Effectiveness Study | Study to determine the effectiveness of proprietary stormwater quality control measures by requiring manufacturers to submit monitoring data demonstrating their products pollutant removal effectiveness. Results are used to determine which products will be allowed in Sacramento area. | Ongoing research study since 1998   | New Development (4.8)                      | Level 2 and 3 – Increased awareness and changed behavior by manufacturers              |
| DO, pH, and Temperature in Urban Tributaries   | Evaluate issues identified in the RWQEs related to exceedances of DO, pH, and temperature Water Quality Objectives in urban tributaries.  | Initiate work plan in 07/08 fiscal year   | Monitoring (3.4)                           | To be determined   |
| Municipal maintenance activity effectiveness   | Develop work plan to evaluate the effectiveness of municipal operations element activities, i.e. street sweeping, drainage maintenance, etc.  | Initiate work plan in 07/08 fiscal year   | Municipal Operations (4.5)                 | Level 1 – document activities<br>(outcome level for subsequent years to be determined) |
| Industrial inspection evaluation               | Develop work plan to evaluate the effectiveness of industrial inspections at reducing or preventing discharges of target pollutants   | Initiate work plan in 07/08 fiscal year   | Commercial/ Industrial (4.4)               | Level 1 – document activities<br>(outcome level for subsequent years to be determined) |

\*Outcome levels are based on CASQA 2007 and are discussed in more detail in Chapter 2: 4 – reducing loads from sources, 5- improving water quality, and 6 – protecting receiving water quality.

## 3.6 Regional Public Outreach

### Introduction

The Partnership conducts regional public outreach programs to educate the public about the harmful effects of stormwater pollution and create opportunities for public involvement. The goal is to increase awareness about the impacts of stormwater pollution, encourage the public to actively participate in reducing stormwater pollution, and ultimately improve the quality of urban runoff delivered to local creeks and rivers.

The permittees collaborate on many outreach activities to prevent duplication of activities, share resources, and reach a broader segment of the Sacramento population. For many public outreach activities, it is more cost-efficient and effective for the permittees to collaborate than for each permittee to conduct the activities individually. However, certain public outreach activities are logically done by individual permittees.

In addition to funding and supporting the joint outreach activities described in this section, each permittee conducts its own public outreach, as described in the permittee-specific SQIPs (Chapters 4-9).

### Public Outreach Strategy

The Partnership's public outreach strategy includes the following components:

- Educating the general public and specific target audiences (e.g., multi-cultural groups and non-English speaking groups) about stormwater pollution
- Working with industries and businesses to encourage pollution prevention
- Encouraging public participation in stewardship events
- Garnering support for the Partnership by involving public officials and agency managers

The Partnership implements this strategy by:

- Developing and distributing materials (i.e., fact sheets, brochures, promotional items)
- Conducting media campaigns (i.e., radio, television, outdoor ads, signage)

The goal of regional public outreach is to educate the public about the impacts of stormwater pollution and to promote stewardship activities to enhance and protect local creeks and rivers.

- Participating in community outreach events (e.g., Creek Week, Earth Day)
- Promoting citizen participation in watershed stewardship (e.g., volunteer storm drain stenciling, creek cleanups, etc.)
- Conducting public opinion surveys to gage the level of awareness and behavior changes within the community or target audience

The Partnership's basic approach for a comprehensive outreach effort is to:

- Identify target audience(s) for each program element
- Identify motivator(s) for each audience
- Create appropriate messages for each audience
- Determine appropriate media for communicating the messages
- Distribute messages and partner with other agencies and programs wherever possible and appropriate to ensure the widest, most cost-effective distribution

### Target Audiences

The main target audience includes people residing, working, and/or attending schools in the urbanized portions of Sacramento County. The audience also includes specific groups and individuals subject to stormwater regulations, such as industries, businesses, developers, contractors, and municipal agency staff. Table 3.6-1 describes audiences identified to date, including objectives and distribution methods most appropriate for each.

## Relationship to Other Program Elements

The Partnership's public outreach efforts relate to other program elements to ensure that multiple messages are conveyed in a single product (e.g., brochure) or activity (e.g., classroom presentation) whenever possible. Permittee staff who manage public outreach activities on behalf of the Partnership oversee the process to make sure that other element efforts are not duplicated or in conflict with one another.

The following summarizes the regional public outreach associated with the other elements. See also Table 3.6-1, which lists joint public outreach (including target audience, objective, and distribution method) for each element.

### *Construction Element*

The construction element addresses stormwater pollution associated with construction. As part of that element, outreach is provided to contractors and permittee inspection personnel, primarily through training workshops, informational brochures, and guidance manuals. A secondary audience is the home do-it-yourselfer, whose activities are typically targeted through general outreach. Home do-it-yourselfers have access to brochures that explain proper use and disposal of materials typically used in home construction projects.

### *Commercial/Industrial Element*

This element addresses businesses and industrial facilities identified in the stormwater permit. Outreach associated with this element is intended to increase awareness of stormwater pollution and regulations, educate business owners and operators about applicable BMPs, and to encourage environmental stewardship. The Partnership outreaches to businesses through the Clean Water Business Partners (CWBP) Program (described later), Business Environmental Resource Center (BERC), industrial inspections and enforcement actions conducted by individual permittees, industry-specific workshops and seminars, and direct mailings. Industry-specific brochures include information on auto body, auto repair, commercial auto washing and detailing, and landscaping. Several of these brochures have been translated and printed in Spanish and Russian.

### *Illicit Discharge Element*

Public outreach is an important component of the Illicit Discharge element, which is intended to eliminate unauthorized discharges to the storm drain system. In addition to the existing County of Sacramento hotline (875-RAIN), a permittee wide hotline (808-4H20) was established to make it easier for the public to report stormwater-related problems or complaints (e.g., clogged drains, illicit discharges/dumping, and faded or missing drain inlet stencils). The hotline number is printed on virtually every educational piece produced by the permittees (e.g., billboards, brochures, utility bill inserts).

### *New Development Element*

New development projects must incorporate control measures to reduce pollutants in project runoff to the maximum extent practicable. Therefore, the development community, including developers, property owners, planners, engineers, design professionals (e.g., landscape architects) and environmental consultants need to understand how to design projects to comply with stormwater quality requirements. The Partnership educates the development community about design approaches and requirements primarily through technical guidance manuals and workshops. These are coordinated with and through local organizations such as the Building Industry Association (BIA) and Civil Engineers and Land Surveyors of California (CELSOC) to the extent possible.

## Coordination with Other Agencies and Groups

The Partnership coordinates with other agencies and groups to jointly implement outreach, share ideas and experience, and/or promote consistent messages. Relationships are maintained with other government agencies, special districts, local businesses, trade and professional associations, schools, environmental groups, involved individuals, and the media. The following are some of the groups the Partnership has worked with.

- Sacramento Urban Creeks Council: The County and City of Sacramento coordinate with *Creek Week Splash-Off* and *Creek Week* events, held in April each year. The County and City participate in the organizing committee, identify sites in the county for cleanup and invasive plant

removal, provide supplies and equipment for refuse collection at cleanup sites, assist with event publicity, and provide educational booths.

- Business Environmental Resource Center (BERC): BERC is a non-regulatory assistance center that provides confidential assistance to help Sacramento County businesses understand and comply with federal, state, and local environmental regulations.
- Regional and statewide organizations including the Sacramento River Watershed Program, California Stormwater Quality Association (CASQA) Public Information and Public Participation committee, and the Bay Area Stormwater Management Agencies Associations (BASMAA).

### Accomplishments to Date

The following highlights the major regional public outreach accomplishments during the first 17 years of the Program (1990-2007). The Partnership:

- Developed a hotline for the public to report stormwater-related problems (e.g., clogged drains, illicit discharges/dumping, and faded or missing drain inlet stencils).
- Developed and implemented a regional media campaign, including Cable TV commercials, billboards and other media. Due in large part to this campaign, the Partnership far exceeded the 2002-07 stormwater permit term requirements for number of impressions — at least 2.3 impressions were made per year.
- Translated several brochures in Spanish and Russian to reach out to multicultural communities.
- Developed a stormwater brochure that is geared toward adults. This brochure describes steps residents can take in and around their home to prevent urban runoff pollution. The brochure has a tear-out card for residents to request specific brochures (e.g., landscaping, paint, pool) and/or to receive a presentation by the Partnership.
- Coordinated with other agencies/organizations (Sacramento Urban Creeks Council, BERC, Sacramento Regional County Sanitation District (SRCSD), Regional Water Authority (RWA), BASMAA, and the Sacramento River Watershed Program on outreach efforts. The Partnership continues to seek opportunities to work with others to develop and implement effective outreach.
- Participated in community outreach events to educate the public on the impacts of stormwater pollution and how individuals can play a role in protecting local waterways. Over the years the Partnership has learned which events draw the most people.
- Partnered with Regional Water Authority in awarding a contract to the South Yuba River Citizens League (SRYCL) to deliver school assembly presentations (using professional actors and comedians) about stormwater quality, watershed protection and water conservation. These presentations have received great feedback from teachers.
- Supported the Pups on the Parkway Program, a pet waste reduction campaign to reduce the amount of dog waste in areas of high dog use. Several pet waste stations have been installed along the American River Parkway. This program has been successful in reducing the amount of dog waste left on the parkway.
- Sponsored SPLASH, a watershed education program designed to educate students on the importance of water quality and how they can improve water habitats where they live.
- Coordinated in a statewide least toxic pesticide education program called Our Water Our World. This program educates consumers in managing home and garden pests in a way that helps protect our waterways. OWOW includes the design and development of over 20 fact sheets (some translated in Spanish) that offer less-toxic pest management strategies for specific pests. The Partnership placed fact sheets in several nurseries and hardware stores in Sacramento County that sell pesticides to the public. In addition, labels are placed next to selected products on store shelves to make it easier for the public to identify less toxic pesticides. Store professionals are given training that consists

of principles of integrated pest management (IPM) and successful application strategies and sales techniques for less toxic products.

- Collaborated with SRCSD and the University of California Cooperative Extension State Integrated Pest Management Program, local Master Gardeners, and local nurseries, on the Water Wise Pest Control (WWPC) Program. WWPC is an education program that provides information to residents on effective and less toxic methods of handling pests and encourages the proper use, storage, and disposal of pesticides.
- Developed the Clean Water Business Partners (CWBP) Program, an incentive program for businesses to protect stormwater quality. Identified new businesses and industries that can potentially affect water quality and worked with those groups to reduce/eliminate pollutant discharges into the storm drain system. BERC is also a partner in the CWBP.

## Effectiveness Assessment

### Effectiveness of 2002-07 Permit Term Activities

The 2002 stormwater permit required the permittees to develop outreach materials and programs to increase the knowledge of target businesses and communities regarding the storm drain system, impacts of urban runoff on receiving waters, and potential solutions to reduce pollution and minimize impacts. The permittees have collectively spent substantial resources to produce print material and advertisements (e.g., TV, radio, billboards) to increase awareness about stormwater pollution and how to prevent it.

During the 2002-07 permit term, for the most part, the activities conducted resulted in raised awareness (outcome level 2). These results were used to identify new and improved activities for the 2008-13 permit term, along with assessment methods that could ultimately lead to behavioral change (Outcome Level 3).

### Research Conducted During 2002-07 Permit Term

To effectively plan the next steps in its ongoing outreach efforts, the Partnership conducted qualitative and quantitative research to analyze current public awareness. This, in turn, helped to identify improvements and refinements needed for the Program, which will be addressed in the 2008-13 permit term. The research was done in two ways. First, a baseline public awareness survey was conducted in 2004, which provided some valuable statistical data. Another survey will be conducted during the 2002-07 permit term to compare changes in awareness and behavior.

Second, to supplement the 2004 baseline survey findings, a consultant team was hired to assist the Partnership to convene and facilitate a series of focus groups. A total of five focus groups were conducted; two addressed the Hispanic and Slavic communities, and the remaining three addressed the general public. The focus groups provided additional insight and richer data regarding current views and the public's willingness to play an active role in preventing urban runoff pollution. Stakeholder interviews from representatives of Asian organizations were conducted to supplement the focus group findings.

The following major research findings from the 2004 survey and focus groups will be considered and used as a guide to develop and implement future outreach efforts:

- There is still a lack of awareness among some audiences (particularly non-English speakers). More outreach to inform residents of storm drain pollution and where the water ends up is needed.
- One in five respondents gave an incorrect answer when asked where they thought everything that goes into the gutters finally ends up.
- Residents feel that the City and County are most responsible for preventing water pollution.
- Residents are more likely to participate in environmentally friendly activities if there is a personal incentive.



- Pet waste and fluorescent lights were identified as materials most likely to be disposed of improperly.
- Television and signage (e.g., storm drain signs and creek signs) are best for getting out basic messages, but Internet and telephone information lines are the best source for more detailed information.

The consultant team that conducted the focus group research also evaluated the regional public outreach program as a whole. Several of their recommendations were used to develop the list of proposed activities for the 2008-13 permit term, presented later in this section.

### **Proposed Effectiveness Methods for 2008-13 Permit Term**

The partnership has assessed activities completed during the 2002-07 permit term at outcome levels 1, 2 and 3 (documenting activities, raising awareness and changing behavior, respectively). During the 2008-13 permit term, the partnership will continue to document accomplishments at these levels. The key challenge for the 2008-13 permit term will be to identify and implement meaningful assessment methods that help track the number of targeted audience members who have modified their behavior (outcome level 3) as a result of the Partnership's outreach efforts.

### **Activities for the 2008-13 Stormwater Permit Term**

This section describes the Partnership's joint outreach activities proposed for the 2008-13 permit term.

Table 3.6-3 (to be included in the final version of the SQIP when the exact language of the new Order are known) at the end of this section summarizes the activities and a five-year implementation schedule. These activities build on the work already accomplished during the first 17 years of the Program.

Overall, many of the activities in the 2002-07 permit term will be carried on to the 2008-13 permit term.

### **Multicultural Outreach**

Based on the 2004 survey findings and focus groups (2006), it was determined that more targeted outreach is needed in ethnic communities (Asian Pacific Islanders, Slavic populations, and non-English speaking Hispanic populations). Therefore, the Partnership plans to:

- Develop a database of ethnic and multi-cultural organizations and identify the best methods for delivering urban runoff pollution messages to their members and associates
- Translate and print more of the existing brochures in languages other than English; refine and update the brochures as needed
- Develop additional television and billboard advertising with more targeted messages and different languages
- Coordinate with producers, editors and reporters representing publications and media companies that target ethnic populations of interest to the Partnership
- Identify ethnic communities in the Sacramento region and focus on doing more targeted outreach in these areas

### **Regional Advertising Campaign**

To continue educating the public about urban runoff pollution and how to prevent it, the Partnership will implement a targeted, "problem/solution-oriented" advertising campaign. The approach will focus on specific messages (e.g., pesticide use, home auto repair, pet waste) and will include using strong visuals and targeted messages that emphasize personal responsibility for preventing stormwater pollution and protecting local waterways. In addition, the advertisements will direct audiences to a new and improved Partnership's website for more information.

### **Educational Outreach Materials**

The Partnership will continue to develop educational/informational materials, such as brochures, as needed. The Partnership will determine the need for new or updated materials through a variety of ways, such as feedback from the permittees, surveys of participants at public events, and follow-up requests for materials from schools and the regulated community. The messages featured on the materials will supplement and be consistent with messages being spread through all other outreach efforts.

In addition, the Partnership will continue to create or use materials that educate students on the importance of preserving local waterways. To encourage more teachers to use program materials, the partnership will develop or use materials that correlate with state standards.

### **Point-of-Sale Distribution of Printed Material Related to Pesticide Use**

The Partnership will continue to work with the Water Wise Pest Control (WWPC) and Our World (OWOW) programs and retailers to promote in-store displays, which provide free integrated pest management (IPM) information and resources to residents. In addition, the Partnership will provide training for professional staff about IPM principles and successful application strategies and sales techniques for less toxic products.

### **Clean Water Business Partners (CWBP) Program**

The Partnership will continue to partner with BERCC to implement the Clean Water Business Partners (CWBP) Program. Businesses targeted to date include mobile carpet cleaning companies, pressure washers and landscape contractors. Tasks that will be handled during the 2008-13 permit term include:

- Increasing participation by targeted business communities (e.g., following up with new or existing businesses to encourage participation and enhancing incentives for participating businesses). The Partnership will help participating businesses with the cost of advertisements that feature the CWBP Program logo

- Increasing customers base for CWBP Program businesses (e.g., conducting drawings and distributing incentives/prizes for customers who have hired a CWBP Program business)
- Increasing CWBP Program businesses stormwater compliance (e.g., developing and hosting workshops for businesses)

### **Car Wash Fundraising Guidance/Outreach**

The Partnership will develop a strategy in the 2008-13 permit term that addresses fundraising car wash discharges. The Partnership will educate the general public about stormwater regulations and the impacts of fundraising car washes on stormwater quality. In addition, the Partnership will encourage the public to utilize alternative discharge methods in order to minimize the impacts of these events.

### **Additional and Diversified Funding Sources**

Currently, the permittees rely on a limited budget for public outreach activities, supplied by capped stormwater utilities and dwindling general funds. The permittees would like to diversify the funding sources so that they can continue to conduct regional public outreach throughout the 2008-13 permit term and beyond. For this reason, the Partnership plans to research, identify and apply for appropriate grants from public and private funding agencies, foundations and other organizations during the 2008-13 permit term.

### **Continued Research to Assess Effectiveness**

In an effort to gauge the level of awareness and behavior change within a target audience and to determine if activities or outreach efforts are effective in conveying stormwater messages, the Partnership will continue to conduct periodic (both qualitative and quantitative) surveys. The surveys will be measured against previous surveys to compare results and examine awareness and behavior change. In addition, intercept surveys will be given at outreach events to discern the knowledge, attitudes, awareness, or behaviors of specific audiences.

Table 3.6-1  
**Target Audiences for Regional Public Outreach**

| Public Outreach Element<br>/Target Audience | Subgroup         | Objective   | Distribution Method  | Language* |   |   |
|---|------------------|---|--|-----------|---|---|
|   |                  |   |  | E         | S | R |
| Public Outreach<br>/Schools                 | School Districts | <ul style="list-style-type: none"> <li>Promote educational programs such as Splash and SYRCL</li> </ul>   | Curriculum materials   | ●         |   |   |
|   | Teachers         | <ul style="list-style-type: none"> <li>Promote educational programs such as Splash and SYRCL</li> <li>Offer classroom materials</li> </ul>  | Curriculum materials, brochures  | ●         |   |   |
|   | Students         | <ul style="list-style-type: none"> <li>Promote volunteer stenciling program</li> <li>Educate students about the effects of stormwater pollution through classroom presentations and classroom materials</li> </ul>  | Classroom presentations/assemblies, activity books, brochures,   | ●         | ● |   |
| Illicit Discharges<br>/Residents            | Homeowners       | <ul style="list-style-type: none"> <li>Publicize hotline for illicit discharges</li> <li>Provide education on pesticides, pool discharge, pet waste, safe disposal of hazardous waste, gardening, automobile fluids, construction wastes, responsibility for discharges from property, etc.</li> <li>Promote stewardship activities such as Creek Week</li> </ul> | Brochures, public service announcements, radio, billboards, bill inserts, community newsletters, homeowners association, community events, inspections, workshops, community and civic organizations | ●         | ● |   |
|   | Landowners       | <ul style="list-style-type: none"> <li>Provide education on watershed/restoration projects that may involve their property</li> <li>Provide education on responsibility for discharges from property</li> </ul>   | Brochures, public service announcements, direct mail, stakeholder meetings, community events, community and civic organizations  | ●         | ● |   |
|   | Renters          | <ul style="list-style-type: none"> <li>Provide education on pesticides, pool discharge, pet waste, safe disposal of hazardous waste, gardening, automobile fluids, responsibility for discharges from residence, etc.</li> <li>Promote stewardship activities such as Creek Week</li> </ul>   | Brochures, public service announcements, radio, billboards, direct mail, community newsletters, community events, website, inspections, community and civic organizations                            | ●         | ● |   |

Table 3.6-1 Target Audiences for Regional Public Outreach

| Public Outreach Element<br>/Target Audience  | Subgroup  | Objective   | Distribution Method  | Language* |   |   |
|--|---|---|--|-----------|---|---|
|  |   |   |  | E         | S | R |
| Industrial /Businesses                       | Fixed locations EMD Facilities <sup>1</sup>         | <ul style="list-style-type: none"> <li>Provide businesses with information on source control and treatment control BMPs, material and waste containment &amp; disposal, Stormwater Ordinance, inspection and enforcement program, etc.</li> </ul> | Compliance Assistance Bulletins, brochures, direct mail, industry newsletters, Business Environmental Resource Center (BERC), trade and business associations, website, trainings, inspections, etc. | ●         | ● | ● |
|  | Non-EMD Facilities <sup>2</sup>                     | <ul style="list-style-type: none"> <li>Provide businesses with information on source control and treatment control BMPs, material and waste containment &amp; disposal, Stormwater Ordinance, enforcement, etc.</li> </ul>                        | Brochures, BERC, Clean Water Business Partners (CWBP) program, trade and business associations, direct mail, industry newsletters, website, inspections, etc.  | ●         | ● | ● |
|  | Mobile businesses <sup>3</sup>                      | <ul style="list-style-type: none"> <li>Provide businesses with information on source control and treatment control BMPs, material and waste containment &amp; disposal, Stormwater Ordinance, enforcement, etc.</li> </ul>                        | Brochures, BERC, CWBP program, trade and business associations, direct mail, industry newsletters, website, inspections, etc.  |           |   |   |
| New Development /Development Community       | Developers/ Home Builders                           | <ul style="list-style-type: none"> <li>Provide information on requirements and BMPs</li> </ul>  | Guidance materials, BIA (e.g., presentations & newsletters), workshops, website  | ●         |   |   |
|  | Engineers/Design Professional                       | <ul style="list-style-type: none"> <li>Provide information on requirements and BMPs</li> </ul>  | Guidance materials, workshops, website   | ●         |   |   |
|  | Prime Contractor, Residents, Home do-it-yourselfers | <ul style="list-style-type: none"> <li>Distribute educational materials on concrete and stucco, proper disposal of paint, and pool discharge</li> <li>Distribute educational brochures for small homebuilders</li> </ul>                          | Brochures, website, public counters (Brochures distributed by inspection staff and at permit counters.)  | ●         | ● |   |
| Construction, Illicit /Development Community | Prime Contractor                                    | <ul style="list-style-type: none"> <li>Provide project-specific training workshops on stormwater regulatory compliance</li> <li>Distribute educational brochures for small homebuilders</li> </ul>  | Workshops, training, public counters   | ●         |   |   |
|  | Residents/Home do-it-yourselfers                    | <ul style="list-style-type: none"> <li>Distribute educational materials on concrete and stucco, proper disposal of paint, and pool discharge</li> <li>Distribute educational brochures for small homebuilders</li> </ul>                          | Brochures, website, public counters  | ●         | ● |   |

\* Materials may be provided in the following languages: E = English; S = Spanish; R = Russian

<sup>1</sup> Facilities with coverage under the State's Industrial General Permit: -Auto body shops, Auto repair shops, Auto dealers, Equipment rental facilities, Kennels, Nurseries, Retail gasoline outlets (e.g., gas stations), Restaurants

<sup>2</sup> Auto washing & detailing, Boat dealers, Boat repair shops, Portable sanitation yards, Stone cutters

<sup>3</sup> Building contractors, Carpet cleaners, Commercial pesticide applicators, Concrete contractors, Concrete cutters & demolition contractors, Concrete suppliers, Handymen, Landscape contractors, Landscape suppliers, Landscapers, Mobile auto body, Mobile auto repair, Mobile auto washing & detailing, Painting contractors, Pool contractors (incl. plastering), Pool maintenance services, Pressure washers

# Chapter 4

## County of Sacramento Stormwater Quality Improvement Plan

### 4.1 Overview

This chapter presents the County Stormwater Quality Improvement Plan (SQIP) for the portion of the permit area in unincorporated Sacramento County. Other permittees' SQIPs are presented separately in Chapters 5-9 and, in the case of the City of Sacramento, in a separate bound document.

This chapter describes the County of Sacramento's SQIP. The County's activities described in this chapter are conducted **in addition** to those the County implements jointly with the other Permittees (see Chapter 3).

#### Characteristics of Sacramento County

Sacramento County was incorporated in 1850 as one of the original 27 counties of the State of California. The County is the major component of the Sacramento Metropolitan Statistical Area which includes Sacramento, El Dorado, and Placer Counties.

Sacramento County encompasses approximately 994 square miles in the middle of the 400-mile long Central Valley, which is California's prime agricultural region. The County is bordered by Contra Costa and San Joaquin Counties on the south, Amador and El Dorado Counties on the east, Placer and Sutter Counties on the north, and Yolo and Solano Counties on the west.

Sacramento County extends from the low delta lands between the Sacramento and San Joaquin rivers north to about ten miles beyond the State Capitol and east to the foothills of the Sierra Nevada Mountains. The southernmost portion of Sacramento County has direct access to the San Francisco Bay. The County includes the cities of Sacramento, Elk Grove, Rancho Cordova, Galt, Citrus Heights, Folsom and Isleton.

Most of the county is at an elevation close to sea level, with some areas below sea level. Hills along the eastern boundary rise to several hundred feet. Major watercourses in the county include the American River, Sacramento River and Dry Creek, a tributary of the Sacramento River. Five major watershed units have been defined within the County:

- Sacramento River
- Dry Creek / Natomas East Main Drainage Canal (NEMDC; aka "Steelhead Creek") & Tributaries
- Natural Stream Group & Tributaries
- Morrison Creek Stream Group
- Southern Portion of the County (Cosumnes River), Beach Stone Lakes

See Appendix C for a detailed watershed and waterways map for Sacramento County.

Additional County facts include:

- experiences an average annual rainfall of 19.6 inches
- includes 14 Regional Parks Districts
- boasts 6 million trees (the City of Sacramento has been called the "City of Trees")
- contains 19 major public & private colleges and universities and 16 public school districts

As discussed in Chapter 1, the stormwater permit does not apply to all areas within Sacramento County. Rather, it applies to all the land inside the Sacramento County Urban Service Area boundary, as well as the City of Galt and the Sacramento International Airport, as shown on Figure 1.3-1. Land within the Urban Service Area includes the cities of Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Sacramento, and unincorporated Sacramento County. The City of Isleton is not included. The unincorporated portion (the area addressed by this County SQIP) is 232 square miles.

The County has a charter form of government. It is governed by a five-member Board of Supervisors elected on a non-partisan basis to serve four-year terms. Each is elected from one of the five supervisorial districts of the County. District boundaries are adjusted after every federal census to equalize district population.

Other elected officials include the Assessor, District Attorney and Sheriff. A County Executive appointed by the Board of Supervisors runs the day-to-day business of the County.

Three agencies and a number of departments within these agencies support the delivery of countywide services to the unincorporated County and several cities. Figure 4.1-1 illustrates the County's organizational structure.

#### SQIP Organization

The following describes the organization of the County SQIP in this chapter:

#### **Section 4.2 — Program Management and Training**

This section describes the activities conducted by the County (such as legal authority, funding, inter and intra-agency coordination and training) related to implementation of the Stormwater Program and compliance with the stormwater permit.

#### **Section 4.3 — Construction Element**

This section describes activities designed to prevent sediment and other construction-related pollutants from entering the storm drain system and local creeks and rivers.

#### **Section 4.4 — Commercial/Industrial Element**

This section describes activities designed to reduce the discharge of pollutants in runoff from commercial and industrial sites and eliminate non-stormwater discharges associated with commercial and industrial activities.

#### **Section 4.5 — Municipal Operations Element**

This section describes activities designed to control stormwater pollution resulting from the operation and maintenance of County-owned facilities.

#### **Section 4.6 — Illegal Discharge Element**

This section describes activities designed to eliminate illegal non-stormwater discharges to the storm drain system and local creeks and rivers.

#### **Section 4.7 — Public Outreach Element**

This section describes activities designed to raise awareness and foster community stewardship to promote pollution prevention and protect local creeks and rivers.

#### **Section 4.8 — New Development Element**

This section describes activities designed to reduce pollutants in runoff from new development and significant redevelopment projects.



# THE ORGANIZATION CHART

PUBLISHED BY THE COUNTY EXECUTIVE  
LAYOUT BY THE PLANNING AND COMMUNITY  
DEVELOPMENT DEPARTMENT

2006

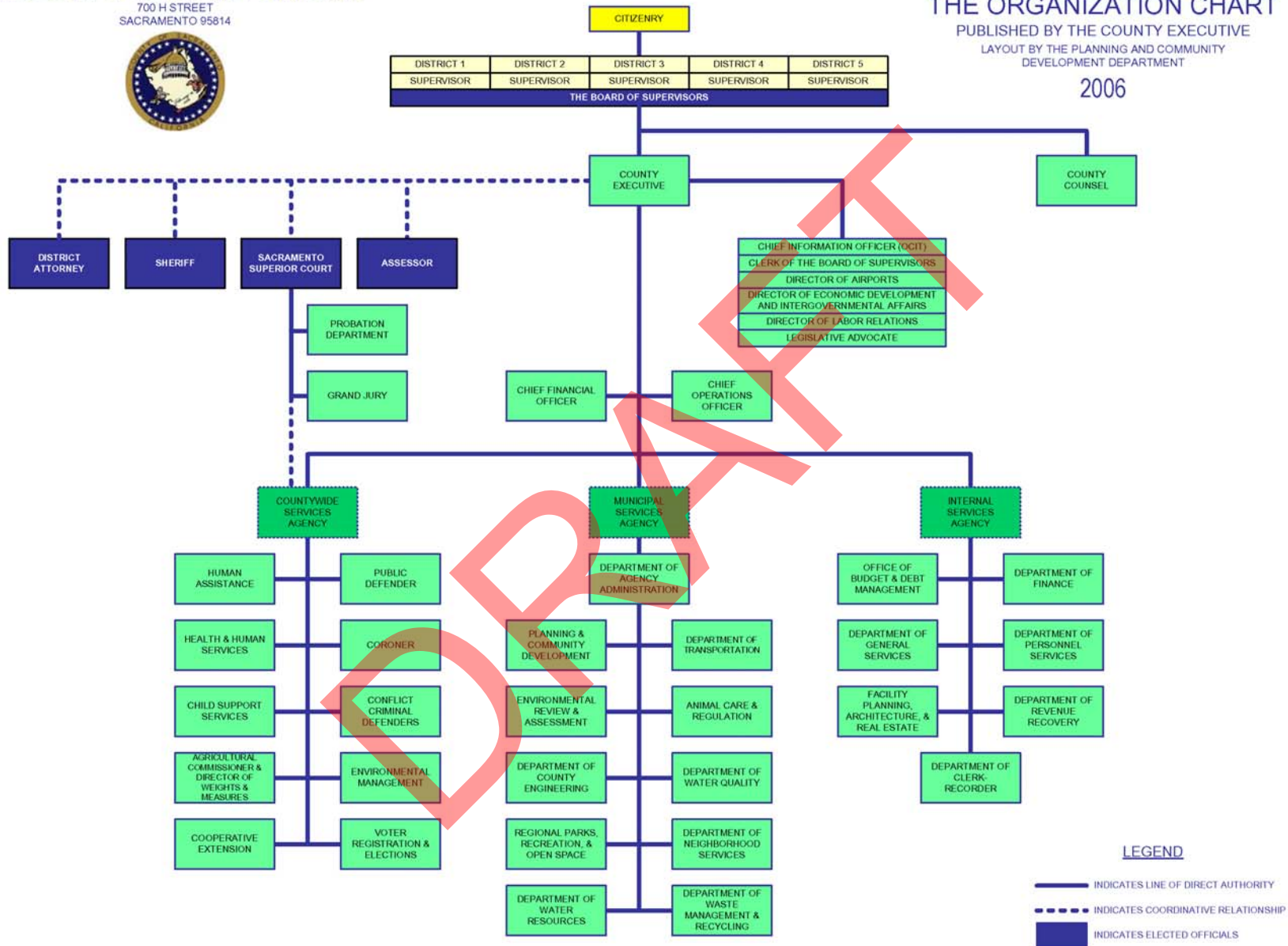


Figure 4.1-1 — Sacramento County Organization Chart

## 4.2 Program Management

### Overview

This section of the SQIP describes activities conducted by the County to administer and manage the County's Stormwater Quality Program, such as:

- Oversee the County's compliance with the municipal stormwater permit and conduct inter and intra-agency coordination necessary for compliance.
- Review and modify the County SQIP to reflect the adopted Order for the 2008-13 permit term, and submit to the Regional Water Board by the date required. Include subsequent proposed SQIP revisions in the Annual Reports.
- Secure and maintain sufficient funds to implement the requirements.
- Establish, maintain, enforce, and demonstrate (with a certified statement) adequate legal authority to implement the conditions of the stormwater permit.
- Prepare and submit reports and agreements necessary to implement the program and demonstrate compliance with the stormwater permit.
- Train County employees in targeted positions regarding the permit requirements that affect their jobs.
- File a Report of Waste Discharge with the Regional Water Board 180 days prior to the expiration of the stormwater permit.

Also refer to Table 4.2-2 at the end of this section for a list of major tasks and associated five-year implementation schedule. *Note: table to be provided with final SQIP, when final Order is adopted.*

### Organization and Staffing of the County Stormwater Quality Program

The County Stormwater Quality Program is administered and managed by the Stormwater Quality Section within the Municipal Services Agency's Department of Water Resources. The Department Director provides oversight and certifies all compliance deliverables on behalf of the County.

The following are the 2007 staffing levels for the Stormwater Program within the Department of Water Resources:

- Stormwater Program Manager (1 FTE)
- Associate Civil Engineers (4 FTE)
- Assistant Civil Engineer (1 FTE)
- Principal Engineering Technician (1 FTE)
- Engineering Technician (1 FTE)
- Environmental Specialists (3 FTE)

Additionally, given that the stormwater permit is a countywide permit, many staff outside of the Stormwater Quality Section have compliance responsibilities. Table 4.2-1 lists the various county agencies and departments that help implement the Stormwater Quality Program.

It is critical that senior managers of affected County staff be kept apprised of the Stormwater Program and the role of their staff in ensuring compliance with the stormwater permit. This is accomplished through periodic manager briefings by the County Stormwater Quality Program Manager.

Consultants are retained as needed by the County, mainly to help with specialized technical tasks such as monitoring, engineering design standards and regulatory and legal assistance.



Table 4.2-1  
**County of Sacramento Responsibilities for Compliance with Sacramento NPDES Municipal Stormwater Permit**

| Program Element                  | Agency/Department/(Group)  | Responsibility   |
|----------------------------------|--|--|
| Program Management (Section 4.2) | <b>Municipal Services Agency</b><br>Dept. of Water Resources<br>(Stormwater Quality Section)   | Administers and manages the Stormwater Management Program on behalf of the County, provides liaison with the Regional Water Board, prepares/submits compliance reports, and provides annual refresher training to affected County staff. Also conducts many of the Program activities.                           |
|                                  | County Executive   | Oversees County-wide compliance with stormwater permit and authorizes County staff to enforce Stormwater Ordinance.  |
|                                  | County Counsel   | Conducts legal reviews, prepares legal certifications, and oversees revisions to ordinances, codes, and other standards.   |
| Construction (Section 4.3)       | <b>Municipal Services Agency</b><br>Dept. of County Engineering and Administration<br>(Land Development and Site Improvement Review (LDSIR)) | Issues grading permits and checks for NOI, for all sites subject to State General Construction Permit.   |
|                                  | <b>Municipal Services Agency</b><br>Dept. of Water Resources<br>(Drainage Development and Stormwater Quality Sections)                       | Reviews erosion and sediment control plans and SWPPPs, as needed.  |
|                                  | <b>Municipal Services Agency</b><br>Dept. of County Engineering<br>(Construction Management and Inspection Division)                         | Provides inspection services during the building phase of construction of private developer facilities. Designated stormwater inspectors provide oversight of contractor erosion and sediment control, construction site housekeeping practices, and State General Construction Permit compliance.               |
|                                  | <b>Municipal Services Agency</b><br>Dept. of County Engineering<br>(Construction Management and Inspection Division)                         | Provides inspection services during grading phase and installation of public infrastructure (utilities, roads, sidewalks, detention basins, and channels). Stormwater inspection responsibilities include oversight of contractor erosion and sediment control and State General Construction Permit compliance. |
|                                  | <b>Municipal Services Agency</b><br>Dept. of Water Resources<br>(Drainage Design)  | Design new storm drain facilities and provide oversight during construction activities, including approval of change orders and SWPPP amendments, as applicable. Responsibilities include oversight of contractor erosion and sediment control and State General Construction Permit compliance.                 |
|                                  | <b>Municipal Services Agency</b><br>Dept. of Water Resources<br>(Water Supply Planning and Engineering)                                      | Design, and oversees construction and repair/replacement of all water supply infrastructure, including associated wells, pumps and treatment facilities. Responsibilities include oversight of contractor erosion and sediment control and State General Construction Permit compliance.                         |
|                                  | <b>Municipal Services Agency</b><br>Dept. of Transportation  | Oversees construction and repair/replacement of all street and highway improvements, including associated lighting, landscaping and signals. Responsibilities include oversight of contractor erosion and sediment control and State General Construction Permit compliance.                                     |

| Program Element                            | Agency/Department/(Group)   | Responsibility  |
|--|---|---|
| Commercial/<br>Industrial<br>(Section 4.4) | <b>Countywide Services Agency</b><br>Environmental Management<br>Department (EMD)<br>(Water Protection,<br>Environmental Health and<br>Hazardous Materials Divisions) | Conducts plan review, issues permits for, and conducts inspections of the eight required industries. In all reviews and inspections, considers drainage issues that may affect stormwater quality and conducts progressive enforcement as necessary.  |
|  | <b>Municipal Services Agency</b><br>Department of Water Quality   | Issues discharge permits for the sanitary sewer system to all industrial users. Provides inspection services for industrial storm water quality issues. Participates in the Sanitary Sewer Working Group whose goal is to redirect non-stormwater discharges into the sanitary sewer.   |
|  | <b>Municipal Services Agency</b><br>Department of Water<br>Resources<br>(Stormwater Quality Section)  | Conducts business outreach activities businesses in unincorporated Sacramento County.   |
| Municipal<br>Operations<br>(Section 4.5)   | <b>Municipal Services Agency</b><br>Dept. of Water Resources<br>(Drainage Operations and<br>Maintenance Section)  | Maintains stormwater quality treatment facilities and the storm drain system owned and/or operated by the County in a manner that protects water quality.   |
|  | <b>Municipal Services Agency</b><br>Dept. of Transportation   | Maintains all street and highway improvements, including lighting, landscaping, and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required.  |
|  | <b>Municipal Services Agency</b><br>Department of General<br>Services   | Manages County-owned buildings, parking lots, and other facilities. Responsible for ensuring that activities at these facilities do not contribute to stormwater pollution.   |
|  | <b>Municipal Services Agency</b><br>Regional Parks  | Maintains county parks and recreational facilities in a manner which considers stormwater quality impacts.  |
|  | <b>Municipal Services Agency</b><br>Department of Waste<br>Management and Recycling   | Provides solid waste management services for residents and businesses in Sacramento County. Program emphasis is placed on waste prevention, recycling, and composting that support the stormwater quality program.  |
|  | <b>Internal Services Agency</b><br>Department of General<br>Services<br>(Fleet Services Division)   | Maintains a fleet of heavy-duty vehicles, heavy equipment, light cars, and trucks for use by County Agencies and Departments. Services include maintaining, repairing, fueling, washing, and storing vehicles and equipment. Responsible for ensuring that stormwater quality controls/BMPs are incorporated where required. Some facilities may require coverage under State General Industrial stormwater permit. |
| Illicit Discharges<br>(Section 4.6)        | <b>Countywide Services Agency</b><br>Environmental Management<br>Department<br>(Hazardous Materials Division<br>(HMD))  | Responds to hazardous materials spills that may impact stormwater quality and receiving waters, including clean-up, reporting, and referral of problems as appropriate.   |
|  | <b>Municipal Services Agency</b><br>Department of Water<br>Resources<br>(Drainage Operations and<br>Maintenance)  | Responds to non-hazardous spills outside of the right of way, including cleanup and proper disposal.  |
|  | <b>Municipal Services Agency</b><br>Dept. of Transportation   | Responds to non-hazardous spills in the right of way, including cleanup and proper disposal.  |
|  | <b>Municipal Services Agency</b><br>Department of Water<br>Resources<br>(Stormwater Quality Section)  | Conducts follow-up investigations as needed to confirm/eliminate illicit discharges. Responds to calls from the County's hotline (875-RAIN). Will oversee ongoing field screening activities required by stormwater permit.   |

| Program Element               | Agency/Department/(Group)  | Responsibility   |
|-------------------------------|--|--|
| Public Outreach (Section 4.7) | <b>Municipal Services Agency</b><br>Department of Water Resources<br>(Public Information staff and Stormwater Quality Section) | Conducts all public outreach required by the stormwater permit, including working with the City of Sacramento and other permittees to conduct a regional media campaign to address all residents in the County. Oversees development and periodic updating of public education materials such as brochures.  |
| New Development (Section 4.8) | <b>Municipal Services Agency</b><br>Planning and Community Development Department  | Processes applications for private developments. Implements General Plan and Zoning code. Routes plans to Department of Water Resources to ensure that stormwater quality controls are incorporated as required. Participates in creation of new stormwater quality standards, including review, evaluation, and modification of County polices, codes, and standards. |
|                               | <b>Municipal Services Agency</b><br>Department of Environmental Review and Assessment  | Implements provisions of the California Environmental Quality Act (CEQA) as they apply to Sacramento County, including thorough consideration of water quality impacts. Routes documents to Water Resources Department to ensure that stormwater quality controls are incorporated as required.  |
|                               | <b>Municipal Services Agency</b><br>Department of Water Resources<br>(Drainage Development Review Section)                     | Conditions development projects to ensure compliance with County drainage and stormwater quality standards, including the use of on-site and regional stormwater quality treatment facilities.   |

### Legal Authority

Legal authority for the County Stormwater Quality Program is provided in several ways:

- The General Plan contains water quality protection policies.
- The County Code (Sections 15.12 and 16.44) provides the legal authority to implement the County Stormwater Quality Program and enforce the local regulations.
- Written agreements with other County departments and/or other Permittees provide a means of assigning responsibilities and establishing cost-sharing to implement various components of the Program.
- The County Improvement Standards, Standard Construction Specifications, Stormwater Quality Design Manual and other County documents specify standards and specifications for the regulated community related to the Construction and New Development Elements of the County Program.

The County’s Legal Counsel prepared a statement certifying that the County possesses the legal authority necessary to comply with the stormwater permit (see Appendix F).

The following sections describe in more detail, the various legal authority mechanisms held by the County.

#### General Plan

Two main sections of the Conservation Element of the County’s 1993 General Plan contain provisions and policies that lay the framework for water quality protection:

- *Section I, Water Resources Policies, B. Surface Water Quality*  
This section includes policies related to urban runoff controls, erosion control, water quality monitoring, and hazardous materials disposal.
- *Section V, C. Urban Streams*  
This section outlines policies related to floodplain fills, channel modifications, land use adjacent to streams, stream maintenance, and stream restoration.

The 1993 General Plan is undergoing revision and should be modified by 2009. The revised General Plan will incorporate water quality and watershed protection language that is consistent with principles outlined in the 2002 stormwater permit.

## County Code

The County adopted two ordinances that added sections to the County Code and established legal authority for the County Stormwater Quality Program:

- The Stormwater Management and Discharge Control Ordinance, also known as “The Stormwater Ordinance” (*Chapter 15.12 of County Code*) prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., water from fire-fighting activities) pursuant to NPDES federal regulations. It also provides legal authority for inspections and enforcement related to the control of illegal and industrial discharges to the county storm drain system and local receiving waters.
- The Land Grading and Erosion Control Ordinance (*Chapter 16.44 of County Code*) requires projects disturbing 350 cubic yards or more of soil or one or more acres of land to have an erosion and sediment control plan. It also gives the County legal authority to inspect projects and enforce the ordinance’s requirements.

## Agency Agreements

The County Department of Water Resources executes intra-agency agreements with other County agencies, departments, divisions and sections to facilitate compliance with the stormwater permit. These agreements can be either formal (written) or informal (verbal).

A Memorandum of Understanding (MOU) was executed by the permittees to provide the legal authority for jointly administering and implementing certain aspects of the program, including cost-sharing for joint activities. This MOU is discussed in more detail in Chapter 3 (Section 3.2).

## Standard Specifications and Improvement Standards

The County’s Standard Construction Specifications and Improvement Standards apply to all new public facilities and to private projects connecting to the County storm drain system or impacting the right of way. These standards include requirements and details for erosion and sediment control and control of other potential

stormwater pollutants on development and construction projects in unincorporated Sacramento County.

## Other County Standards and Guidance Manuals

The County’s development standards related to post-construction stormwater quality control were adopted in May 2006. The standards are presented, along with technical guidance, in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*, published in May 2007. This manual includes the sizing and design criteria for regional detention basins as well as the design and maintenance criteria for on-site stormwater quality source, treatment and runoff reduction measures.

Additional stormwater pollution control guidance has been produced and is made available through County EMD and Business Environmental Resource Center (BERC) for selected types of commercial/industrial businesses, such as mobile pressure washers.

## Funding

The Program budget consists of two parts: funds allocated for joint program activities, described in Chapter 3, and funds allocated for County-specific activities described in this chapter.

The costs of joint activities are generally shared among the Permittees according to the permittee MOU (described in Chapter 3 (Section 3.2)). Under this agreement, the County contributes 44 percent of the joint Program funding, primarily through Stormwater Utility revenues described below.

Funding for County-specific activities is provided by a combination of funds, as described below:

- **Stormwater Utility revenues** support the Stormwater Quality Section and outside consultants hired to help implement the Program. The Stormwater Utility also covers the cost of operating and maintaining the County’s storm drain system, which includes pipes, channels, and associated structures; creeks; and regional stormwater quality facilities. A portion of each county resident’s bimonthly utility bill is designated to the Stormwater Utility.

- **User-based Development Fees** provide funding for plan reviewers, engineers, and inspectors within the Municipal Services Agency’s Construction Management and Inspection Division (CMID). These revenues also support planning staff within the Planning and Community Development Division. Planners ensure compliance with the California Environmental Quality Act (CEQA) and also implement County stormwater quality protection policies. User-based development fees are collected as part of the application processes for grading and building permits.
- **User-based Industrial/Business Fees** provide funding for Environmental Management Department inspectors who routinely inspect industrial establishments to ensure compliance with the Stormwater Ordinance through the Industrial/Commercial Stormwater Inspection Program that was developed during the previous Permit term.

### Priorities

The County SQIP sets out the basic goals and activities for the County Stormwater Quality Program. The overall goal is to comply with the stormwater permit in implementing a program to reduce pollutants in urban stormwater discharges to the maximum extent practicable (MEP). For the most part, what constitutes “MEP” is defined by the activities (e.g., “performance standards”) established by the stormwater permit.

In areas of the permit where the level of effort is not prescribed, the definition of MEP can vary slightly from year to year based on various factors, some of which are outside the County’s control. For instance, if the Sacramento area were to experience an extreme flood, the first priority for the Department of Water Resources would be to protect the public and property. Other activities would be postponed or abbreviated for a short period. For example, during the 1995 and 1997 floods, stormwater staff were temporarily diverted from their regular duties during and immediately after the events; in both cases, regular work resumed in less than a month.

County Stormwater Quality Program priorities are also influenced from year to year by the amount of time and resources needed to respond to the public, environmental groups, and regulatory agencies on various issues of concern. These response activities are impossible to predict, but become a top priority for the County.

Another factor that can affect County Stormwater Quality Program priorities is staff turnover. The County has found it difficult to find qualified staff with experience working with stormwater issues. For this reason, during years of high turnover, priorities may get shifted slightly to allow time for staff to become educated about the Program and its many activities.

The County evaluates priorities each year as part of its budgeting process. Prioritized activities are proposed in the Work Plan for the coming fiscal year, which is submitted to the Regional Water Board on May 1 each year. Priorities and associated activities are then finalized before the start of the fiscal year on July 1.

In the Annual Report (due October 1 each year), the County reports on its ability to meet its goals and stated priorities for the reporting fiscal year.

### Coordination within the County

To coordinate with various departments within the County, stormwater staff conduct the following types of tasks:

- Develop and distribute educational materials
- Provide workshops and presentations to educate County staff
- Provide technical assistance on how to select and implement best management practices (BMPs) for reducing stormwater pollution
- Interpret and clarify regulations and permit requirements
- Provide guidance on how to keep records that provide useful data for evaluating the Program and preparing compliance reports
- Help communicate with regulators, environmental groups, and the public as necessary

## Coordination with Other Agencies and Programs

### Sacramento Stormwater Quality Partnership

On-going permittee coordination is necessary to share information, ensure the most cost-effective use of permittee resources, and avoid duplication. The County and the City of Sacramento are the two largest permittees and assumed a shared leadership role in the Sacramento Stormwater Quality Partnership (Partnership). In this role, the County has been active in coordinating and managing the overall program since its inception in 1990. The City and County of Sacramento typically share the following work on behalf of the entire permittee group:

- Leadership and facilitation of Permittee Committee meetings
- Preparation and updating of task authorizations and MOUs between permittees
- Planning, development, implementation, reporting and evaluation of joint program work described in Chapter 3
- Execution and administration of consultant contracts for joint program activities
- Liaison with and program representation to the Regional Water Board and outside groups such as the California Association of Stormwater Quality Agencies (CASQA)
- Preparation and submittal to the Regional Water Board of the joint program Annual Work Plan and Annual Report
- Preparation (and submittal to the Regional Water Board if required) of other joint program studies and compliance reports

The County also represents on occasion, and/or provides some stormwater services to the smaller cities in the program: Citrus Heights, Elk Grove, Folsom, and Galt.

### Outside Agencies

The County coordinates with several local and regional agencies in efforts related to implementation of the County Stormwater Quality Program:

- **Sacramento Regional County Sanitation District (SRCSD)** — The County's stormwater quality staff coordinates closely with SRCSD on several common projects. Funds from the Stormwater Utility pay a portion of the Coordinated Monitoring Program (monitoring in local rivers), a function also performed by SRCSD. County staff also participates in the Sacramento River Watershed Program, which is administered by the Sacramento Regional County Sanitation District.
- **Special Districts** such as Metro Fire District, Regional Transit, and schools, parks, reclamation and irrigation districts — The County coordinates with special districts on a project-specific basis to implement stormwater controls. As school districts obtain coverage under the Phase II NPDES municipal stormwater general permit, County staff will coordinate with district staff in order to assist them in complying with the new requirements cost-effectively.
- **Sacramento-Yolo Mosquito and Vector Control District** — the County coordinates with the vector control district as needed related to vector control issues in local water bodies.
- **Caltrans** — the County coordinates with Caltrans on a project-specific basis to implement stormwater controls.

### Other Stormwater Programs

The County coordinates with other stormwater programs within California to share information and identify opportunities to work together. This effort is facilitated through CASQA. The County's participation in CASQA also keeps staff apprised of changing regulations and provides an opportunity to work with members to influence state and national stormwater policy and regulations.

### Training

Regular training keeps county staff and the regulated community abreast of the constantly evolving stormwater field and regulations. This section describes the County's stormwater training activities.

### Training for County Staff

Ongoing training and education of county staff and managers is necessary to help ensure continued countywide compliance with the stormwater permit.

The county staff that require stormwater quality training are listed in Table 4.2-2 by program element. Each element manager in the County's Stormwater Quality Section is responsible for working with managers of the affected staff to plan and facilitate the appropriate type and frequency of refresher training. For the most part, training will be conducted annually. Training and education can be delivered in various formats, such as workshops, presentations, informational meetings and written training materials (e.g., employee handbooks, manuals and brochures). Training accomplishments will be tracked and reported each year in the Annual Report. Additional information about specific training may be found in the individual element chapters.

### Training for Outside Groups

In addition to training employees, the County continues to provide training opportunities for the regulated community. Many of these training events have been done in partnership with the other permittee agencies and/or other local groups. Some examples include:

- Construction stormwater pollution prevention plan (SWPPP) training workshops for local building and engineering community
- Permittee-sponsored low impact development training for the development community
- "River friendly landscaping practices" workshops for landscape contractors and residents
- Industry-specific stormwater pollution control training workshops for industrial facility owners

Additional information for these trainings and others can be found in the individual element sections of this chapter.

### Record Keeping and Reporting

Recordkeeping is an integral part of the County Stormwater Quality Program, since documentation is needed to demonstrate continued compliance with the stormwater permit. The Stormwater Quality Section within the Department of Water Resources maintains the stormwater compliance files, as well as an extensive stormwater library. Files are retained for at least five years from the date of generation, as required by the stormwater regulations.

Other County staff with stormwater permit compliance responsibilities also keep records and logs. These records are summarized every year and submitted to the Stormwater Quality Section for incorporation into the Annual Report. To facilitate easy retrieval of information, each Annual Report is designed to include a separate binder of appendices containing all work products completed in the applicable fiscal year.

### Accomplishments to Date

The following lists some of the County's major accomplishments related to the Program Management Element:

- **Revised Stormwater Ordinance** – The County's Stormwater Ordinance was revised twice during the 2002-07 permit term to improve the enforcement authority for staff.
- **Employee Training Tracking Program** – Stormwater staff developed and began utilizing a computer program to track County employees trained. Materials were developed and used for these trainings.
- Continued to **assign and train staff** (program element managers) at levels needed to implement all permit-required activities and lead many of the Partnership efforts.
- Continued to take a **leadership role in the Permittee Committee** and joint program activities.

Table 4.2-2

**County of Sacramento Stormwater Quality Training Program  
Targeted Employees**

| <b>Program Element</b>       | <b>Department/(Group) to be Trained</b>   | <b>Objective</b>  | <b>Training Frequency</b>                |
|------------------------------|---|---|--|
| <b>Program Management</b>    | Sacramento County Board of Supervisors, County Executive and staff              | Make fiscal and programmatic decisions in support of Permit and stormwater ordinance.   | Several times/year                       |
|                              | Agency Administrators (3), Various Department Directors                         | Manage County programs and staff in a manner that complies with Permit and stormwater ordinance.  | Several times/year                       |
| <b>Municipal Operations</b>  | Department of Water Resources (Drainage Operations and Maintenance)             | Maintain storm drain system and screen for, and respond to, and report illicit discharges in compliance with Permit and stormwater ordinance.   | Annual                                   |
|                              | Department of Transportation (Transportation Maintenance and Operations)        | Maintain County-owned roads and respond to hazardous or unidentified pollutant discharges to the storm drain system in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections. | Annual                                   |
|                              | Department of General Services (Facilities Management Division)                 | Maintain County facilities in compliance with Permit and stormwater ordinance.  | Annual                                   |
|                              | Department of General Services (Fleet Services Division)                        | Maintain County-owned vehicles in compliance with Permit and stormwater ordinance.  | Annual                                   |
|                              | Department of General Services (Parking Services Division)                      | Maintain County parking facilities in compliance with Permit and Parking Lot Inspection and Maintenance Program.  | Annual                                   |
|                              | Operators of County-owned facilities subject to State Industrial General Permit | Individual facility operators are responsible for providing training in compliance with Industrial General Permit – SWQ Program provides support as requested.  | Annual                                   |
|                              | Regional Parks, Recreation and Open Space                                       | Maintain County facilities in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.  | As needed                                |
|                              | Department of Waste Management and Recycling                                    | Conduct waste collection activities in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.   | As needed                                |
|                              | Animal Care and Regulation  | Operate County animal care facility in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.   | As needed                                |
|                              | Department of Water Quality   | Conduct sewer related maintenance activities in compliance with Permit and stormwater ordinance.  | As needed                                |
| <b>Commercial/Industrial</b> | Environmental Management Department (EMD)                                       | Conduct Industrial Inspection Program in compliance with Permit and stormwater ordinance.   | As needed, based on QC of reports by EMD |



| Program Element | Department/(Group) to be Trained  | Objective   | Training Frequency                              |
|-----------------|---|---|---|
| Illicit         | Department of Planning and Community Development (Code Enforcement )  | Identification and reporting of illicit discharges/connections  | As needed                                       |
|                 | Department of Water Quality (Wastewater Source Control Section)   | Identification and reporting of illicit discharges/connections  | As needed                                       |
| Construction    | Dept. of County Engineering (Construction Management and Inspection Division)   | Conduct public and private construction site inspections in compliance with Permit, stormwater ordinance and Erosion and Sediment Control Plan.   | Annual  |
|                 | All department staff, contractors and consultants engaging in County construction activities (DWR, Water Quality, Transportation) | Conduct construction activities in compliance with Permit, SWPPP and stormwater ordinance.  | As required (Project Specific Training Program) |
| New Development | Dept. of Water Resources (Drainage Development)   | Condition and review project plans in compliance with current stormwater design standards.  | On-going  |
|                 | Department of Planning and Community Development  | Condition development applications in compliance with current stormwater design standards.  | On-going  |
|                 | Department of Environmental Review and Assessment   | Condition environmental documents in compliance with current stormwater design standards.   | On-going  |
|                 | Dept. of County Engineering (Architectural Services Division)   | Design County projects to comply with current stormwater design standards.  | Annual  |
|                 | Dept. of Transportation   | Design transportation facilities in compliance with current stormwater design standards and review landscaping plan to ensure consistency between stormwater requirements and other County codes. | Annual  |

### Effectiveness Assessment

The County's approach to assessing the effectiveness of the overall stormwater program is described in Section 2. Using this approach, we evaluated the 2002-07 permit term activities conducted by each element to assess current program effectiveness and used this information as a baseline to help identify effectiveness goals for the 2008-13 permit term. Because the 2002 stormwater permit was more prescriptive than previous permits, it required development and implementation of comprehensive programs with very specific requirements. Since so much effort was devoted to program development and implementation, the County focused on documenting activities to demonstrate

compliance, which mainly yields a Level 1 outcome.

Table 4.2-3 lists the program management element tasks from the 2002-07 permit term as well as proposed activities for the 2008-13 permit term and summarizes the current and proposed effectiveness outcome levels for those tasks. For example "coordinate as necessary with NPDES Phase II school districts" has been added. The assessment method to gauge the effectiveness of this task will be to track these efforts in upcoming annual reports, yielding a **Level 1** outcome. In the future we might look to assess the effectiveness of these efforts through surveys and data gathered during coordination efforts.

As shown in Table 4.2-3, most implementation tasks for the program management element fall

into Level 1 effectiveness outcomes, which document baseline permit compliance. Since the program management element focuses largely on stormwater permit compliance deliverables, it is unlikely that many of the effectiveness outcomes will ever be higher than the current Level 1. However, certain tasks such as revising the County's Stormwater Ordinance twice during the 2002-07 permit term indicates Level 3 effectiveness outcomes by showing that the County is continually evaluating our enforcement tools and using this information to change our behavior to improve program effectiveness.

In the past, training program effectiveness was largely determined based on meeting the new annual training requirements for targeted County employees. By documenting that the appropriate staff was trained, staff was able to achieve Level 1 effectiveness.

In the 2008-13 permit term, the County will use surveys and follow-up meetings with selected groups to assess the knowledge level of trained staff with a goal of achieving Level 2 effectiveness. Subsequent surveys and field verification may then be used to achieve Level 3 effectiveness where changes in behavior are documented.

### Activities for the 2008-13 Permit Term

Program management element activities for the 2008-13 permit term will focus on continued stormwater permit compliance with an increased focus on the demonstration of effectiveness for all activities. In addition to those activities listed in Table 4.2-3 that were implemented starting in the 2002-07 permit term, the following activities are new to the program:

- **Coordination with newly designated NPDES Phase II municipal general permit entities** - As school districts, parks districts and other non-traditional NPDES Phase II entities are designated by the State or Regional Water Board, the County will work with these groups to ensure that activities are consistent and not redundant.
- **Training program effectiveness** – Surveys and other assessment tools will be used in the County's training program to ensure that the program is effective and able to adjust as necessary improvements are identified.
- **Overall program effectiveness** – The overall program will be evaluated each year in the Annual Report to demonstrate effectiveness. Indicator tasks will be identified within each element to help assess effectiveness and these will be discussed in the Annual Report.

Table 4.2-3.  
**Effectiveness Assessment – Program Management Element**

| Activity/Task   | Performance Standard (Goal)  | 2002-07 Permit Term |   | 2008-13 Permit Term |                      | Assessment Method  |
|---|--|---------------------|---|---------------------|----------------------|--|
|   |  | OUT-COME LEVEL      | Effectiveness Assessment  | OUT-COME LEVEL      | Baseline Information |  |
| <b>Stormwater Quality Improvement Plan (SQIP)</b>   |  |                     |   |                     |                      |  |
| Revise SQIP as needed to reflect permit revisions, respond to Regional Water Board requests, etc. | Revised SQIP   | 1                   | SQIP revised and submitted in July 2003, April 2004 (Rancho Cordova) and 2005 (Elk Grove)                           | 1                   | NA                   | Confirmation- submit SQIP to Regional Water Board                      |
| <b>Legal Authority</b>  |  |                     |   |                     |                      |  |
| Establish and maintain legal authority to control pollutant discharges                            | Adopt stormwater ordinance; revise as needed<br>Submit statement of legal authority from chief legal counsel to Regional Water Board | 1                   | Ordinance adopted 1998 and revised twice during permit term<br>Statement of legal authority submitted in July 2003. | 1                   | NA                   | Confirmation-include revised ordinance in SQIP/AR                      |
| <b>Annual Report</b>  |  |                     |   |                     |                      |  |
| Describe completed activities and budget expended for previous fiscal year.                       | Develop standardized AR format. Prepare and submit AR annually to Regional Water Board.  | 1                   | AR format submitted with July 2003 SQIP<br>AR submitted each year to Regional Water Board on October 1              | 1                   | NA                   | Confirmation- include AR format in SQIP                                |
| <b>Annual Work Plan</b>   |  |                     |   |                     |                      |  |
| Describe proposed activities, budget and source of funding for the upcoming fiscal year           | Secure sufficient budget to conduct all activities.<br>Prepare and submit workplan to Regional Water Board.                          | 1                   | Workplans submitted each year to Regional Water Board on May 1  | 1                   | NA                   | Confirmation- submit work plan to Regional Water Board                 |
| <b>Report of Waste Discharge</b>  |  |                     |   |                     |                      |  |
| File a report of waste discharge (ROWD) 180 days before permit expiration                         | Submit ROWD to Regional Water Board  | 1                   | ROWD submitted to Regional Water Board on June 4, 2007  | 1                   | NA                   | Confirmation- ROWD submitted to Regional Water Board by specified date |

Table 4.2-3. Effectiveness Assessment – Program Management Element

| Activity/Task  | Performance Standard (Goal)   | 2002-07 Permit Term |  | 2008-13 Permit Term |   | Assessment Method   |
|--|---|---------------------|--|---------------------|---|---|
|  |   | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information  |   |
| <b>Coordination</b>  |   |                     |  |                     |   |   |
| Coordinate on program element basis with other County groups and outside agencies                  | Track coordination and intra-agency agreements  | 1                   | Coordination tracked and reported in AR                                  |                     |   |   |
|  | Increased communications/meetings with County groups and outside agencies   |                     |  | 2                   | Number of groups with which County staff currently coordinate | Tabulation – Track number of meetings and groups with which the County collaborated during the year   |
| Create Permittee MOU and revise as necessary   | Create Permittee MOU and revise as necessary  | 1                   | Revised MOU submitted in July 2003 SQIP                                  | 1                   | NA  | Confirmation- include revised MOU in SQIP/AR  |
| Coordinate as necessary with Phase 2 school districts  | Track coordination efforts  | NA                  | NA   | 1                   | NA  | Confirmation- track coordination in AR  |
| <b>Training</b>  |   |                     |  |                     |   |   |
| Continue to implement and make improvements to training program as necessary                       | Track training events and number of people participating  | 1                   | Training events tracked and reported in AR                               | 2                   | NA  | Confirmation – describe training accomplishments in AR  |
|  | Increased participation in training and understanding of stormwater requirements                                  |                     |  | 2                   | Number of County employees trained; initial training surveys  | Tabulation – Track number of employees trained<br>Confirmation – Compare initial training surveys with subsequent surveys to show increased awareness |
| <b>Program Effectiveness</b>   |   |                     |  |                     |   |   |
| Once a permit term: Estimate pollutant loads and evaluate water quality trends in receiving waters | Submit information with ROWD (June 4, 2007).<br>Submit information in final AR for permit term (October 1, 2007). | 1                   | Information submitted to Regional Water Board with ROWD and final AR     | 1                   | NA  | Confirmation- submit ROWD and final AR to Regional Water Board  |
| Annually: Measure and report program element and activity effectiveness                            | Submit effectiveness assessment results with AR each year (October 1)   | 1                   | Submitted effectiveness assessment results with AR each year (October 1) | 1                   | NA  | Confirmation- include effectiveness assessment results in AR  |

NA: Not Applicable; AR: Annual Report; ROWD: Report of Waste Discharge

## 4.3 Construction Element

If not properly managed, construction activities can result in erosion and the discharge of sediment and other construction-related pollutants with harmful environmental effects. For example:

- Site grading exposes soil to the erosive effects of rainfall and wind unless the disturbed areas are stabilized as soon as possible after grading and before rain.
- If loose sediments are not adequately retained on the construction site, they can be transported to creeks and rivers where they can harm or destroy aquatic habitat.
- Unless good housekeeping and waste management techniques are used to keep litter, concrete, stucco, paint, and other pollutants on-site, these pollutants can be carried in runoff to creeks and rivers, where they impair the beneficial uses of those water bodies.

Although land development in the Sacramento region has slowed down recently, it is expected to increase during the next permit term. Current growth in the area is concentrated in the southern and eastern portions of unincorporated Sacramento County. Projects are designed and constructed year-round due to the climate.

There is a myriad of County agencies and departments that must comply with the detailed requirements of the Stormwater Permit in order to achieve overall County compliance. Many County departments are involved in the design, construction, and administration of projects.

Another challenge facing the Construction Element is the rapidly evolving state of the practice with respect to erosion and sediment control BMPs. The County continuously re-evaluates and revises standards and specifications to keep up with new products, technologies, and changing State regulations.

To stay abreast of changing technology and learn from the experiences of others, County staff meet with vendors, subscribe to and circulate technical newsletters and journals, attend workshops and conferences, and network with other permittees and stormwater programs.

The primary mission of the Construction Element is to prevent sediment and other construction-related pollutants from entering the storm drain system and local creeks and rivers.

### Pollutants Addressed

The main pollutant addressed by the Construction Element is sediment. Controlling the discharge of sediment from construction sites also reduces the discharge of other pollutants that tend to attach to sediments, such as copper, lead, and other metals that naturally occur in Sacramento's soils. Copper and lead are two of the Program's target pollutants (see Chapter 3, Section 3.3). Sediment itself is also considered a pollutant since excess amounts can harm or destroy aquatic habitat. Construction controls also reduce the discharge of litter, debris, concrete and slurry (high pH), paints (metals) and other construction-related pollutants to local creeks and rivers.

### Construction Element Strategy

The County requires that private and public construction sites be managed to reduce the potential for erosion and discharge of sediments and other construction-related pollutants to the County's storm drain system or local creeks. The County's continued approach to ensuring compliance includes the following tasks:

- Create and update ordinances and codes to provide continued legal authority to the County for control of construction-related discharges
- Authorize and empower County inspectors and other staff to enforce ordinances and codes; develop and update enforcement policies and procedures as needed
- Provide improvement standards and specifications to the construction community; update as needed
- Educate and inform the construction community about local ordinances and state laws and provide guidance to help ensure compliance with the regulations

- Inspect construction sites based on a prioritized threat to water quality and conduct enforcement to ensure compliance

### **Develop and Update Ordinances and Related Documents**

In 1993 The County established the Land Grading and Erosion Control Ordinance (Erosion Control Ordinance; Sacramento County Code Section 16.44) and has updated it since that time. The Erosion Control Ordinance requires projects disturbing one or more acres or moving 350 cubic yards or more of soil to prepare an Erosion and Sediment Control Plan as part of the grading permit application process. In addition, the County’s Stormwater Ordinance (SCC 15.12) prohibits the discharge of sediment and other construction-related pollutants from entering the County’s storm drain system. This ordinance was updated in 2005.

### **Authorize and Empower County Staff to Enforce Ordinances**

All County staff, including construction and building inspectors, were authorized by the County Executive in 2000 to enforce the County’s Stormwater Ordinance. The County inspectors are also authorized to enforce the Erosion Control Ordinance and issue notices of non-compliance as needed.

### **Develop Standards, Specifications, and Guidance Materials**

The County prepared and regularly updates standards and specifications that provide engineering details and specifications for use in preparing erosion and sediment control (ESC) plans. The ESC plans must specify which BMPs will be used throughout the construction project to minimize pollution risk, given the site conditions. Implementation of the ESC plans requires regular inspection and maintenance of BMPs to prevent pollution at all times.

The County will continue to modify the standards and specifications as newer, innovative, more cost-effective and proven approaches become available.

### **Educate and Inform Construction Community**

The construction community includes internal County personnel and the external regulated

construction community of contractors and their subcontractors. The internal audience includes county construction/project managers responsible for design and construction of county-owned jobs and county inspectors who inspect public and private jobs.

The County provides annual refresher training to County staff about proper selection, design, installation, and maintenance of erosion and sediment controls. Typically this training is provided in late summer, just prior to the start of the wet season (October 1). The County also collaborates with the other permittees and organizations such as the Building Industry Association (BIA) to co-sponsor training workshops and informational sessions for the construction community. The County prepares and distributes brochures related to proper use and disposal of paint and concrete wastes, and refers to guidance developed by others, such as the CASQA manual.

The target audience for outreach includes developers, engineers, contractors, plan reviewers, and inspectors working on both public and private projects. These educational efforts also keep staff and others informed of new and changing regulations, technology, and practices.

### **Inspect Construction Sites According to Water Quality Threat**

Beginning July 1, 2003, the County began inspecting construction sites disturbing one or more acres at a frequency commensurate with the potential threat to water quality. As required by the Stormwater Permit, the County created and regularly updated a prioritized list of sites for inspection. The following factors are used, at a minimum, to determine if sites should be prioritized as “high” or “moderate” threat to water quality:

- *Project size:* All construction sites over five acres in disturbance shall be considered a “high” threat.
- *Erosive or colloidal clay soils:* Projects with sediment-laden runoff which requires filtration (chemical or mechanical), shall be considered a “high” threat.

- *Proximity to Waters of the State:* Any construction site located adjacent to and discharging directly into a Water of the State shall be considered a “high” threat.
- *Previous known violations:* Sites with a project owner or general contractor known to have received one or more stormwater-related enforcement actions from the County, another local agency or the Regional Water Board within the previous two years shall be considered a “high” threat.
- *BMP Status:* Any project site which demonstrates improper installation or maintenance of BMPs or the lack of BMPs shall be considered a “high” threat.

As required by the 2002 Stormwater Permit, high priority sites are inspected once every two weeks during the wet season (October 1 – April 30) and monthly thereafter. Moderate priority sites are inspected monthly throughout the year.

#### **Help Ensure Compliance with State’s Construction General Permit**

Although the County has no authority to enforce the State’s Construction General Permit, the County is required by the Stormwater Permit to conduct several tasks to help the regulators ensure compliance for private construction projects disturbing one or more acres:

- County staff must require proof of filing of a Notice of Intent (NOI) to comply with the Construction General Permit prior to issuing a County grading permit for a project.
- County plan checkers must verify that a stormwater pollution prevention plan (SWPPP) has been prepared, including inclusion of six specified items, prior to issuing a County grading permit for a project.
- County inspectors must check for on-site availability of an updated SWPPP and report potential non General Permit filers to the County stormwater staff for follow-up.
- County stormwater staff must refer verified non-filers to the Regional Water Board within five business days of discovery.

The County will continue to ensure that County construction projects disturbing one acre or more comply with the Construction General Permit by

educating and training staff and reviewing SWPPPs prior to construction. The Directors of various County departments (e.g., Water Resources, Transportation, Water Quality) are responsible for ensuring General Permit compliance for projects conducted by their department, including designating authority for certification of documents required by the General Permit.

#### **Relationship to Other Program Elements**

The Construction Element relates to other program elements as follows:

##### **Commercial/Industrial Element (Section 4.4)**

Both the Construction Element and the Commercial/Industrial Element target the construction and building trades. County staff working on the two elements collaborate on the development of consistent BMP guidance materials, common educational materials, and training workshops. A mutual enforcement policy and database are shared by the Construction Element, Commercial/Industrial Element, and the Illicit Discharge Element.

##### **Municipal Operations (Section 4.5)**

The County requires that County construction projects and construction activities at County facilities follow the same stormwater rules established for private jobs. County staff working on the Construction and Municipal Operations Elements coordinate on annual refresher training for County staff in various different departments to help facilitate continued compliance.

The County conducts site and project-specific training for employees and contractors working on County-owned construction projects.

##### **Illicit Discharge Element (Section 4.6)**

County staff implementing the Illicit Discharge Element have developed notification and referral procedures for use by construction inspectors and field maintenance crews when illicit discharge problems are observed at construction projects. These procedures are discussed in Section 4.6. A mutual enforcement policy and database are shared by the Construction Element, Commercial/Industrial Element, and the Illicit Discharge Element.

### Public Outreach Element (Section 4.7)

Effectively educating the construction community about erosion control requires the expertise and help of those implementing the Public Outreach Element. Assistance is needed to identify and develop messages for target audiences, identify and establish focus groups, develop and implement training, and create effective educational and informational materials.

Brochures have been developed for specific building trades in several languages.

### New Development Element (Section 4.8)

County staff implementing the Construction and New Development Elements work closely to:

- Coordinate outreach efforts where possible since both elements target common members of the construction and development communities (e.g., engineers, developers)
- provide education and guidance to help ensure that post-construction stormwater quality control measures required by county for development projects are properly installed and protected from receiving excessive sediment loads during construction; and
- Ensure that “No Dumping-Drains to Creek” messages are permanently stamped on new storm drain inlets during construction

#### Coordination within the County of Sacramento

Stormwater staff in the County’s Department of Water Resources provide training and informational materials to staff in other County departments/groups involved in design, construction, and/or administration of public and private construction jobs. Relationships are established and maintained with project managers, designers, plan reviewers, inspectors, and their managers to achieve and document compliance.

Most interdepartmental coordination is done on an informal basis through written correspondence and regular meetings. For example, stormwater staff participate in routine meetings with the following groups related to Stormwater compliance on private construction projects:

- Plan reviewers in Land Development and Site Improvement Review (LDSIR) who are responsible for reviewing erosion and sediment control plans and issuing grading permits
- Stormwater construction inspectors in the Construction Management Inspection Division who are responsible for ensuring stormwater compliance on grading projects and construction of public utilities and roadways
- Stormwater building inspectors in the Construction Management Inspection Division who are responsible for ensuring stormwater compliance for construction of buildings on private jobs

#### Coordination with Other Agencies and Groups

The County coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. This coordination is also helpful for other purposes.

The County relies heavily on several existing forums for reaching and receiving feedback from the construction and development communities. For example, the County has worked with the Building Industry Association (BIA), Consulting Engineers and Land Surveyors of California (CELSOC), International Conference of Building Officials (ICBO), and Associated General Contractors of California (AGC) to provide outreach and receive feedback on various issues. County manager(s) attend meetings with the BIA and special presentations are made as needed, such as a presentation made to BIA in March 2003 regarding the Phase II NPDES impacts to local construction projects. The BIA also helped develop the stormwater inspection checklist used by the County’s building inspectors.



The County assists the Regional Water Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, verifying NOI filings, spot checking SWPPPs, and referring site operators who have not complied with the State regulations. Through participation in the California Association of Stormwater Agencies (CASQA), the County tracks and comments on periodic revisions to the Construction General Permit and other regulations by the State Water Board.

### Accomplishments To Date

The County has made significant progress in eliminating illegal discharges and controlling erosion and sediment at construction sites in the unincorporated county since the program began in 1990. The County has:

- Developed and modified the Stormwater Ordinance and delegated enforcement authority to County inspection staff.
- Developed and modified standards and specifications for construction BMPs in cooperation with the City of Sacramento; these standards are now used by all permittees
- Hired designated erosion control staff in the Construction Management Inspection Division.
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining grading permits for applicable projects
- Developed an Inspectors Checklist for use during construction inspections
- Developed and conducted numerous training workshops for the construction community in coordination with the other permittees in the Partnership, and groups such as the Building Industry Association (BIA)
- Developed and distributed various brochures in several languages
- Developed and distributed a tailgate training module to local consultants for use in conducting hands-on field training courses for their clients
- Provided education and training for the local construction community about strategies for

small site (1-5 acres) compliance, before the effective date of the Phase II NPDES regulations in March 2003.

### Effectiveness Assessment

The County's approach to assessing the effectiveness of its stormwater program is consistent with the joint permittee approach described in Section 2.

#### Effectiveness of 2002-07 Permit Term Activities

Table 4.3-1 presents the results of the effectiveness assessment conducted for the 2002-07 permit term. The activities conducted during this period demonstrated compliance with the permit (Outcome Level 1). These results were used to identify new or revised activities for the next permit term, as well as effectiveness methods that could be applied with the goal of demonstrating more increased awareness (outcome level 2) and behavioral changes (outcome level 3) that result in greater pollution prevention.

#### Proposed Effectiveness Methods for 2008-13 Permit Term

Table 4.3-1 proposes effectiveness methods for use in evaluating 2008-13 permit term activities, with the goal of achieving the highest level of effectiveness outcomes for each task. The County will continue to document accomplishments at outcome level 1 to demonstrate permit compliance. Inspection, enforcement and outreach data will be reported each year in the annual reports.

The key challenge for the 2008-13 permit term will be to identify ways to compile, analyze and report data to demonstrate changes in awareness and behavior (outcome levels 2 and 3) as a result of the inspection, enforcement and outreach efforts.

#### Activities for the 2008-13 Permit Term

This section describes the Stormwater Permit requirements applicable to the Construction Element and the activities to be conducted during the 2008-13 permit term. Additional details are provided about the effectiveness methods

(introduced in Table 4.3-1) that the County plans to use to demonstrate effectiveness during the 2008-13 term.

### Stormwater Permit Requirements

The stormwater permit contains the following requirements related to the Construction Element:

For sites disturbing one or more acres:

- Require proof of filing of Notice of Intent (NOI) prior to issuing a grading permit
- Require submittal of a Storm Water Pollution Prevention Plan (SWPPP) so the County can check for the inclusion of six required items, prior to issuing a grading permit
- Track grading permits
- Establish and implement a system for prioritizing and inspecting sites based on threat to water quality. Sites shall be prioritized as “high” or “moderate” threat to water quality according to a least the following four factors: 1) project size, 2) soil erosion potential, 3) proximity to Waters of the State and 303(d) listed water bodies, and 4) previous violations of County ordinances for the contractor/property owner
- Inspect “high” threat projects once every two weeks during the wet season (October 1 to April 30) and monthly thereafter, and inspect “moderate” threat projects monthly
- Notify the Regional Water Board within five days of discovery of any construction sites requiring a Construction General Permit that cannot show proof of NOI or State-issued Waste Discharge Identification (WDID) number
- Provide training for employees in targeted positions regarding the requirements of the Stormwater Permit

### Proposed Activities

Table 4.3-2 at the end of this section summarizes the activities that will be conducted for the Construction Element during the 2008-13 permit year. The table describes the major tasks and associated five-year implementation schedule.

*Note: table to be included in final SQIP when language of final Order/permit is known.*

### Legal Authority

Following adoption of the new State Construction General Permit (anticipated 2007-08), the County will evaluate any necessary changes to this element and related codes and standards, to promote consistency.

### Inspections and Enforcement

The Sacramento County Municipal Code contains two ordinances that relate to stormwater enforcement: Stormwater Management and Land Grading & Erosion Control. These ordinances provide the legal authority to enforce standards and conditions and ensure that unauthorized non-stormwater discharges are prevented to the maximum extent practicable. During the 2008-13 permit term, the ordinances will be periodically reviewed and updated, as necessary, to ensure adequate coverage and authority is included.

The Construction Management Inspection Division will continue to be responsible for day-to-day enforcement at project sites and for enforcing the County’s erosion and sediment control requirements and the Stormwater Ordinance. Projects will be inspected to ensure compliance with local ordinances, verify that sites adequately address erosion, sediment, and pollution control, and ascertain that SWPPPs and monitoring plans are on-site for applicable projects. The County inspector will give verbal warnings and issue Notices of Violations.

As required by the Stormwater Permit, if a contractor on a project disturbing one acre or more cannot demonstrate that the developer/owner has submitted an NOI or received a Waste Discharge Identification (WDID) number from the state, staff will notify the Regional Water Board within five business days of discovery. Non-filer referrals shall include the project location, developer, estimated project size and records of communication with the developer regarding filling requirements.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

A database of active construction projects and their priorities will be maintained by the County at all times.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks or rivers.

### **Plan Review and Permitting**

The County's Land Grading & Erosion Control Ordinance requires a grading permit and erosion and sediment controls on all private projects, disturbing one acre or more or exceeds 350 cubic yards or more of fill.

Private and public projects in the County disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the City will verify that a State-required Notice of Intent (NOI) was filed and will check the SWPPP for six items required by the Stormwater Permit. The City will track grading permits using an electronic database. This is a continuation of activities conducted during the 2002-07 permit term.

### **Education and Training for County staff and the Construction Community**

The County will continue to provide education and guidance to both County staff (at least annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices.

The County will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, building permit process, preconstruction meetings, and inspection.

The County (along with the other co-permittees) will continue to develop and produce outreach materials such as brochures for concrete and painting, printed in English and Spanish.

Table 4.3-1.  
Effectiveness Assessment – Construction Element

| Activity/Task                              | Performance Standard (Goal)   | OUT-COME LEVEL | 3 <sup>rd</sup> Permit Term  | 4 <sup>th</sup> Permit Term                          | Effectiveness Method  |
|--|---|----------------|--|--|---|
|  |   |                | Effectiveness Assessment   | Baseline Information                                 |   |
| <b>Legal Authority</b>                     |   |                |  |  |   |
| Stormwater Ordinance                       | Adopt revisions as needed   | 1              | Ordinance revised twice  | 1 NA   | Confirmation- report revisions in AR  |
| <b>Enforcement</b>                         |   |                |  |  |   |
| Develop enforcement policy (County SWQ)    | Create/adopt policy; revise as needed                                   | 1              | Developed enforcement policy   | 1 NA   | Confirmation-report revisions in AR   |
| Issue NOVs to non-compliant sites          | Document/ quantify enforcement actions                                  | 1              | Issued ?? NOVs during 2006-07 fiscal year                                | 1 NA   | Confirmation-Report no. NOVs issued in AR   |
|  | Decrease in NOVs issued due to raised awareness and changed behavior    |                |  | 2,3 Data (No. NOVs issued) from previous year        | Tabulation – Compare number of violations issued from one year to the next                                      |
| Issue fines when NOVs are not effective    | Document/ quantify fines  | 1              | Assessed ??? in fines during 2006-07 fiscal year                         | 1 NA   | Confirmation-Report total fines assessed in AR  |
| Issue fines when NOVs are not effective    | Decrease in fines assessed due to raised awareness and changed behavior |                |  | 2,3 Data (Total fines assessed) from previous year   | Tabulation-Compare total amount of fines assessed from one year to the next                                     |
| <b>Standards &amp; specifications</b>      |   |                |  |  |   |
| Develop new standards & specifications     | Develop/revise standards and specifications                             | 1              | Revised erosion and sediment control standard drawings/details           | 1 NA   | Confirmation-report revisions in AR   |
| <b>Outreach</b>                            |   |                |  |  |   |
| Conduct Training                           | Conduct at least one workshop/year                                      | 1              | Reached ??? people with ?? training workshops during 2006-07 fiscal year | 1 NA   | Confirmation -Report no. workshops held, no. people reached in AR   |
|  | Increased awareness of construction community as a result of training   |                |  | 2 Training evaluation summaries from previous period | Surveys- Compare training evaluation results between one period and the next ( <i>need to define interval</i> ) |
| <b>Inspections</b>                         |   |                |  |  |   |
| Conduct Inspections Permitted sites (CMID) | Develop Improve program as needed                                       | 1              | Conducted ??? inspections during 2006-07 fiscal year                     | 1 NA   | Confirmation - report program/ordinance revisions in AR   |

Table 4.3-1. Effectiveness Assessment – Construction Element

| Activity/Task  | Performance Standard (Goal)  | 3 <sup>rd</sup> Permit Term |  | 4 <sup>th</sup> Permit Term |  | Effectiveness Method  |
|--|--|-----------------------------|--|-----------------------------|--|---|
|  |  | OUT-COME LEVEL              | Effectiveness Assessment                             | OUT-COME LEVEL              | Baseline Information                         |   |
|  |  |                             |  | 3                           | Data (inspection results) from previous year |   |
|  | Changed behavior as observed during follow-up inspections of ongoing , multi-year projects |                             |  | 3                           | Data (inspection results) from previous year | Tabulation – Compare inspection results from one year to the next to track changed behavior |
| Conduct Inspections Non-Permitted sites (SWQ)                | Inspect listed industries at least once every 3 years                                      | 1                           | Conducted ??? inspections during 2006-07 fiscal year | 1                           | NA   | Confirmation - report on completion of next cycle, 2007-10                                  |
|  | Changed behavior as observed during follow-up inspections of ongoing , multi-year projects |                             |  | 3                           | Data (inspection results) from previous year | Tabulation – Compare inspection results from one year to the next to track changed behavior |
| <b>Data Management</b>                                       |  |                             |  |                             |  |   |
| Create/Maintain Construction databases (CMID, LDSIR and SWQ) | Create database Update annually  | 1                           | Database complete; updated monthly                   | 1                           | NA   | Confirmation -include updated list in AR  |

Question marks (???) indicate data that will be included in the final version of the SQIP

NA: Not Applicable; AR: Annual Report; NOV: Notice of Violation; SWQ: Dept. of Water Resources, Stormwater Quality Section; CMID: Construction Management Inspection Division; LDSIR: Land Development and Site Improvement Review

## 4.4 Commercial/ Industrial Element

The goal of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations throughout the urbanized area of the unincorporated County. The Commercial/Industrial Element works to address these conditions through inspection and enforcement as well as through outreach and incentive programs targeted at business operators and their employees.

### Pollutants Addressed

The County's activities and requirements under the Commercial/Industrial Element address a wide range of pollutants associated with industrial activities, including metals such as copper, lead, and mercury, three of the Program's target pollutants (see Chapter 3).

For commercial operations such as carpet cleaning companies and landscape contractors, potential pollutants include chemicals, detergents, sediment, fertilizers, and pesticides such as pyrethroid insecticides. Although not yet formally ranked as a target pollutant, the Permittees recognize that pyrethroids have essentially replaced diazinon and chlorpyrifos in the urban market. Based on recent studies in local creeks, the Permittees have begun to address pyrethroids as if they were a high ranking target pollutant. Due to the mobile nature of these types of businesses, the pollutants can be discharged into the County's storm drain system or local creeks and rivers either directly, or via urban runoff from residential areas where the work is done.

The type and amount of pollutants addressed will depend on the specific activities taking place at the industrial facility or by the mobile business operation and the BMPs employed by the operators and their employees to prevent pollution and/or treat site runoff.

### Commercial/Industrial Element Strategy

The County's Commercial/Industrial Element employs a variety of strategies to effectively meet the requirement of the stormwater permit. The

The primary mission of the Commercial/Industrial Element is to reduce the discharge of pollutants in runoff from priority commercial and industrial sites and effectively eliminate non-stormwater discharges associated with commercial and industrial activities.

primary activities conducted by this element include:

- Identification of priority industries
- Commercial and Industrial Stormwater Compliance Program (CISCP) implementation
- Complaint-Based Stormwater Compliance Program (CBSCP) implementation

### Targeted outreach

A core strategy of the Commercial/Industrial Element is to utilize knowledge gained through implementation of these activities to assess the County's effectiveness. The results of such assessments are used to refine element activities. For example, enforcement-related data collected during the first two rounds of CISCP inspections (first round completed in June of 2007 and second round to be completed in June of 2010) and the CBSCP will be used to refine the list of priority industries subject to inspections and targeted outreach.

Another strategy is to efficiently use County staff and resources and to minimize inconvenience to regulated businesses by building upon an existing environmental compliance program. The County's Environmental Management Department (EMD) agreed to conduct triennial stormwater inspections on behalf of all the permittees. Partnering with EMD has the following advantages:

- EMD has traditionally conducted environmental compliance inspections in the county, with trained staff, structure, policies and procedures in place. Only modest training and enhancement was required to accommodate stormwater compliance inspections.
- EMD can recover costs for their activities without impacting the County's Stormwater Utility, through their Fee Ordinance.

- Impacts to businesses are minimized by conducting stormwater compliance inspections by the same inspector and at the same time as other EMD compliance program inspections at many facilities. This also minimizes the fees charged to businesses.
- Using EMD to conduct stormwater compliance inspections on behalf of all the permittees results in a uniform county-wide program where businesses are regulated consistently and equitably.

#### Relationship to Other Program Elements

The Commercial/Industrial Element relates to other program elements as follows:

##### **Construction Element (Section 4.3)**

Coordination between the Industrial and Construction Elements helps ensure that industrial facility owners and operators adhere to applicable local and state regulations for erosion and sediment control when engaging in remodeling and other on-site construction activities. Also, staff working on the two elements collaborate to provide outreach materials and activities, such as brochures and informational workshops, to construction-related businesses in the county. Permittee staff work with the County's Business Environmental Resource Center (BERC; discussed more later in this section) to provide training workshops for pressure washers and other targeted businesses. Brochures have been developed (in English and Spanish) for concrete, swimming pool, and paint-related businesses. These brochures and other educational materials are distributed at construction workshops and in the field by County construction inspectors.

##### **Municipal Operations Element (Section 4.5)**

Many County-owned facilities such as the corporation yards, airport, and waste management facilities, are covered by the State's Industrial General Permit, as discussed in Section 4.5. Therefore, many of the brochures and BMP guidance materials created through the Commercial/Industrial Element for private industries and businesses in the county can also be used to educate and inform managers and staff who maintain and operate County facilities. The Municipal Operations and Commercial/Industrial

Element staff work together to provide annual refresher stormwater BMP and awareness training for County employees.

##### **Illegal Discharge Element (Section 4.6)**

There are many businesses addressed by the Commercial/Industrial Element that provide home-related services to residential customers. Examples include carpet cleaning companies, and landscape and concrete contractors. Activities by such businesses could result in illicit discharges to the storm drain system. Commercial/Industrial and Illicit Discharge Element staff work together to conduct inspections and enforcement in response to complaints and to promote pollution prevention awareness. Common problems include erosion of landscape material stockpiles in public streets and gutters, discharge of concrete and paint wastes into the storm drain and washing dirt and debris from paved surfaces into the drain.

##### **Public Outreach Element (Section 4.7)**

Commercial/Industrial Element staff coordinate regularly with experienced public outreach professionals to assist with the development of high-quality educational and informational materials for targeted businesses. Materials are distributed by inspectors during facility inspections, by direct mail (e.g., with enforcement actions), during training workshops, at public events and at County permit counters. Brochures and other guidance materials are updated and translated into other languages as needed. The permittees' Clean Water Business Partners (CWBP) Program, described in Section 4.7, encourages and recognizes environmental stewardship in the business community. Educational materials are distributed through the CWBP Program, as well as through BERC.

##### **New Development Element (Section 4.8)**

Developers of commercial and industrial properties and facilities are required to implement stormwater quality control measures in their projects, as required by the New Development Element. County staff reviews environmental impact reports, proposed improvement plans, and various use applications for industrial and commercial projects, to ensure that control measures are integrated into project design as appropriate.

County development plan review also helps ensure that non-stormwater sources are not plumbed from new industrial facilities to the storm drain system unless specifically allowed by the County's Stormwater Ordinance.

### Coordination within the County of Sacramento

Successful implementation of the Commercial/Industrial Element requires close coordination with several County entities that regulate or provide assistance to local industries, as described below.

#### County Department of Water Quality

- *The Wastewater Source Control Section (WSCS)* reviews and inspects the operations of industrial dischargers to the County Sanitation District's sewer collection system. They also work with businesses such as dry cleaners, photo processors and radiator repair shops to help them understand local sewer use regulations and wastewater pollution prevention options. WSCS is responsible for ensuring adequate pre-treatment prior to discharging a waste stream to the sanitary sewer. Lastly, they administer short term discharge permits to the sanitary sewer.
- Stormwater staff refers businesses that want to discharge to the sanitary sewer to WSCS for guidance.
- *The Water Quality Permit Services Section* is responsible for issuance of permits for long term discharges to the County Sanitation District's sewer collection system. Stormwater staff refers businesses that want to discharge to the sanitary sewer to Permit Services for guidance.

Coordination with both the WSCS and Permit Services Section helps to keep industrial and commercial wastes out of the storm drain system.

#### County Environmental Management Department (EMD)

EMD, under agreement with the permittees, has assumed responsibility for the implementation of routine stormwater compliance inspections and complaint response at priority facilities listed in the 2002–07 stormwater permit. Three divisions

within EMD participate in the implementation of the CISC, as follows:

- The *Water Protection Division* contains the Stormwater Compliance Section (SCS), which leads the implementation of the countywide CISC. In addition to providing support and training to hazardous materials and environmental health division inspectors (described below), SCS inspectors conduct stormwater compliance inspections at a portion of the commercial businesses and industries in the program. They also conduct complaint response and follow-up stormwater compliance re-inspections at HMD and EHD facilities. SCS maintains a database and generates monthly and annual reports to document activities and inform the permittees and Regional Water Board about non-compliant industries. WPD also implements the septic program, as well as other water-related programs.
- The *Hazardous Materials Division (HMD)* is the State designated Certified Unified Program Agency (CUPA) for Sacramento County. HMD inspects businesses that generate hazardous waste and/or store hazardous materials in quantities above statutory thresholds. Examples of businesses that HMD inspects include auto repair facilities, retail gasoline outlets (RGOs), and auto body shops. HMD conducts stormwater compliance inspections for certain facilities that are included in the CISC and sends data and/or refers problems to SCS for follow-up.
- The *Environmental Health Division (EHD)* enforces provisions of the California Health and Safety Code at restaurants and public swimming pools. EHD conducts stormwater compliance inspections for their facilities that are included in the CISC and sends data and/or refers problems to SCS for follow-up.

#### County Business Environmental Resource Center (BERC)

BERC's main mission is to provide confidential environmental compliance assistance and guidance to local businesses in the county upon request. County stormwater staff work with BERC to ensure that appropriate stormwater



pollution prevention information is provided to local businesses by BERC. Assistance is provided by BERC to develop and distribute guidance materials for selected industries and to work with Industrial General Permit industries to ensure they have ample opportunity to understand and comply with the regulations. BERC conducts various industrial training workshops each year to inform the regulated community about compliance with local and state stormwater laws, at which County staff are typically presenters. In the past, BERC has also helped with direct mailing efforts to targeted industries. The County contributes funding through the Stormwater Utility and EMD to BERC each year.

### Coordination with Other Agencies and Groups

County stormwater staff coordinate with various outside agencies and groups that have regulatory and/or economic interests in industries in Sacramento County. This coordination allows for information sharing and ensures that a uniform, consistent message about stormwater pollution prevention is distributed to the regulated community.

- **Regional Water Board** — The County coordinates with the Regional Water Board on issues related to Industrial General Permitted industries as well as other businesses. The County initiates investigations of all stormwater problems at businesses referred by the Board, within three business days of referral. The County informs the Board of all discovered significant violations and of all General Permit non-filers within 30 days of discovery. The County also supports Regional Water Board actions upon request, by allocating staff, providing documentation of observed problems, etc.
- **Trade and Business Associations** — The County solicits cooperation with industrial/commercial business owners through associations and organizations. These associations are provided with outreach materials, information on the Industrial General Permit requirements and information on BERC's compliance assistance program.

### Accomplishments to Date

The following highlights the major accomplishments of the Commercial/Industrial Element during the first 17 years of the Program (1990-2007):

- The County Board of Supervisors adopted the County Stormwater Ordinance in 1998, which provides legal authority for regulating commercial businesses and industries with respect to stormwater pollution. The County updated the ordinance twice during the 2002–07 permit term to clarify and enhance enforcement authority. EMD stormwater inspectors are authorized to enforce this ordinance county-wide; ensuring consistent treatment of regulated industries.
- The permittees developed a list of priority commercial businesses and industry categories subject to either routine inspections or targeted outreach, and definitions for each. EMD refined the definitions of the priority industries based on field inspection observations.
- EMD developed the CISCIP, a county-wide program conducted on behalf of the permittees. This program is innovative in its use of an existing County program structure with trained industrial inspectors. Also, EMD established a Fee Ordinance in 2003 which recovers costs from the facilities inspected without impacting the permittees' limited stormwater utility or general funds. A copy of the Fee Ordinance is included in Appendix F. This program ensures that businesses in the county are treated consistently and it helps to minimize duplication of effort and disturbance to businesses by multiple inspection agencies. The successful program is now being referred to by regulators and others in the State as a model. EMD is authorized to conduct the CISCIP on behalf of the permittees through a Memorandum of Understanding (MOU) executed by each permittee in 2003. Local stormwater ordinances were revised by the Permittees in 2004 to provide EMD with billing and enforcement authority county-wide.
- EMD completed the first three-year cycle of CISCIP inspections (July 2004 - June 2007) at approximately 4700 businesses, on time.

- EMD developed and implemented a progressive enforcement policy to ensure that facilities included in the CISCSP are in compliance with the County Stormwater Ordinance.
- The permittees and EMD created industry-specific educational materials, including brochures, guidance manuals and Compliance Assistance Bulletins (CABs). These are distributed by direct mail, in training workshops, via BERCC, during inspections, and in conjunction with enforcement actions. CABs and other CISCSP-related compliance assistance materials are also made available on EMD’s web site (<http://www.emd.saccounty.net/WP/EMDstormwater.htm>). Several outreach brochures were translated into Spanish, Russian, and Chinese.
- The permittees created and enhanced the CWBP Program, in partnership with the City of Sacramento. This incentive-based program encourages businesses to reduce pollution and recognizes those who participate. Three business categories have been targeted to date: mobile carpet cleaning companies, pressure washers and landscape contractors.
- The permittees and EMD developed and maintained comprehensive databases to track and document inspection and outreach efforts, for annual reporting and progressive enforcement purposes.
- EMD and the permittees coordinated with the Regional Water Board by referring over 110 Industrial General Permit non-filers, reporting significant violations, promptly investigating Regional Water Board referrals, and assisting with coordinated inspections and outreach to selected industries upon request.

### Effectiveness Assessment

The County’s general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities relevant to the Industrial/Commercial Element, including an evaluation of activities completed during the last permit term and proposed methods for evaluating effectiveness during the 2008–13 permit term.

### Effectiveness of 2002–07 Permit Term Activities

The 2002 stormwater permit was more prescriptive than previous permits. It required development and implementation of comprehensive programs with very specific requirements targeting a large number of designated “priority” industries. The first couple of years were spent developing the CISCSP, adopting the fee ordinance for cost recovery and strengthening enforcement authority. Then the first three-year cycle of inspections was completed. This first cycle provided the baseline data that will be used to assess effectiveness of the program in the 2008–13 permit term.

Table 4.4-1 presents the results of the effectiveness assessment conducted for the 2002–07 permit term. For the most part, the activities conducted during this period demonstrated compliance with the permit (Outcome Level 1). A few of the educational outreach activities resulted in raised awareness (Outcome Level 2). These results were used to identify new or revised activities for the 2008–13 permit term, as well as effectiveness methods that could be applied with the goal of demonstrating more increased awareness and behavioral changes (Outcome Level 3) that result in more widespread compliance with stormwater laws by the regulated industrial community.

### Proposed Effectiveness Methods for 2008–13 Permit Term

Table 4.4-1 proposes effectiveness methods for use in evaluating 2008–13 permit term activities. The County will continue to document accomplishments at Outcome Level 1 to demonstrate permit compliance and data will be reported each year in the annual reports. This may include recommended changes to the list of priority commercial/industrial facility categories included in the CISCSP, targeted outreach, or other mid-course program refinements.

The key challenge for the 2008–13 permit term will be to identify ways to compile, analyze and report data to demonstrate changes in awareness and behavior (Outcome Levels 2 and 3), where possible, as a result of the inspection, enforcement and outreach efforts. This evaluation will take place at the end of the next three-year inspection cycle (June 2010).

### Activities for the 2008–13 Stormwater Permit Term

This section describes the stormwater permit requirements applicable to the Commercial/Industrial Element and the activities to be conducted during the 2008–13 permit term. Additional details are provided about the effectiveness methods (introduced in Table 4.4-2) that the County plans to use to demonstrate effectiveness during the 2008–13 term.

### Stormwater Permit Requirements

The stormwater permit requires the permittees to address nine categories of commercial/industrial facilities with inspections once every three years, and thirteen commercial business categories with outreach twice during the five-year permit term.

### Proposed Activities

Table 4.4–2 (to be included in the final version of the SQIP when the exact language of the new Order are known) at the end of this section outlines the activities that will be conducted for the Commercial/Industrial Element during the 2008–13 permit term. The table describes permit requirements and associated implementation tasks, assessment methods and a five-year implementation schedule.

The following describes the major activities in more detail:

### Legal Authority

The County’s Stormwater Ordinance provides legal authority for regulating commercial businesses and industries with respect to stormwater pollution. The Stormwater Ordinance will be amended as needed during the 2008–13 permit term to ensure that pollutant sources from commercial business and industrial activities are effectively addressed.

The County EMD Fee Ordinance authorizes EMD to recover costs for their CISCIP inspection, enforcement and outreach activities by assessing/collecting fees from facilities inspected. The Fee Ordinance was last updated in Spring 2007 and will be updated again as needed during the 2008–13 permit term.

### Priority Industry Identification

The industries subject to stormwater compliance inspections and targeted outreach for the 2008–13 permit term are described in the sections below. The lists of industries for the second cycle are the same as used for first cycle. These lists will be refined during the 2008–13 permit term as needed.

### Commercial and Industrial Stormwater Compliance Program (CISCIP)

County EMD will continue to implement the CISCIP on behalf of all the permittees at the identified priority industries within the urbanized portions of unincorporated Sacramento County. This program is described in the following sections.

**CISCIP Inspections** - EMD will continue to conduct triennial inspections at priority industrial facilities. The first cycle of inspections was completed in June 2007 and the second cycle will be completed in June 2010. The following priority industrial facilities will be inspected:

- Facilities with coverage under the State’s Industrial General Permit
- Auto body shops
- Auto repair shops
- Auto dealers
- Equipment rental facilities
- Kennels
- Nurseries
- Retail gasoline outlets (i.e., gas stations)
- Restaurants

Appendix F presents definitions for these industrial categories.

The permittees may propose modifications to this list as they evaluate inspection and enforcement data to better identify significant threats to stormwater quality. At a minimum, the list will be evaluated and revised, as needed, by the end of the 2008–13 permit term.

EMD may de-list certain facilities found during inspection(s) to have no exposure of pollutants from their commercial/industrial activities. EMD will report these “de-listed” businesses in the Annual Reports and continue to track such facilities in its database.

EMD inspectors will continue to use a standard inspection checklist when conducting stormwater compliance inspections. This will help ensure consistency of inspections countywide, and maximize efficiency. The checklist will be refined as needed during the 2008–13 permit term.

Stormwater compliance inspections conducted at businesses covered under the State’s Industrial General Permit will verify that each facility:

- has a current Waste Discharge Identification (WDID) number
- has an up to date Stormwater Pollution Prevention Plan (SWPPP) available on-site, and
- is effectively implementing BMPs in compliance with the County’s Stormwater Ordinance.

EMD inspectors will distribute educational materials to the operators of these facilities during inspections. EMD will also refer suspected Industrial General Permit non-filers to the Regional Water Board, as described later in this section.

**CISCP Enforcement** — EMD will continue to follow their enforcement policy that emphasizes compliance of facilities with the Stormwater Ordinance through progressive enforcement actions. EMD’s enforcement policy is included in Appendix F. In general, it is the intention of the County to take appropriate administrative enforcement actions in all cases that do not involve criminal behavior, indicate patterns of activity that extend beyond Sacramento County or require significant infrastructure modification. All other cases will be referred to either the County District Attorney or the State Attorney General’s Office, as appropriate. In addition, significant violations will be reported to the Regional Water Board as described in more detail later in this section.

**CISCP Outreach** — EMD will continue to develop and refine Compliance Assistance Bulletins (CABs) for distribution to businesses during inspections, in training workshops, via BEREC, and on the EMD web site.

EMD will coordinate with others, such as BEREC and the Permittees, to assist with stormwater compliance training workshops for regulated industries.

EMD will continue to provide initial training for new inspectors, which includes field training by Water Protection Division (WPD) staff. WPD staff will also continue to conduct quality control reviews of stormwater compliance inspection forms submitted by inspectors and conduct follow-up one-on-one training, as needed, based on findings of quality control reviews.

**CISCP Data Management** — EMD will continue to manage and track data on inspections and enforcement using a computer-based system. County stormwater staff will have access to the database for programmatic and reporting purposes

At a minimum, the following information will continue to be tracked for each regulated facility:

- Name and address of owner and operator
- Coverage under General Industrial Permit, or other individual or general NPDES permits
- Narrative description and SIC code that best reflects the industrial or commercial activities at, and principal products of, each facility or business.

The database will be refined as needed during the 2008–13 permit term. Enforcement-related data will be used to assess the program effectiveness and to refine the list of priority industries for inspection and targeted outreach.

**CISCP Interagency Coordination** - EMD will continue to coordinate and cooperate with the Regional Water Board in the following ways:

- All significant violations and suspected Industrial General Permit non-filers will be referred to the Regional Water Board in writing or by electronic mail within 30 days of discovery. A tracking spreadsheet will be updated and submitted to the Regional Water Board monthly by EMD that will include any new referrals of non-filers. Within two weeks of receipt of EMD’s monthly submittal, the

Regional Water Board will update information in the tracking spreadsheet related to status of coverage, enforcement actions, etc. The Regional Water Board will also copy EMD and the permittees on all enforcement actions, and correspondence related to permit status changes or exemptions, such as Notices of Termination (NOTs), Notices of Non-Applicability (NONAs), and No Exposure Certifications (NECs), for all facilities listed. Figure 4.4-1 illustrates the responsibilities of the permittees, EMD and the Regional Water Board related to referring and processing non-filers.

- EMD will initiate investigation of complaints referred by the Regional Water Board within three business days of receipt associated with industries included in the CISCP.
- Upon request, EMD will support Regional Water Board enforcement actions targeting facilities included in the CISCP. For example, EMD can provide facility and historical information and EMD staff, when available and appropriate, to participate in joint inspections with the Regional Water Board.

#### **Complaint-Based Stormwater Compliance Program (CBSCP)**

County stormwater staff will inspect other businesses not addressed by EMD's program described above within the unincorporated County on a complaint basis. Complaints are referred by the public, other County agencies and departments, the Regional Water Board, and other sources. Stormwater staff will refer any complaints related to businesses included in the CISCP to EMD for investigation. All other complaints will be investigated, and associated progressive enforcement will be conducted to ensure that the stormwater pollution problem(s) are eliminated. Complaints related to businesses in other permittee jurisdictions will be referred to the responsible permittee for follow-up.

Inspections of businesses will verify that each facility and/or activity conducted is in compliance with the County Stormwater Ordinance, that there are no illicit connections or prohibited non-stormwater discharges evident, and that the potential for discharge of pollutants from on-site sources is reduced to the maximum extent practicable.

Progressive enforcement will be conducted, as needed, to bring businesses into compliance with the Stormwater Ordinance. County stormwater staff will revise the County's enforcement policy as needed during the 2008–13 permit term.

County stormwater staff will provide relevant educational materials, including BMP guidance materials, to businesses during inspections, in conjunction with enforcement actions, through trade associations and industry suppliers, during workshops and other events, through BERC and through the County's website (<http://www.sactostormwater.org/industry.asp>).

County stormwater staff will maintain a database of reported cases including associated findings and enforcement actions. Data will be evaluated to help guide the priority industry identification process.

The County stormwater staff will continue to coordinate and cooperate with the Regional Water Board related to non-compliant facilities and suspected Industrial General Permit non-filers, as indicated on Figure 4.4-1.

#### **Educational Outreach**

During the 2008–13 permit term, County stormwater staff will continue to conduct outreach to the following business categories within the urbanized portions of unincorporated County:

- Automotive washing and detailing businesses
- Carpet cleaning businesses
- Commercial pesticide applicators
- Concrete contractors
- Concrete cutting contractors and businesses
- General building contractors
- Landscape installation contractors and maintenance businesses
- Painting contractors
- Portable toilet rental businesses
- Pressure washing businesses
- Street sweeping businesses

- Swimming pool contractors
- Swimming pool maintenance businesses

Businesses in these priority categories are considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses are mobile operations without a single base of operation, so they are difficult to track.

The County will conduct targeted outreach to the listed business types at least twice during the five-year term of the stormwater permit. The objectives of the outreach are to increase awareness of stormwater pollution and applicable regulations, educate business owners and operators about BMPs for addressing pollution, and encourage environmental stewardship.

BERC will continue to manage the business outreach database and coordinate direct mailing of educational materials on behalf of the permittees. As with past years, it is anticipated that two types of outreach materials will be distributed:

- *General brochures and fact sheets:* These publications detail what types of activities may result in illegal discharges to the storm drain system as well as acceptable means of performing typical activities. The brochure entitled “Only Rain Down the Storm Drain” is an example of this type of outreach material.
- *Industry-specific brochures and fact sheets:* These publications provide information on source and treatment control BMPs targeted to specific industries. Source controls prevent the pollutant(s) from contacting site runoff or stormwater, and treatment controls remove pollutant(s) already contained in the runoff. The booklet entitled *BMPs for Pressure Washing and Surface Cleaning* is an example of this type of outreach material.

In addition to direct mail, educational brochures and other information will be distributed at displays at County public counters, by inspectors, through trade associations and industry suppliers, and during workshops and other events.

The County will continue to partner with BERC, the other permittees, and/or other organizations to provide industry-specific BMP workshops for various businesses as needs are identified.

The County will continue to partner with the City of Sacramento to implement the Clean Water Business Partners (CWBP) Program. The program will continue to target the businesses participating in the past (mobile carpet cleaning companies, pressure washers and landscape contractors) and will expand as appropriate and necessary to target other businesses.

Figure 4.4-1  
**Referral Process for Industrial General Permit Non-Filers**

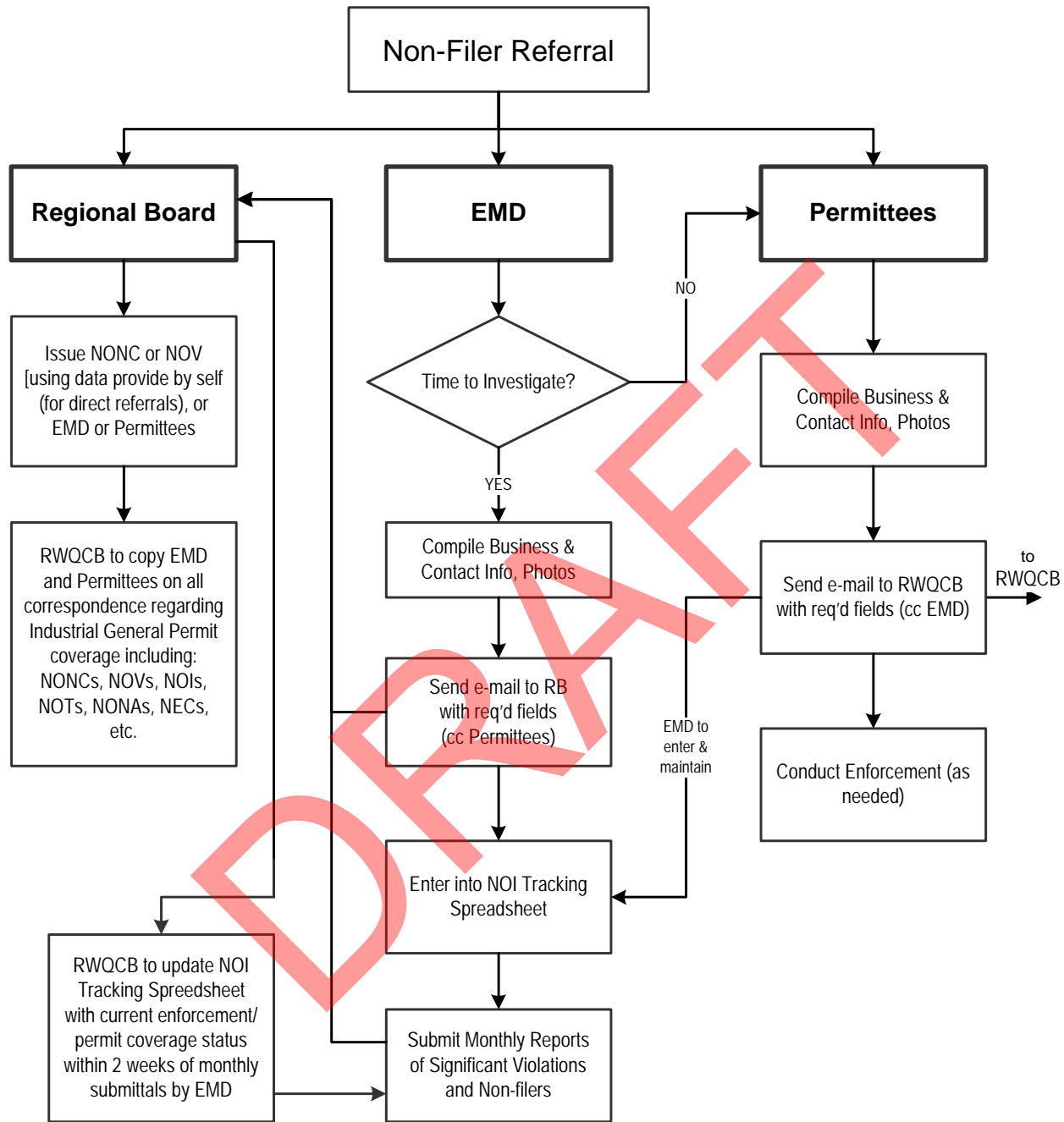


Table 4.4-1.  
**Effectiveness Assessment – Industrial/Commercial Element**

| Activity/Task  | Performance Standard (Goal)  | 2002-07 Permit Term |  | 2008-13 Permit Term |   | Assessment Method  |
|--|--|---------------------|--|---------------------|---|--|
|  |  | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information  |  |
| <b>Legal Authority</b>   |  |                     |  |                     |   |  |
| Stormwater Ordinance   | Adopt revisions as needed  | 1                   | SWO revised twice  | 1                   | NA  | Confirmation - report revisions in AR                                      |
| <b>Identify Priority Industries</b>  |  |                     |  |                     |   |  |
| List of Priority Industries - inspection                                     | Develop list; Refine as needed based on evaluation of enforcement-related data | 1                   | List completed (??? facilities listed, 6/07)<br>Definitions refined  | 1                   | NA  | Confirmation - report revisions in AR                                      |
| List of Priority Industries - outreach                                       | Develop list; Refine as needed based on evaluation of enforcement-related data | 1                   | List completed (??? businesses listed, 6/07)<br>Definitions refined  | 1                   | NA  | Confirmation - report revisions in AR                                      |
| <b>Commercial and Industrial Stormwater Compliance Program (CISCP) – EMD</b> |  |                     |  |                     |   |  |
| Develop CISCP  | Develop program, Adopt fee ordinance, Improve program as needed                | 1                   | CISCP developed; Fee ordinance adopted in 2003 and updated in spring 2007                                  | 1                   | NA  | Confirmation – report program/ordinance revisions in AR                    |
| Develop enforcement policy   | Create/adopt policy; revise as needed  | 1                   | EMD enforcement policy adopted in 2004   | 1                   | NA  | Confirmation - report revisions in AR                                      |
| Conduct CISCP inspections  | Inspect priority industries included in program at least once every 3 years    | 1                   | First cycle of inspections completed 6/07  | 1                   | NA  | Confirmation - report on completion of next cycle, 2007-10                 |
|  | Decrease in number of violations observed                                      | 1                   | ?? violations per facility inspection (not included follow-up inspections) during 2004-07 inspection cycle | 3                   | No. of violations per facility inspection observed during previous inspection cycle | Tabulation – track number of violations observed and inspections conducted |
|  | Decrease in follow-up inspections required                                     | 1                   | ?? percent of the ??? facilities inspected required follow-up inspections during 2004-07 inspection cycle  | 3                   | Percentage of follow-up inspections in previous inspection cycle                    | Tabulation – track the percentage of follow-up inspections conducted       |
| De-list facilities with no exposure of pollutants to stormwater              | Document/quantify facilities de-listed   | 1                   | ??? facilities de-listed during 2004-07 inspection cycle   | 1                   | NA  | Tabulation – track number of industries de-listed due to no exposure       |



Table 4.4-1. Effectiveness Assessment – Industrial/Commercial Element

| Activity/Task   | Performance Standard (Goal)   | 2002-07 Permit Term |  | 2008-13 Permit Term |  | Assessment Method  |
|---|---|---------------------|--|---------------------|--|--|
|   |   | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information   |  |
| Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)  | Decrease in enforcement actions   | 1                   | ?? enforcement actions per facility inspection (not included follow-up inspections) during 2004-07 inspection cycle  | 3                   | No. of enforcement actions per facility inspection observed during previous inspection cycle | Tabulation – track number of enforcement actions issued and inspections conducted  |
| Produce/distribute educational materials  | Document/quantify materials distributed   | 1                   | Produced ?? Compliance Assistance Bulletins (CABs); distributed over ???   | 1                   | NA   | Tabulation - track number of revised/new materials; number materials distributed in AR   |
| Outside Training  | Conduct workshops, upon request, for the regulated community  | 1                   | Reached ??? people with ?? training workshops  | 1                   | NA   | Tabulation - track number workshops held, number people reached in AR  |
| County Employee Training  | Provide training to new CISCIP inspectors   | 1                   | Reached ??? people initial training program  | 1                   | NA   | Tabulation - track number people reached in AR   |
|   | Conduct quality control reviews of stormwater compliance inspection forms   | 1                   | ?? percent of the ??? total inspection forms submitted by stormwater compliance inspectors were reviewed for quality control purposes required follow-up inspections during 2004-07 inspection cycle | 1                   | Percentage of inspection forms reviewed during previous inspection cycle                     | Tabulation – track percentage of inspection forms reviews for quality control purposes   |
|   | Decrease in the number of people requiring supplemental training as a result of quality control reviews of inspection forms | 1                   | Supplemental training was conducted in ?? percent of inspection forms reviewed during 2004-07 inspection cycle   | 3                   | Percent of forms reviewed requiring supplemental training during previous inspection cycle   | Tabulation - track number people requiring supplemental training in AR   |
| Create/Maintain CISCIP database (EMD) to track facility inventory, inspections, enforcement and outreach materials distributed (facilities included to be based on list of priority industries) | Create database, update annually  | 1                   | Database complete; updated continually   | 1                   | NA   | Confirmation - include updated list in AR  |
|   | Use data as tool to identify business categories that need not be included in the CISCIP                                    | NA                  |  | 3                   | NA — Internal programmatic change based on data evaluation                                   | Confirmation/Tabulation – evaluate data to identify whether to add or remove business categories to CISCIP or Educational Outreach |

Table 4.4-1. Effectiveness Assessment – Industrial/Commercial Element

| Activity/Task  | Performance Standard (Goal)   | 2002-07 Permit Term |   | 2008-13 Permit Term |   | Assessment Method   |
|--|---|---------------------|---|---------------------|---|---|
|  |   | OUT-COME LEVEL      | Effectiveness Assessment  | OUT-COME LEVEL      | Baseline Information  |   |
| Refer significant violations to the Regional Water Board   | Document/quantify significant violations reported to Regional Water Board         | 1                   | Reported ??? significant violations during 2004-07 inspection cycle   | 1                   | NA  | Tabulation – Track number of significant violations reported  |
| Refer Industrial General Permit non-filers to the Regional Water Board   | Document/quantify potential non-filers referred to Regional Water Board           | 1                   | Referred ??? non-filers during 2004-07 inspection cycle   | 1                   | NA  | Tabulation – Track number of non-filers referred  |
|  | Increase in percentage of non-filers referred to Regional Water Board filing NOIs | 1                   | Referred ??? non-filers to the Regional Water Board, ?? percentage of which gained coverage during 2004-07 inspection cycle | 3                   | Percentage of non-filers referred that sought coverage during previous inspection cycle | Tabulation – Track percentage of non-filers referred that gained coverage   |
| Initiate investigation of Regional Water Board referrals within 3 days of receipt  | Document/quantify investigations of Regional Water Board referrals                | 1                   | Investigated ??? Regional Water Board referrals during 2004-07 inspection cycle   | 1                   | NA  | Tabulation – Track number of Regional Water Board referrals investigated  |
| Provide enforcement support to Regional Water Board related to, including providing staff for joint inspections when available and appropriate | Document/quantify support efforts   | 1                   | Provided support to Regional Water Board on ??? cases during 2004-07 inspection cycle                                       | 1                   | NA  | Tabulation – Track number of cases where support was provided to the Regional Water Board   |
| Evaluate target pollutant removal effectiveness of CISC  | Measure reduction in target pollutant discharges as a result of the CISC          | 1                   | First cycle of inspections completed 6/07   | 1                   | Compliance data generated from previous inspection cycle                                | Confirmation – Track number of sites already in compliance<br>Tabulation – Track number of target pollutant discharges identified and ceased as a result of inspections. If possible estimate resultant load reduction. |
| <b>Complaint-Based Stormwater Compliance Program (CBSCP) – County DWR/Stormwater Section</b>   |   |                     |   |                     |   |   |
| Develop enforcement policy   | Create/adopt policy; revise as needed   | 1                   | DWR DRAFT enforcement policy developed and implemented  | 1                   | NA  | Confirmation - report revisions in AR   |
| Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)   | Decrease in enforcement actions   | 1                   | Issued ??? enforcement actions during 2002–07 permit term   | 3                   | No. of enforcement actions during previous permit term                                  | Tabulation – track number of enforcement actions issued   |

Table 4.4-1. Effectiveness Assessment – Industrial/Commercial Element

| Activity/Task  | Performance Standard (Goal)   | 2002-07 Permit Term |  | 2008-13 Permit Term |  | Assessment Method  |
|--|---|---------------------|--|---------------------|--|--|
|  |   | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information   |  |
| Distribute educational materials   | Document/Quantify materials   | 1                   | Distributed ??? brochures  | 1                   | NA   | Tabulation – Track number of brochures distributed   |
| Outside Training   | Conduct workshops, upon request, for the regulated community                      | 1                   | Reached ??? people with ?? training workshops  | 1                   | NA   | Tabulation - track number workshops held, number people reached in AR  |
| Create/Maintain CBSCP database to track inspections, enforcement and outreach materials distributed  | Use data as tool for program enhancement  | 1                   | Database complete, continual updates   | 3                   | NA — Internal programmatic change based on data evaluation                         | Confirmation/Tabulation – evaluate data to identify whether to add or remove new business categories to CISCSP or Educational Outreach |
| Refer significant violations to the Regional Water Board   | Document/quantify significant violations reported to Regional Water Board         | 1                   | Reported ??? significant violations during 2002–07 permit term   | 1                   | NA   | Tabulation – Track number of significant violations reported   |
| Refer Industrial General Permit non-filers to the Regional Water Board   | Document/quantify potential non-filers referred to Regional Water Board           | 1                   | Referred ??? non-filers during 2002–07 permit term   | 1                   | NA   | Tabulation – Track number of non-filers referred   |
|  | Increase in percentage of non-filers referred to Regional Water Board filing NOIs | 1                   | Referred ??? non-filers to the Regional Water Board, ?? percentage of which gained coverage during 2002–07 permit term | 3                   | Percentage of non-filers referred that sought coverage during previous permit term | Tabulation – Track percentage of non-filers referred that gained coverage  |
| Initiate investigation of Regional Water Board referrals within 3 days of receipt  | Document/quantify investigations of Regional Water Board referrals                | 1                   | Investigated ??? Regional Water Board referrals during 2002–07 permit term   | 1                   | NA   | Tabulation – Track number of Regional Water Board referrals investigated   |
| Provide enforcement support to Regional Water Board related to, including providing staff for joint inspections when available and appropriate | Document/quantify support efforts   | 1                   | Provided support to Regional Water Board on ??? cases during 2002–07 permit term                                       | 1                   | NA   | Tabulation – Track number of cases where support was provided to the Regional Water Board  |

Table 4.4-1. Effectiveness Assessment – Industrial/Commercial Element

| Activity/Task   | Performance Standard (Goal)                 | 2002-07 Permit Term |   | 2008-13 Permit Term |   | Assessment Method  |
|---|---|---------------------|---|---------------------|---|--|
|   |   | OUT-COME LEVEL      | Effectiveness Assessment  | OUT-COME LEVEL      | Baseline Information  |  |
| <b>Outreach</b>   |   |                     |   |                     |   |  |
| Produce educational materials   | Document/<br>Quantify materials produced    | 1                   | Produced ?? updated ?? brochures and other outreach pieces  | 1                   | NA  | Tabulation - track number of revised/new materials; number materials distributed in AR   |
| Conduct Targeted Outreach   | Increased awareness of pollution prevention | 2                   | Reached ??? businesses via direct mailings twice during permit term                               | 2                   | Number of businesses reached in previous permit term              | Tabulation – Track number of businesses outreached   |
| Create/Maintain business outreach database (based on list of priority industries) | Create database Update annually             | 1                   | Database complete; updated annually   | 1                   | NA  | Confirmation - include updated list in AR  |
| Clean Water Business Partner Program  | Increased participation in the CWBP         | NA                  | ??? percent of eligible businesses participated in the CWBP at the end of the 2002–07 permit term | 2,3                 | Percent of eligible businesses participating during previous year | Tabulation – track percent of eligible businesses participating in CWBP (compare to no. businesses that could qualify, according to outreach database) |

Highlighted question marks (???) indicate data that will be included in the final version of the SQIP

AR = Annual Report; EMD = Environmental Management Department; NA = Not Applicable; SWO = Stormwater Ordinance

Table 4.4-2 to be inserted here in Final SQIP version.

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## 4.5 Municipal Operations Element

The Municipal Operations Element addresses operation and maintenance of County-owned facilities within urbanized Sacramento County. The County's operation and maintenance activities take place at either fixed facilities, at a specific location, or are part of field programs that take place over a broader, non-specific area. The Municipal Operations Element goal is to prevent County facilities and operations from causing or contributing to stormwater pollution.

Examples of County-owned fixed facilities include: buildings (e.g. structures, parking lots, and landscaping), corporation yards (e.g. vehicle and equipment maintenance and parking, and materials storage), solid waste facilities (e.g. landfills and transfer stations), and recreational facilities (e.g. regional parks). Examples of County-owned facilities addressed by field programs include transportation facilities (e.g., roads, roadside ditches, medians, and shoulders); drainage collection, transmission, and detention systems (e.g., drain inlets, manholes, pipes, channels, flood control basins, and stormwater pump stations); water quality facilities (e.g., water quality detention basins).

The Sacramento Regional Wastewater Treatment Plant, County airports, waste management and recycling facilities and corporation yard are covered by the State General Industrial Permit. Some other facility operations and maintenance activities are covered by the Aquatic Pesticide General Permit or the Dewatering and Other Low Threat Discharges General Permit. County construction projects disturbing one or more acres are subject to the Construction General Permit. Kiefer Landfill is also covered by an Individual NPDES Permit. County agencies and departments with facilities affected by these Individual and General NPDES Permits are each responsible for ensuring compliance with their permit requirements.

The Municipal Operations Element does not address facilities operated by or operations conducted by special districts (e.g., fire, parks, reclamation, sanitation, school, vector control, water) or federal or state government agencies (e.g., California Department of Transportation,

The primary mission of the Municipal Operations Element is to control stormwater pollution resulting from the operation and maintenance of County-owned facilities. A secondary mission is to set an example of model pollution prevention for the public.

U.S. Bureau of Reclamation) that are outside the County's jurisdictional control.

### Pollutants Addressed

The County's activities and requirements under the Municipal Operations Element address a wide variety of pollutants typically found in urban runoff, including the target pollutants previously identified by the Program (See Chapter 3, Section 3.5.) For the most part, the activities are designed to remove pollutants from the storm drain system, or reduce contribution of pollutants. However, if not properly conducted, some routine maintenance activities may have the potential to contribute pollutants to stormwater runoff, as described below.

Examples of activities with potential stormwater pollutant sources include: materials storage and handling; waste collection, storage, and disposal; vehicle and equipment parking, maintenance, and washing; road maintenance and street sweeping; drainage pipe, channel, and detention basin repair and cleaning; vegetation control; and construction and retrofit of County facilities.

These activities are properly managed and continually evaluated to reduce the potential for pollutants to be discharged to the storm drain system and/or local receiving waters. Pollutants addressed will vary, depending on the activity. For example:

- Outdoor materials and waste storage and handling areas at County facilities have the potential to contribute oils, greases and sediments to site runoff. Therefore, staff that design, construct, operate, and maintain these public facilities are trained and evaluated on their knowledge, implementation, and management of stormwater Best Management Practices (BMPs).
- Vehicle and equipment maintenance and washing facilities can contribute oils, grease, solvents, petroleum hydrocarbons, and detergents to the storm drain system. These

activities are conducted in areas that are not exposed to stormwater contact and do not result in non-stormwater discharges to the storm drain system.

- Vehicle and equipment parking areas can accumulate automotive fluids, sediments and debris. Sweeping and oil stain removal are Source Control BMPs implemented prior to each rainy season in parking areas exposed to stormwater contact.
- Construction of new and retrofit of existing County facilities can contribute sediments and construction related pollutants to local receiving waters. Erosion, sediment, and other pollution control measures are installed, inspected and maintained through all phases of construction.
- Cleaning and maintenance of County-owned facilities such as buildings, parking lots, streets, pipes, channels, and detention basins could cause a non-stormwater discharge. BMPs such as protecting storm drain inlets, minimizing the use and capturing of wash water during street and parking lot cleaning, and using pest management techniques that minimize the use and/or toxicity of herbicides for removing vegetation, are implemented.
- Management of vegetation along roadsides and in drainage channels can contribute to pesticides and fertilizers in runoff. BMPs are employed to reduce the amount of chemicals used and training is provided to staff related to proper application and handling methods.

### Municipal Operations Strategies

The County employs the following strategies to minimize potential adverse environmental impacts:

- Conduct targeted employee training, provide technical assistance for managers and contractors, and create/implement Municipal Storm Water Pollution Prevention Plans (SWPPPs) at selected facilities.
- Periodically evaluate Municipal SWPPPs, activities and facilities in order to recommend new or improved BMPs; and
- Create and maintain record keeping tools that provide data for effectiveness assessments and continuous improvement.

These combined efforts help ensure countywide compliance with the stormwater permit in order to reduce stormwater pollution to the maximum extent practicable.

Each of these strategies are explained in greater detail in the following paragraphs.

### Educate County Employees and Contractors

Outreach and training targets several audiences:

- County designers and design consultants are provided guidance related to the selection and design of stormwater quality controls for new and redevelopment public projects.
- Contractors working on County projects are required to comply with the County's Erosion Control Ordinance and the State Construction General Permit. Information is presented through training workshops and other educational materials. Refer to Section 4.3 for more details.
- Targeted employees are educated about proper housekeeping practices and the selection and implementation of appropriate stormwater quality BMPs through presentations at staff meetings and site visits by County stormwater staff (discussed later in this section). Guidance materials are developed or obtained from other agencies (e.g., statewide BMP guidance manuals, Caltrans, etc.) and distributed to demonstrate proper techniques. Also, technical assistance is provided through periodic work-site or Municipal SWPPP evaluations to identify problems, adjust or implement additional BMPs, and evaluate BMP effectiveness over time.
- Maintenance personnel are educated about conducting maintenance in a way that is protective of local creeks and rivers. This education is done primarily through staff meetings, one-on-one correspondence and written guidance materials.

### Evaluate and Continuously Improve Operations

Evaluations are conducted periodically by collecting and reviewing records and data, evaluating Municipal SWPPPs, and conducting site visits or interviews with County staff to assess employee awareness and program effectiveness.

The goal is to continuously improve stormwater pollution prevention.

### **Maintain Records and Documentation**

Recordkeeping and reporting helps demonstrate compliance with the Stormwater Permit and provides data for evaluating and improving activities. Each department and group in the County maintains their own recordkeeping system and supplies data and information to the County Stormwater staff at least annually for incorporation into the October 1 Annual Report. County Stormwater staff maintains records related to employee training and evaluations. Every attempt is made to quantify efforts in ways that relate to protection of water quality. For example, records of the tonnage or volume of wastes removed from streets, parking lots, and the storm drain system demonstrate the County's goal to reduce the amount of such material discharged downstream to local creeks and rivers.

### **Relationship to other Program Elements**

The Municipal Operations Element relates to other elements as follows:

#### **Construction Element (Section 4.3)**

State regulations require that County construction projects disturbing one acre or more of land be covered under the State's Construction General Permit. The Construction General Permit calls for preparation and implementation of SWPPPs to describe erosion and other stormwater controls at the site, including inspection and maintenance for the BMPs. Typically the SWPPPs are prepared and implemented by the County's prime contractor or his/her subcontractor, but SWPPP certification, review and oversight is provided by a County official and the responsible County project manager.

County inspectors, however, are not authorized to enforce the State Construction General Permit. For this reason, the County may also require separate erosion and sediment control plans for its projects, which are enforceable by the County inspectors.

Project specific training about construction stormwater pollution prevention requirements is provided to County designers, project managers,

inspectors, and contractors, as described in Section 4.3.

#### **Commercial/Industrial Element (Section 4.4)**

The County operates industrial-like facilities such as the corporation yard, therefore, the educational materials developed for the commercial/industrial target audiences described in Section 4.4 would apply to some County managers and staff as well. The County strives to set an example for local businesses and industries by ensuring that County facilities comply with the same requirements that apply to private commercial and industrial facilities in unincorporated Sacramento County.

#### **Illicit Discharge Element (Section 4.6)**

If not properly controlled, accidental or illegal non-stormwater discharges and spills could end up in the County's storm drain system. From here, the pollutants could migrate to local creeks and rivers. Designated staff in the Transportation and Water Quality Departments respond to reports of possible illicit discharges. These specially trained staff will investigate and cleanup the materials and report the incident to the Stormwater staff in the Department of Water Resources for further investigation and enforcement.

Other County maintenance personnel are also trained about how to identify potential illicit discharges and refer the problem for investigation and cleanup (see Section 4.6).

#### **Public Outreach Element (Section 4.7)**

The County retains staff and consultants with the experience and expertise needed to conduct meaningful outreach to various County audiences through workshops, correspondence, and educational materials so that all targeted staff receives the important message of protecting stormwater quality.

#### **New Development Element (Section 4.8)**

County planners, designers and their consultants are educated about stormwater quality and flow control requirements applicable to redevelopment of County facilities and are provided guidance such as the Stormwater Quality Design Manual discussed in Section 4.8.



### Coordination within the County of Sacramento

The Municipal Operations Element regularly coordinates with the other agencies, departments, divisions, and sections listed in Table 4.2-1 located in Section 4.2.

### Coordination with Other Agencies and Groups

The County coordinates with the other Permittees, stormwater programs, and local, state, and federal agencies to share information and strategies related to operation and maintenance of County facilities.

The County does not have legal jurisdiction over certain entities and special districts within the County’s permit boundaries, such as: fire, park, reclamation, sanitation, school, vector control, and water districts, as well as state and federal agencies. Because in many cases these entities discharge runoff to the County’s storm drain system, the County expects and enforces compliance with local codes, regulations, and ordinances as in the case of any private business or entity. The County coordinates with these districts, as needed on a project specific basis, to protect the County’s storm drain system and local creeks and rivers.

### Accomplishments To Date

Since the inception of the Program in 1990, the County has made the following accomplishments related to the Municipal Operations Element:

- Provided education and outreach to various designers of County projects who now include specific requirements intended to ensure compliance with local and State stormwater quality regulations in their project specifications
- Established routines for collecting and compiling data to assess activities and document regulatory compliance (e.g., County maintenance staff routinely log the quantity of pipes, channels, basins, sumps, drop inlets, manholes, and roadways cleaned.)
- Worked with local environmental groups to determine alternative environmentally-friendly ways to conduct overbank cleaning of natural creeks and streams

- Evaluated priority facility operations and maintenance activities to identify improved BMPs and provided outreach and training to staff in targeted positions
- Provided assistance to County facilities subject to the Industrial General Permit relative to reviewing SWPPPs, evaluation of facility operations, and recommendation of improved BMPs, as requested
- Provided assistance to County agencies, departments, divisions, and sections related to compliance with the State’s Aquatic Pesticides General Permit
- Implemented cleaning and maintenance programs for prioritized streets and parking lots
- Stenciled 95% of all storm drain inlets located within the County’s boundaries with a “No Dumping – Drains to Creek” message
- Stormwater staff developed and distributed door hangers to be used by Stormwater staff and field crews to educate the public about stormwater quality and to elicit reporting in the vicinity of illicit discharges.
- Created and maintained Municipal Facility SWPPPs at County corporation yards, and other facilities conducting vehicle maintenance or material storage that have the potential to discharge pollutants to the storm drain system or local waterways.

### Effectiveness Assessment

The County’s approach to assessing the effectiveness of its stormwater program is consistent with the joint permittee approach described in Chapter 2.

### Effectiveness of Third Permit Term Activities

The prescriptive language of the 2002 Stormwater Permit required the development and implementation of programs such as storm drain labeling, Municipal SWPPPs, parking lot inspection and maintenance, and BMPs for emergency and non-emergency maintenance activities. All permit requirements were accomplished and completed within the permit term. Some programs were implemented at the end of third permit term and have not had enough years to provide sufficient data to establish trends

or baselines, therefore baseline data for those programs will be collected during the fourth permit term to assess program effectiveness.

Table 4.5-1 presents the results of the effectiveness assessment conducted for the third permit term. For the most part, the activities conducted during this period demonstrated compliance with the permit (Outcome Level 1). A few of the educational outreach activities resulted in raised awareness (Outcome Level 2). These results were used to identify new or revised activities for the next permit term, as well as effectiveness methods that could be applied with the goal of demonstrating more increased awareness, behavioral changes and load reductions (Outcome Level 4) that results in greater pollution prevention.

### **Proposed Effectiveness Methods for Fourth Permit Term**

Table 4.5-1 proposes effectiveness methods for use in evaluating fourth permit term activities, with the goal of achieving the highest level of effectiveness outcomes for each task. The County will continue to document accomplishments at Outcome level 1 to demonstrate permit compliance. Educational/training efforts and facility/activity BMP evaluations data will be reported each year in the annual report.

The key challenge for the fourth permit term will be to identify ways to compile, analyze and report data to demonstrate changes in awareness and behavior (Outcome Levels 2 & 3) as a result of training and facility/activity BMP evaluations.

### **Activities for the Fourth Stormwater Permit Term**

This section describes the Stormwater Permit requirements applicable to the Municipal Operations Element and the activities to be conducted during the fourth permit term. Additional details are provided about the effectiveness methods (introduced in Table 4.4-1) that the County plans to use to demonstrate effectiveness during the fourth term.

### **Stormwater Permit Requirements**

Provision X of the Stormwater Permit pertains to the Municipal Operations Element. The requirements of this provision are described in

detail in Table 4.5–2 at the end of this section (Table to be included in final SQIP) and can be summarized as follows:

### **Sanitary Sewage System Maintenance, Overflow, and Spill Response**

Assistance will continue to be provided to the local sewer district related to BMPs for maintenance, operations, and spill or overflow response.

### **Public Construction Activities Management**

During the 2008-2013 permit term, the County will continue to apply Construction Element requirements to all County construction projects including obtaining coverage under the General Construction Permit if applicable.

### **Storm Drain Operations and Maintenance**

The County will continue to conduct storm drain operation and maintenance in accordance to the manhole and pump station sump maintenance program provided in 2003 SQIP.

Catch basin and sump cleaning will continue to be based upon the following criteria:

- The manhole's proximity to sensitive receiving waters
- The manhole's proximity to regional stormwater quality BMPs (e.g., water quality detention basin)
- The presence or absence of downstream manholes or sumps.

High priority manhole sumps will be inspected annually, prior to the rainy season, and cleaned, as needed, based upon inspection. The remainder will be cleaned during regular maintenance program activities.

Stormwater staff will continue to evaluate the storm drain operation and maintenance activities to ensure that proper BMPs are implemented during maintenance activities, storm drain inlet markers are replaced when illegible, and that record keeping continues to be conducted related to overall maintenance activities.

### **Street and Road Maintenance**

The County will continue to sweep prioritized streets according to the street prioritization requirements established in 2002-2007 permit. Stormwater staff annually review the total amount of pollutants removed from streets and will evaluate, and adjust as needed, pollution prevention BMPs implemented during street cleaning and roadway maintenance operations.

### **Emergency Procedures**

Stormwater staff will continue to work with targeted departments to ensure that stormwater BMPs are implemented during the repair of essential public services and infrastructures and conduct activities in a manner that minimizes environmental damage

### **Non-Emergency Fire Fighting Flows**

Stormwater staff will continue to assist County Airport Fire staff with preventing non-emergency flows from entering the storm drain system during training and maintenance activities.

### **Vehicle Maintenance/Material Storage Facilities/Corporation Yard Management**

Municipal facility Storm Water Pollution Prevention Plans (SWPPPs) were developed for all County vehicle maintenance, material storage facilities and corporation yards having the potential to discharge pollutants to the storm drain system or waters of the state. Municipal SWPPPs will be evaluated during the 2008-2013 permit term, BMPs or activities will be adjusted, as needed.

### **Landscape and Recreational Facilities Management**

Stormwater staff will continue to oversee the implementation of pesticide management and other Integrated Pest Management (IPM) strategies as part of the landscape management activities and operation of recreational facilities.

### **Detention Basin Maintenance**

The County will continue to maintain detention basin within its jurisdiction according to the Sacramento County Detention Basin Maintenance manual. Stormwater staff will continue to evaluate, and adjust as needed, guidelines for operation and maintenance of water quality detention basins, catch basins and sumps in order to minimize the discharge of pollutants during maintenance activities.

### **Parking Facilities Management**

The County will continue to perform its Parking Lot Inspection and Maintenance Program during the 2008-2013 permit term. Stormwater staff will continue to evaluate procedures to ensure that BMPs are implemented during maintenance activities and annually collect data related to the type of maintenance activities performed.

### **Special Events**

The County will continue to issue special use permits for event at County owned and operated facilities that are expected to generate substantial amount of trash and litter. The special use permit will continue to require that all trash generated on County property during special events shall be disposed of properly.

### **Employee Outreach and Training**

Provide annual stormwater pollution prevention training for employees in targeted positions. Targeted employees will receive training related to stormwater pollution prevention, BMP identification and implementation, proper housekeeping practices, as well as identification and reporting of illicit discharges. Stormwater staff will continue to provide annual training and will conduct the employee training evaluation to identify employee awareness.

Table 4.5-1.  
**Effectiveness Assessment – Municipal Operations Element**

| Activity/Task  | Performance Standard (Goal)  | 2002-2007 Permit Term |  | 2008-2013 Permit Term |                      | Assessment Method   |
|--|--|-----------------------|--|-----------------------|----------------------|---|
|  |  | OUT-COME LEVEL        | Effectiveness Assessment   | OUT-COME LEVEL        | Baseline Information |   |
| <b>Municipal Activities: Sanitary Sewage System Maintenance, Overflow, and Spill Response</b>          |  |                       |  |                       |                      |   |
| Assist local sewer district related to BMPs for maintenance, operations and spill or overflow response | Document assistance provided   | 1                     | Provided assistance ?? times   | 1                     | Previous terms data  | Tabulation – Track assistance provided  |
| <b>Municipal Activities: Public Construction Activities Management</b>                                 |  |                       |  |                       |                      |   |
| Implement the Development Standards requirements as they apply to public construction projects.        | Implement the County's Development Standards requirements for public construction projects.  | 1                     | ?? number of projects County projects that implemented the County's Development Standards during permit term | 1                     | Previous terms data  | Confirmation – Identify that Development Standards were implemented<br>Tabulation – Track number of projects            |
| Implement the Construction Program requirements at County-owned construction sites.                    | Apply Construction Element requirements to County-owned construction sites, including obtaining coverage under the General Construction Permit, if applicable. | 1                     | ?? number of County construction projects that implement the County's Construction Program requirements      | 1                     | Previous terms data  | Confirmation – Identify that County construction requirements were implemented<br>Tabulation – Track number of projects |
| <b>Municipal Activity: Storm Drain Operation and Maintenance</b>                                       |  |                       |  |                       |                      |   |
| Clean prioritized catch basins and sumps   | Document/Quantify materials removed  | 1                     | ?? of cubic yards of pollutants removed during 2002-2007 permit term   | 1                     | NA                   | Confirmation – Identify maintenance performed   |
|  | Decrease amount of sediment discharged to waters of the state  | 4                     | Previous years data - Removed xxx cubic yards of sediment during 2002-2007 permit term                       | 4                     | Previous terms data  | Quantification – Track quantities of sediment removed in AR   |

Table 4.5-1. Effectiveness Assessment – Municipal Operations Element

| Activity/Task   | Performance Standard (Goal)                                   | 2002-2007 Permit Term |   | 2008-2013 Permit Term |                      | Assessment Method  |
|---|---|-----------------------|---|-----------------------|----------------------|--|
|   |   | OUT-COME LEVEL        | Effectiveness Assessment  | OUT-COME LEVEL        | Baseline Information |  |
| Visually monitor permittee owned open channels and perform maintenance as needed based upon sediment and trash accumulation | Document/Quantify materials removed                           | 1                     | ?? of cubic yards of pollutants removed during 2002-2007 permit term  | 1                     | NA                   | Confirmation – Identify maintenance performed  |
|   | Decrease amount of sediment discharged to waters of the state | 4                     | Previous years data - Removed xxx cubic yards of waste during 2002-2007 permit term   | 4                     | Previous terms data  | Quantification – Track quantities of sediment removed in AR  |
| Stencil/Label Storm Drain Inlets  | Document number of storm drain inlets labeled by County crews | 1                     | ?? of the total of ?? drain inlets were stenciled during 2002-2007 permit term.   | 1                     | NA                   | Confirmation – Identify that activity is performed   |
| Re-label any illegible storm drain inlet markers  | Document  | 1                     | During the 2002-2007 permit term, illegible drain inlets were re-labeled as part of regular maintenance (numbers were not tracked separately) | 1                     | NA                   | Tabulation – Track number of inlet s marked each year  |
| Evaluate BMPs implemented during storm drain maintenance activities   | Document evaluations performed                                | 1                     | ?? activities evaluated during 2002-2007 permit term  |                       | NA                   | Confirmation / Tabulation  |
|   |   |                       |   | 3                     | Previous terms data  | Inspection and Tabulation – Track number of evaluations performed and identify BMPs implemented and activities modified as a result of evaluations |
| <b>Municipal Activities: Street and Road Maintenance</b>  |   |                       |   |                       |                      |  |
| Clean prioritized streets and/or street segments.   | Document/ Quantify materials removed                          | 1                     | ?? of cubic yards of pollutants collected during 2002-2007 permit term  | 1                     | NA                   | Confirmation / Tabulation – Report amounts in AR   |

Table 4.5-1. Effectiveness Assessment – Municipal Operations Element

| Activity/Task   | Performance Standard (Goal)  | 2002-2007 Permit Term |   | 2008-2013 Permit Term |                      | Assessment Method   |
|---|--|-----------------------|---|-----------------------|----------------------|---|
|   |  | OUT-COME LEVEL        | Effectiveness Assessment  | OUT-COME LEVEL        | Baseline Information |   |
|   | Decrease in amount of sediment discharged to waters of the state             | 4                     | Removed XXX cubic yards of sediment during 2002-2007 permit term                                | 4                     | Previous permit term | Quantification - Track quantities of sediment removed in AR |
|   | Designate streets based upon prioritization language in SQIP                 | 1                     | Prioritized streets as A, B, and C during 2002-2007 permit term                                 | 1                     | NA                   | Confirmation -Report revisions in AR                        |
| Prevent street sweep rinse out from discharging to the storm drain system   | Eliminate non-stormwater discharges during street sweeping activities        | 1                     | ?? of violations reported during 2002-2007 permit term  | 1                     | NA                   | Confirmation/Inspection – Identify BMPs implemented         |
| Collect all waste generated during sawcutting and prevent discharges to the storm drain system  | Document that BMPs are implemented   | 1                     | NA  | 1                     | NA                   | Confirmation/Inspection – Identify BMPs implemented         |
|   | Evaluate road maintenance activities to ensure permit requirement compliance |                       | ?? of activities evaluated during 2002-2007 permit term   | 3                     | NA                   | Confirmation/Inspection – Identify BMPs implemented         |
| Prevent road maintenance materials and wastes from discharging to the storm drain system  | Evaluate road maintenance activities to ensure permit requirement compliance |                       | ?? of activities evaluated during 2002-2007 permit term   | 3                     | NA                   | Confirmation/Inspection – Identify BMPs implemented         |
| Prevent concrete chute washout from discharging to the storm drain system   | Document that BMPs are implemented   | 1                     | NA  | 1                     | NA                   | Confirmation/Inspection – Identify BMPs implemented         |
| <b>Municipal Activities: Emergency Procedures</b>   |  |                       |   |                       |                      |   |
| BMPs shall be implemented during emergency responses to minimize the impact on the environment as long as it does not compromise public health and safety | Establish and implement emergency procedure protocols                        | 1                     | Emergency procedure protocols established and implemented during 2002-2007 permit term          | 1                     | NA                   | Confirmation – Document that activity has been completed    |
| <b>Municipal Activities: Non-emergency Fire Fighting Flows</b>  |  |                       |   |                       |                      |   |
| Minimize pollutants from non-emergency flows to the storm drain system.   | Establish and implement non-emergency flow procedure protocols               | 1                     | Non-emergency flow procedure protocols established and implemented during 2002-2007 permit term | 1                     | NA                   | Confirmation – Document that activity has been completed    |

Table 4.5-1. Effectiveness Assessment – Municipal Operations Element

| Activity/Task   | Performance Standard (Goal)  | 2002-2007 Permit Term |  | 2008-2013 Permit Term |   | Assessment Method  |
|---|--|-----------------------|--|-----------------------|---|--|
|   |  | OUT-COME LEVEL        | Effectiveness Assessment   | OUT-COME LEVEL        | Baseline Information  |  |
| <b>Municipal Facilities: Vehicle Maintenance/Material Storage Facilities / Corporation Yard Management</b>  |  |                       |  |                       |   |  |
| Develop/evaluate Municipal Facility SWPPPs for public vehicle maintenance facilities, material storage facilities, and corporation yards not covered under the General Industrial Permit that have the potential to discharge pollutants to the MS4 or waters of the state. | Municipal SWPPPs implemented at required facilities. Evaluate implementation of SWPPP requirements and adjust BMPs as needed | 1                     | SWPPP requirement completed  | 1                     | NA  | Confirmation   |
|   | Evaluate adequacy / implementation of Municipal SWPPPs   |                       |  | 1                     | Facility SWPPPs will be evaluated during fourth permit term to establish baseline | Confirmation / Tabulation-Track number of Municipal SWPPPs evaluated               |
|   |  |                       |  | 3                     | NA  | Confirmation / Tabulation – Track number of Municipal SWPPPs / activities modified |
| <b>Municipal Facilities: Landscape and Recreational Facilities Management</b>   |  |                       |  |                       |   |  |
| Implement protocols for routine and non-routine application of pesticides for compliance  | Verify that protocols for routine and non-routine application of pesticides comply with stormwater permit compliance         | 1                     | Protocols implemented during 2002-2007 permit term   | 3                     | NA – Internal programmatic changes may result from evaluations                    | Confirmation / Tabulation – Track number of protocols reviewed and modified        |
| <b>Municipal Facilities: Detention Basin Maintenance</b>  |  |                       |  |                       |   |  |
| Implement Detention Basin Operation and Maintenance Program   | Evaluate program to ensure that adequate BMPs are implemented  | 1                     | Detention Basin Operation and Maintenance Program implemented during 2002-2007 permit term | 3                     | NA - Internal programmatic changes may result from evaluations                    | Confirmation / Tabulation – Track number of activities modified                    |
| <b>Municipal Facilities: Parking Facilities Management</b>  |  |                       |  |                       |   |  |
| Implement Parking Lot Inspection and Maintenance Program  | Evaluate program to ensure that adequate BMPs are implemented  | 1                     | Parking Lot Inspection and Maintenance Program implemented during 2002-2007 permit term    | 3                     | NA - Internal programmatic changes may result from evaluations                    | Confirmation / Tabulation – Track number of activities modified                    |

Table 4.5-1. Effectiveness Assessment – Municipal Operations Element

| Activity/Task   | Performance Standard (Goal)   | 2002-2007 Permit Term |   | 2008-2013 Permit Term |   | Assessment Method   |
|---|---|-----------------------|---|-----------------------|---|---|
|   |   | OUT-COME LEVEL        | Effectiveness Assessment                                      | OUT-COME LEVEL        | Baseline Information  |   |
| <b>Special Events</b>   |   |                       |   |                       |   |   |
| Implement Special Event permits for litter and trash control on County park facilities  | Evaluate program to ensure that adequate BMPs are implemented           | 1                     | Special Event permit implemented during 2002-2007 permit term | 3                     | NA - Internal programmatic changes may result from evaluations  | Confirmation / Tabulation – Track number of activities modified |
| <b>Employee Outreach and Training</b>   |   |                       |   |                       |   |   |
| Provide annual training for employees in targeted positions (whose interactions, jobs, and activities affect storm water quality) regarding the requirements of the storm water management program to (1) promote a clear understanding of the potential for maintenance activities to pollute storm water, and (2) identify and select appropriate BMPs. | Increase awareness of available BMPs and pollution prevention practices | 1                     | ??? employees trained during 2002-2007 permit term.           | 1                     | Previous permit term  | Tabulation – track number of employees trained, report in AR    |
|   |   |                       |   | 3                     | Conduct survey of employees related to stormwater compliance – baseline to be established during fourth permit term | Survey – Identify change in awareness/behavior levels           |

Highlighted question marks (???) indicate data that will be included in the final version of the SQIP

AR = Annual Report; EMD = Environmental Management Department; NA = Not Applicable



## 4.6 Illicit Discharge Element

The goal of the Illicit Discharges Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illicit non-stormwater discharges from non-commercial sources.

The storm drain system consists of a network drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, which discharges to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Illicit discharges can result from dumping of liquid or solid wastes into the storm drain system, or from allowing pollutants to come into contact with stormwater (or stormwater runoff) by which the pollutants are transported into the storm drain system.

Example of illicit discharges include:

- Draining used motor oil or other automotive fluids into the gutter or storm drain inlet.
- Washing off paint brushes or concrete tools without containing the wastewater.
- Dumping garbage or other wastes into drainage channels and creeks.
- Allowing leaking automotive fluids to accumulate on a driveway or street that get washed into the nearest drain inlet during the next rain event.

Many sources of illicit discharges can be readily observed by the trained eye. Illicit connections, however, are sources of illicit discharges that are often not visible to the passer by. An illicit connection occurs when a wastewater or process water source is plumbed directly to the storm drain system (often underground to a drain inlet, manhole or pipe). In order to detect illicit connections it is often necessary to enlist the help of the County crews that operate and maintain the storm drain system. Examples of illicit connections include:

- Washing machine wastewater plumbed to a roadside ditch.
- Septic system plumbed to a drainage channel.
- Indoor floor drain connected to a drain inlet.
- Outdoor wash area connected to a manhole.

The primary mission of the Illicit Discharge Element is to effectively eliminate illegal non-stormwater discharges to the County's storm drain system and local creeks and rivers.

Any material dumped or discharged into the County's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

### Pollutants Addressed

The County's activities and requirements under the Illicit Discharge Element address virtually every pollutant commonly found in urban runoff. The type and amount of pollutants addressed will depend on the source(s) of the pollutants. For example, detergents and chemicals would be addressed in cases where the County identified and eliminated illicit discharges created by a carpet cleaning company.

### Illicit Discharges Element Strategy

The three major components to the County's strategy for eliminating illicit discharges are as follows:

- Maintain an effective Stormwater Ordinance and other local regulation to prohibit illicit discharges.
- Educate County staff and the public about how to identify and report illicit discharge problems and maintain a hotline for public reporting of problems.
- Conduct investigations and enforcement of the Stormwater Ordinance to eliminate illicit discharges/connections detected by way of reports from the public and/or County maintenance crews conducting ongoing screening for illicit discharges/connections.

Each of these strategy components is explained more in the following paragraphs.

### **Maintain an Effective Stormwater Ordinance**

In 1998, the County adopted a Stormwater Ordinance in 1998 that prohibits discharges of pollutants into the County storm drain system (Sacramento County Code 15.12; see Section 4.2). The term “pollutants” is widely defined to include a range of materials and wastes. Most non-stormwater discharges and all illicit connections are prohibited. The County Executive issued a memorandum in 2000 authorizing all County employees to enforce the Stormwater Ordinance.

The Stormwater Ordinance was updated twice during the 2002–07 permit term and will be updated, as needed, during the 2008–13 term of the stormwater permit.

### **Educate County Staff and the Public**

The County conducts education at many levels — with the general public, contractors, business owners, and County maintenance crews — regarding ways to prevent illicit discharges and how to report suspicious activities to the County for investigation. Most informational materials (e.g., brochures) developed by the County and all media pieces include the County’s hotline number (875-RAIN) for reporting of problems. All joint program outreach uses a joint reporting hotline number (808-4H2O), which forwards the caller to 875-RAIN for the unincorporated county. Response and notification procedures are followed to facilitate quick response and cleanup to protect the storm drain system and local waterways.

### **Investigate Reports of Illicit Discharges/Connections and Enforce the Stormwater Ordinance**

County staff that conduct routine maintenance of the storm drain system are trained to look for, identify, and report suspicious discharges to County responders and the stormwater staff. Following cleanup by response personnel, County stormwater staff conduct investigations to try to determine the source(s) of the pollutants. If a commercial/industrial site is suspected, inspections may be conducted at the facility to further investigate and verify the source. If the facility is one the priority industries included in the County Environmental Management Department’s (EMD’s) stormwater compliance

program, EMD inspectors then conduct follow-up investigations. Once source(s) have been verified, progressive enforcement is conducted to eliminate the illicit discharge and pollutant sources.

To prevent the installation of new illicit connections during new development and redevelopment activities, County building inspectors check that selected areas of facilities are properly connected to the sanitary sewer system, rather than the storm drain system. This includes waste storage areas, vehicle and equipment wash areas, maintenance shops/bays, etc.

### **Relationship to Other Program Elements**

The Illicit Discharge Element relates to the other program elements as follows:

#### **Industrial Element (Section 4.4)**

County stormwater staff and EMD inspectors are trained to look for evidence of illicit connections and discharges during their inspections of local commercial and industrial facilities (see Section 4.4). In addition, stormwater staff review reports of illicit discharges furnished by the public or County field crews, conduct field investigations if needed, and notify EMD if it is suspected that an industrial facility is the source of the discharge. The two groups then collaborate on a course of action to eliminate the discharge.

#### **Municipal Operations Element (Section 4.5)**

County staff responsible for operating and maintaining County facilities and the storm drain system are required to attend annual training. The training educates them about ways to minimize pollutant discharges to the storm drain system during operation and maintenance activities, as well as procedures for detecting, reporting and clean-up of spills, illicit discharges, and illicit connections to the County’s storm drain system. County facility operators are educated about how to employ BMPs to effectively address pollutant sources associated with their activities. Examples include use of appropriate BMPs during vehicle washing and maintenance and when storing and disposing of materials and waste products. The County’s goal is to be a model of pollution prevention for the rest of the community.

The Municipal Operations Element includes an activity to ensure that 95% of the County’s storm drain inlets are stenciled with “No Dumping” messages. This activity helps to educate the public that pollutants do not belong in storm drains and over time will hopefully help to reduce the number of illicit discharge incidents.

#### **Public Outreach Element (Section 4.7)**

Stormwater staff working on the Illicit Discharge Element assist the County’s public outreach staff to design educational materials which include instructions on how to identify and report suspected illicit discharges to the County’s hotline number. The materials also include information on alternatives for safe disposal of household hazardous wastes and recycling programs. Illicit Discharge Element staff also attend public events and demonstrate — using tools such as the educational watershed model for kids— how illicit discharges and connections in the urban environment can impair water quality.

#### **New Development Element (Section 4.8)**

The County development plan review process ensures that non-stormwater sources are not plumbed/connected to the storm drain system unless specifically allowed by the County’s Stormwater Ordinance. Such discharges are typically discharged to the sanitary sewer under agreement with the Sacramento Regional County Sanitation District (SRCSD) and County Sanitation District-1 (CSD-1).

#### **Coordination within the County of Sacramento**

Almost all Illicit Discharge Element activities involve partnership with other County Departments. The Illicit Discharge Element relies heavily on the activities of other County groups to carry out its mission. Relationships with other County departments are maintained largely on an informal basis, although intra-agency agreements can be established if needed. The following describes the interaction of the Illicit Discharge Element with activities of other County entities:

#### **Maintenance and Operations Crews**

County maintenance crews and other personnel within the Departments of Water Resources, Transportation, Waste Management and

Recycling, and Water Quality may encounter spills and other illicit discharges during their routine maintenance activities. Water Resources and Transportation crews conduct first response activities, containment, cleanup, and disposal of materials for non-hazardous and hazardous pollutant discharges to the storm drain system, respectively. Their activities are followed up with reports to stormwater staff for tracking, investigation, and enforcement purposes.

#### **County Environmental Management Department (EMD)**

EMD implements a number of programs that address a wide array of pollutant sources. Staff from three EMD divisions are trained to identify and refer stormwater violations:

- The Water Protection Division (WPD) is the lead for implementing the CISCOP, the county’s septic program, and regulates solid waste facilities. Stormwater staff coordinate with WPD, as needed, to address specific situations related to these programs.
- The Hazardous Materials Division (HMD) is the lead agency for enforcement of hazardous materials regulations for the County. Stormwater staff coordinate with HMD, as needed, to address specific situations related to hazardous materials storage, handling, etc.
- The Environmental Health Division (EHD) enforces provisions of the California Health and Safety Code at restaurants and public swimming pools. Stormwater staff coordinate with EHD, as needed, to address specific situations related to EHD programs.

#### **Plan Reviewers**

Plan reviewers in various County departments and County building inspection staff may also detect proposed or newly constructed illicit connections. Following action to eliminate the connection, such findings are reported to County stormwater staff.

#### **Waste Management and Recycling**

County solid waste programs provide various disposal options to the general public that help reduce illegal dumping into the storm drain system and local creeks and rivers. These programs include household hazardous waste events and collection centers; battery, oil, and

paint recycling centers; and curbside recycling of used motor oil. The County also has a Conditionally Exempt Small Quantity Generator Program to allow small business to dispose of their hazardous waste, since they are not allowed to use residential household hazardous waste events. County stormwater staff collect data on the quantity of recycled material or hazardous waste collected as a result of these programs.

### Coordination with Other Agencies and Groups

The County coordinates with the other permittees to maintain the 808-4H2O reporting hotline and to develop outreach materials.

The County contracts with the Sacramento Metro Fire District and City of Sacramento Fire Department to provide emergency response for major hazardous materials spills that cannot be easily handled by the Department of Transportation’s Hazmat Team. Coordination is also important in the event of a spill that impacts multiple jurisdictions and/or threatens a major waterway in the Sacramento area.

### Accomplishments To Date

The following highlights major accomplishments of the Illicit Discharge Element since 1990:

- During the early part of the Program (1990-1995), the County conducted a field screening program. Outfalls to channels were investigated in the field for possible illicit discharges/connections, and follow-up was conducted to eliminate problems. No illicit were identified through this program, however, one ongoing illicit discharge was identified and eliminated.
- In 1998 the County Board of Supervisors adopted the County’s Stormwater Ordinance, which makes most discharges to the storm drain system illegal (some exceptions are noted). Additional details about the Stormwater Ordinance are provided in Section 4.2. The County also delegated responsibility for enforcement of the Stormwater Ordinance to other County agencies outside of the Municipal Services Agency. The Stormwater Ordinance was revised twice during the 2002–07 permit term.

- Ninety-five percent of storm drain inlets in existing areas of the County were stenciled with the “No Dumping — Drains to Creek” message, primarily using volunteers. As required by the County’s Improvement Standards, permanent “No Dumping” stamps were applied to all new concrete storm drain inlets, beginning in the mid 1990’s.
- In 1999, the County Consolidated Utilities Billing System (CUBS) Nuisance Abatement Hotline began accepting calls from the public to report illicit discharges. This number is still in operation and the public also has the option of submitting online reports. Calls related to illicit discharges are forwarded to stormwater staff.
- In 2000, operators of the County’s drainage complaint hotline (875-RAIN) began accepting and referring public reports of illicit discharges and other stormwater problems to the stormwater staff.
- In 2005, the permittees began using 808-4H2O for all joint outreach efforts. Illicit discharge complaints from the unincorporated county received through this hotline are directed to 875-RAIN.
- In 2006, stormwater staff began accepting calls on the internal county Stormwater Quality Hotline (874-4SWQ) which is advertised to crews during training workshops as the number to call for investigation and enforcement support related to Stormwater Ordinance violations.

During the 2002–07 permit term, stormwater staff developed and distributed door hangers to be used by stormwater staff and field crews to educate the public about stormwater quality and to elicit reporting in the vicinity of illicit discharges. Also distributed with the door hangers are durable, resealable envelopes to contain outreach materials. The outside of these envelopes are printed with guidance to field crews on how to properly use of the door hangers, illicit discharge response procedures, and information on reporting requirements.

## Effectiveness Assessment

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities relevant to the Illicit Discharge Element, including an evaluation of activities completed during the last permit term and proposed methods for evaluating effectiveness during the 2008–13 permit term.

### Effectiveness of 2002–07 Permit Term Activities

The 2002–07 stormwater permit was more prescriptive than previous permits. It required development and implementation of formalized procedures for response to illicit discharges and for ongoing screening of illicit connections to the storm drain system. This permit also required permittees to develop and submit annual maps of illicit discharge locations. During the 2002–07 permit term, the County put much effort into complying with the provisions of the permit and collecting baseline data that will be used to assess effectiveness of the program in the next (2008–13) permit term.

Table 4.6-1 presents the results of the effectiveness assessment conducted for the 2002–07 permit term. The activities conducted during this period generally demonstrated compliance with the stormwater permit (Outcome Level 1). These results were used to identify effectiveness methods that could be applied with the goal of demonstrating more increased awareness and behavioral changes (Outcome Level 3) that result in greater pollution prevention.

### Proposed Effectiveness Methods for 2008–13 Permit Term

Table 4.6-1 proposes effectiveness methods for use in evaluating 2008–13 permit term activities, with the goal of achieving the highest level of effectiveness outcomes for each task. The County will continue to document accomplishments at Outcome Level 1 to demonstrate permit compliance. Inspection, enforcement and outreach data will be reported each year in the annual reports. This may include recommended changes to procedures, targeted outreach methods, or other mid-course program refinements.

The key challenge for the 2008–13 permit term will be to identify ways to compile, analyze and report data to demonstrate changes in awareness and behavior (Outcome Levels 2 and 3) as a result of the inspection, enforcement and outreach efforts. This evaluation will take place near the end of the 2008–13 permit term to coincide with the Report of Waste Discharge application for the fifth permit term.

### Activities for the 2008–13 Permit Term

This section describes the stormwater permit requirements applicable to the Illicit Discharge Element and the activities to be conducted during the 2008–13 permit term. Additional details are provided about the effectiveness methods (introduced in Table 4.6-1) that the County plans to use to demonstrate effectiveness during the 2008–13 term.

### Stormwater Permit Requirements

The objective of the stormwater permit provisions related to the Illicit Discharge Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illicit non-stormwater discharges from non-commercial sources.

### Proposed Activities

Table 4.6–2 (to be included in the final version of the SQIP when the exact language of the new Order is known) at the end of this section outlines the activities that will be conducted for the Illicit Discharge Element during the 2008–13 permit term. The table describes stormwater permit requirements and associated implementation tasks, assessment methods and a five-year implementation schedule.

The following describes the major activities in more detail:

- **Legal Authority** — The County's Stormwater Ordinance provides legal authority for regulating pollutant discharges to the storm drain system. The Stormwater Ordinance will be amended as needed during the 2008–13 permit term to ensure that pollutant sources from non-commercial activities are effectively addressed.

- **Reporting of Potential Stormwater Ordinance Violations** — Both 875-RAIN and the CUBS Nuisance Abatement Hotlines will be maintained for reporting by the public of potential illicit discharges/connections. The internal 874-4SWQ hotline for crews to access stormwater staff for investigation and enforcement support will also be maintained.
  - **Screening for Illicit Connections** — Maintenance crews will continue to screen for illicit connections to the storm drain system as part of their regular maintenance activities. Screening will be conducted according to the procedures developed and implemented during the 2002–07 permit term, and will be amended as needed.
  - **Investigation** — Stormwater staff will continue to investigate, with the support of maintenance crews, as needed, reports of illicit discharges/connections. Reports of non-hazardous discharges will be investigated within five days and discharges suspected of being hazardous within one day of discovery. Reports of illicit connections and suspected illicit connections indicated by evaluations of dry weather monitoring data will be investigated within twenty-one days.
  - **Response, Containment and Cleanup** — County crews will continue to provide response, containment and cleanup of illicit discharges to the storm drain system. Whenever possible, the discharger and/or property owner will be required to immediately cease any discharges and will be required to conduct cleanup of pollutants discharged and/or pollutant sources. When this cannot be accomplished, and in urgent situations, County crews will cleanup the pollution, take steps to eliminate the pollutant source and pursue cost recovery on behalf of the department(s) providing response. Response, containment and cleanup procedures will be amended as needed throughout the stormwater permit term.
  - **Enforcement** — A draft enforcement policy has been implemented by stormwater staff to guide enforcement actions. This policy will be enhanced throughout the stormwater permit term to effectively address illicit discharges/connections as needed. Progressive enforcement will be conducted to eliminate pollutant sources to the maximum extent practicable. Enforcement data will be evaluated as a tool for assessing the effectiveness of the Illicit Discharge Element.
  - **Data Management** — Stormwater staff will maintain a database that tracks complaints and referrals, inspections and enforcement actions. Locations of illicit discharges/connections will be plotted on a map which may be used to help identify targeted areas for outreach or to support investigations of potential illicit connections indicated by evaluation of dry weather monitoring data. A copy of this map will be provided in Annual Reports.
  - **Outreach** — Stormwater staff will continue to develop and distribute educational brochures and other outreach materials to educate the public on how to conduct their activities in accordance with the Stormwater Ordinance and to encourage reporting from the public of those responsible for violating the Stormwater Ordinance. Outreach materials will be distributed in conjunction with investigation and enforcement actions as well as at outreach events.
- County staff involved in response, containment cleanup and reporting of illicit discharges/connections and ongoing screening for illicit connections will continue to be trained annually during the 2008–13 permit term.

**Provide Disposal Options for Disposal of Toxic Substances** — The County will continue to maintain its household hazardous waste drop-off center located at the North Area Recovery Station and provide links on our website for other toxic waste disposal facilities within the County. The Department of Waste Management and Recycling will continue their program for curbside collection of used motor oil. Quantities of toxic substances collected will be presented in annual reports.

Table 4.6-1.  
**Effectiveness Assessment – Illicit Discharge Element**

| Activity/Task   | Performance Standard (Goal)  | 2002–07 Permit Term |   | 2008–13 Permit Term |   | Assessment Method   |
|---|--|---------------------|---|---------------------|---|---|
|   |  | OUT-COME LEVEL      | Effectiveness Assessment  | OUT-COME LEVEL      | Baseline Information  |   |
| <b>Legal Authority</b>  |  |                     |   |                     |   |   |
| Stormwater Ordinance  | Adopt revisions as needed  | 1                   | Stormwater Ordinance revised twice  | 1                   | NA  | Confirmation - report revisions in AR   |
| <b>Reporting of Illicit Discharges and Connections</b>  |  |                     |   |                     |   |   |
| Maintain a public hotline for reporting of illicit discharges and connections   | Increase in number of reports from the public                      | 1                   | ??? reports from public during 2002–07 permit term  | 3                   | No. reports from the public during previous permit term       | Tabulation – Track number of reports received through 875-RAIN and CUBS Nuisance Abatement                        |
| Maintain a hotline for County crews to report illicit discharges and connections and to elicit stormwater staff investigation and enforcement support | Decrease in number of reports from County crews                    | 1                   | ??? reports from County crews during 2002–07 permit term  | 3                   | No. reports from the County crews during previous permit term | Tabulation – Track number of reports from County crews received through 874-4SWQ and other mechanisms             |
| <b>Screening for Illicit Connections</b>  |  |                     |   |                     |   |   |
| Conduct ongoing field screening for illicit connections   | Decrease in illicit connections detected by way of field screening | 1                   | Illicit connection field screening procedures developed and implemented during 2002–07 permit term      | 3                   | No. illicit connections detected during previous permit term  | Confirmation/Tabulation-include number of illicit connections detected by way of field screening activities in AR |
| <b>Investigation</b>  |  |                     |   |                     |   |   |
| Non-hazardous illicit discharge investigations  | Respond within 5 days of discovery or report                       | 1                   | ??? non-hazardous illicit discharge investigations conducted w/ ??? verified during 2002–07 permit term | 1                   | NA  | Confirmation/Tabulation-include number of non-hazardous illicit discharge investigations conducted in AR          |
| Hazardous (or suspected of being hazardous) illicit discharge investigations  | Respond within 1 day of discovery or report                        | 1                   | ??? hazardous illicit discharge investigations conducted w/ ??? verified during 2002–07 permit term     | 1                   | NA  | Confirmation/Tabulation-include number of hazardous illicit discharge investigations conducted in AR              |
| Illicit connection investigations   | Respond within 21 days of discovery or report                      | 1                   | ??? illicit connection investigations conducted w/ ??? verified during 2002–07 permit term              | 1                   | NA  | Confirmation/Tabulation-include number of illicit connection investigations conducted in AR                       |

Table 4.6-1. Effectiveness Assessment – Illicit Discharge Element

| Activity/Task   | Performance Standard (Goal)   | 2002–07 Permit Term |  | 2008–13 Permit Term |   | Assessment Method   |
|---|---|---------------------|--|---------------------|---|---|
|   |   | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information  |   |
| Suspected illicit discharge investigations prompted by dry weather monitoring data reviews          | Respond within 21 days of discovery                                   | 1                   | ??? illicit discharge investigations conducted based on review of dry weather monitoring data w/ ??? sources identified during 2002–07 permit term | 1                   | NA  | Confirmation/Tabulation-include number of illicit discharge investigations conducted based on review of dry weather monitoring data conducted in AR |
| <b>Response, Containment and Cleanup</b>  |   |                     |  |                     |   |   |
| Develop response, containment and cleanup procedures  | Create/adopt procedures; revise as needed                             | 1                   | Response, containment and cleanup procedures developed and implemented during 2002–07 permit term  | 1                   | NA  | Confirmation -report revisions in AR  |
| Response to non-hazardous illicit discharges  | Conducted by DWR – Drainage Maintenance                               | 1                   | ??? non-hazardous illicit discharge responses  | 1                   | NA  | Tabulation – Track number of non-hazardous illicit discharge responses  |
| Response to hazardous (or suspected of being hazardous) discharges                                  | Conducted by DOT – Hazmat Team  | 1                   | ??? non-hazardous illicit discharge responses  | 1                   | NA  | Tabulation – Track number of hazardous illicit discharge responses  |
| <b>Enforcement</b>  |   |                     |  |                     |   |   |
| Develop enforcement policy  | Create/adopt policy; revise as needed                                 | 1                   | DWR DRAFT enforcement policy adopted implemented   | 1                   | NA  | Confirmation -report revisions in AR  |
| Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)      | Decrease in enforcement actions                                       | 1                   | Issued ??? enforcement actions during 2002–07 permit term  | 3                   | No. of enforcement actions during previous permit term            | Tabulation – track number of enforcement actions issued   |
| Eliminate Illicit Connection  | Eliminate illicit connections detected within 180 days                | 1                   | Detected ??? illicit connections, of which ??? were eliminated within 180 days during 2002–07  | 3                   | No. of illicit connections eliminated during previous permit term | Tabulation – Track number of illicit connections eliminated   |
| <b>Data Management</b>  |   |                     |  |                     |   |   |
| Create/Maintain CBSCP database to track inspections, enforcement and outreach materials distributed | Use data as tool for documenting reports, inspections and enforcement | 1                   | Database complete, continual updates   | 1                   | NA  | Confirmation  |



Table 4.6-1. Effectiveness Assessment – Illicit Discharge Element

| Activity/Task   | Performance Standard (Goal)   | 2002–07 Permit Term |   | 2008–13 Permit Term |  | Assessment Method  |
|---|---|---------------------|---|---------------------|--|--|
|   |   | OUT-COME LEVEL      | Effectiveness Assessment  | OUT-COME LEVEL      | Baseline Information   |  |
| Map the locations of identified illicit discharges and connections            | Use map to identify areas for targeted outreach and to assist in illicit discharge investigations, as appropriate | 1                   | Mapping complete, continual updates   | 3                   | NA — Internal programmatic changes may result from evaluation of mapping | Confirmation – Submit map, and describe use thereof in AR                              |
| <b>Outreach</b>   |   |                     |   |                     |  |  |
| Distribute educational materials  | Document/<br>Quantify materials   | 1                   | Distributed ??? brochures during 2002–07 permit term                              | 1                   | NA   | Tabulation – Track number of brochures distributed                                     |
| County Employee Training  | Provide training to field screening and illicit discharge response crews  | 1                   | Reached ??? people with ?? training workshops during 2002–07 permit term          | 1                   | NA   | Confirmation/<br>Tabulation - Track number of workshops held, number of people reached |
| <b>Facilitate Appropriate Disposal of Toxic Substances</b>                    |   |                     |   |                     |  |  |
| Maintain operation of the County's household hazardous waste drop-off centers | Increase in toxic substances properly disposed of   | 1                   | Accepted ??? quantities of respective toxic substances during 2002–07 permit term | 3                   | Previous permit term   | Tabulation – Track number of brochures distributed                                     |

Highlighted question marks (???) indicate data that will be included in the final version of the SQIP

AR = Annual Report; DWR = Department of Water Resources; DOT = Department of Transportation; CBSCP = Complaint-Based Stormwater Compliance Program









- Developed a hotline for the public to report stormwater-related problems (e.g., clogged drains, illicit discharges/dumping, and faded or missing drain inlet stencils).
- Participated in the Sacramento Bee’s annual Design-an-Ad contest. The winners’ artwork was used in a 12-month stormwater calendar that went out to local schools.
- Consistently enlisted volunteers in a storm drain stenciling program.
- Participated in and supported a number of local, regional (Sacramento River Watershed Program), and statewide (California Stormwater Quality Association) organizations.
- Participated in the Be Mercury Free Program.
- Designed and posted “Respect, Protect, and Enjoy” signs (including the name of the creek, to promote public awareness) and “No Dumping” signs along numerous creek and river locations in the county.
- Provided financial and in-kind services support for the Arcade Creek Watershed Group, Sacramento Urban Creeks Council and the Laguna Creek Watershed Council.
- Sponsored the Effie Yeaw Nature Center to support environment based educational programs to school districts in Sacramento County.
- Continued to participate in community outreach events to educate the public on the impacts of stormwater pollution and how they can play a role in protecting local waterways.
- Provided watershed education grants to schools interested in educating students about protecting and enhancing local creeks, rivers, or watersheds.
- Partnered with Arcade Creek Recreation and Park District and local volunteer groups to develop a cost-effective community stewardship pilot program called “Scoop the Poop.” The goal of this program is to reduce bacteria found in local waterways caused by the improper disposal of pet waste in parks and trails. Individuals can either leave their plastic grocery bags at the pet waste bag stations for others or take a bag to use for picking up and disposing of pet waste. The County is working on expanding the program to other park districts who have requested to be part of the program.
- Participated in the “Adopt-a-Waterway” Program. Adopt-A-Waterway signs have been posted in various locations to promote “Cleaner cities, Cleaner rivers.” The signs help people understand how our individual actions affect local waterways. Through corporate, business, and individual sponsorships, the Adopt-a-Waterway Program has made it possible for the County to fund many extensive outreach programs including SYRCL, Splash, Scoop the Poop, and the Watershed Education Grant program.

Other notable accomplishments are listed in the Regional Public Outreach section of chapter 3.

### Effectiveness Assessment

#### **Effectiveness of 2002-07 Permit Term Activities**

The 2002-07 stormwater permit required the permittees to develop outreach materials and programs to increase the knowledge of target businesses and communities regarding the storm drain system, impacts of urban runoff on receiving waters, and potential solutions to reduce pollution and minimize impacts. The County has shared a great deal of resources with the permittees to produce print material and advertisements (e.g., TV, radio, billboards) to increase awareness on the impacts of stormwater pollution and how to prevent it. Table 4.7-2 presents the results of the effectiveness assessment conducted for the 2002-07 permit term that have been used to evaluate current public outreach efforts. For the most part, the activities conducted resulted in raising awareness (Outcome Level 2). These results were used to identify new or revise existing activities for the next permit term, as well as effectiveness methods that could be applied with the goal of creating more awareness, and ultimately leading to behavioral change (Outcome Level 3).



These activities build on the work already accomplished during the first 17 years of the Program.

Most of the activities in the 2002-07 permit term will be carried on to the 2008-13 permit term. The proposed activities are described as follows:

- Continue to provide a hotline for the public to report stormwater-related problems
- Continue to participate in creek clean up activities
- Continue to install signs discouraging illegal dumping along creeks and rivers such as the County’s “Scoop the Poop” program, No Dumping Signs, and Adopt-a-Waterway program
- Continue the County’s volunteer stenciling program
- Continue to maintain or establish relationships with businesses, community associations and environmental organizations
- Continue to coordinate with quasi-governmental agencies and special districts
- Continue to coordinate with park districts on the “Scoop the Poop” program
- Continue to provide schools with educational materials such as the County’s stormwater calendars and activity books
- Continue to provide watershed educational grants to schools (grades K-12)
- Continue to partner with the Water Wise Pest Control (WWPC) and Our Water Our World (OWOW) programs to promote integrated pest management (IPM)
- Continue to implement and expand the Clean Water Business Partner (CWBP) program
- Develop a strategy that addresses fundraising car wash discharges
- Research additional and diversified funding sources to help support long-term and future activities
- Continue to conduct research (e.g., surveys and focus groups) to assess the effectiveness of outreach efforts in conveying stormwater messages

The County and other permittees will continue to collaborate on many activities during the 2008-13 permit term. The County will continue to be the lead on most of these activities. See section 3.6 for a description of these activities. The proposed regional outreach activities are as follows:

- Conduct an aggressive multicultural outreach campaign
- Conduct a regional advertising campaign that will focus on specific messages (e.g., pesticide use, home auto repair, pet waste, etc.)
- Continue to develop educational/informational materials such as brochures, as needed



Table 4.7-1  
**Target Audiences for County Public Outreach**

| Public Outreach Element /Target Audience | Subgroup  | Objective   | Potential Distribution Method   | Language* |   |   |
|--|---|---|---|-----------|---|---|
|  |   |   |   | E         | S | R |
| Public Outreach /Schools                 | School Districts  | Promote educational programs such as Splash and SYRCL   | Curriculum materials  | •         |   |   |
|  | Teachers  | <ul style="list-style-type: none"> <li>Promote educational programs such as Splash and SYRCL</li> <li>Offer classroom materials</li> <li>Promote Watershed Grant Opportunity</li> </ul>   | Curriculum materials, watershed grants, brochures   | •         |   |   |
|  | Students  | <ul style="list-style-type: none"> <li>Promote volunteer stenciling program</li> <li>Educate students about the effects of stormwater pollution through classroom presentations and classroom materials</li> </ul>  | Classroom presentations/assemblies, activity books, brochures   | •         |   |   |
| Illicit Discharges /Residents            | Homeowners  | <ul style="list-style-type: none"> <li>Publicize hotline for illicit discharges</li> <li>Provide education on pesticides, pool discharge, pet waste, safe disposal of hazardous waste, gardening, automobile fluids, construction wastes, responsibility for discharges from property, etc.</li> <li>Promote stewardship activities such as Creek Week</li> </ul> | Brochures, public service announcements, radio, billboards, bill inserts, community newsletters, homeowners association, community events, workshops, community and civic organizations   | •         | • |   |
|  | Landowners  | <ul style="list-style-type: none"> <li>Provide education on watershed/restoration projects that may involve their property</li> <li>Provide education on responsibility for discharges from property</li> </ul>   | Brochures, public service announcements, direct mail, stakeholder meetings, community events, community and civic organizations   | •         | • |   |
|  | Renters   | <ul style="list-style-type: none"> <li>Provide education on pesticides, pool discharge, pet waste, safe disposal of hazardous waste, gardening, automobile fluids, construction wastes, responsibility for discharges from property, etc.</li> <li>Promote stewardship activities such as Creek Week</li> </ul>   | Brochures, public service announcements, radio, billboards, bill inserts, community newsletters, homeowners association, community events, workshops, community and civic organizations   | •         | • |   |
| Industrial, Illicit /Businesses          | Fixed locations: EMD Facilities, <sup>1</sup> Non-EMD Facilities <sup>2</sup> | <ul style="list-style-type: none"> <li>Provide businesses with information on source control and treatment control BMPs, material and waste containment &amp; disposal, Stormwater Ordinance, inspection and enforcement program, etc.</li> </ul>   | EMD Facilities- Compliance Assistance Bulletins, brochures, direct mail, industry newsletters, Business Environmental Resource Center (BERC), trade and business associations, website, trainings, inspections, etc.<br>Non-EMD Facilities- Brochures, BERC, Clean Water Business Partners (CWBP) program, trade and business associations, direct mail, industry newsletters, website, inspections, etc. | •         | • | • |

Table 4.7-1 Target Audiences for County Public Outreach

| Public Outreach Element<br>/Target Audience      | Subgroup  | Objective   | Potential Distribution Method   | Language* |   |   |
|--|---|---|---|-----------|---|---|
|  |   |   |   | E         | S | R |
|  | Mobile businesses <sup>3</sup>                      | <ul style="list-style-type: none"> <li>Provide businesses with information on source control and treatment control BMPs, material and waste containment &amp; disposal, Stormwater Ordinance, inspection and enforcement program, etc.</li> </ul> | Brochures, BERC, CWBP program, trade and business associations  | •         | • | • |
| <b>New Development</b><br>/Development Community | Developers  | <ul style="list-style-type: none"> <li>Provide information on new development and redevelopment design criteria to satisfy storm water quality requirements</li> </ul>  | Guidance materials, Building Industry Association (BIA) (e.g., presentations and newsletters), workshops  | •         |   |   |
|  | Home Builders                                       | <ul style="list-style-type: none"> <li>Provide information on new development and redevelopment design criteria to satisfy storm water quality requirements</li> </ul>  | Guidance materials, Building Industry Association (BIA) (e.g., presentations and newsletters), workshops  | •         |   |   |
|  | Planners  | <ul style="list-style-type: none"> <li>Provide with information and guidance on storm water quality compliance strategies during planning</li> </ul>  | Guidance materials, American Planning Association (APA) (e.g., presentations and newsletters), workshops  | •         |   |   |
|  | Engineers   | <ul style="list-style-type: none"> <li>Provide technical assistance on the design of storm water quality BMPs</li> <li>Provide new development related documents such as the design manual or maintenance procedures</li> </ul>                   | Guidance materials, Civil Engineers and Land Surveyors of California (CELSOC), American Society of Civil Engineers (ASCE), American Institute of Architects (AIA), American Society of Landscape Architects (ASLA) (e.g., presentations and newsletters), workshops | •         |   |   |
|  | Design Profess.                                     | <ul style="list-style-type: none"> <li>Provide technical assistant on the design of storm water quality BMPs</li> <li>Provide new development related documents such as the design manual or maintenance procedures</li> </ul>                    | Guidance materials, Civil Engineers and Land Surveyors of California (CELSOC), American Society of Civil Engineers (ASCE), American Institute of Architects (AIA), American Society of Landscape Architects (ASLA) (e.g., presentations and newsletters), workshops | •         |   |   |
| <b>Construction, Illicit</b><br>/Contractors     | Prime Contractor, Residents, Home do-it-yourselfers | <ul style="list-style-type: none"> <li>Distribute educational materials on concrete and stucco, proper disposal of paint, and pool discharge</li> <li>Distribute educational brochures for small homebuilders</li> </ul>                          | Brochures, website, public counters (Brochures distributed by inspection staff and at permit counters)  | •         | • |   |
|  | Engineers/Design Professional                       | <ul style="list-style-type: none"> <li>Provide information on requirements and BMPs</li> </ul>  | Guidance materials, workshops, website  | •         |   |   |
| <b>Municipal Operations</b>                      |   |   |   |           |   |   |
| /Department of Water Resources                   | Drainage Maintenance                                | <ul style="list-style-type: none"> <li>Maintain storm drain system and screen for and respond to illicit discharges/connections in compliance with Permit and SWO</li> </ul>  | Brochures, Presentations, Employee Handbook   | •         |   |   |
| /Department of Transportation                    | Maintenance and Operations                          | <ul style="list-style-type: none"> <li>Maintain County owned roads and respond to hazardous discharges to the storm drains system in compliance with Permit and SWO</li> </ul>  | Brochures, Presentations, Employee Handbook   | •         |   |   |

Table 4.7-1 Target Audiences for County Public Outreach

| Public Outreach Element<br>/Target Audience              | Subgroup                   | Objective   | Potential Distribution Method               | Language* |   |   |
|--|----------------------------|---|---|-----------|---|---|
|  |                            |   |   | E         | S | R |
| /Department of General Services                          | Facilities Management      | • Maintain County Facilities in compliance with Permit and SWO  | Brochures, Presentations, Employee Handbook | •         |   |   |
|  | Fleet Services             | • Maintain County owned vehicles in compliance with Permit and SWO  | Brochures, Presentations, Employee Handbook | •         |   |   |
|  | Parking Services           | • Maintain County parking facilities in compliance with Permit and Parking Lot Inspection and Maintenance Program | Brochures, Presentations, Employee Handbook | •         |   |   |
| /Department of Regional Parks, Recreation and Open Space | Maintenance and Operations | • Maintain County facilities in compliance with Permit and SWO  | Brochures, Presentations, Employee Handbook | •         |   |   |
| /Department of Waste Management and Recycling            | Collections                | • Conduct waste collection activities in compliance with Permit and SWO   | Brochures, Presentations, Employee Handbook | •         |   |   |
| /Department of Water Quality                             | Maintenance and Operations | • Conduct sewer related maintenance activities in compliance with Permit and SWO                                  | Brochures, Presentations, Employee Handbook | •         |   |   |

\* Materials may be provided in the following languages: E = English; S = Spanish; R = Russian

<sup>1</sup> Facilities with coverage under the State's Industrial General Permit, Auto body shops, Auto repair shops, Auto dealers, Equipment rental facilities, Kennels, Nurseries, Retail gasoline outlets (e.g., gas stations), Restaurants

<sup>2</sup> Auto washing & detailing, Boat dealers, Boat repair shops, Portable sanitation yards, Stone cutters

<sup>3</sup> Building contractors, Carpet cleaners, Commercial pesticide applicators, Concrete contractors, Concrete cutters & demolition contractors, Concrete suppliers, Handymen, Landscape contractors, Landscape suppliers, Landscapers, Mobile auto body, Mobile auto repair, Mobile auto washing & detailing, Painting contractors, Pool contractors (incl. plastering), Pool maintenance services, Pressure washers

Table 4.7-2.  
**Effectiveness Assessment – County Public Outreach**

| Activity/Task  | Performance Standard (Goal)                           | 2002-07 Permit Term |  | 2008-13 Permit Term |                             | Assessment Method   |
|--|---|---------------------|--|---------------------|-----------------------------|---|
|  |   | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information        |   |
| <b>Residential Outreach</b>  |   |                     |  |                     |                             |   |
| Provide hotline number for illicit discharges  | Increase in amount of calls received                  | 2                   | Quantify number of calls received  | 2                   | Previous years data, Survey | <i>Tabulation</i> — track # of calls<br><i>Survey</i> — identify change in awareness/behavior levels  |
| Develop and distribute “How to” instructional materials  | Increase in behavior changes                          | 2                   | Quantify materials distributed in targeted groups  | 2,3                 | Previous years data, Survey | <i>Tabulation</i> — identify # of materials distributed and identify modifications<br><i>Survey</i> — identify change in awareness/behavior levels  |
| Conduct mixed media campaigns (e.g., print, radio, television)                                     | At a minimum, ensure 2.3 million impressions per year | 2                   | Track and record number of media spots and impressions   | 2,3                 | Previous years data, Survey | <i>Survey</i> — identify change in awareness/behavior levels  |
| Encourage proper disposal of green waste   | Increase in proper disposal of green waste            | 1                   | Quantify number of education materials distributed   | 1                   | Previous years data, Survey | <i>Survey</i> — identify change in awareness/behavior levels  |
| Participate in HHW collection programs   | Increase in HHW collected                             | 2,3                 | Track amount of HHW collected  | 3                   | Previous years data, Survey | <i>Tabulation</i> — track amount of HHW collected<br><i>Survey</i> — identify change in awareness/behavior levels   |
| Participate in clean up activities   | Reduction in trash and litter in waterways            | 1-3                 | Track amount of trash and debris collected   | 1-3                 | Previous years data         | <i>Confirmation</i> — Identify how volunteers were solicited<br><i>Tabulation</i> — track # of events and volunteers per year, track volume of trash and debris removed   |
| Install signs discouraging illegal dumping (e.g., pet waste, Adopt-a-Waterway, “No Dumping Signs”) | Reduction in discharges                               | 2                   | Track and record sign locations and number of signs installed; Measure changes in observed/reported dumping problems at newly-signed areas | 2,3                 | Previous survey             | <i>Tabulation</i> — track and record sign location and number of signs installed, track changes in observed/reported dumping problems at newly-signed areas<br><i>Survey</i> — identify change in awareness/behavior levels |

Table 4.7-2. Effectiveness Assessment – County Public Outreach

| Activity/Task   | Performance Standard (Goal)  | 2002-07 Permit Term |  | 2008-13 Permit Term |   | Assessment Method   |
|---|--|---------------------|--|---------------------|---|---|
|   |  | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information                        |   |
| Implement volunteer stenciling program  | Reduction in discharges  | 1                   | Track and record number of volunteers participating in program and provide information in AR;<br>Track and record number and locations of storm drain inlets stenciled by volunteers and provide information | 1                   | Previous years data                         | <i>Confirmation</i> — Identify how volunteers were solicited<br><i>Tabulation</i> — track # of storm drains marked by volunteers from year to year                        |
| Implement home and garden care (e.g., Our Water Our World and Water Wise Program) programs                                | Reduction in pesticide use and increase in public's use of alternative home and garden care  | 2                   | Track participation in events, dissemination of material, and number of impressions made via PSAs  | 2,3                 | Previous years data                         | <i>Tabulation</i> — Track and record # of materials disseminated , and # of residents reached,<br><i>Survey</i> — conduct survey to identify a change in awareness levels |
| Conduct a public outreach campaign designed to reach communities and businesses with primary languages other than English | Increase in behavior changes   | 2                   | Track and record number of media spots and impressions   | 2,3                 | Previous years data                         | <i>Tabulation</i> — Track and record # of materials disseminated , and # of residents reached,<br><i>Survey</i> — conduct survey to identify a change in awareness levels |
| Conduct Public Surveys  | Identify changes in awareness and behavior; Identify areas that need improvement and implement new or refine outreach strategies as needed | 2,3                 | Provide survey results in AR   | 2,3                 | Previous survey                             | <i>Survey</i> — identify change in awareness/behavior levels  |
| <b>Program Participation</b>  |  |                     |  |                     |   |   |
| Provide community relations (e.g., businesses, community associations, and environmental organizations)                   | Establish or maintain existing relationships   | 1                   | Track and record activities conducted and approximate number of impressions made. Provide info. in AR  | 2                   | Previous years data on coordination efforts | <i>Confirmation</i> — identify coordination efforts<br><i>Tabulation</i> — track # events attended from year to year  |
| Coordinate with quasi-governmental agencies and special districts   | Establish or maintain existing relationships   | 1                   | Track efforts of County staff and approximate number of people reached within each special district. Provide info. in AR   | 2                   | Previous years data on coordination efforts | <i>Confirmation</i> — identify coordination efforts<br><i>Tabulation</i> — track # events attended from year to year  |

Table 4.7-2. Effectiveness Assessment – County Public Outreach

| Activity/Task   | Performance Standard (Goal)   | 2002-07 Permit Term |  | 2008-13 Permit Term |                      | Assessment Method  |
|---|---|---------------------|--|---------------------|----------------------|--|
|   |   | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information |  |
| Coordinate with County Parks and Recreational Department to identify and prioritize parks for sign installation | Identify more sites along American River Parkway that would benefit from signs discouraging illegal dumping                                     |                     | Task Completed   | 1                   | Previous years data  | <i>Tabulation</i> — track # of signs installed<br><i>Confirmation</i> — identify coordination efforts  |
| Participate in community outreach events (e.g., Creek Week, Salmon Festival, Earth Day)                         | Disseminate outreach materials and educate community on stormwater issues; Continue to provide in-kind services or financial support for events | 2                   | Track participation in events and approximate number of impressions made. Provide info. in AR                        | 2                   | Previous years data  | <i>Tabulation</i> — # events and participants from year to year, # of brochures disseminated   |
| Collaborate with park districts on pet waste reduction programs   | Increase in parks that install pet waste stations   |                     | Track number of dog waste bag dispenser stations installed and report in AR  | 2                   | Previous years data  | <i>Confirmation</i> — Track County's outreach efforts in expanding pet waste programs to other park districts<br><i>Tabulation</i> — Track # of dog waste bag dispenser stations installed |
| <b>School Outreach</b>  |   |                     |  |                     |                      |  |
| Support Splash Program  | Expand Splash to new school/teachers; Increase awareness of stormwater issues among students  | 2                   | Track and record # of students reached in grade levels. Provide info. in AR.   | 2,3                 | Previous years data  | <i>Survey</i> — conduct short quizzes/surveys to evaluate student awareness<br><i>Tabulation</i> — track # of students participating in program and # of teachers requesting services      |
| Conduct assemblies/presentations (e.g., SYRCL)  | Increase # of assemblies in school districts; Increase awareness of stormwater issues in students   | 2                   | Track and record # of students reached in grade levels. Provide info. in AR.   | 2,3                 | Previous years data  | <i>Survey</i> — conduct short quizzes/surveys to evaluate student awareness<br><i>Tabulation</i> — # of schools requesting assemblies, # of students present                               |
| Provide schools with educational materials (e.g., activity books, calendars)                                    | Increase dissemination of outreach materials; Increase awareness of stormwater issues in students   | 2                   | Track and record # of students reached in grade levels and # of schools requesting information. Provide info. in AR. | 2,3                 | Previous years data  | <i>Survey</i> — conduct short quizzes/surveys to evaluate student awareness<br><i>Tabulation</i> — track # of schools requesting information, # of students reached                        |

Table 4.7-2. Effectiveness Assessment – County Public Outreach

| Activity/Task  | Performance Standard (Goal)   | 2002-07 Permit Term |  | 2008-13 Permit Term |                      | Assessment Method   |
|--|---|---------------------|--|---------------------|----------------------|---|
|  |   | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information |   |
| <b>Business Outreach</b>   |   |                     |  |                     |                      |   |
| Work with businesses and industries to encourage pollution prevention (e.g., Clean Water Business Partners (CWBP) Program) | Increase in BMPs used and increase in businesses and industries that participate in CWBP                      | 2,3                 | Track and record # of materials disseminated and # of businesses reached   | 2,3                 | Previous years data  | <i>Tabulation</i> — Track and record # of materials disseminated, # of businesses reached, and # of businesses that join program  |
| Promote home and garden care (e.g., Our Water Our World and Water Wise Program) programs                                   | Reduction in pesticide used and increase in number of stores that participate in pesticide reduction programs | 2                   | Track and record # of materials disseminated and # of businesses reached   | 2,3                 | Previous years data  | <i>Tabulation</i> — Track and record # of materials disseminated, # of businesses reached, # of staff trained (OWOW)<br><i>Survey</i> – conduct short quizzes/survey for staff to identify changes in awareness |
| Conduct a public outreach campaign designed to reach businesses with primary languages other than English                  | Increase in behavior changes  | 2                   | Track and record number of media spots and impressions. Track and record # of materials disseminated and # of businesses reached | 2,3                 | Previous years data  | <i>Tabulation</i> — Track and record # of materials disseminated, and # of residents reached,<br><i>Survey</i> — conduct survey to identify a change in awareness levels  |

DRAFT

## 4.8 New Development Element

The County requires that new development and redevelopment projects in the unincorporated areas of the county be designed to mitigate the water-quality impacts typically associated with development. The planning and permitting processes involved in approving development projects offer a unique opportunity to incorporate design features that will reduce pollutants in site runoff for the life of the project.

Urbanization and associated development of land can harm Sacramento creeks and rivers in several ways:

- Replacing natural ground with paved impervious surfaces increases the volume and peak rate of stormwater runoff and the increased and sustained flows can lead to streambank erosion, flooding, and habitat impairment.
- Adding impervious surfaces such as parking lots, streets, and roofs raises the temperature of the water discharged to creeks, potentially harming aquatic life.
- Converting land use from rural to urban uses increases the overall load of pollutants discharged into local creeks and rivers from everyday activities such as automobile use and landscape maintenance.

### Pollutants Addressed

The County's activities and requirements under the New Development Element address virtually every pollutant commonly found in urban runoff. The type and amount of pollutants removed will depend on the land use and the stormwater quality control measures used to treat the runoff from a newly developed site.

### Pollutants Associated with Various Land Uses

Industrial, commercial and multi-family residential sites generally have more stringent stormwater quality requirements than do single-family residential developments. Those land uses typically have more impervious area that can increase peak flows and volumes of runoff and elevate runoff temperatures. Roadways and outdoor parking areas also generate runoff laden with oil, grease, and total petroleum hydrocarbons

The primary mission of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

from cars, and sediments from air deposition or eroding landscape areas.

Runoff from single-family residential land uses typically contains pollutants generated from cars and everyday household activities. For example, landscaping can contribute pesticides, herbicides and phosphorus from fertilizers to runoff; and home and auto maintenance can result in illegal dumping of pollutants such as paints, solvents and used motor oil.

Through involvement in early planning stages, the County encourages selection of control measures that are most appropriate for the pollutants associated with a particular land use.

### Pollutants Addressed by Various Control Measures

National studies have shown that volume-based treatment control measures such as wet detention basins are effective at reducing total suspended solids (TSS), total and dissolved phosphorus, and total and dissolved metals, including copper and lead. Basins are not designed to reduce pesticides, but may result in some removal when pesticides attach to sediments and settle out.

Flow-based treatment control measure such as grass swales and filter strips have been shown to be effective in other areas for reducing TSS, total phosphorus, metals (including copper and lead), and total petroleum hydrocarbons.<sup>1</sup> Coliform results for these devices are highly variable.<sup>2</sup> As with detention basins, filters may remove some pesticides through sedimentation.

<sup>1</sup> American Society of Civil Engineers, National Stormwater Best Management Practices (CONTROL MEASURES) Database, Version 1.0, June 1999.

<sup>2</sup> Municipality of Seattle and Richard Horner, *Biofiltration Swale Performance, Recommendations and Design Considerations (Publication No. 657)*, Seattle, Washington, October 5, 1992.



Underground vaults and other types of proprietary devices have varying degrees of predicted removals, depending on the unit and vendor laboratory/field tests. Many are designed to remove litter and coarse sediments, and some of the total metals (e.g., copper and lead) that attach to those sediments. They can also reduce oil and grease if they contain oil-absorbing pillows in the first chamber. But most proprietary measures cannot remove fine particulates.

### New Development Strategy

The County seeks to mitigate the potential harmful impacts from development and redevelopment with the following approach:

- Integrate stormwater quality pollution considerations and requirements as early as possible into the planning, initial site design and environmental review processes.
- Provide technical guidance and training opportunities and conduct continual outreach to the development community to educate and inform.
- Require site design features that help control pollution at its source.
- Require stormwater quality treatment control measures (preferably aboveground, vegetated) that cleanse runoff before it reaches creeks and rivers.
- Encourage the use of runoff reduction measures to reduce the volume of runoff that needs to be treated.

Each of these strategies is explained more in the following paragraphs.

#### **Address Stormwater Quality Early in the Design Process**

The County's goal is to consider stormwater quality impacts of proposed projects as early in the design process as possible. Most development projects are conditioned to include stormwater quality control measures through the environmental review process conducted by the County's Dept. of Environmental Review and Assessment (DERA) in conformance with the California Environmental Quality Act (CEQA).

Changes were made during the 2002-2007 permit term to the planning review processes to ensure that the project applicant considers appropriate

stormwater quality control methods at the earliest possible stages of site layout and design. The County stormwater staff works closely with Planning Department staff and attends regular Pre-Application meetings hosted by the County planners to educate engineers and developers about stormwater quality requirements.

Figure 4.8–1 presents the County's typical review and approval process for new and re-development projects. The flowchart indicates steps in the process where stormwater quality reviews and approvals are required/conducted.

#### **Provide Technical Guidance to the Development Community**

In May 2007, the County and other permittees in the Partnership, as well as the City of Roseville, published the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*. This document was produced under the direction of a multi-agency steering committee. The County will convene meetings of the steering committee periodically during the fourth permit term to update the design manual as needed. In addition, the County will continue to work with the Partnership to update the information related to development standards and guidance on the joint program web site: [www.sacramentostormwater.org](http://www.sacramentostormwater.org).

The County will work with the Partnership to make information available to the development community about locally-installed stormwater quality control measures.

#### **Control Pollution at Its Source**

This strategy can be one of the most cost-effective ways to protect local creeks and rivers. For new development, pollution can be controlled at its source through site design features that limit contact of pollutants with stormwater runoff. For example:

- Designing trash collection areas in commercial and multi-family residential developments to minimize contact of runoff with pollutants.
- Providing a central car wash area for apartment complexes that drains it to the sanitary sewer instead of the storm drain system.

- Applying “No Dumping — Flows to Creek” messages to storm drain inlets to educate the public that dumping motor oil, used garden chemicals, and other pollutants can harm local creeks and rivers.

As stated above, the County strives to condition projects at the earliest possible review stage to include such source control measures. Please refer to the *Stormwater Quality Design Manual for Sacramento and South Placer Regions* for information on the process of selecting source control measures.

### **Require Stormwater Treatment Control Measures**

Treating runoff is required for projects above certain size thresholds, which vary with respect to project category. Treatment control measures are intended to filter and settle pollutants out of runoff before it travels off the site. Information needed to select and size treatment control measures is detailed in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*.

Because the state of the practice is evolving rapidly, the County works with the other permittees to study control measures performance and effectiveness. These studies provide both local and national data. As new information is gained about the design and performance of control measures, the County evaluates the need to improve its policies, design criteria, and operation and maintenance procedures.

### **Encourage the Use of Runoff Reduction Measures**

The new *Stormwater Quality Design Manual* promotes integration of effective stormwater quality control measures into the site design from the earliest phase of conceptual planning. The design manual especially encourages the use of Runoff Reduction measures (also known as Low Impact Development strategies, LID). Runoff Reduction measures, such as permeable pavement or disconnected downspouts, manage runoff close to its source and promote infiltration by minimizing impervious surfaces and maximizing tree and vegetation coverage to provide shade (reduced runoff temperatures) and allow water to infiltrate (reduced volume of runoff) or be filtered prior to leaving the site.

### **Relationship to Other Program Elements**

The New Development Element relates to other Program elements as follows:

#### **Construction Element (Section 4.3)**

The County requires temporary erosion and other pollution controls to be applied during the construction phase of development projects. The County also requires that permanent stormwater quality control measures constructed at the same time to be protected from excessive sediment loading. If the permanent facilities are not adequately protected during construction, the County requires that the contractor clean and/or repair them before the new stormwater facilities will be accepted for County ownership. In addition, the County requires engineers to certify in the development submittals that the stormwater quality control measures on the site were installed properly.

#### **Commercial/Industrial Element (Section 4.4)**

The County’s requirements for stormwater quality treatment apply to development and redevelopment of commercial and industrial properties/facilities. The County’s guidance manuals and standards call for selection of control measures best suited for the land use and pollutants anticipated to be present in site runoff.

Finally, through the multi-departmental plan review process for new industrial and commercial facilities, the County ensures that unauthorized non-stormwater flows are directed to the sanitary sewer system or otherwise treated, rather than connected to the storm drain system.

#### **Municipal Operations Element (Section 4.5)**

The County owns, operates, and maintains the regional detention basins that are constructed to treat runoff from newly developing areas. The County Stormwater Program staff provides guidelines and procedures for County maintenance crews to inspect and maintain these facilities. The goal is to ensure that the facilities are operating optimally at all times to remove pollutants from stormwater runoff.

The County makes every effort to include on-site stormwater quality control measures at new County-owned buildings and facilities, and is responsible for long-term maintenance of such control measures when construction is complete.

#### **Illicit Discharge Element (Section 4.6)**

If not properly controlled, accidental or illegal non-stormwater discharges and spills could end up in regional detention basins or on-site stormwater quality control measures. From here, the pollutants could migrate to local creeks and rivers. The County's notification and referral procedures discussed in Section 4.6 would be implemented if spills were to impact a stormwater treatment facility. The County response team would notify the Stormwater staff and follow-up investigations would be conducted to verify that receiving waters were not impacted.

Additionally, as noted above for the Commercial/Industrial element, the County's plan review process for newly developing properties ensures that unauthorized non-stormwater flows are plumbed to the sanitary sewer system or otherwise treated, rather than connected to the storm drain system.

#### **Public Outreach Element (Section 4.7)**

The County retains staff and consultants with the experience and expertise needed to conduct meaningful outreach to the development community. Public information experts help identify target audiences and associated messages and tools, conduct training and outreach, and collaborate on the design of educational materials.

#### **Coordination within the County of Sacramento**

Due to the many phases of project design, approval, and construction, coordination within the County of Sacramento is critical to the success of the New Development Element. Coordination is needed to ensure that pollution prevention occurs on County projects as well as those in the private sector.

The Stormwater Staff within the Department of Water Resources manages the New Development Element. This section coordinates with the following other agencies and departments:

- Municipal Services Agency — Department of Water Resources (Development Review, Design and Maintenance Sections), Department of Transportation (Engineering/Planning Section), Department of Water Quality, Department of County Engineering and Administration.
- Community Development and Neighborhood Assistance Agency — Department of Environmental Review and Assessment, Department of Planning and Community Development.

#### **Coordination with Other Agencies and Groups**

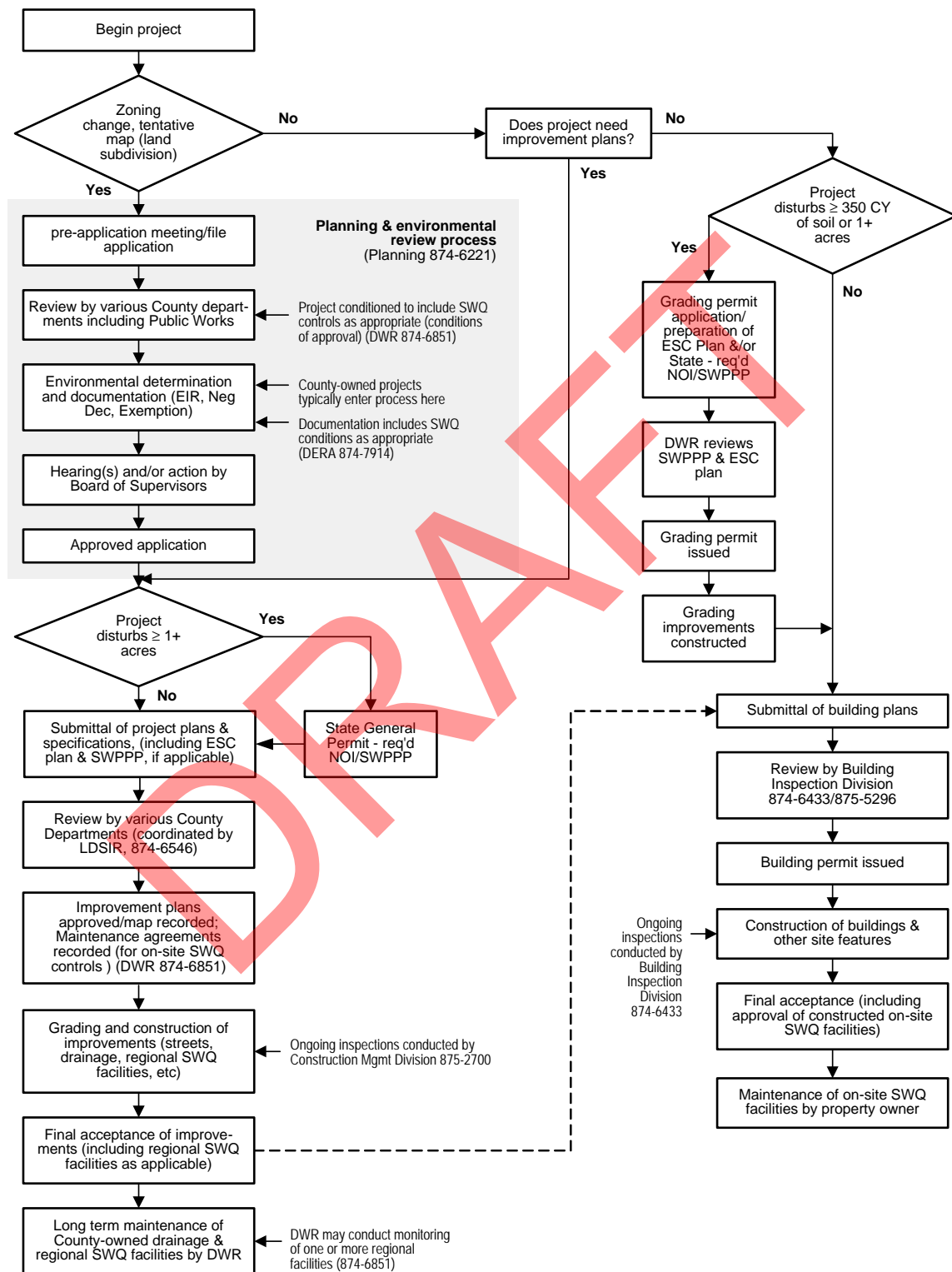
For several New Development Element activities, the County works closely with the other permittees, especially the City of Sacramento, to ensure that the development community is receiving a consistent, uniform message. Examples of coordinated activities include creating design criteria and guidance materials, conducting studies of stormwater quality treatment control measures effectiveness, and conducting outreach to the development community.

Special districts that fall outside the County's jurisdiction and control (e.g., regional transit and fire, water, school, park, and reclamation districts) generally follow different review processes than private projects. It is more difficult to ensure that these projects include stormwater quality controls at the earliest review stage possible, but the County strives to have stormwater quality control measures included on each site as applicable. Outreach to and education of these special districts is an important goal.

Figure 4.8-1.

**Typical County of Sacramento Development & Review Process**

for incorporating Stormwater Quality (SWQ) & Erosion & Sediment Control (ES) Controls



DWR — Department of Water Resources; LDSIR — Land Development & Site Improvement Review; DERA — Department of Environmental Review & Assessment; NOI — Notice of Intent; SWPPP — Stormwater Pollution Prevention Plan; SWQ — Stormwater Quality

The County provides information to the development community through several organizations with local Sacramento chapters. These include: the Business Industry Association (BIA), Associated General Contractors of California (AGC), Consulting Engineers and Land Surveyors of California (CELSOC), American Society of Civil Engineers (ASCE), American Institute of Architects (AIA), and American Society of Landscape Architects (ASLA).

### Accomplishments to Date

Since the inception of the Program in the early 1990s, the County has made significant progress in controlling urban runoff pollution from new development. Among its major accomplishments, the County:

- Required treatment of runoff for newly developing areas in the south and east County, which included specifying the locations for regional water quality detention basins for about every 600-800 acres of contributing land, through drainage master planning studies. Approximately 20 new water quality detention basins were constructed since the mid 1990s. Most of these basins are located in the new incorporated cities of Elk Grove and Rancho Cordova.
- Conducted a unique study related to the use of multi-functional drainage corridors as an alternative to conventional water quality detention basins. This study culminated in the application of new design techniques to create a vegetated water quality/flood control drainage corridor in Elk Grove that also provides habitat, recreation and community amenities.
- Prepared and submitted a Development Standards Plan (DSP) on December 1, 2003.
- Within one year of approval of DSP by the Regional Board, adopted development standards in May of 2006 and began applying them to new and redevelopment projects.
- Partnered with the City of Sacramento to develop City/County stormwater quality design standards, including methods for selecting, sizing and configuring water quality detention basins. These standards were in place from 2000 until the new design manual was published in May 2007.
- Partnered with Cities of Sacramento, Folsom, Rancho Cordova, Citrus Heights, Elk Grove, Galt, and Roseville to create the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, first published in draft form in December 2006, updated in February 2007 and finalized in May 2007. This two-year process entailed outreach with the development community and meetings with a newly formed stormwater committee of the local Building Industry Association.
- Amended the California Environmental Quality Act (CEQA) review process to provide additional water quality protection language in July of 2003.
- Added water quality and watershed protection principles to the County General Plan during the 2006-07 update process.
- The County conducted a study to investigate the pollutant removal performance of various proprietary structural control measures. The goal of the study was to determine which devices are acceptable for use in the Sacramento area based on field data submitted by manufacturers. The study was updated periodically as new data became available from vendors. The results of the study were published on the Partnership's web site and referenced in the design manuals.
- The County also worked with the other permittees to conduct several local control measure effectiveness studies and published results each year in the Annual Monitoring Reports. The following control measures were studied:

- *Stormwater interceptor and filter insert* — Several underground interceptors and one type of storm drain filter insert were studied to assess pollutant removal effectiveness at the Laguna Village Shopping Center in the City of Sacramento.
- *Grassy swales* — Two swale systems were studied to assess pollutant removal effectiveness: SMUD site in the City of Sacramento and Radiological Association of Sacramento site, Expo Parkway, in the City of Sacramento.
- *Dry extended detention basin* — Brown Rd. Basin on middle branch of Strawberry Creek in Sacramento County was studied to assess pollutant removal effectiveness, and seven other basins continue to be studied to measure build-up of pollutants in basin sediments.
- *Wet water quality detention basin* — A wet water quality detention basin in the North Natomas area is being studied to evaluate the pollutant removal effectiveness.

## Effectiveness Assessment

The County’s general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities relevant to the New Development Element, including an evaluation of activities completed during the last permit term and proposed methods for evaluating effectiveness during the 2007-2013 permit term.

### Effectiveness of the 2002-2007 Permit Term Activities

During the 2002-2007 permit term, the County focused attention on several large work products as prescribed by the 2002 stormwater permit. For example, the Development Standards Plan was completed and submitted to the Regional Board in December 2003, and the *Stormwater Quality Design Manual* was produced in May 2007, following a 2-year planning process. In addition, the County evaluated the effectiveness of the New Development Element as a whole based on the numbers of new stormwater quality

control measures installed in new and redevelopments and the results of special studies conducted by the Partnership for selected control measures (e.g., wet water quality detention basin).

Table 4.8-1 presents the results of the effectiveness assessment conducted for the 2002-2007 permit term. For the most part, the activities conducted during this period demonstrated compliance with the permit (Outcome Level 1). A few of the educational outreach activities resulted in raised awareness (Outcome Level 2). These results were used to identify new or revised activities for the 2008-2013 permit term.

### Effectiveness of Fourth Permit Term Activities

Table 4.8-1 proposes the effectiveness methods for use in evaluating the 2008-2013 permit term activities. The County will continue to document accomplishments at Outcome Level 1 to demonstrate permit compliance and data will be reported each year in the annual reports.

### Activities for the 2008-2013 Permit Term

This section describes the Stormwater Permit requirements applicable to the New Development Element and the activities to be conducted during the 2008-2013 permit term.

### Proposed Activities

Table 4.8–2 (to be included in the final version of the SQIP when the exact language of the new Order is known) at the end of this section outlines the activities that will be conducted for the New Development Element during the fourth permit term. The table describes permit requirements and associated implementation tasks, assessment methods and a five-year implementation schedule.

The following sections describe the major activities in more detail.

### **Development-Related Standards, Policies and Codes**

In May 2006, the County adopted a regulation formally amending its development standards related to stormwater quality requirements. The County will continue to periodically evaluate and amend such standards as needed during the fourth permit term.

Stormwater quality requirements for development projects need to be coordinated with tree/landscape, water conservation, sanitary sewer, solid waste and other codes/standards of the County and other regulatory agencies, in order to avoid conflict and overlap. The County stormwater staff will continue to work with the Planning Department, Department of Transportation and other departments, as well as outside agencies such as County Sanitation District -1 and Metro Fire District, to evaluate and amend policies and codes as needed for consistency.

The County General Plan was updated in 2006-07. Water quality and watershed protection principles were integrated into the General Plan during that process. Major updates to the General Plan are not expected during the fourth permit term.

### **Waiver Program**

The County will work with the Partnership to develop a waiver program for development projects where it is demonstrated that installing stormwater quality control measures is infeasible. The premise is that owners of such projects would pay into an in-lieu fund which would be used by the local permitting agencies to conduct other stormwater quality control programs elsewhere in the affected watershed. It is anticipated that many challenges will be addressed in part by the waiver program, such as “Smart Growth Projects”. By far the greatest challenge for the New Development Element is the smart growth projects in the area. There is an inherent conflict between achieving the “Smart Growth” densification objectives and allowing space on these dense projects for utilities, runoff reduction measures, and stormwater quality treatment features. The County will continue to work with other organizations, such as the Sacramento Area Council of Governments (SACOG; the

“Blueprint” project) to identify and resolve issues and seek out demonstration sites.

### **Hydromodification Management Plan**

The County will work with the Partnership to meet the requirements of the stormwater permit with regards to hydromodification management. As a first step, the permittees will determine applicability of the requirements in Sacramento County based on which areas have the potential to deliver runoff which could contribute to downstream erosion and habitat degradation.

For those areas where it is determined that hydromodification management measures apply, studies will be conducted as needed, and approaches and tools will be recommended for future development and redevelopment projects to retain/detain flows at the specified “erosion potential” level. Once the requirements are in place, the County will condition projects to comply.

A key challenge in this process will be the local clay soils which limit the choices for detaining and retaining flows and make infiltration infeasible in many cases.

### **Treatment Strategies for Roadway Projects**

Roadway projects of five acres or greater must include stormwater quality treatment control measures. This is a challenge since there is a limited menu of treatment options that will work for these types of projects, given space constraints and the difficulty in isolating the drainage for a portion of a roadway. The challenge is even greater with public road projects because of safety and maintenance concerns about the treatment control measures. The County stormwater staff will continue to work with the Department of Transportation to identify solutions. It is anticipated that ongoing research results from Caltrans’ demonstration projects will assist in this effort.

### **Maintenance of Stormwater Quality Control Measures**

The County will work on evaluating the best way to outreach to educate owners about their maintenance responsibilities of privately owned treatment control measures.

The County will ensure long term maintenance of treatment control measures by requiring maintenance covenants to be executed before the approval of the project. Also, the County may use other methods such as self certification to ensure proper installation and construction of the treatment control measures.

The stormwater staff will review and update the maintenance procedures for publicly owned facilities as needed.

### **Investigation of Proprietary Structural Control Measures**

The County will continue its work with the Partnership to investigate various proprietary structural control measures to determine if the devices are acceptable for use in the Sacramento area. This will include meeting with vendors representing new, innovative stormwater quality products as requested and soliciting field performance data to add to the Partnership's database. Manufacturers are encouraged to submit water quality data to demonstrate effectiveness of their products. The protocol for accepting proprietary devices is currently being re-evaluated and updated to include new information. Generally speaking, proprietary controls that do not have sufficient data to demonstrate their effectiveness are not acceptable; however, the County may partner with product manufacturers in special cases to conduct local pilot tests.

Additionally, County staff subscribes to and circulate technical newsletters and journals and attend workshops and conferences in an effort to keep current.

### **Control Measures Effectiveness Studies**

The County will continue to work with the Partnership to conduct several local effectiveness studies of stormwater control measures and publish results each year in the Annual Monitoring Report. See Chapter 3.5 for more details.

### **Outreach to and Educate the Development Community**

The Sacramento area development community includes developers, property owners, engineers, landscape architects, architects, environmental specialists, and others who plan and design projects in the public and/or private sectors. The County's success in reducing stormwater pollution depends on the level of knowledge and understanding this community has regarding mitigation methods and stormwater requirements. The County therefore works collaboratively with the other permittees to share information with the development community and promote consistency across municipal boundaries. The County also provides technical guidance and design support to assist the development community in complying with storm water quality requirements. In addition, the County conducts ongoing internal education with its various agencies and departments to make sure that staff consistently apply new development policies with the development community and adhere to the policies for the design of County buildings and facilities.

### **Training**

County employees in planning, development review, and environmental review will be trained annually regarding the requirements of stormwater quality compliance. Training will also be provided to other employees in targeted positions as needed.



Table 4.8-1.

**Effectiveness Assessment – New Development Element**

| Activity/Task  | Performance Standard (Goal)  | 2002-07 Permit Term |  | 2008-13 Permit Term |                      |   |
|--|--|---------------------|--|---------------------|----------------------|---|
|  |  | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information | Assessment Method   |
| <b>Standards/ Policy</b>   |  |                     |  |                     |                      |   |
| By December 1, 2003, develop and submit a Development Standards Plan (DSP) that includes recommended source and /or structural treatment control measures for new development and significant redevelopment projects.                  | Develop DSP for submittal to Regional Water Board on December 1, 2003.   | 1                   | <b>TASK COMPLETED;</b> DSP submitted to Regional Water Board on December 1, 2003. DSP was adopted by the Regional Water Board. |                     |                      |   |
| Within one year of approval of DSP by Regional Board, amend or adopt local Development Standards. <b>(Note: DSP approved 05/18/2005)</b>   | Amend standards by May 18, 2006 and follow steps outlined in the DSP to update other standards and ordinances as document update schedules allow.              | 1                   | <b>TASK COMPLETED;</b> Adopted amended Development Standards effective May 18, 2006.   |                     |                      |   |
| Update General Plan during the next scheduled General Plan update.   | Add stormwater quality language as specified in Permit to General Plan documents.  | 1                   | Identified revisions and language to be added to the General Plan.   | 1                   | NA                   | Confirmation – include copy of updated General Plan Section in Annual Reports.  |
| Propose a waiver program that would require any developers receiving waivers to transfer the savings in cost to a stormwater mitigation fund. Waivers shall be granted only when structural treatment control measures are infeasible. | Research other stormwater programs to determine effective ways to create and manage a waiver program.  | 1                   | Completed a memo as part of the DSP with results of preliminary research.  | 1                   | NA                   | Confirmation - develop a waiver program and describe activities/program in Annual Reports.                                |
| Conduct a study to determine the applicability of hydromodification management measures in Sacramento County.  | Develop an applicability map showing where hydromodification management measures will apply in Sacramento. Complete the study and develop standards as needed. |                     |  | 1                   | NA                   | Confirmation - conduct a hydromodification management study and submit work products to Regional Water Board as required. |

| Activity/Task  | Performance Standard (Goal)   | 2002-07 Permit Term |  | 2008-13 Permit Term |  |  |
|--|---|---------------------|--|---------------------|--|--|
|  |   | OUT-COME LEVEL      | Effectiveness Assessment   | OUT-COME LEVEL      | Baseline Information                             | Assessment Method  |
| <b>Implementation</b>  |   |                     |  |                     |  |  |
| Condition projects through CEQA process to include stormwater quality control measures as appropriate.   | Track projects conditioned; summarize in annual reports.                                | 1                   | Number of conditioned projects were tracked and reported in annual report. | 1                   | Number of conditioned projects in Annual Reports | Tabulation – track number of projects conditioned and report in Annual Report.                             |
| Condition “priority development projects” to comply with May 2006 updated standards.   | Track and record number of projects conditioned. Provide information in Annual Reports. | 1                   | Database maintained.   | 1                   | NA   | Tabulation - track number of projects conditioned and report in Annual Report.                             |
|  | Track number of acres developed implementing standards.                                 |                     |  | 3                   | Previous year data                               | Tabulation – increase in number of acres developed implementing standards from year to year.               |
|  | Track number of installed treatment control measures.                                   |                     |  | 2-3                 | Previous year data.                              | Confirmation – increase in the number of installed treatment control measures from year to year.           |
| Require applicable developments to provide verification of maintenance provisions for post-construction structural and treatment control measures. | Track maintenance agreements issued; summarize in annual reports.                       | 1                   | Executed maintenance agreements and created a database.                    |                     | Maintenance Agreements database.                 | Tabulation and Confirmation – track number of executed maintenance agreements and report in Annual Report. |
|  | Track increase in number of projects with maintenance agreements.                       |                     |  | 2-3                 | Maintenance Agreements database.                 | Tabulation – increase in number of projects with executed maintenance agreements from year to year.        |

Table 4.8-2.

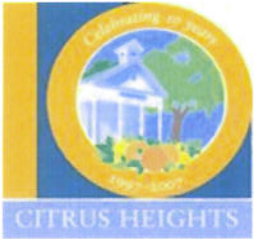
| Activity/Task   | Performance Standard (Goal)   | 2002-07 Permit Term |   | 2008-13 Permit Term |  |  |
|---|---|---------------------|---|---------------------|--|--|
|   |   | OUT-COME LEVEL      | Effectiveness Assessment  | OUT-COME LEVEL      | Baseline Information                         | Assessment Method  |
| Continue work with the Stormwater Partnership to investigate various proprietary structural control measures to determine if the devices are acceptable for use in the Sacramento area. | Track number of proposals and measures accepted.  | 1                   | Tracked number of proposals received and number of measures accepted, reported in Annual Reports. | 1                   | NA   | Tabulation and Confirmation - track number of proposals and report in Annual Report.   |
|   | Increase in number of accepted proprietary measures   |                     |   | 2-3                 | Number of measures allowed in previous year. | Tabulation and Confirmation – increase in number of accepted proprietary measures from year to year. Report outcome in Annual Report |
| <b>Outreach</b>   |   |                     |   |                     |  |  |
| Conduct outreach to the development community to explain policies and requirements and be a technical resource.   | Track advertisements; number of presentations to/meetings with stakeholder groups; number of attendees/people | 1                   | Attended meetings and conducted presentations as needed. Tracked number of attendees.             | 1                   | NA   | Tabulation - track number of presentations and meetings. Track number of attendees.  |
|   | Increased awareness of training attendees.  |                     |   | 2                   | Annual Reports                               | Survey - % increase in awareness before and after the training.  |
| Coordinate with developers/engineers to discuss stormwater requirements for specific projects as necessary.   | Track meetings and decisions made at meetings.  | 1                   | Tracked meetings and documented decisions.  | 1                   | NA   | Tabulation and confirmation – track number of meetings, report in annual Report.   |
|   | Track number of projects with control measures properly implemented.  | 2-3                 | Number of projects with control measures implemented were tracked and reported.                   | 2-3                 | Previous year data.                          | Tabulation - % increase in number of projects and awareness in the development community.  |
| Provide annual training to employees in targeted positions regarding the Permit requirements affecting development planning.  | Conduct annual refresher training for affected staff.   | 1                   | Track meetings and number of attendees.   | 1                   | NA   | Confirmation – report number of people reached in Annual Report.   |
|   | Increase awareness of targeted employees about stormwater quality requirements.                               |                     |   | 2                   | NA   | Survey - % increase in awareness before and after the training.  |

# Chapter 5

## City of Citrus Heights Stormwater Quality Improvement Plan

*To be included in final SQIP — see letter (on next page) to Regional Water Board regarding extension request*

DRAFT



## CITY OF CITRUS HEIGHTS

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Fax (916) 725-5799 • TDD (916) 725-6185 • www.citrusheights.net

The City of Citrus Heights is committed to providing high quality economical, responsive services to our community.

May 30, 2007

Ms. Pamela Creedon  
Executive Officer  
RWQCB Central Valley Region  
11020 Sun Center Drive # 200  
Rancho Cordova, CA 95670

**SUBJECT: Sacramento National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Discharge Permit Renewal (NPDES No.CA0082597, Order No. R5-2002-0206)**

Dear Ms. Creedon:

The City of Citrus Heights, due to the military service of our primary stormwater staff person, must request an extension for the submittal of the Stormwater Quality Improvement Plan until July 2, 2007. This extension was tentatively agreed to in a phone conversation with the Sacramento area permittees that took place on May 30, 2007.

The Report of Waste Discharge and required information will be submitted on the date of June 4, 2007 as part of the Sacramento County permittee submittal.

If you have any questions or require additional information, please do not hesitate to call me at (916) 727-4770. Thank you for your consideration.

Very truly yours,

David Wheaton  
General Service Director

Cc: Kerry Schmitz, County of Sacramento  
Kevin Becker, City of Citrus Heights  
Doug Gault, City of Elk Grove  
Sarah Amaya, City of Folsom  
Trung Trinh, City of Galt  
Kathy Garcia, City of Rancho Cordova  
Bill Busath, City of Sacramento

# Chapter 6

## City of Elk Grove Stormwater Quality Improvement Plan

### 6.1 Overview

#### Introduction and Background

The Elk Grove Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater Management Program, including a description of activities conducted to ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (Stormwater Permit), of which Elk Grove is a permittee. The required certification for the SQIP is presented in Appendix H.

#### The Sacramento Stormwater Permit

The City of Elk Grove (City) incorporated on July 1, 2000. Also, on December 15, 2003 the City annexed the area of Laguna West from the County. The urbanized portion of the area now served by the City has been covered under the County of Sacramento's NPDES Stormwater Permit since 1990. The new City was officially named as a Permittee to the Stormwater Permit when it was reissued in December 2002. The activities outlined in this Chapter are intended to ensure that the City comply with all requirements of the Stormwater Permit.

The City-specific activities described and referenced in this Chapter are conducted in addition to monitoring, special studies, target pollutant reduction and regional public outreach activities that are implemented jointly with the other Permittees as described in Chapter 3.

#### SQIP Contents

This SQIP describes activities that Elk Grove will conduct in compliance with the Stormwater Permit. Modifications to the program may be necessary as the program evolves, and will be proposed in Annual Reports submitted to the Regional Board on October 1<sup>st</sup> of each year.

Following this introduction, there are seven sections in the Section, to describe activities related to six major program elements, as follows:

**Section 6.2: Program Management** — A description of how Elk Grove's Stormwater Management Program is organized, legal authority, priorities and funding, and coordination both within the City and externally with other programs and agencies.

**Section 6.3: Construction Program Element** — Activities designed to control the runoff of sediment and other pollutants from construction sites.

**Section 6.4: Commercial/Industrial Program Element** — Activities and control programs designed to reduce pollutants in discharges and effectively eliminate non-stormwater discharges associated with industry.

**Section 6.5: Municipal Operations Program Element** — Activities designed to control stormwater pollution resulting from operation of City facilities and to set an example of model pollution prevention for the public.

**Section 6.6: Illicit Discharge and Detection Program Element** — Activities designed to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters.

**Section 6.7: Public Outreach Program Element** — Activities designed to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

**Section 6.8: New Development Program Element** — Activities designed to reduce pollutants in urban runoff discharges from newly developing and redeveloping areas for the life of the project, after construction is complete.

## City Characteristics

Elk Grove is located in the southern part of the Sacramento metropolitan area, to the west of the Cosumnes River, east of Freeway I-5 and south of Calvine Road, as shown on Figure 6-1. This area is approximately 27,000 acres and serves a population of over 136,000. Tremendous growth is now occurring in the City, particularly with residential and commercial land uses. Most of the land within the City is urban or destined for urban land use in the near future.

There are nine major natural creek or open channels that convey runoff within the City including Deer Creek, Elk Grove Creek, the Grant Line Channel, Laguna Creek, the Laguna West Channel, the Shed A Channel, the Shed B Channel, the Shed C Channel and Strawberry Creek. Four of the creeks convey runoff that originates outside of the City limits including Deer Creek, Elk Grove Creek, Laguna Creek and Strawberry Creek. All of the City watersheds ultimately drain into the Beach Stone Lakes area of Sacramento County with the exception of Deer Creek and Grant Line Channel watersheds, which drain to Deer Creek and ultimately into the Cosumnes River.

The City owns and maintains four pump stations to discharge runoff from four different watersheds in the City. Three of the four pump stations are located west of Franklin Boulevard to serve the Laguna West, Lakeside and Laguna Stonelakes watersheds. The runoff pumped from these three stations discharge runoff that eventually reaches Stone Lakes National Wildlife Refuge. The fourth station is located at the southern most point of the City and serves the Grant Line Channel watershed. The pump station discharges accumulated runoff from the detention basin south of Emerald Lakes Golf Course and pumps it across the UPRR into an outlet channel that continues east for approximately 1,500 feet before joining Deer Creek.

During the rainy season, the City expects to see creeks and channels convey storm drain runoff, however, City personnel has seen and noted smaller flows during the dry periods of the year. With the exception of Laguna Creek and certain portions of Elk Grove Creek, most of the streams and channels located in Elk Grove were considered perennial but lately new residential development in the City has placed structures near channel and creeks facilities. In the rural areas, large lots are being developed with expansive landscaping. Over watering of landscaping in residential and rural lots is the main cause of the smaller flows. Since these flows are not large enough to effectively travel the length of the creek and channel and discharge into a basin, they begin to settle in the small depressions along the conveyance route. This causes a variety of issues including algae blooms, water quality degradation and becomes a breeding site for mosquitoes. For such reasons, the City has labeled these nuisance flows. The City discourages over watering of lawns and has contacted over watering occupants to promote wise irrigation practices.





Figure 6-1. City of Elk Grove Map

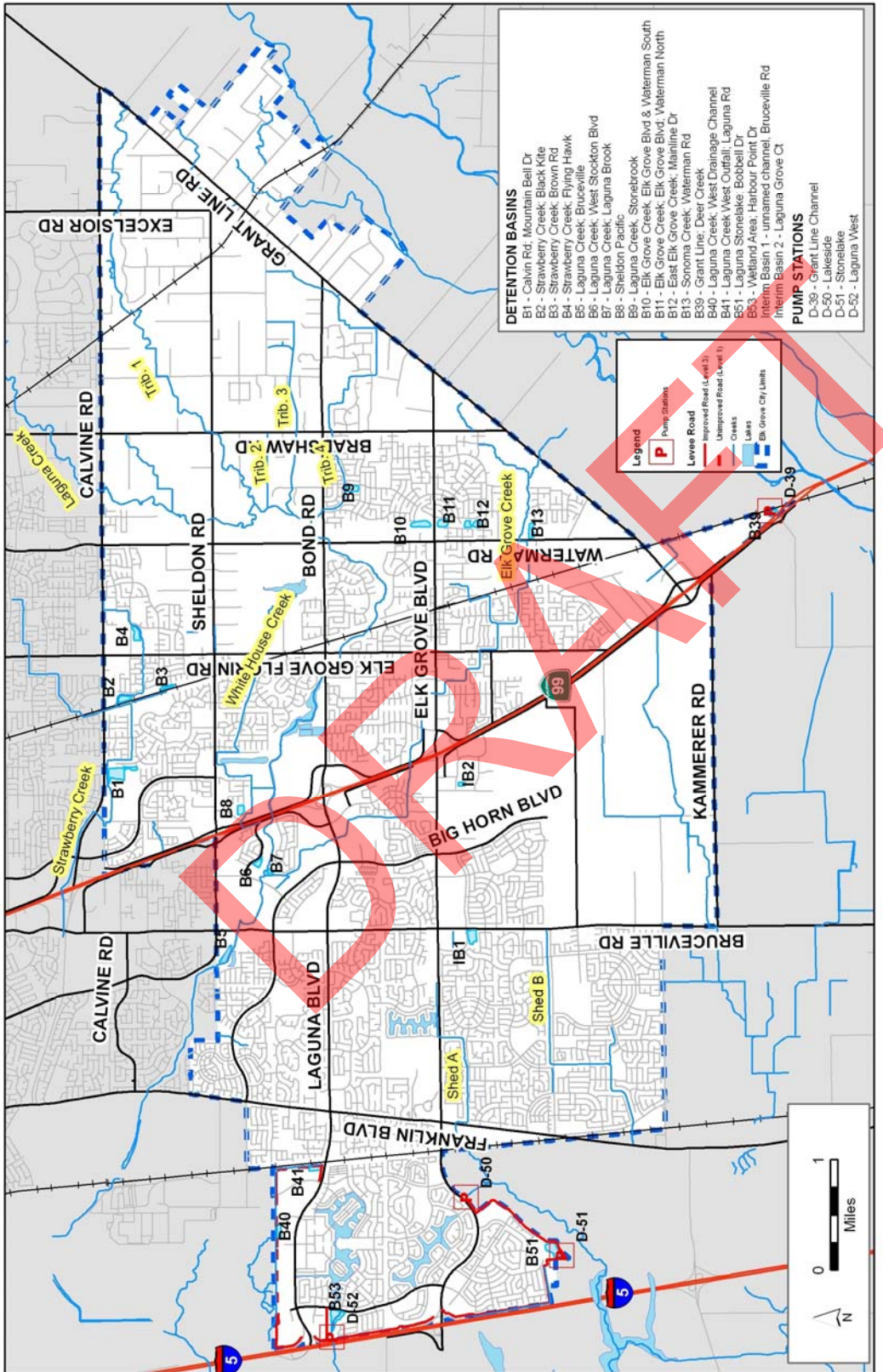


Figure 6-2.  
**City of Elk Grove Organizational Chart**

**City of Elk Grove**  
 Organization Chart

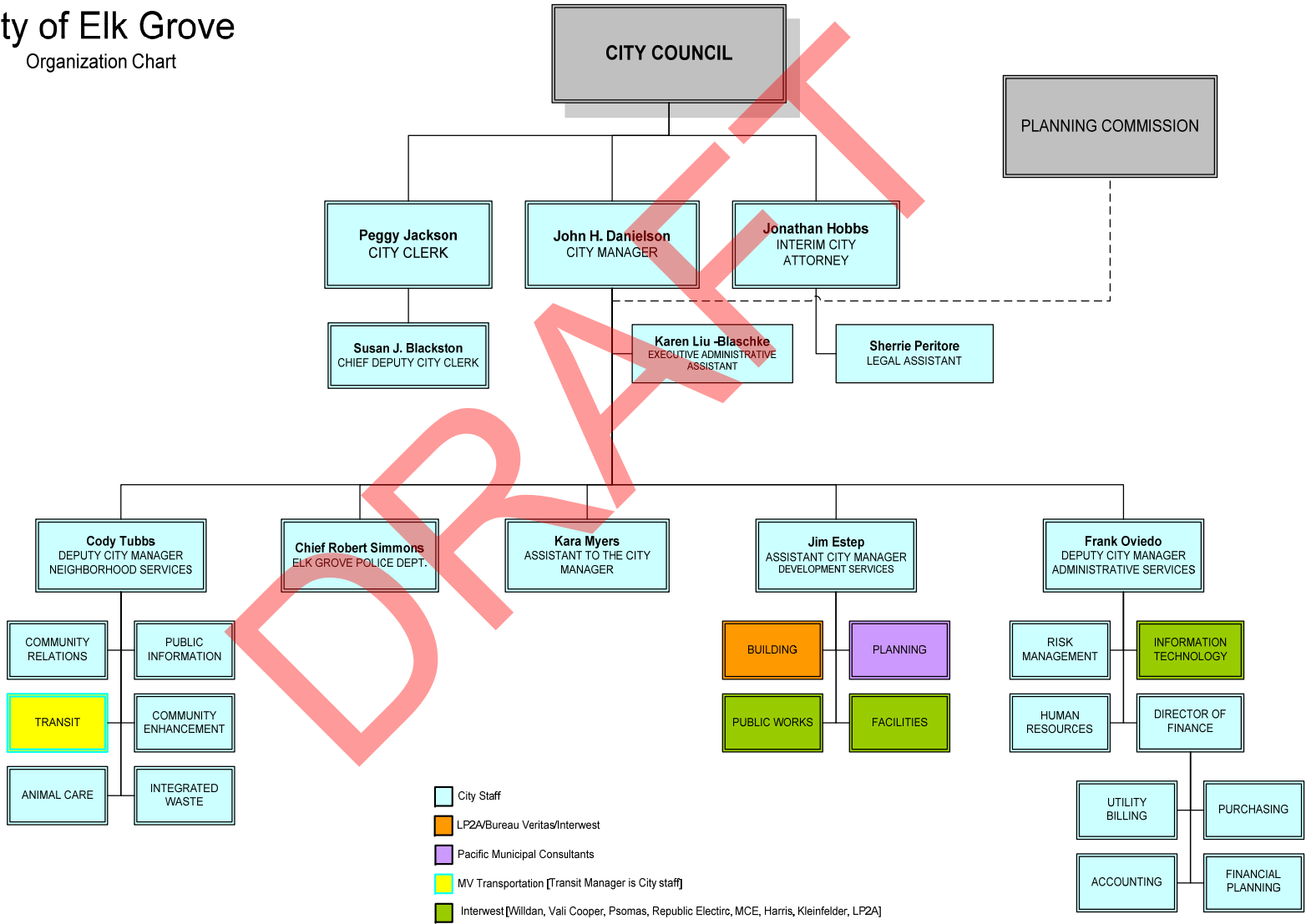


Table 6-1.  
**City of Elk Grove NPDES Municipal Stormwater Permit Program Responsibilities**

| <b>Group/Department/<br/>Entity</b>                      | <b>Responsibilities for Compliance with City NPDES Stormwater Permit</b>   |
|--|--|
| <i>Program Management (Section 6.2)</i>                  |  |
| Public Works Director                                    | Oversees City-wide compliance with Stormwater Permit and authorizes City staff to enforce Stormwater Ordinance.  |
| Water Resources  | Administers and manages the City Stormwater Program on behalf of the City. Provides liaison with the Regional Board and prepares/submits compliance reports. Coordinates participation in joint permittee activities including the Stormwater Quality Partnership. Also conducts many program activities. Processes payments to the City of Sacramento /County of Sacramento for joint permittee activities including consultant services according to the cost-share MOU. |
| City Attorney  | Conducts legal reviews, prepares legal certifications, and oversees revisions to ordinances, codes and other standards.  |
| <i>Construction (Section 6.3)</i>                        |  |
| Development Support                                      | Issues grading permits and conducts initial review of erosion and sediment control plans and SWPPPs  |
| Water Resources  | Provides technical assistance on erosion and sediment controls to other sections of Public Works.  |
| Capital Projects   | Design new public facilities and provide oversight during construction activities, including approval of change orders and SWPPP amendments. Oversee public works contracts, including contractor compliance with City ordinances and the State General Construction Permit compliance.  |
| Construction Inspection                                  | Conducts pre-construction review of erosion and sediment control plans and SWPPPs  |
| Construction Inspection                                  | Provides inspection services during the site work phase of construction of City facilities and public improvements. Inspection responsibilities include oversight of contractor erosion and sediment control and State General Construction Permit compliance.   |
| Building Department                                      | Provides inspection services during the building phase of construction of private developer facilities. Inspection responsibilities include oversight of contractor erosion and sediment control, construction site housekeeping practices, and State General Construction Permit compliance.  |
| Capital Improvements /Public Works/ Development Services | Follows City requirements for inclusion of stormwater quality treatment controls on design projects, as applicable.  |
| Traffic Engineering/Public Works/Development Services    | Provides planning, design, construction, and ongoing maintenance for all street and highway improvements located in the City, including lighting, landscaping and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required. Projects one or more acres would require coverage under State Construction General Permit.  |
| <i>Commercial/Industrial (Section 6.4)</i>               |  |
| Water Resources  | Coordinates with County Environmental Health for plan review, permitting and conducting inspection of food-related facilities in the City. In all reviews, and inspections, drainage issues are considered that may affect stormwater quality.   |
| Water Resources  | Develops and maintains an inventory of businesses addressed by the Commercial/Industrial Element of the Stormwater Permit and coordinates with the County's Environmental Management Department (EMD) to conduct the required facility stormwater inspections, including enforcement and follow-up inspections to resolve problems, as warranted.  |
| Water Resources  | Maintains an inventory of businesses with on-site stormwater treatment facilities.   |
| Construction Inspection                                  | Fort those businesses/sites with on-site stormwater treatment facilities not inspected by County EMD, conducts periodic facility stormwater inspections, including enforcement and follow-up inspections to resolve problems, as warranted.  |

| <b>Group/Department/<br/>Entity</b>                  | <b>Responsibilities for Compliance with City NPDES Stormwater Permit</b>  |
|--|---|
| <i>Municipal Operations (Section 6.5)</i>            |   |
| Maintenance Operations                               | Oversees maintenance of stormwater drainage system, including stormwater quality treatment facilities owned and/or operated by the City. Responsible for ensuring that system is maintained in a manner which protects water quality.   |
| Integrated Waste Management                          | Provides solid waste management services for residents and businesses in the City. Programs and conducts activities promoting waste prevention, recycling, and composting, helping to keep trash, debris, and hazardous materials out of the storm drainage system and local creeks and rivers.   |
| Maintenance Operations                               | Provides ongoing maintenance for all street and highway improvements located in the City, including lighting, landscaping and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required.  |
| Maintenance Operations / Police Department / Transit | Updates and executes the Corporation Yard SWPPP. Performs maintenance, repair, fueling, washing and storage of vehicles and equipment in accordance with the requirements of the Corporation Yard SWPPP.  |
| Facilities   | Manages City-owned buildings, parking lots and other facilities. Responsible for ensuring that activities at these facilities follow proper stormwater quality practices.   |
| Construction Inspection                              | Develops and conducts training for City staff on proper maintenance practices to protect stormwater quality.  |
| Maintenance Operations                               | Acts as liaison with the Cosumnes Community Services District (CSD) which operates parks and maintains landscaping within the City and the Elk Grove Unified School District to coordinate activities that protect creeks and channels and prevents non-stormwater discharges into the storm sewer system.  |
| Maintenance Operations                               | Acts as liaison with Sacramento County Sanitation District (CSD-1) which operates the sanitary sewer collections systems and Sacramento Regional Sanitation District which operates wastewater conveyance pipelines within the City limits.   |
| <i>Illicit Discharges (Section 6.6)</i>              |   |
| Maintenance Operations                               | Operates a hotline phone number to facilitate public reporting of illicit discharge problems.   |
| Construction Inspection                              | Conducts investigations as needed to confirm/eliminate illicit discharges, including enforcement and follow-up inspections to resolve problems, as warranted.   |
| Maintenance Operations                               | Conducts ongoing field screening activities.  |
| Maintenance Operations                               | Responds to non-hazardous and hazardous spills on public property or in the right-of-way. Removes and cleans up non-hazardous materials. Obtains assistance from CSD Fire Department and /or County EMD as necessary for cleanup and proper disposal of hazardous materials. Refers hazardous materials spills on private property to Sacramento County EMD for action. |
| Water Resources                                      | Operates the education-oriented volunteer storm drain inlet stencil program.  |
| <i>Public Outreach (Section 6.7)</i>                 |   |
| Water Resources                                      | Coordinates with the County to implement a county wide media campaign as required by the Stormwater Permit. This includes the purchase, production, and distribution brochures developed by the Sacramento Stormwater Program. Plans and conducts local outreach activities including participation in community activities.  |
| Construction Inspection                              | Develops and conducts outreach activities on proper construction practices protecting stormwater quality. Solicits participation of local developers, construction contractors. Invites participation by Stormwater Partnership members and internal City staff. Participates in local outreach activities including community activities.                              |
| Integrated Waste Management                          | Programs and conducts outreach activities promoting waste prevention, recycling, and composting. Conducts local outreach activities including publishing regular newsletters and participation in community activities.   |

| Group/Department/<br>Entity          | Responsibilities for Compliance with City NPDES Stormwater Permit  |
|--------------------------------------|--|
| <i>New Development (Section 6.8)</i> |  |
| Planning Department                  | Conducts Environmental review to implement provisions of the California Environmental Quality Act (CEQA) as they apply to the City, including consideration of water quality impacts, to ensure that stormwater quality controls are incorporated as required.   |
| Planning Department                  | Processes applications for private developments. Implements City Zoning Code and performs comprehensive planning for a variety of specific geographic areas within the City.   |
| Development Support                  | Conditions development projects to ensure compliance with City drainage and stormwater quality standards, including use of post construction source and treatment controls and compliance with Regional Water Quality Control Board 401 Certification requirements, if applicable. Reviews Post Construction Storm Water Quality Control Plans (PCSWQCP) for compliance with design manual requirements and allocation of land for construction. |
| Construction Inspection              | Provides inspection services during the site work phase of the construction of public improvements and private on-site stormwater quality source and treatment controls.   |
| Capital Projects                     | Follows City requirements for inclusion of stormwater quality source and treatment controls, as applicable.  |

*CAQ-8:* Trees which function as an important part of the City’s or a neighborhood’s aesthetic character or as natural habitat should be retained to the extent possible during the development of new structures, roadways (public and private, including roadway widening), parks, drainage channels and other uses and structures.

*CAQ-12:* The City shall seek to ensure that the quality of groundwater and surface water is protected to the exten possible.

*CAQ-13:* Implement the City’s NPEDS permit through the review and approval of development projects and other activities regulated by the permit.

*CAQ-14:* The City shall seek to minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and us on-site infiltration of runoff in areas with appropriate soils where the infiltration of stormwater would not pose a potential threat to groundwater quality.

*CAQ-15:* The City shall encourage water supply service providers and County Sanitation District 1 to design water supply and recycled water supply facilities in a manner that avoids and/or minimizes significant environmental effects. The City shall specifically encourage the Sacramento County Water Agency to design well facilities and operation to minimize surface flow effects to the Cosumnes River.

*CAQ-16:* Future land uses that are anticipated to utilize hazards materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double containment, levees, to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards.

*CAQ-17:* The City recognizes the value of naturally vegetate stream corridors, commensurate with flood control and public acceptance, to assist in removal of pollutants, provide native and endangered species habitat and provide community amenities.

*CAQ-18:* Post-development peak stormwater runoff discharge rates and velocities shall be designed to prevent or reduce downstream erosion, and to protect stream habitat.

*CAQ-19:* Encourage the retention of natural stream corridors, and the creation of natural stream channels where improvements to drainage capacity are required.

*CAQ-21:* Development adjacent to a natural stream(s) shall provide a “stream buffer zone” along the stream.

*CAQ-22:* Stream crossings shall be minimized and be aesthetically compatible with the natural appearance of the stream channel. The use of bridges and other stream crossings with natural (unpaved) bottoms shall be encouraged to minimize impacts to natural habitat.

### **Parks Trails and Open Space**

*PTO-15:* To the extent possible, lands protected in accordance with this policy should be in proximity to Elk Grove, to facilitate use of these areas by Elk Grove residents, assist in mitigation of habitat loss within the city, and provide an open space resource close to the urbanized areas of Elk Grove.

*PTO-18:* To the extent possible, retain natural drainage courses in all cases where preservation of natural drainage is physically feasible and consistent with the need to provide flood protection.

### **Public Facilities**

*PF-6:* The City shall seek to protect the quality and quantity of groundwater resources, including those which serve households and business which rely on private walks.

*PF-12:* To reduce the potential for health problems and groundwater contamination resulting from the use of septic systems, the City shall take the following actions:

The City shall prepare and implement a public information campaign aimed at homeowners in area with septic systems on the proper design, use, and care of septic systems

The City shall consider adopting Plumbing Code revisions to allow the use of updated technologies which offer an alternative to septic systems for the treatment of sewage on individual sites.

### **Standard Specifications and Improvement Standards**

The City has adopted the County's Improvement Standards and Standard Construction Specifications which are applicable to all projects citywide, private or public. These standards are periodically reviewed and updated to reflect evolving industry standards and regulations.

Guidance for design, construction and maintenance of post-construction stormwater quality control measures is provided in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*. Through the Sacramento Stormwater Quality Partnership, the City contributed to the production of this document in May 2007.

### **Agreements and Memoranda of Understanding**

Legal authority for administering and implementing the Sacramento Stormwater Program jointly with the other Permittees is provided by a memorandum of understanding (MOU) to be executed in 2003. The MOU describes administrative roles and responsibilities for management of the Program and performance of joint activities, as well as cost-share arrangements. Costs for joint activities are based on population of each permittee and are therefore subject to change during the term of the Stormwater Permit. A copy of the Permittee MOU is presented in Appendix D.

An agreement is executed with the County's Environmental Management Department (EMD) for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit. The City Stormwater Ordinance has been modified to allow full execution of the provisions of this agreement. On August 18, 2004 the City adopted the modified Ordinance to accommodate the agreement with the County EMD. Please find a copy of the Ordinance attached to this document.

### **Enforcement Process**

The enforcement process, which is addressed in detail in the City Ordinance No. 22-2003 (Article 5 Chapter 15.12.400-15.12.480), begins with "Notice of Corrections" which is for minor/low threat violations and eventually escalates to "Criminal Penalties", which is issued to blatant violators. The following is a summary of the City's enforcement process related to Stormwater Compliance:

Notice of Correction – This level of enforcement is for minor site violations and is issued by inspectors after visiting each site. Violations are identified and a time frame for corrective action is established. The Notice is in written form and is delivered to the Construction Superintendent or representative or the Stormwater Pollution Prevention Manager responsible for overseeing the SWPPP program.

Notice of Non-Compliance – This level of enforcement is issued when a Notice of Correction has not been addressed or site conditions require immediate attention (i.e. illicit connection, prohibited discharge, maintenance of a threatened prohibited discharge, failure to implement BMPs in accordance with Chapter 15.12.200(b) within the City Ordinance. The Notice is in written form and is delivered to the Construction Superintendent or representative or the Stormwater Pollution Prevention Manager responsible for overseeing the SWPPP program.

- **Manager to Manager Phone Call/Site Visit**—Since 2006, The City of Elk Grove has added this step in its enforcement action. The manager of construction services will discuss the non-compliance situation with the highest ranking official of the offender and give them 24-48 hours to comply or they face a cease and desist order. This methodology has proven to be highly effective.
- **Cease and Desist Orders** – This method of enforcement is issued when any activity causes any prohibited discharge to the City stormwater conveyance system and/or may lead to a violation of Receiving Water Limitations. This Order prompts the owner or occupant to take immediate action on resolving a stormwater violation as precedent over all other construction related activities. This Order allows for the Administrator to exercise immediate enforcement.

- **Administrative Civil Penalties** – This method of enforcement is issued for a continuing violation that does not immediately affect health and safety. The penalty could impose up to \$5,000 for each violation. Prior to being issued a Civil Penalty, the violator is granted a reasonable time to correct/remedy the violation as determined by the Administrator. Enforcement of the administrative civil penalty is administered by written order issued via a hearing officer following notice and opportunity for hearing.
- **Criminal Penalties** – This method of enforcement is exercised on any person who negligently or knowingly violates any stormwater provision within the Ordinance, knowingly conceals or continues violations that includes failure to comply with previous enforcement actions, or fails to implement BMPs in accordance with the Ordinance. Upon conviction, this enforcement level entails potential monetary fines and/or imprisonment.

#### Funding

The City funds its stormwater program in two ways: 1) funds are allocated for joint activities, previously described in Chapter 3, and 2) funds are allocated for City-specific activities described in this Section.

The costs for implementing joint activities are generally shared between the Permittees according to the cost-sharing MOU (noted above and in Chapter 3 of this Plan). Under this agreement, the City contributes 7 % of the Joint Program funding, primarily through Stormwater Utility revenues described below.

Funding for City-specific activities is provided by a combination of funds:

## Stormwater Utility

Stormwater Utility (SWU) revenues support the administration and management of the stormwater program. The Stormwater Utility also covers the cost to operate and maintain the City's storm drainage system, which includes maintenance of pipes, channels and associated structures, creeks, and regional stormwater quality facilities. Every owner of an improved parcel of land in the City limits is charged a stormwater maintenance fee. This fee is billed bimonthly on the City's utility bill and is used to cover the maintenance costs of the City's stormwater system.

The SWU revenue comes not only from the monthly utility billing collections but also from a portion of the twice-yearly property tax collection. Prior to the creation of the SWU in 1995, there were portions of the County (and areas now in the City) that were part of the Metropolitan Storm Drainage Maintenance District. Formed in 1964, this district was the only mechanism for providing storm drain maintenance at the time. For property within this district a portion of the property tax was dedicated to funding storm drain maintenance. While this district has since been closed, the old district boundary is still used to identify areas where a portion of property taxes collected by the County are dedicated to the storm drain maintenance.

Stormwater Utility revenues are used to fund City-specific stormwater activities as well as the joint Program activities described in Chapter 3. The City's contribution to the Joint Program is 7% based on population, as described in the permittee memorandum of understanding (Appendix D).

## Development Fees

These fees provide funding for city planners, engineers and plan checkers working on development review and permitting. They are the primary source of funding for SWPPP Inspectors that provide enforcement of water quality violations by developers, contractors, and City's residents. Planners are responsible for ensuring compliance with California Environmental Quality Act (CEQA) and implementing city stormwater quality protection policies.

## User-based Industrial/business Fees

Fees are charged directly to businesses for industrial inspectors provided by the County's Environmental Management Division. These inspectors routinely conduct inspections of industries and food establishments in compliance with the Stormwater Permit, health and safety and hazardous materials laws.

## Other Funding

Some costs for stormwater-related activities in the City are borne directly by the regulated community. For example, design, installation and long-term maintenance of permanent on-site privately owned stormwater quality facilities are the responsibility of the property owner through maintenance agreement.

## Effectiveness Assessment

The City's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provided by CASQA in its Effectiveness Assessment Guidance document.

Effectiveness Assessments and accomplishments during the third Permit Term are contained in the City's Annual Report.

## Recordkeeping and Reporting

The City will prepare and submit the following documents to the Regional Board each year, in compliance with the Stormwater Permit:

- **Annual Work Plan** (May 1) – describes proposed activities and budget for coming fiscal year (July 1 – June 30).
- **Annual Report** (October 1) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the Stormwater Permit. Proposes revisions to the Stormwater Quality Improvement Plan, if needed.

Records and data will be collected from all responsible City Function each summer to prepare the Annual Report.



The City's stormwater program staff will maintain NPDES Stormwater Permit compliance files, including all documentation necessary to demonstrate compliance with the permit. As required by the permit standard conditions, the City will retain copies of all records and reports from the date of generation for at least five years. Since the City assumed the responsibilities for the Stormwater Drainage Program effective July 2003, past records are retained by the County. In addition to retaining paper copies of all documentation, The City will also be putting all records and reports on the City's internal network.

### Training for City Staff

The City has provides training for the City SWPPP Inspector staff, planning, maintenance, drainage engineering, construction and development staff. All affected City staff and contractors are regularly informed and updated concerning the Stormwater Permit and its impacts on their positions and responsibilities.

The City provides targeted employee training in compliance with the Stormwater Permit. City staff receiving targeted training are those identified with stormwater quality responsibilities in Table 6-1. Annual training in the following subject matter of the Stormwater Permit sections is conducted at a minimum to cover requirements of the Stormwater Permit:

- Construction (Permit Provision 8c) – Targeted employees includes Program Management staff and Construction staff including those responsible for permit approval, SWPPP and erosion control plan review, construction inspection and SWPPP inspection.
- Municipal Operations (Permit Provision 10f.v) to promote a clear understanding of the potential for maintenance activities to pollute stormwater, and identify and select appropriate BMPs. – Targeted employees includes the Municipal Operations staff including those responsible for road and street maintenance, facility maintenance, maintenance yard, park maintenance, design, construction and maintenance contract oversight, storm drain system maintenance, vehicle and equipment maintenance, pesticide application and material and waste management.

- Illicit Discharges (Permit Provision 11c) – Targeted employees include Fire Department staff, Water Resources staff, and Municipal Operations staff. Construction, Municipal and Development Planning courses will include training on identification, investigation, termination, cleanup, and reporting of illicit connections and discharges.
- Development Planning (Permit Provision 25) – Targeted employees include the Planning Department responsible for review and approval of new development and redevelopment. The training will include review of the Development Standards Plan.

Training courses will generally cover the following topics:

- General stormwater quality awareness objectives: where stormwater goes, how it becomes polluted, and how to prevent pollution.
- Background regulatory information appropriate to the audience.
- How to report/refer observed problems in the field.
- Information about enforcement and penalties appropriate to the audience.

The City prepares and schedules this Training Program annually. Updates to the Training Plan will be presented each year in the Annual Report and/or Annual Work Plan. Training progress will also be documented in the Annual Report.

### Coordination with Other Agencies and Programs

#### Sacramento NPDES Permittees

The City participates in regular (approximately monthly) permittee coordination meetings to discuss topics such as:

- Implementation of joint activities, such as monitoring, target pollutant reduction and some public outreach.
- Status of consultant contracts and work products related to monitoring and development standards.

- Funding of activities conducted by others that benefit the City program, such as the Brake Pad Partnership and the development of statewide BMP manuals.
- Overall program evaluation and assessment.
- Proposed modifications to the Stormwater Quality Improvement Plans and/or Stormwater Permit.

### Outside Agencies

The City coordinates with several local and regional agencies (over which it lacks jurisdictional control) in order to ensure city-wide compliance with the Stormwater Permit:

- Sacramento County Regional Sanitation District —A portion of the funds from the City’s Stormwater Utility paid through the cost sharing activities of the permittees to the SCRSD to help fund continued Sacramento and American River monitoring in compliance with the Stormwater Permit. This is part of the Coordinated Monitoring Program (CMP) which is the program coordinating the river monitoring staffed by SRCSD.
- Elk Grove Community Services District, Parks and Recreation Department – The City coordinates with Elk Grove Community Services District, Parks and Recreation Department to comply with NPDES Permit requirements in regards to parks and recreation areas.
- Elk Grove Community Services District– The City coordinates with the Elk Grove Community Services District to ensure compliance with NPDES Permit requirements for special events and other related activities. A coordination meeting has already been scheduled for that purpose.
- Caltrans — The City coordinates with Caltrans on several upcoming freeway interchange projects to ensure that stormwater controls are implemented.
- Elk Grove Unified School District – The Elk Grove Unified School District is now separately covered under their own NPDES permit.

### Other Stormwater Programs

The City supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This effort is facilitated by the City and County of Sacramento, through their active participation in the California Association of Stormwater Quality Agencies (CASQA). Also selected members of the City’s staff are members of CASQA.

### Proposed Activities for the Fourth Stormwater Permit Term

The main goal of the Program Management Element for the fourth permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

### Legal Authority

- Update Codes and Standards As Needed
- The City will amend its Stormwater Ordinance if necessary to reflect changes in the program. The City will also adopt needed changes to the Standard Construction Specifications and the Improvement Standards.
- The City will require the local development community to utilize the May 2007 *Stormwater Quality Design Manual for Sacramento and South Placer Regions* and will ensure that City planners and engineers attend training workshops related to implementation of the new manual. It is likely that as the design manual comes into more use, conflicts may arise between the criteria in the manual and the City’s codes. In such cases, the City will amend codes as needed or recommend adjustments to the manual.
- Update Agreements As Needed
- The City will work with the other permittees to update the MOU that outlines joint responsibilities, cost sharing based on Sacramento Area Council of Governments (SACOG) population data, decision making, and information management and reporting. Elk Grove’s current cost share (7%) may change, as well as roles and responsibilities may.

### **Fiscal Analysis**

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for Stormwater Permit compliance. Projected budgets for each coming fiscal year will be presented in the Annual Work Plans (May 1), and actual expenditures for the previous fiscal year will be reported in the Annual Reports (October).

### **Recordkeeping and Reporting**

As required by the Stormwater Permit, the City will submit an Annual Report by October 1<sup>st</sup> of each year detailing the activities accomplished and the quantitative data compiled during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized reporting format consistent with the other permittees and approved by the Regional Board. By May 1<sup>st</sup> of each year, Elk Grove will submit an Annual Work Plan that details the activities proposed for the coming fiscal year.

The City and County of Sacramento will take the lead in submitting Joint Program Work Plans and Annual Reports to describe activities such as monitoring conducted jointly by all the permittees in the Partnership. Refer to Chapter 3 for additional information about joint activities.

City elected officials and managers will be kept apprised of Stormwater Program activities and issues through briefings and interoffice memoranda as needed.

### **Training for City Staff**

Training is an important aspect of Elk Grove's Stormwater Program. Each year, all affected personnel and managers will be educated on the requirements of the Stormwater Permit relevant to their daily work. The training may be in the form of in-house meetings and briefings or external training conducted by the Partnership or others. Details of regular training are in section 6.2.6. For example, each year, City construction inspectors will be encouraged to attend one of the pre-wet season training workshops conducted by the Partnership.

### **Interagency Coordination**

As discussed previously, the City will work with the other permittees to update the MOU which defines cost-sharing and agency roles. The City will also work with EMD as needed to update the MOU which defines responsibilities for the industrial inspection program.

Elk Grove will attend regular permittee coordination meetings (approximately monthly) or will make arrangements for the County to represent the City at such meetings.

The City will continue to participate with other permittees on various work groups and subcommittees that have been formed to address specific activities, such as monitoring, target pollutants, and special studies. The City may make arrangements for the County to represent the City at these meetings.

The City will continue to coordinate with other outside agencies during the fourth permit term, as needed when multi-jurisdictional issues arise. These agencies may include Caltrans, Placer County, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and the California Department of Fish and Game, among others.

### **Effectiveness Assessment**

The City will evaluate its efforts using the CASQA-based approach described in Chapter 2.

### **Program at a Glance**

The details of specific tasks with scheduling will be added to the SQIP once the new permit is issued and will be used to develop Annual Work Plan's.

## 6.3 Construction Element

### Stormwater Permit Requirements

The Stormwater Permit (Provision 8) requires a number of tasks related to regulation, enforcement and inspection of construction sites in Elk Grove to reduce the discharge of construction-related sediment and pollutants to the maximum extent practicable. The requirements apply to private as well as public construction projects, including those also requiring coverage under the State's Construction General Permit. For the most part, the focus for inspection and enforcement activities is on land disturbing activities of 350 cubic yards or more and/or one acre or more. However, smaller sites also must comply with the City's Stormwater Ordinance and smaller site operators are educated and informed about ways to prevent erosion and pollution problems.

### Overview of City Inspection Activities

Construction is virtually a year-round activity and is occurring in many areas of the City. The City employs a team of about 20 inspectors (includes Construction Services Inspectors 10, Building Inspectors 7 and SWPPP Inspectors 3) to ensure that construction sites are in compliance with the City requirements. Progressive enforcement action is taken when local requirements are not adhered to or sediments and other pollutants are allowed to reach the storm drainage system or local creeks. The following highlights some of the activities:

- The City's Land Grading and Erosion Control Ordinance requires erosion and sediment controls on all projects disturbing 350 cubic yards or more of soil or one or more acres of land.
- The City's Erosion and Sediment Control Standards and Specifications are applied on all projects in Elk Grove subject to the erosion control ordinance. These standards are updated as needed.
- City construction inspectors conduct inspections of all site improvements that will eventually be owned by the City (e.g., roads, curb and gutter, pipes and channels, public buildings and facilities) to ensure compliance with applicable erosion and sediment control requirements. City inspectors do not inspect

construction of special district, state or federal projects or buildings, except insofar as the site encroaches upon and connects to City-owned facilities (e.g., roads, drainage system).

- City building inspectors conduct inspections of private and public projects during the building construction phase. Stormwater pollution and erosion problems are referred to the SWPPP inspectors for follow-up.
- The City has three SWPPP inspectors dedicated solely to stormwater inspection and compliance issues. All SWPPP issues are referred to them from construction and building inspectors for enforcement action.
- Projects in Elk Grove disturbing one or more acres of land are required to obtain coverage under the State's General Construction Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the City verifies that a State-required Notice of Intent (NOI) was filed and checks the Stormwater Pollution Prevention Plan (SWPPP) for six items required by the Stormwater Permit (Provision 8.a.iii). City inspectors inspect these jobs and look for proper erosion and sediment controls, as they do for any other project in Elk Grove. Non-filers and repeat offenders will be referred to the Regional Board as required by the Stormwater Permit.

### Effectiveness Assessment

The City's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provided by CASQA in its Effectiveness Assessment Guidance document.

Effectiveness Assessments and accomplishments during the third Permit Term are contained in The City's Annual Report.

### Relationship to Other Program Elements

Related permit-required activities of the Municipal Operations Element (Section 6.5) are the requirements to implement the construction program requirements at City-owned construction projects and to obtain coverage under the State's Construction General Permit for City construction projects disturbing one acre or more (Permit Provisions 10b.ii and iii). Related permit-required

activities in the Public Outreach Element (Section 6.7) include:

- Target construction site contractors and landowners with public outreach messages (Permit Provision 12d.ii); and
- Conduct outreach to residential and commercial builders with construction sites smaller than one acre (Permit Provision 12i).

#### Proposed Activities for the 2008–13 Permit Term

The main goal of the Construction Element for the fourth permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

#### Outreach and Education

The City will continue to provide education and guidance to both City staff (annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices. City staff training was covered previously in Section 6.2.

The City will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats might include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, preconstruction meetings, and example documents.

Elk Grove will continue to contribute funding (through the cost-share MOU) for the development and production of outreach materials such as brochures for concrete and painting, printed in English and Spanish.

#### Plan Review and Permitting

The City’s Land Grading and Erosion Control Ordinance (Municipal Code Chapter 16.44,) requires a grading permit and erosion and sediment controls on all projects disturbing 350 cubic yards or more of soil or one or more acres of land. All projects regardless of scope are subject to the City’s Stormwater Ordinance, which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system.

Projects are also required to obtain coverage under the State’s Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the City will verify that a State-required Notice of Intent (NOI) was filed and will check the Stormwater Pollution Prevention Plan (SWPPP) for six items required by the Stormwater Permit.

#### Inspection and Enforcement

Elk Grove’s Engineering/Public Works Department inspectors will continue to conduct inspections of all construction projects in the City to ensure compliance with the requirements set forth in the City’s ordinances. This includes checking sediment and erosion control measures and verifying that a site has obtained coverage under the State’s Construction General Permit if applicable. General Permit non-filers and repeat offenders will be referred to the Regional Board as required by the Stormwater Permit.

As with the last permit term, the City will continue to prioritize sites as either “high” or “moderate” threat to water quality and inspects according to this schedule:

*High priority sites* — inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.

*Moderate priority sites*— inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils),

and history of prior violations by the contractor(s). A database of active construction projects and their priorities will be maintained by the City at all times.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks.

**Effectiveness Assessment**

The City will evaluate its efforts using the CASQA-based approach described in Chapter 2.

**Program at a Glance**

The details of specific tasks with scheduling will be added to the SQIP once the new permit is issued and will be used to develop Annual Work Plan's.

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## 6.4 Commercial/Industrial Element

### Stormwater Permit Requirements

The Stormwater Permit (Provision 9) requires inspection of many industries and educational outreach to others to effectively prohibit unauthorized non-stormwater discharges and to reduce pollutants in site runoff to the maximum extent practicable. The Stormwater Permit requires that the City develop and maintain an inventory of businesses addressed by the Commercial/Industrial Element and submit an updated inventory each year in the Annual Report.

### Commercial/Industrial Element Strategy

The City of Elk Grove contracts with other agencies to conduct selected activities related to this program element within the City. The City has executed a MOU with County EMD to conduct triennial inspections of facilities within Elk Grove that were identified in the 2002 Stormwater Permit. Partnering with EMD has a few advantages:

- EMD has traditionally conducted environmental compliance inspections in the county, with trained staff, structure, policies and procedures in place. Only modest training and enhancement was required to accommodate stormwater compliance inspections, and use of the existing resource helps minimize inconvenience to the regulated businesses.
- EMD has established a Fee Ordinance which allows them to recover costs for their activities without impacting the City's limited funding sources, such as the County Stormwater Utility.
- Having a single entity (EMD) conduct all the inspections countywide ensures consistent and equitable treatment of the regulated community.

The City conducts periodic and complaint-based inspections of other businesses within the city. The City also works with the County to conduct targeted outreach to local businesses.

### Effectiveness Assessment

The City's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provided by CASQA in its Effectiveness Assessment Guidance document.

Effectiveness Assessments and accomplishments during the third Permit Term are contained in The City's Annual Report.

### Relationship to Other Program Elements

Related permit-required activities in the Public Outreach Element (Section 6.7) include:

- Conducting activities that promote business tie-ins (Permit Provision 12c.v)
- Targeting industrial owners/operators and commercial owners/operators (Permit Provision 12d.iii and iv); and
- Continuation of a business outreach program to outreach to businesses not less than twice during the 5-year permit term, beginning no later than July 1, 2004

### Proposed Activities for the Fourth Permit Term

The main goal of the Commercial/Industrial Element for the fourth permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

### Legal Authority

The City's Stormwater Ordinance will continue to provide legal authority to the County EMD for regulating selected commercial businesses and industries in Elk Grove with respect to stormwater pollution. The City's Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the fourth permit term.

### Priority Industry Inspections

The industries and commercial businesses subject to stormwater compliance inspections and targeted outreach for the fourth permit term are identified in the sections below. These are the same businesses that were targeted during the third permit term. These lists will be refined during the fourth permit term as needed.

**Businesses To Be Inspected Once Every Three Years:**

*Auto Body Shops*  
*Auto Dealer*  
*Auto Repair Shops*  
*Equipment Rental Companies*  
*Nurseries*  
*Kennels*  
*Restaurants*  
*Retail Gasoline Outlets*  
*Industries with State Industrial General Permit Coverage*

The City contracts with the County's Environmental Management Department (EMD) to conduct the required stormwater inspections, including enforcement and follow-up inspections to resolve problems, as warranted. These services will be paid for through direct billing to the regulated businesses by the County. The work plan for conducting these inspections will be completed before the permit-required 3-year cycle of inspections begin in July 2004. Additionally treatment structures at EMD inspected facilities are included in EMD inspections.

**Business to Receive Educational Outreach Twice During Permit Term:**

*Automotive Washing/Detailing*  
*Carpet Cleaning*  
*Commercial Pesticide Application*  
*Concrete Pouring Contractors*  
*Concrete Cutting*  
*General Building Contractors*  
*Landscape Installation/Maintenance*  
*Paint Contractors*  
*Portable Toilet Rental/Maintenance*  
*Pressure Washing*  
*Street Sweeping*  
*Swimming Pool Contractors*  
*Swimming Pool Maintenance*

The City will conduct the required educational outreach to the above-listed businesses and report activities each year in the Annual Report. The City will purchase, produce, and distribute brochures developed by the Sacramento Stormwater Program, such as those for food handling facilities, concrete and paint wastes, and swimming pool discharges. The City will also contribute funding to creation of new educational materials in collaboration with the other permittees.

**Treatment structure inspections for other commercial and industrial sites**

The city will initiate a regular inspection program for treatment facilities at commercial and industrial sites not covered by County EMD inspections.

**Complaint-Based Stormwater Compliance Inspections**

County EMD and City staff will cooperate to inspect any site within the City of Elk Grove on a complaint basis. Complaints can be referred by the public, other County agencies and departments, the Regional Board, and other sources. County stormwater staff will refer to EMD any complaints related to businesses included in the triennial inspection program. All other complaints will be investigated, and associated progressive enforcement will be conducted to ensure that the stormwater pollution problem(s) are eliminated.

County EMD or City staff will distribute educational materials during these inspections and will keep a database for annual reporting purposes.

The City may consider contributing some funding through the Permittee cost-share MOU to help support the County Business Environmental Resource Center (BERC) and the Clean Water Business Partner (CWBP) Program. BERC is a confidential resource agency serving businesses and industries in the county. BERC hosts workshops and provides guidance materials free of charge to businesses upon request. BERC will provide annual reports to the City to document activities and numbers of Elk Grove businesses in each category that benefited from the consulting service during the preceding fiscal year.

The CWBP was established by the Sacramento Stormwater Program in the late 1990's as an incentive-based program to encourage businesses to reduce pollution and recognize those businesses who participate. As of 2003, the CWBP Program has targeted mobile carpet cleaning companies and landscape businesses, with over 70 participating businesses. Additional business sectors will be targeted in the future as the CWBP Program is expanded; these activities will be described in Annual Reports.



**Effectiveness Assessment**

The City will evaluate its efforts using the CASQA-based approach described in Chapter 2.

**Program at a Glance**

The details of specific tasks with scheduling will be added to the SQIP once the new permit is issued and will be used to develop Annual Work Plan's.

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## 6.5 Municipal Operations Element

### Stormwater Permit Requirements

The Stormwater Permit (Provision 10) requires a variety of activities to prevent or reduce pollutant in runoff from all municipal land use areas, facilities and activities. Municipal facilities include buildings, transportation facilities (e.g., roads, roadsides, parking lots and fleet service areas), drainage collection and storage systems (e.g., pipes, open channels, stormwater detention basins and roadside ditches). Municipal activities include materials storage and handling, waste storage and disposal, vehicle and equipment washing and maintenance, pipe, channel and basin maintenance, street cleaning, vegetation management and repair/construction. Routine management and operations and maintenance of the storm drain system, streets and public areas must be conducted in a manner that does not inadvertently contribute pollution to local creeks and rivers. Additionally, the City must strive to be a model of pollution prevention for the community.

The Municipal Operations Element addresses operation of City-owned facilities within the NPDES Permit area (urbanized areas), not covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).

An outline of the municipal operations activities to be conducted by the City in compliance with the Stormwater Permit, including performance measures and a 5-year schedule will be provided in the Annual Report. Also, the approximate numbers of facilities, miles of storm drainage system, miles of streets, etc will be included in the Annual Report.

### Municipal Operations Element Strategy

In order to minimize potential adverse environmental effects associated with constructing, operating, and maintaining city facilities, the City has adopted these strategies for the Municipal Operations Element:

- Provide training and technical assistance to target employees and facilities.

- Evaluate activities, facilities, employee training and any available Municipal SWPPPs to improve procedures and BMPs to address stormwater quality concerns; and
- Conduct record keeping and documentation of processes to allow for continuous assessment evaluations in order to achieve improvements with Stormwater Permit compliance.

These combined efforts help ensure that City designers, contract administrators, and operations and maintenance staff understand, implement, and demonstrate compliance with the Stormwater Permit in order to reduce stormwater pollution to the maximum extent practicable.

### Interagency Coordination

The City's activities under the Municipal Operations Element do not address federal or state governmental agencies and facilities (e.g., Caltrans), which are out of the County and City's jurisdictional control. Facilities owned by the Elk Grove Unified School District and Elk Grove Community Services District (Parks, trails and fire facilities) are also outside the City's jurisdictional control, but activities at these facilities are still subject to the City's Stormwater Ordinance. City stormwater inspectors are authorized to issue enforcement actions to the operators of such facilities if discharges from the facilities contribute pollution to the City-owned storm drain system or local creeks. The City does not operate water production and distribution facilities. Additionally, the City does not have jurisdiction over the sanitary sewer system and associated facilities operated by the Sacramento Regional County Sanitation District within the City limits.

### Inventory of City Operations and Related Stormwater Activities

The Municipal Operations Element addresses operation of City-owned facilities within the NPDES Permit area (urbanized areas), not already covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).

The following is an inventory of the City-owned facilities and operations addressed by this element:

**Buildings** – The City owns and operates the City Hall complex and the Police Service Center, and a Corporation yard. The corporation yard has transit and maintenance facilities. Selected vehicle maintenance is performed on site at the Corporation yard. The Corporation yard has a SWPPP which is fully implemented. There are no known stormwater issues with this complex.

**City parks** – Parks within the City are operated and maintained (including vegetation and waste management) by the Cosumnes Community Service District (CCSD) a separate agency. The District follows the City’s guidelines for stormwater quality.

Although the City currently does not operate or maintain any parks it may in the future. Changes will be described in Annual Reports.

### **Storm Drain System**

*Piped storm drain system* – Approximately 410 miles of storm drain pipe and associated drain inlets and manholes are maintained by the City.

*Storm drain inlets* – The City has marked its storm drain inlets within its jurisdiction. The City was required by the 2002 Stormwater Permit to mark 95% of storm drain inlets by the end of 2007. This was accomplished.

*Channels, creek and Basins* – About 60 miles of manmade drainage channels, natural creeks and 18 basins are maintained by City crews. This includes Deer Creek, Elk Grove Creek, the Grant Line Channel, Laguna Creek, the Laguna West Channel, the Shed A Channel, the Shed B Channel, the Shed C Channel and Strawberry Creek.

The supervising field managers are taught the proper methods for clearing vegetation without exposing the slopes to excessive erosion. All cropped vegetation is removed from the creek and taken to the landfill.

### **Streets Facilities**

*Curbed Streets* – About 512 curb miles of curbed streets are cleaned by a vendor under contract with Public Works. The frequency schedule is:

- Priority A streets – Twice a month, year round.

- Priority B streets – Once a month, March through October, Twice a month, November through February
- Priority C streets – Once a month, year round

### **Roads, Roadside Vegetation and Landscaping**

The City repairs roads and maintains roadside vegetation.

The City and the CCSD maintain landscaping in the City. The City currently maintains 1.2 million square feet of landscaping.

### **Effectiveness Assessment**

The City’s general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provided by CASQA in its Effectiveness Assessment Guidance document.

Effectiveness Assessments and accomplishments during the third Permit Term are contained in The City’s Annual Report.

### **Proposed Activities for Fourth Stormwater Permit Term**

The main goal of the Municipal Operations Element for the fourth permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

### **Maintenance of Buildings**

The main potential for stormwater pollution at administrative building sites is the parking lot runoff. See the parking lot maintenance activities described later in this section, which are designed to minimize discharge of pollutants.

The operations and maintenance of the Corporation yard is regulated in accordance with the requirements of the Corporation yard SWPPP. The SWPPP will be updated to reflect the new maintenance facility at the Corporations yard.

### **Operation and Maintenance of City Parks**

The City of Elk Grove has no jurisdictional control over this CCSD, but will coordinate with the district during the fourth permit term to ensure that pollutants are not discharged to the City’s storm drain system or local creeks due to the District’s operations.

**Maintenance of the Piped Storm Drain System**

The City will continue to conduct contract these services using proper maintenance procedures.

**Maintenance of Creeks and Channels**

Hand methods are used for this cleaning and vegetation is retained on slopes to prevent erosion.

**Inspection and Maintenance of City-Owned Parking Lots**

Parking lots exposed to rainfall will be inspected and maintained at least annually prior to the wet season. Maintenance activities will include trash/debris removal, sweeping and removal of oil stains involving collection and proper disposal of the waste water.

**Prioritized Street Sweeping for Curbed Streets**

The City will continue to contract with a vendor for street sweeping on curbed streets, to follow the prioritized schedule described at the beginning of Section 6.5.

**Maintenance of Roads, Roadside Vegetation and Landscaping**

The City will continue to conduct contract these services using proper maintenance procedures.

**Effectiveness Assessment**

The City will evaluate its efforts using the CASQA-based approach described in Chapter2:

**Program at a Glance**

The details of specific tasks with scheduling will be added to the SQIP once the new permit is issued and will be used to develop Annual Work Plan's.

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## 6.6 Illicit Discharge Element Drainage System

The goal of the Illicit Discharges Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illicit non-stormwater discharges.

The storm drain system consists of a network drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, which discharges to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Any material dumped or discharged into the City’s storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

### Illicit Discharge Element Strategy

The City’s strategy for eliminating illicit discharges to the storm drain system and local waterways includes:

- Maintaining adequate legal authority to prohibit illicit discharges. This is accomplished through the City Stormwater Ordinance. City staff are authorized to enforce the ordinance within the City limits.

- Conducting ongoing field screening to detect illicit discharges and connections as a part of routine maintenance and repair of the storm drain system and local creeks, and enforcing against dischargers.
- Providing convenient means for residents to dispose of solid and household hazardous wastes.
- Educating City staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.
- Providing a hotline for public reporting of problems and responding in a timely manner. The City supports a stormwater hotline 687-3005 for this purpose.

### Relationship to Other Program Elements

A related permit-required activity in the Municipal Operations Element (Section 6.5) is the requirement to stencil 95% of all storm drain inlets with “no dumping” messages by the end of 2007 and to replace stencils when they wear off (Permit Provision 10e.i and iv). The goal is to deter illegal dumping. Related permit-required activities in the Public Outreach Element (Section 6.7) include:

Implementation of an education-oriented volunteer storm drain inlet stencil program (Permit Provision 12.a(1));

Posting of signage in areas with a history of illegal dumping problems (Permit Provision 12a.(2)); and

Operation of a hotline phone number to facilitate public reporting of illicit discharge problems (Permit Provision 12b).

### Effectiveness Assessment

The City’s general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provided by CASQA in its Effectiveness Assessment Guidance document.

Effectiveness Assessments and accomplishments during the third Permit Term are contained in The City’s Annual Report.

### Proposed Activities for Fourth Stormwater Permit Term

The main goal of the Illicit Discharge Element for the fourth permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

#### **Update Stormwater Ordinance and Improve Enforcement Authority as Needed**

The City will periodically evaluate the Stormwater Ordinance and amend as needed to enhance legal authority.

#### **Ongoing Field Screening to Detect Illicit Discharges and Connections**

Activities to prevent and reduce illicit discharges to the piped storm drain system and creeks within the City of Elk Grove will continue.

City crews responsible for inspecting and maintaining the piped storm drain system, creeks and channels, and roads/roadside ditches in the City will continue to be trained how to identify, clean up and/or refer and report observed incidents of illicit discharges.

City crews will also respond to complaints from the public and referrals from County EMD inspectors, the Regional Board and others. Problems are addressed on an individual basis depending on the nature of the discharge.

#### **Solid Waste and Household Hazardous Waste Programs**

Elk Grove's intergraded Waste Management Chapter will continue to conduct solid waste management and recycling and household hazardous waste collection for residents of Elk Grove.

#### **Education and Outreach**

To educate the public, and to minimize illegal discharges of waste into the storm drain system, Elk Grove will continue to promote marking of storm drain inlets with "No Dumping" messages, using volunteer groups as available or City maintenance crews.

The City will continue to operate the 687-3005 hotline to facilitate public reporting of problems in the City. Also, City crews will distribute door hangers and other educational materials in neighborhoods where they observe illicit discharge problems.

#### **Effectiveness Assessment**

The City will evaluate its efforts using the CASQA-based approach described in Chapter 2:

#### **Program at a Glance**

The details of specific tasks with scheduling will be added to the SQIP once the new permit is issued and will be used to develop Annual Work Plan's.

### 6.7 Public Outreach Element

The goal of the Public Outreach Element is to raise awareness and foster community stewardship to help prevent pollution and protect local creeks and rivers.

The City coordinates with the Partnership to implement a wide range of activities to increase the knowledge of the community regarding the City's storm drain system, impacts of urban runoff on local creeks and rivers, and potential pollution prevention solutions for the targeted audiences

#### **Elk Grove Community Characteristics**

As of 2007, there are approximately 136,000 residents in the City. The Elk Grove Unified School District operates 28 schools within the City limits, including 5 High Schools, 5 middle schools and 18 elementary schools, with a combined total student population of about 33000. About 10,000 students are enrolled in grades 3-6 (this is a target audience for Stormwater Permit Provision 12g).

There are numerous community organizations, homeowner associations and environmental groups represented in the City. Activities such as the Western Festival and Harvest Festival help to build a stronger sense of community.

In terms of watershed stewardship and water quality protection, the Elk Grove Community Services District (EGCSD) Parks and Recreation Department continues to sponsor programs, events and activities that promote community involvement in creeks:

- Junior Creek Keepers Program – Preschoolers are introduced to the local creeks via classroom curricula and field trips. The project was funded by a grant and a contribution by Sacramento County.
- Creek Week – In conjunction with Earth day the City helps sponsor a large scale clean up of creeks located in Elk Grove.
- Creek Docent Program - Resident Volunteers lead creek tours on various Saturdays during the year.
- Laguna Parkways Brochure – The EGCSD is updating its 10-year old brochure to include messages about watershed and water quality protection. The project was made possible by a contribution from Sacramento County.

Prior to incorporation of Elk Grove, the EGCSD also spearheaded the protection of parts of Laguna Creek and Elk Grove Creek, with establishment of wide natural buffers, trails and interpretive signage. Residents can enjoy these natural resources in the Fallbrook, Camden, and Laguna Springs residential areas.

The Laguna Creek Watershed Council (LCWC) is a diverse group of watershed residents, community group leaders, and local government agency representatives established in fall 2002. The LCWC's mission is to protect the health of Laguna Creek and its tributary streams by educating residents, promoting active community participation, and fostering partnerships and projects that achieve long-term, balanced solutions with mutual benefits to all stakeholders. The City supports the LCWC and maintains an active role in the LCWC by sending a representative to each of the meetings to voice the City's concerns.

The Sacramento Bee is the major newspaper serving the region, with a special "Elk Grove Neighbors" section circulated twice a week. The Laguna Citizen and Elk Grove Citizen are locally-produced papers circulated twice a week to subscribers. The City also publishes its own news letter monthly. Other media includes T.V and radio stations that serve the greater Sacramento area.

### Public Outreach Element Strategy

The City conducts most of the public outreach activities for Elk Grove residents. Elk Grove also contributes to regional public outreach (discussed in Chapter 3) through the permittee cost-share MOU.

### Highlights of the City's Public Outreach Activities Related to Stormwater Pollution Prevention

Several major community events are held in the City each year. In the past, the County sponsored a stormwater booth at many of these activities. The City plans to continue this practice at the following types of events:

*Elk Grove Creek Cleanup Day* — conducted by the Elk Grove Community Services District in conjunction with Creek Week.

*Elk Grove Western Festival* — Spring

*Elk Grove Harvest Festival* — Fall

The City will be sending representatives to various locations each year.

Additionally, City staff will meet with managers periodically throughout the year to keep them informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request. The City leaders will also be invited to participate in community events to demonstrate support for the stormwater pollution prevention effort.

- Making Partnership outreach publications such as brochures available to the general public and development project applicants at the public counter.
- Working with community groups and neighborhood associations on various efforts. For example, the volunteer storm drain stenciling program.

## Effectiveness Assessment

The City's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provided by CASQA in its Effectiveness Assessment Guidance document.

Effectiveness Assessments and accomplishments during the third Permit Term are contained in The City's Annual Report.

## Interagency Coordination

Elk Grove coordinates with the other cities in the County on regional public outreach issues through the Partnership. Activities such as the regional media campaign are generally discussed, and agreements made, during permittee coordination meetings.

## Proposed Activities for Fourth Stormwater Permit Term

The main goal of the Public Outreach Element for the fourth permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

Continue to promote volunteer stenciling of storm drain inlets as an educational activity, until all existing inlets in the community have been stenciled. Supply all necessary materials and supplies to community groups upon request.

Continue to work with the County to sponsor and staff a stormwater booth at the following types of community events:

*Creek Week Cleanup* — April

*Western Festival* — May

*Elk Grove Harvest Festival* — October

Continue to support and participate in the Laguna Creek watershed council, a grass roots effort.

Meet with City management periodically throughout the Stormwater Permit term to keep them informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request. City leaders will also be invited to participate in community events to demonstrate support for the stormwater pollution prevention effort.

- Including articles regarding stormwater pollution prevention in the City's community newsletter
- Maintaining updated stormwater quality protection information on the city website and continue to distribute partnership outreach material and update the City's stormwater brochure.

## Effectiveness Assessment

The City will evaluate its efforts using the CASQA-based approach described in Chapter 2:

## Program at a Glance

The details of specific tasks with scheduling will be added to the SQIP once the new permit is issued and will be used to develop Annual Work Plan's.



## 6.8 New Development Element

The goal of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

### New Development Element Strategy

Specific development and redevelopment within the City of Elk Grove will be mitigated with a combination of tactics:

- Limit sources of pollution
- Reduction of run-off / low impact development techniques
- On-site treatment of runoff before entering the storm drainage system
- Area treatment of run-off prior to entering creeks and channels

To apply these tactics, they must be well integrated into the steps of the development process:

*Planning:* General and specific plans need to incorporate low impact development and water quality mitigation measures on a holistic basis; primary goals would be to reduce changes to run-off by using low impact development techniques and to look at area-wide treatment which can be better controlled and maintained in the long term.

*CEQA:* The CEQA process is a primary opportunity to reduce development impacts and view mitigation measures on an area-wide basis. Good CEQA work can set up projects for easier navigation through the federal Section 404 permitting process

*Design Standards:* The City of Elk Grove requires full implementation of requirements for source and treatment controls and application of design standards using the newly published Stormwater Quality Design Manual for Sacramento and South Placer Regions. The Post Construction Storm Water Quality Control Plan (PCSWQCP) is reviewed early during the entitlement process and again, in detail, during the plan check process.

*Construction:* Inspection is a key to insuring correct construction of the designed source and treatment controls so that they function properly.

*Maintenance:* Ensuring adequate maintenance of the post construction source and treatment controls in perpetuity is essential to ensuring continued effectiveness in the protection of stormwater quality. This is accomplished by passing oversight of the controls into sustainment activities under the Commercial/Industrial or Municipal Operations element after construction.

### Development Review Process

The City has an established process for reviewing, conditioning, and permitting projects. Upon submitting a complete planning project application to the City Planning Department, a planner is assigned to the project. The project is then routed to numerous departments and agencies including Public Works. It is the responsibility of each department and agency to review the project against all applicable standards and submit comments and/or conditions to the Planning Division within designated timeframe, usually 2-3 weeks from the project route date. Planning is then responsible for ensuring that comments are passed onto the developer and that all required conditions of approval are incorporated into the consolidated conditions of approval.

Conditions are placed on the project to meet all new development standards of the City and those requirements of the Regional Water Quality Control Board that may be applied through the Section 404 permitting process.

### Development Standards

In May of 2007 the Stormwater Quality Design Manual developed by the Joint Permittees for the Sacramento Region was completed and published. The City of Elk Grove's Elk Grove Improvement Standards require that all new development meet the requirements specified in this design manual.

Conditions are placed on proposed projects to direct developers and engineers to *Volume 2 of the City/County of Sacramento Drainage Manual (Hydrology Standards)* for design of detention basins.

For new development requirements and design of source and treatment controls developers and engineers are directed to the “*Stormwater Quality Design Manual for the Sacramento and South Placer Regions.*”

### Effectiveness Assessment

The City’s general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provided by CASQA in its Effectiveness Assessment Guidance document.

Effectiveness Assessments and accomplishments during the third Permit Term are contained in The City’s Annual Report.

### Proposed Activities for Fourth Stormwater Permit Term

The main goal of the New Development Element for the fourth permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

#### **Update Environmental Review Documents as Needed**

The City will periodically evaluate and revise as needed, the CEQA initial study checklist and mitigation measure language used by City planners to condition development projects. Revised checklists and mitigation language will be submitted with Annual Reports.

#### **Update Codes As Needed**

The City planning staff will review and update as needed, various City codes that may conflict with the development standards and Design Manual. Alternatively, changes will be proposed to the Design Manual to achieve better consistency.

#### **Ensure Compliance with Development Standards and the Design Manual**

Development and redevelopment projects in Elk Grove will be conditioned for mitigation of receiving water impacts from urban runoff.

Staff will continue to ensure that development and redevelopment proposals comply with City’s standards.

City staff will review initial development applications for conformance with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions.*

City planning staff will promote the voluntary use of runoff reduction, or LID, control measures on development projects as a means of mitigating downstream habitat and erosion impacts.

#### **Waiver Program**

The City will participate in efforts with the other permittees to develop a waiver program for the permit area, whereby project applicants may pay into an in-lieu fund when it is determined that runoff reduction and/or stormwater quality control measures are infeasible for their site.

#### **Contribute to Regional Special Studies**

The City will contribute funds via the Permittee cost-share MOU to conduct special studies of selected stormwater quality control measures to verify their local pollutant removal effectiveness (see Chapter 3). Some of these studies are continued from the last permit term, for example, the study of a wet water quality detention basin. The City will also continue to contribute to the Partnership’s efforts to update the protocol for acceptance of proprietary control measures.

#### **Effectiveness Assessment**

The City will evaluate its efforts using the CASQA-based approach described in Chapter 2:

#### **Program at a Glance**

The details of specific tasks with scheduling will be added to the SQIP once the new permit is issued and will be used to develop Annual Work Plan’s.

# Chapter 7

## City of Folsom Stormwater Quality Improvement Plan

### 7.1 Introduction

#### Introduction and Background

The Folsom Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater Management Program, including a description of activities conducted to ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (Stormwater Permit), of which Folsom is a permittee. The required certification for the SQIP is presented in Appendix I.

Folsom became a permittee to the Stormwater Permit when it was first issued in 1990 and has been an active partner in the Sacramento Stormwater Quality Partnership (Partnership) since that time. The Stormwater Permit is issued to Folsom and six other co-permittees (Sacramento County and the Cities of Citrus Heights, Elk Grove, Galt, Rancho Cordova and Sacramento) by the Central Valley Regional Water Quality Control Board (Regional Water Board). The Stormwater Permit has been renewed three times: in 1996, 2002 (2002-07 permit term) and most recently in 2008 (2008-13 permit term).

This SQIP, originally published in July 2003, has been updated for the 2008-13 permit term. Implementation of the activities described in the SQIP is intended to satisfy the provisions of the Stormwater Permit. Those provisions were established to reduce pollutants in stormwater discharges to the maximum extent practicable and comply with receiving water objectives.

The City Attorney's legal certification of adequate legal authority for controlling urban runoff pollution and implementing the activities described in this SQIP is presented in Appendix I. *(to be updated after Order is adopted and before SQIP is finalized).*

This chapter serves as the City of Folsom's Stormwater Quality Improvement Plan. The city-specific activities described in this chapter are conducted in addition to those implemented jointly with the other permittees as described in Chapter 3.



CITY OF  
**FOLSOM**  
DISTINCTIVE BY NATURE

#### City of Folsom Characteristics

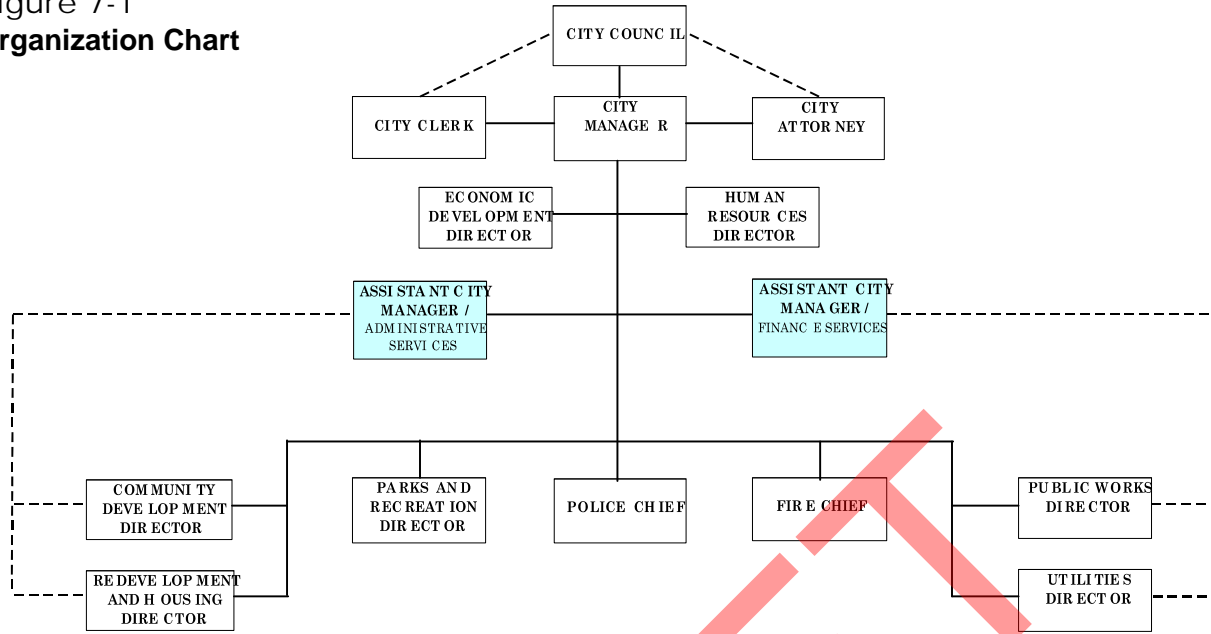
The City of Folsom (population of 62,500) is a full service City with a council-manager form of government. City-provided services include Police, Fire, Public Works,

Planning and Development, and Parks and Recreation, as illustrated on Figure 7.1-1.

Folsom, rich in California gold rush history, was founded in 1856 and incorporated in 1946. Folsom lies 22 miles northeast of Sacramento along the Highway 50 corridor. Folsom straddles the wooded and historic banks of the American River. Folsom Lake and Lake Natoma are at Folsom's border, offering many recreational activities.

The community is one of the fastest growing in the County. It is primarily a residential community with an abundance of parks and open space and diverse commercial establishments which offer a vibrant economic center. The City is home to major business's such as Intel, Kikkoman Foods, Folsom-Cordova Unified School District, Mercy Hospital, Kaiser-Permanente, Maximus, Verizon, Costco, Wal-Mart, Folsom State Prison, Home Depot, Mervyn's, Target, Lowe's, Trader Joe's,

Figure 7-1  
**Organization Chart**



Kohl’s, Best Buy, WinCo Foods, REI, Sam’s Club, Video Products Distributors and Cal-ISO.

In addition to the American River, there are a number of creeks that traverse Folsom, including Hinkle, Alder, Willow and Humbug. The Willow and Humbug Creek corridor is a natural 11-mile urban parkway with connected recreational trails traversing the City. Folsom takes pride in its waterways and strives to integrate them into the community lifestyle that is uniquely Folsom. Appendix I includes an artist’s graphic illustration of Folsom’s creeks.

The City of Folsom Sphere of Influence, located south of U. S. Highway 50, was approved by the Sacramento Local Area Formation Commission (LAFCo) in 2001. The Sphere of Influence area is about 5.6 square miles (3,600 acres) in size. The City is now proceeding with the environmental review process that is required for formal annexation. After annexation of the SOI (anticipated in 2010) the City will be approximately 15,470 acres in size.

**Overview of Folsom’s SQIP**

This SQIP describes activities that Folsom will conduct in compliance with the Stormwater Permit. Modifications to the program may be necessary as the program evolves, and will be

proposed in Annual Reports submitted to the Regional Water Board on October 1 each year.

Following this introduction, there are seven sections in the chapter, to describe activities related to six major program elements, as follows:

**Section 7.2: Program Management** — An overview of Folsom’s Stormwater Management Program, including how the program is organized, legal authority, priorities and funding, and coordination both within the City and externally with other programs and agencies.

**Section 7.3: Construction Program Element** — Activities designed to control the runoff of sediment and other pollutants from construction sites.

**Section 7.4: Commercial/Industrial Program Element** — Activities and control programs designed to reduce pollutants in industrial stormwater discharges and effectively eliminate non-stormwater discharges associated with industry.

**Section 7.5: Municipal Operations Program Element** — Activities designed to control stormwater pollution resulting from operation of City facilities and to set an example of model pollution prevention for the public.

**Section 7.6: Illicit Discharge and Detection**

**Program Element** — Activities designed to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters by the general public.

**Section 7.7: Public Outreach Program Element**

— Activities designed to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

**Section 7.8: New Development Program**

**Element** — Activities designed to reduce pollutants in urban runoff discharges from newly developing and redeveloping areas for the life of the project, after construction is complete.

DRAFT

## 7.2 Program Management

### Organization of the City of Folsom Stormwater Program

The City of Folsom Stormwater Management Program resides within the Department of Public Works, and the Director of Public Works is responsible for overseeing the program and certifying all compliance deliverables.

The City has designated staff in the following departments to conduct the management, engineering, planning and maintenance activities required by the Stormwater Permit:

- Department of Public Works (PW)
- Department of Utilities (UT)
- Department of Community Development (CD)
- Department of Parks and Recreation (PR)
- Department of Finance (F)
- City Attorney's Office

Table 7-1 summarizes the roles and responsibilities of the various City Departments for implementation of the stormwater program and also includes estimated allocation of resources for the last fiscal year of the 2002-07 permit term (2006-07). Staff resources are shown in full time equivalent (FTE) increments. FTE staff estimates for staff in other departments related to Stormwater Permit compliance tasks are not shown on this table because these costs are not currently tracked in a separate charge/project number.

Due to the many departments involved, the City formed an intradepartmental Stormwater Committee, with at least one representative from each affected department, to ensure program success and dissemination of information. The Committee meets periodically throughout the year to discuss current issues and ensure all required activities are being performed in compliance with the Stormwater Permit and this SQIP.

### Legal Authority

Legal authority for Folsom's Stormwater Management Program is provided in several ways:

- The City's Municipal Code provides the basic legal authority to implement the program and enforce the local regulations,
- The General Plan contains water quality protection policies,

- City improvement standards and other City adopted documents specify standards and specifications as needed, and
- Agreements with the County and other permittees provide for a means of cost sharing to implement various portions of the program.

The City Attorney's legal certification of adequate legal authority for controlling urban runoff pollution and implementing the activities described in this SQIP is presented in Appendix I. *(to be updated after Order is adopted and before SQIP is finalized).*

### City Codes

The City of Folsom Municipal Code and adopted ordinances form the basis for the legal authority for Folsom's Stormwater Management Program.

The predominant municipal code provision is in Title 8 - Health, Sanitation and Welfare, Chapter 8.7 - Stormwater Management and Discharge Control (also known as the "Stormwater Ordinance"). It prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., flows from emergency fire-fighting activities) pursuant to NPDES federal regulations. The Stormwater Ordinance provides legal authority to Folsom and the County for inspections and enforcement related to control of illicit (unauthorized non-stormwater) discharges to the City storm drainage system and local creeks.

A number of other code sections also provide Folsom with additional legal authority. Those include:

- Title 1 General Provision - Chapter 1.08 Enforcement of Folsom Municipal Code and other Applicable Laws, Chapter 1.09 Administrative Violations and Administrative Enforcement Procedures, Chapter 1.10 Additional Remedies.
- Title 9 Public Peace, Morals and Safety – Chapter 9.34 Hazardous Materials Disclosures.
- Title 12 Street and Sidewalks – Chapter 12.20 Use of City Property (encroachment requirements and watercourse protection).

Table 7-1.

**City of Folsom Responsibilities for Compliance with NPDES Stormwater Permit**

| <b>Department/Group</b>                       | <b>Responsibilities for Compliance with NPDES Stormwater Permit</b>   | <b>FTE<sup>1</sup></b> |
|---|---|------------------------|
| <b>Public Works</b>                           |   |                        |
| Administration/<br>Engineering                | Administers and manages Folsom's Stormwater Management Program. Provides liaison with the Regional Water Board and coordinates other services with permittees. Assists in training of City employees. Conditions City projects to ensure compliance with stormwater management program. Inspect public/private construction projects, enforce ESC requirements. Provides liaison with County EMD for the Commercial/Industrial program. | 2                      |
| Street Maintenance                            | Provides staff to clean storm drains, sweep streets and perform streambed maintenance each year. Provides on going maintenance of storm drainage facilities. Monitors for illegal connections and illicit discharges and is responsible for the storm drain stenciling program.   | *                      |
| <b>Utilities</b>                              |   |                        |
| Engineering                                   | Ensures that Utility projects and maintenance practices are in compliance with stormwater quality requirements.   | *                      |
| Sewer Maintenance                             | Field and video inspections for illegal connections and illicit discharges, responds to spill clean ups.  | *                      |
| HazMat  | Responsible for the household hazardous waste collection program and responding to hazardous waste spills. Administers solid waste recycling program. Assists in enforcement and response to illicit discharges.  | *                      |
| <b>Community Development</b>                  |   |                        |
| Support Staff,<br>Engineering and<br>Planning | Conditions development and improvement plans, implements California Environmental Quality Act requirements and General Plan amendments, and reviews improvement plans for stormwater management program compliance.   | *                      |
| Code Enforcement                              | Responsible for enforcement of City Code violations including Stormwater Management and Discharge Control Ordinance.  | *                      |
| Building Inspection                           | Performs inspections and monitors for compliance of private development construction projects from the meter to the building.   | *                      |
| Construction<br>Inspection                    | Performs inspections and monitors for compliance of private development and major public works construction projects within the public right of way.  | *                      |
| <b>Parks and Recreation</b>                   |   |                        |
| Planning &<br>Maintenance                     | Development of park plans and trails projects consistent with stormwater management program. Optimize application of fertilizers, herbicides, and pesticides to prevent runoff.   | *                      |
| Zoo Division                                  | Maintain public education displays at zoo.  | *                      |
| <b>Fire</b>                                   |   |                        |
|   | Development/rehab of fire station projects consistent with stormwater management program. Ensures that permit provisions related to emergency and non-emergency fire fighting flows are addressed.  | *                      |
| <b>Finance</b>                                |   |                        |
|   | Provides budget support and assists with the Stormwater Program Funding Project.  | *                      |
| <b>City Attorney's Office</b>                 |   |                        |
|   | Answers legal questions posed by Stormwater Program, interprets regulations, prepares and reviews agreements, possible future changes to SW Ordinance, etc.   | *                      |

<sup>1</sup> FTE: Full Time Equivalent, based on 2080 hours per year.  
Capital/operating costs are not included.

\*Time spent by staff in other departments on Stormwater Permit compliance tasks is not currently tracked in a separate charge/project number.

- Title 13 Water and Sewer – Chapter 13.16 Septic Tanks, Cesspools and Privies – Definition, Chapter 13.20 Septic Tanks, Cesspools and Privies – Regulations.
- Title 14 Building and Construction – Chapter 14.29 Grading (drainage plans, erosion control and flood prevention), Chapter 14.33 Hillside Development Standards.

### General Plan

The City of Folsom adopted its General Plan in 1988 and has had a number of subsequent amendments. The General Plan is the long-term policy guide for the physical, economic, and environmental growth of the City. It is composed of goals, policies, and implementation programs, all based on an assessment of current and future needs and available resources. The General Plan contains the provisions that lay the framework for protection of water quality and implementation of the Stormwater Management Program. The adopted General Plan policies that apply to the Stormwater Management Program are listed by Element as follows:

### Land Use Element

*Policy 1.9* — “Development proposed along streams shall be in conformance with a comprehensive development and management plan to be prepared for stream waterbeds prior to project approval.”

*Policy 2.2* — “The City will prepare area or specific plans as appropriate to further refine the standards and regulations for development.”

### Open Space and Conservation Element

*Policy 25.1* — “The surface and groundwater quality of Folsom shall not be degraded from City Standards.”

*Policy 28.2* — “The quality and quantity of surface water runoff from a property shall not exceed existing flows or existing quality or shall comply with City standards for off-site drainage. The City shall implement a surface-runoff water quality monitoring program to insure compliance with City standards.”

### Safety Element

*Policy 29.3* — “The City shall develop standards for building within the 100 year floodway to assure that the water flows above stream and downstream from a property will not be altered from existing levels.”

### Public Facilities Element

*Policy 40.2* — “The City shall require the preparation of a facilities plan for an identified area...”

*Policy 40.3* — “An area facilities plan shall include, but not be limited to the following:

- 1) A statement of the plan’s consistency with the Folsom General Plan and the City’s Urban Development Policy.
- 2) Identification of the nature and extent of facilities necessary to serve the area and a schedule of estimated time within which facilities must be constructed...”

In addition to Folsom’s General Plan policy requirements which address protection of water quality, the City may require Area, Specific or Facilities Plans for each new development that directly address drainage and water quality issues. These documents discuss the NPDES permitting requirements and the City of Folsom’s Stormwater Management Program. Each development must identify how it intends to be in compliance and describe mitigation measures it will take if it cannot comply. Typical drainage plans minimize the total amount of additional surface runoff and limit the flows released to existing pre-development levels. Other mitigation measures usually include stormwater quality control measures such as detention basins, channel protection, and maintenance plans. Temporary construction best management practices (BMPs) such as erosion and sediment controls, are also required.

### Standards

Folsom’s *Design and Procedures Manual and Improvement Standards and Standard Construction Specifications* (including Standard Construction Drawings) are applicable to all projects citywide, private or public. These standards are periodically reviewed and updated to reflect evolving industry standards and



regulations. An update of the standards is expected during the 2007-08 fiscal year. Guidance for design, construction and maintenance of post-construction stormwater quality control measures is provided in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*. The City of Folsom was an active participant in the interagency steering committee that produced this document in May 2007. In addition, the City's standard maintenance agreement for stormwater quality treatment facilities was finalized by Public Works staff and the City Attorney during the 2005-06 fiscal year. Any new development projects conditioned since that time are being required to have this agreement recorded with the deed for the property to ensure optimal, long term pollutant removal performance.

### Funding

The revenues for administrating Folsom's stormwater program are derived from many different City sources. Since the City does not have a separate stormwater utility fee like some of the other permittees, it must rely on a combination of General Fund revenues and miscellaneous fees. General Fund revenues come from property, gas, sales, and transient occupancy taxes, in addition to franchise fees, business licenses, motor vehicle in lieu fees and various service charges. Fees include development impact fees, park development fees, and capital projects. Other possible sources of funding include sewer and solid waste utility funds.

Portions of these revenues pay for staff positions responsible for conducting activities in compliance with the Stormwater Permit.

The City is working towards establishing a dedicated funding source for stormwater services, including NPDES permit compliance and operation and maintenance of the storm drain system. The challenge in this endeavor is the Proposition 218<sup>1</sup> restrictions and the need for property owner approval of any new stormwater management-related fee. Over the last few years, other cities in California have tried to set up such a fund and failed due to lack of public support. The City has completed an initial funding

feasibility study is now working on developing a strategy for implementation.

### Recordkeeping and Reporting

The City will prepare and submit the following documents to the Regional Water Board each year, in compliance with the Stormwater Permit:

- Annual Work Plan (May 1) – describes proposed activities and budget for coming fiscal year (July 1 – June 30).
- Annual Report (October 1) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the Stormwater Permit. Proposes revisions to the Stormwater Quality Improvement Plan, if needed.

Records and data will be collected from all responsible City departments and groups each summer to prepare the Annual Report. Other groups (e.g., County EMD) will assist in compiling and describing information for the activities it conducts on the City's behalf.

The City's stormwater program staff will maintain NPDES Stormwater Permit compliance files at City Hall, including all documentation necessary to demonstrate compliance with the permit. As required, the City will retain copies of all records and reports from the date of generation for at least five years.

### Training for City Staff

The City provides training for the City stormwater construction inspector, as well as planning, maintenance, engineering, construction and development staff from the various departments listed on Table 7-1. All affected City staff and contractors are regularly informed and updated concerning the Stormwater Permit and its impacts on their positions and responsibilities. City specifications will require Contractors to provide their own training. Training provided to Contractors by the City would be project-specific requirements to protect water quality.

The following compliance areas are covered in annual refresher training:

### Construction Element

*Main Objective:* To promote proper use of erosion and sediment control and other construction-

<sup>1</sup> Under Proposition 218, certain stormwater related fees may be considered "property related fees", and may require voter approval.

related pollution prevention during private and City-owned construction projects.

*Targeted employees:* Public Works and Community Development staff responsible for permit approval, stormwater pollution prevention plan (SWPPP) and erosion control plan review, and construction and stormwater compliance inspections.

### **Municipal Operations and Illicit Discharge Elements**

*Main Objective:* To promote a clear understanding of the potential for maintenance activities (including vehicle wash water) to pollute storm water, and identify and select appropriate BMPs. Courses will include training on identification, investigation, termination, cleanup, and reporting of illicit connections and discharges.

*Targeted employees:* Public Works (Streets and Drainage), Utilities (Sewer/Water), Parks, Fire and Police Department staff responsible for road and street maintenance, facility maintenance, maintenance yard, park maintenance, design, construction and maintenance contract oversight, storm drain system maintenance, vehicle and equipment maintenance, pesticide application and material and waste management.

### **New Development Element**

*Main Objective:* To educate and inform about the various departments' roles in implementing the City's development standards applicable to stormwater quality control measures to prevent pollution, reduce runoff and treat runoff. The standards apply to both private and City-owned development projects.

*Targeted employees:* Public Works, Community Development, Parks and Fire Department staff responsible for design/redevelopment of City-owned facilities, and review and approval of private new development and redevelopment projects.

Training courses will generally cover the following topics:

- General stormwater/urban runoff quality awareness objectives: where runoff goes, how it becomes polluted, and how to prevent pollution.

- Background regulatory information appropriate to the audience.
- Information about enforcement and penalties appropriate to the audience.
- How to report/refer observed problems in the field.
- Public outreach materials that can be distributed by City crews to the public, or how to refer the public to City Hall for answers.

Training accomplishments will be documented in the Annual Reports.

### **Coordination with Other Agencies and Programs**

#### **Permittees in the Partnership**

The City participates in regular (approximately monthly) permittee coordination meetings to discuss topics such as:

- Implementation of joint activities, such as monitoring, target pollutant reduction and some public outreach.
- Status of consultant contracts and work products related to monitoring and development standards.
- Funding of activities conducted by others that benefit the Sacramento Program, such as the Brake Pad Partnership and the development of CASQA statewide BMP handbooks.
- Overall program evaluation and assessment.
- Proposed modifications to the SQIPs and/or Stormwater Permit.

#### **Outside Agencies**

The City coordinates with various local and regional agencies (over which it lacks jurisdictional control) in order to ensure City-wide compliance with the Stormwater Permit:

- Sacramento Regional County Sanitation District (SRCS D) (owns and operates the interceptor collection system and wastewater treatment plant, to which the City's sanitary sewage is delivered)
- Regional Transit (owns and operates the Light Rail spur in Folsom and one of the park and ride lots)

- Folsom Cordova Unified School District (owns and operates various schools in the City [see list in Section 7.7] and will construct new schools in the future)
- El Dorado and Placer County (neighboring counties which are not permittees to the Sacramento municipal stormwater permit)
- US Bureau of Reclamation (owns the American River Parkway and lower portion of Alder Creek)
- California State Parks (manages USBR lands under contract)
- Sacramento Municipal Utility District (SMUD), Pacific Gas & Electric and other local utilities (own private utilities in the public right of way and have maintenance easements to repair/replace facilities as needed)
- Caltrans (owns and maintains several Hwy 50 interchanges and will work with City in the future to construct 1-2 additional interchanges)

#### **Other Stormwater Programs in the State**

The City supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This effort is facilitated by the City and County of Sacramento, through their active participation in the California Association of Stormwater Quality Agencies (CASQA).

#### **Effectiveness Assessment**

The City’s general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provide by CASQA in its *Effectiveness Assessment Guidance* document (March 2007).

#### **Assessment of 2002-07 Permit Term Activities**

The effectiveness tables in the County’s SQIP (Chapter 4) at the end of each program element discussion (Sections 4.2-4.8) present the results of the County’s assessment conducted for the 2002-07 permit term. These results were used to help identify proposed activities for Folsom for the 2008-13 permit term.

#### **Proposed Assessment Methods for 2008-13 Permit Term**

Folsom will use similar assessment methods as reported in the County’s SQIP (Chapter 4) to evaluate activities during the 2008-13 permit term. The City will evaluate its efforts on two levels, using the CASQA-based approach described in Chapter 2:

- 1) Individual activities and programs, and
- 2) Program element — *For example, how effective are the combined efforts in the construction element at reducing erosion problems on local construction sites?*

This assessment will be done each summer during preparation of the Annual Report, and recommendations for program improvements or modifications will be made based on these assessments.

Evaluation of the overall Program will be done once each permit term by the Partnership, as described in Chapter 2.

#### **Proposed Activities for 2008-13 Permit Term**

The main goal of the Program Management Element is to ensure that all the requirements of the Stormwater Permit are met city wide. The responsibility for program management lies with the Public Works Department. The following paragraphs describe the activities that are proposed for the program management element for the 2008-13 permit term.

#### **Legal Authority**

##### *Update Codes and Standards As Needed*

The City will amend its Stormwater Ordinance if necessary to reflect changes in the program. The City will also adopt needed changes to the Standard Construction Specifications and the Design and Procedures Manual.

The City will require the local development community to utilize the May 2007 *Stormwater Quality Design Manual for Sacramento and South Placer Regions* and will ensure that City planners and engineers attend training workshops related to implementation of the new manual. It is likely that as the design manual comes into more use, conflicts may arise between the criteria in the manual and the City’s codes. In such cases, the

City will amend codes as needed or recommend adjustments to the manual.

*Incorporate Water Quality Principles into General Plan Update*

The City plans to begin work on updating its General Plan in the 2007/08 fiscal year. Water quality and watershed protection principles will be incorporated as appropriate.

*Update Agreements As Needed*

The City will work with the other permittees to update the MOU that outlines joint responsibilities, cost sharing based on Sacramento Area Council of Governments (SACOG) population data, decision making, and information management and reporting. Folsom’s current cost share (5%) is not expected to change during the 2008-13 permit term, but roles and responsibilities may. A copy of the MOU is included in Appendix D.

**Fiscal Analysis**

*Annual Planning and Reporting*

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for Stormwater Permit compliance. This analysis will consist of detailing program costs, percentage expenditures by program, anticipated staff time, resource type, and funding and any associated restrictions on the use of the funds.

Fiscal information will be reported in the Annual Work Plans (May 1) and Annual Reports (October 1).

*Stormwater Fee*

The City is going to develop a strategy to secure current and new sources of dedicated funding for its Stormwater Management Program. Implementation of the strategy, including a ballot measure if necessary will be completed in the next permit term.

**Reporting**

*Compliance Reporting*

As required by the Stormwater Permit, the City will submit an Annual Report by October 1<sup>st</sup> of each year detailing the activities accomplished during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized

reporting format consistent with the other permittees and approved by the Regional Water Board.

By May 1<sup>st</sup> of each year, Folsom will submit an Annual Work Plan that details the activities proposed for the following fiscal year.

The City and County of Sacramento will take the lead on behalf of the Partnership in submitting Joint Program Work Plans and Annual Reports to describe activities such as monitoring conducted jointly by all the permittees. Refer to Chapter 3 for additional information.

*Internal Reporting*

City elected officials and managers will be kept apprised of Stormwater Program activities and issues through written memos and submittals, and presentations as needed.

**Training**

Training is an extremely important aspect of Folsom’s Stormwater Program and annual refresher training for all affected City staff will continue as in previous years. Details about the training were presented previously in this section. Each year, training accomplishments will be described in the October 1 Annual Reports.

**Coordination**

The City of Folsom will continue to work closely with the other permittees and agencies involved or affected by the various stormwater activities. This will include attendance at Permittee Committee meetings held approximately monthly (see Chapter 3, Section 3.2).

The City will continue to participate with other permittees on various committees that have been formed to address specific activities, such as target pollutants and monitoring (Chapter 3, Sections 3.3 and 3.4, respectively), and development standards (Section 7.8).

Coordination efforts with other agencies (previously listed in this section) will continue during the current Stormwater Permit term, as needed when multi-jurisdictional issues arise, such as on development projects.

Internal city coordination will also be conducted to ensure all necessary City staff, management and elected officials are aware of Stormwater Permit requirements and related program efforts.

### 7.3 Construction Program Element

The American River and a number of creeks that are considered significant community resources traverse the City of Folsom. Folsom places a high emphasis on reducing pollution of stormwater runoff due to construction activities, as a means of protecting these resources. A large portion of the areas undergoing development in the city are on slopes and hillsides, and are therefore very susceptible to erosion during rain storms. Controlling erosion reduces the potential for discharge of sediment and other construction-related pollutants to the City's storm drain system and local creeks, to the maximum extent practicable.

#### Construction Element Strategy

The City has established ordinances that provide the authority necessary for the city inspectors to address threatened and actual discharges of pollutants from construction operations. With this as a foundation, the City's strategy includes outreach and education, plan review and permitting, inspection and enforcement.

The program applies to private as well as public construction projects, including those also requiring coverage under the State's Construction General Permit. For the most part, the focus for inspection and enforcement activities is on land disturbing activities of one acre or more. However, smaller sites must comply with the City's Stormwater Ordinance (discussed in Section 7.2) and smaller site operators are educated and informed about ways to prevent erosion and pollution problems.

#### Intra and Interagency Coordination

Most interdepartmental coordination (between Public Works and Community Development) related to stormwater quality controls for construction projects is done on an informal basis through written correspondence and regular meetings related to specific projects.

The City coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. For example, the City utilizes

The primary mission of the Construction Program Element is to control the runoff of sediment and other stormwater pollutants from construction sites to the storm drain system and local creeks and rivers.

the same erosion and sediment control standard construction specifications as the County.

The City assists the Regional Water Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, verifying NOI filings, spot checking State-required Stormwater Pollution Prevention Plans (SWPPPs,) and referring site operators who have not complied with the State regulations.

#### Accomplishments to Date

Folsom has made several notable accomplishments related to the construction element:

- The City assigned a dedicated inspector solely for stormwater inspection and compliance issues. Other city construction and building inspectors refer stormwater issues to him for follow-up inspections and enforcement action as needed.
- Implemented a database to track all active construction sites, inspections and enforcement actions.
- Adopted Sacramento County's standard drawings for erosion and sediment control and informed local Folsom development community during project-specific reviews.
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining grading permits for applicable projects.

#### Effectiveness Assessment

Table 4.3-1 in the County's SQIP (Chapter 4, Section 4.3) presents the results of the County's effectiveness assessment conducted for the Construction Element for the 2002-07 permit term. For the most part, activities were completed in compliance with the stormwater permit at outcome level 1 (documenting activities). These results were used to help identify proposed activities for Folsom for the 2008-13 permit term.

Table 4.3-1 also proposes assessment methods that the County will use to evaluate the program element and its activities during the 2008-13 permit term; the City will use similar methods. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community).

#### Proposed Activities for the 2008-13 Permit Term

The following information describes in greater detail the activities identified on Table 7-2 at the end of this chapter. That table summarizes, for each permit provision, the major tasks and associated five-year implementation schedule.

*Note: Table 7-2 to be included in final SQIP when language of final Order/permit is known.*

#### Legal Authority

Following adoption of the new State Construction General Permit (anticipated 2007-08), the City will work with the County and other permittees to evaluate any necessary changes to this element and related codes and standards, to promote consistency.

The City will also consider revisions to its legal authority whenever the County of Sacramento revises its legal authority, since the City's stormwater ordinance was modeled after the County's.

#### Education and Training for City Personnel and the Construction Community

The City will continue to provide education and guidance to both City staff (annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices. City staff training was covered previously in Section 7.2.

The City will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal

lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, building permit process, preconstruction meetings, and inspection.

Folsom will continue to contribute funding (through the cost-share MOU) for the development and production of outreach materials such as brochures for concrete and painting, printed in English and Spanish.

#### Plan Review and Permitting

The City's Grading Ordinance (FMC 14.29) requires a grading permit and erosion and sediment controls on all private projects, disturbing 5,000 square feet or more or exceeds 50 cubic yards or more of fill. Public projects are subject to the City's Stormwater Ordinance (FMC 8.70), which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system.

Private and public projects in Folsom disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the City will verify that a State-required Notice of Intent (NOI) was filed and will check the SWPPP for six items required by the Stormwater Permit. The City will track grading permits using an electronic database. This is a continuation of activities conducted during the 2002-07 permit term.

#### Inspections and Enforcement

The Folsom Municipal Code contains three ordinances that relate to stormwater enforcement, as discussed earlier: Stormwater Management and Discharge Control, Grading, and Hillside Development ordinances. These ordinances provide the legal authority to enforce standards and conditions and ensure that unauthorized non-stormwater discharges are prevented to the maximum extent practicable. During the permit term, the ordinances will be periodically reviewed

and updated, as necessary, to ensure adequate coverage and authority is included.

The Community Development Department Inspectors are responsible for day-to-day enforcement at project sites and the Public Works Department stormwater inspector is responsible for enforcing the City’s erosion and sediment control requirements and the Stormwater Ordinance. Projects are inspected to ensure compliance with local ordinances, verify that sites adequately address erosion, sediment, and pollution control, and ascertain that SWPPPs and monitoring plans are on-site and updated for applicable projects. The City stormwater inspector will give verbal warnings and issue notices of non-compliance. If response is not effective, the inspector will refer cases to the Code Enforcement Division, which is charged with enforcing city codes. Code Enforcement will issue non-compliance letters, initiate fines and refer cases to the City Attorney’s office if needed.

Violations of the City’s ordinances are considered Level E violations and could include a fine up to \$10,000.

As required by the Stormwater Permit, if a contractor on a project disturbing one acre or more cannot demonstrate that the developer/owner has submitted an NOI or received a Waste Discharge Identification (WDID) number from the state, staff will notify the Regional Water Board within five business days of discovery. Non-filer referrals shall include the project location, developer, estimated project size and records of communication with the developer regarding filling requirements.

As with the 2002-07 permit term, the City will continue to prioritize sites as either “high” or “moderate” threat to water quality and inspect according to this schedule:

- High priority sites – inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.
- Moderate priority sites – inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

A database of active construction projects and their priorities will be maintained by the City at all times.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks.

#### **Pollution Control at City Construction Projects**

All City-owned construction projects will be subject to the same standards, State General Permit filing requirements and inspection frequencies as private development projects.

Internal communication and training is critical to verify compliance at all city construction jobs. Interdepartmental meetings, committees and other communication forums help ensure that standards and best available practices are followed.

## 7.4 Commercial/Industrial Program Element

The goal of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Folsom.

The primary mission of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Folsom.

### Commercial/Industrial Element Strategy

The City has executed a MOU with County EMD to conduct triennial inspections of facilities within Folsom that were identified in the 2002 Stormwater Permit. Partnering with EMD has a few advantages:

- EMD has traditionally conducted environmental compliance inspections in the county, with trained staff, structure, policies and procedures in place. Only modest training and enhancement was required to accommodate stormwater compliance inspections, and use of the existing resource helps minimize inconvenience to the regulated businesses.
- EMD has established a Fee Ordinance which allows them to recover costs for their activities without impacting the City's limited funding sources.
- Having a single entity (EMD) conduct all the inspections countywide ensures consistent and equitable treatment of the regulated community.

The City conducts complaint-based inspections of all other businesses within the city. The City relies on the County to conduct targeted outreach to targeted local businesses.

### Intra and Interagency Coordination

A MOU was executed between the City and the County EMD in 2004, for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit within the city limits. This MOU authorizes the EMD to conduct inspections and issue enforcement actions, using the legal authority provided by the City's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and

commercial facilities inspected so that the City's other funding sources are not unduly burdened.

The City participates in periodic (approximately biannual) meetings with EMD to discuss the program, resolve problems and identify improvements as needed. EMD coordinates with the other permittees and business groups such as Business Environmental Resource Center (BERC) to implement the inspection program. See the County's SQIP, Chapter 4 (Section 4.4) for additional details about EMD's coordination efforts.

### Accomplishments To Date

Refer to Chapter 4 (Section 4.4) for a complete list of accomplishments during the first 17 years of the program.

### Effectiveness Assessment

Table 4.4-1 in Chapter 4 (Section 4.4) presents the results of the effectiveness assessment conducted for the 2002-07 permit term for the Commercial/Industrial Element. For the most part, activities showed compliance with the Stormwater Permit at Outcome Level 1. These results were used to help identify program improvements and appropriate actions for the 2008-13 permit term.

Table 4.4-1 also proposes assessment methods that the County will use to evaluate the program during the 2008-13 permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated business community).

### Proposed Activities for the 2008-13 Permit Term

The following information briefly describes the activities conducted by County EMD and Folsom. Refer to Chapter 4 (Section 4.4) for additional details.



### **Legal Authority**

The City's Stormwater Ordinance will continue to provide legal authority to the County EMD for regulating commercial businesses and industries in Folsom with respect to stormwater pollution. The Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the 2008-13 permit term.

### **Priority Industry Identification**

The industries and commercial businesses subject to stormwater compliance inspections and targeted outreach for the 2008-13 permit term are identified in the sections below. These are the same businesses that were targeted during the 2002-07 permit term. These lists will be refined during the 2008-13 permit term as needed.

### **Triennial Industrial Stormwater Compliance Inspections**

EMD will continue to conduct triennial inspections at priority industrial facilities. The first cycle of inspections was completed in June 2007 and the second cycle will be completed in June 2010. The following priority industrial facilities in Folsom will be inspected; the numbers given in parentheses are the number of facilities within the city in that category for the 2005/06 fiscal year:

Facilities with coverage under the State's Industrial General Permit (6)

- Auto body shops (3)
- Auto repair shops (12)
- Auto dealers (11)
- Equipment rental facilities (0)
- Kennels (4)
- Nurseries (0)
- Retail gasoline outlets (i.e., gas stations) (15)
- Restaurants (232)

This list and the associated definitions of industrial categories (see Chapter 4, Section 4.4) will be evaluated and revised as needed by the end of the 2008-13 permit term.

EMD inspectors will distribute educational materials to the operators of these facilities during inspections. They will also refer suspected Industrial General Permit non-filers to the Regional Water Board.

EMD will continue to follow their enforcement policy that emphasizes compliance of facilities with the City Stormwater Ordinance through progressive enforcement actions. Fines will be assessed as necessary for repeat violations that remain unresolved.

EMD will continue to maintain its database and generate monthly violation reports, as well as all the required information for the Folsom Annual Reports.

### **Complaint-Based Stormwater Compliance Inspections**

The City Public Works Department stormwater inspector or Hazmat inspectors will inspect other businesses not addressed by EMD's program described above within the City of Folsom on a complaint basis. Complaints can be referred by the public, other City agencies and departments, the Regional Water Board, and other sources. The inspectors will refer to EMD any complaints related to businesses included in the triennial inspection program. All other complaints will be investigated, and associated progressive enforcement will be conducted to ensure that the stormwater pollution problem(s) are eliminated.

The City will distribute educational materials during these inspections and will keep a database for annual reporting purposes.

### **Educational Outreach**

During the 2008-13 permit term, County stormwater staff will continue to conduct outreach to the targeted businesses within the city, on behalf of Folsom. Outreach will be conducted with the following priority business operations:

- Automotive washing and detailing businesses
- Carpet cleaning businesses
- Commercial pesticide applicators
- Concrete contractors
- Concrete cutting contractors and businesses
- General building contractors
- Landscape installation contractors and maintenance businesses
- Painting contractors
- Portable toilet rental businesses
- Pressure washing businesses
- Street sweeping businesses
- Swimming pool contractors
- Swimming pool maintenance businesses

Businesses in these priority categories are considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses are mobile operations without a single base of operation, so they are difficult to track.

The County Department of Water Resources, on behalf of all the permittees, will conduct targeted outreach to the listed business types at least twice during the five-year term of the Stormwater Permit. BERCC will continue to manage the business outreach database and coordinate direct mailing of educational materials on behalf of the permittees. Educational materials will also be distributed via Folsom and county public counters, through trade associations and industry suppliers, and at workshops and other events.

The County of Sacramento will continue to implement the Clean Water Business Partners (CWBP) Program, and will expand the program as appropriate and necessary to target other businesses. For more details, see Chapter 3, Section 3.6.

#### **Training for Industrial Inspection Staff**

Refer to Chapter 4 (Section 4.4) for a description of training provided to EMD industrial inspection staff. The City's stormwater inspector and Hazmat personnel will continue to receive annual refresher training as described in Section 7.2.

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## 7.5 Municipal Operations Program Element

The primary goal of the Municipal Operations Element is to prevent stormwater pollution potentially resulting from the operation and maintenance of City-owned facilities and areas. These include public buildings, parks and open space, the City corporation yard, transportation facilities, storm drains and drainage ways, the sewer collection system and pump stations, and the water distribution system and water treatment plant. Folsom's corporation yard is the only facility that is currently covered under the State Industrial General Permit.

The City has an individual NPDES Permit for operation of its sewer collection system and associated facilities.

Federal and State facilities (e.g., Folsom State Prison) are not addressed by this element since Folsom does not have any jurisdictional control.

### Inventory of City Operations and Related Stormwater Activities

The Municipal Operations Element addresses operation of city-owned facilities within the NPDES Permit area (urbanized areas), not covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).

The following is an inventory of the City-owned facilities and operations addressed by this element:

**Buildings** – The City owns and operates City Hall, the City Library, Folsom Police Department, four fire stations, a corporation yard and a water treatment plant. The corporation yard and water treatment plant each include various buildings and other facilities. Building and parking lot maintenance is conducted by city personnel and contractors.

**City parks and public facilities** – 38 parks within the City are operated and maintained (including vegetation and waste management) by the City. In addition to these public parks the City also owns and manages a Senior Arts and Cultural Center, Folsom Library, Folsom Sports Complex, Aquatic Center, Folsom Zoo, Folsom Community Center, Folsom Rotary Club House, Dan Russell Arena and the R.G. Smith Club House.

### Storm Drain System

*Piped storm drain system* – In fall 2006 there were 178 miles of piped storm drain in the city. Due to new development, there are new facilities being added all the time. The Annual Reports will provide an updated inventory each year. Storm drain pipe and associated drain inlets and manholes in the city are maintained by the City's Public Works Department.

*Storm drain inlets* – In fall 2006 there was about 4857 storm drain inlets and 2428 manholes in the city. Due to new development, there are new facilities being added all the time. The Annual Reports will provide an updated inventory each year. Older storm drain inlets in the city have been marked with "No Dumping-Drains to Creek" messages. City maintenance crews check the legibility of the markings during routine maintenance activities and replace any that are damaged or missing. New storm drain inlets installed in the city are required to have a permanent "No Dumping" message; this is verified by the city inspectors during construction.

*Channels and creeks* – Almost 23 miles of manmade drainage channels and natural creeks are maintained by the City. This includes portions of Willow, Humbug, Alder and Hinkle Creeks, and various unnamed tributaries.

*Detention basins* – As of spring 2007 there are 72 water quality and/or flood control detention basins located throughout the city. Additional basins and other types of stormwater quality control measures are expected in the future, due to new development. The Annual Reports will provide an updated inventory each year. The basins are operated by either a private property owner, homeowners' association or the City.

### Transportation Facilities

*Curbed Streets* – About 435 curb miles of curbed streets are cleaned by the Public Works Department, using the following schedule:

- Priority A: Arterials – Once a month, year round, weather permitting.
- Priority B: Collectors – Once every two months, year round, weather permitting.
- Priority C: Residential – As needed or at least annually.

*Roads and Roadside Vegetation* - About 67 miles of roadside vegetation is maintained by the City Public Works Department and approximately another 40 acres of right away landscape is maintained by City contractors. Also, in the City of Folsom, there are 24 Landscaping and Lighting (L&L) Districts. In these Districts the City maintains and services the public improvements within each district. Such improvements generally consist of landscape corridors and median islands as well as streetlights. In some instances, L&L Districts maintain walls, fences, open space areas, and/or other public improvements such as art work.

*City-owned parking lots* – The City owns several parking lots amongst the various departments and City facilities (i.e. parks and rec. facilities, fire police, light rail park and rides, City Hall and two public parking lots). Most parking lot maintenance is conducted by the department which manages the facility. In some cases the Public Works Department provides parking lot sweeping for facilities in other departments.

### Municipal Operations Element Strategy

In order to minimize potential adverse environmental effects associated with constructing, operating, and maintaining city facilities, the City has adopted these strategies for the Municipal Operations Element:

- Provide training and technical assistance to target employees and facilities.
- Evaluate activities, facilities, employee training and any available Municipal SWPPPs to improve procedures and BMPs to address stormwater quality concerns; and
- Conduct record keeping and documentation of processes to allow for continuous assessment evaluations in order to achieve improvements with Stormwater Permit compliance.

These combined efforts help ensure that City designers, contract administrators, and operations and maintenance staff understand, implement, and demonstrate compliance with the Stormwater Permit in order to reduce stormwater pollution to the maximum extent practicable.

### Intra and Interagency Coordination

Internally, Public Works coordinates with the Community Development, Utilities and Parks Departments and Lighting and Landscaping District on specific projects, through the city's stormwater quality committee and annual training workshops.

Externally, the City coordinates with the other permittees, stormwater programs, and local, state, and federal agencies to share information, strategies, and recommended practices related to operation and maintenance of City-owned facilities.

The City coordinates with special districts (listed previously) on a project basis to make sure that measures are in place to protect the City's storm drain system and local creeks and rivers.

### Accomplishments to Date

Folsom has made several notable accomplishments related to the Municipal Operations Element:

- Implemented a GIS asset management system which provides for a more effective and efficient system for operations and maintenance programs.
- Updated City system maps and inputted into the GIS asset management system.
- Developed maintenance guidelines for detention basins.
- Incorporated illicit discharge and connection inspections into ongoing maintenance activities.

### Effectiveness Assessment

Table 4.5-1 in the County's SQIP (Chapter 4, Section 4.5) presents the results of the County's effectiveness assessment conducted for the Municipal Operations Element for the 2002-07 permit term. Activities showed completion of stormwater permit-required activities at outcome level 1 (documenting activities) and raised awareness by municipal staff through training (outcome level 2). These results were used to help identify proposed activities for Folsom for the 2008-13 permit term.

Table 4.5-1 also proposes assessment methods that the County will use to evaluate the program element and its activities during the 2008-13 permit term; the City will use similar methods. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the municipal staff and contractors).

### Proposed Activities for 2008-13 Permit Term

#### **Maintenance of Buildings**

The buildings that are owned by the City are operated and maintained by the various departments in which they reside.

The operations and maintenance of the Corporation yard is regulated in accordance with the requirements of its General Industrial permit and SWPPP. The SWPPP will be updated as needed.

#### **Operation and Maintenance of City Parks and Public Facilities**

The City's Parks and Recreation Department will continue to manage the 38 parks and public facilities within the city limits and any new parks built as the city develops. The Public Works Department will continue to provide training to park maintenance staff and supervisors during the 2008-13 permit term to ensure that pollutants are not discharged to the City's storm drain system or local creeks due to the Park Department's operations.

For special events that can be reasonably expected to generate substantial quantities of trash and litter, the City has provisions, as part of the special use permit issued for the event, requiring the proper management of trash and litter and/or the City will provide the clean up services after very large events.

#### **Maintenance of the Piped Storm Drain System, Creeks and Channels**

The City's Street Maintenance Division is responsible for operation and maintenance of the storm drain system. Street maintenance crews will continue to implement their prioritized schedule and procedures for systematically inspecting and cleaning the storm drain system

and associated drainage and treatment systems, including channel maintenance.

The City has implemented an aggressive stenciling and placard program, whereby 100% of the existing storm drain inlets in the city were marked as of 2003. Storm drain inlets in new developments throughout the City are typically marked during construction. City maintenance crews will be responsible for identifying illegible stencils for replacement within the time required by the Stormwater Permit (180 days).

#### **Operation and Maintenance of Transportation-Related Facilities**

##### *Inspection and Maintenance of City-Owned Parking Lots*

Parking lots exposed to rainfall will be inspected and maintained at least annually prior to the wet season. Maintenance activities will include trash/debris removal, sweeping and removal of oil stains involving collection and proper disposal of the waste water.

##### *Prioritized Street Sweeping for Curbed Streets*

The City Public Works Department will continue to conduct street sweeping of curbed streets, to follow the prioritized schedule described earlier in this chapter.

##### *Roads and Roadside Vegetation*

The City Public Works Department will continue to operate and maintain roads and roadside vegetation as described earlier in this chapter.

##### *Operation of the Sanitary Sewer Collection System*

The City has an individual NPDES Permit for capacity, monitoring, operation and maintenance of its sewer collection system. This permit requires quarterly reports documenting maintenance, capital projects and public education efforts as well as maintenance of emergency procedures and documentation and reporting of overflows.

#### **Landscaping and Integrated Pest Management Practices**

All pesticide applicators employed by the City are State-certified. Material is stored properly and regularly inspected. Products are prohibited from

being applied immediately prior, during or after a wet weather event.

The City’s Arborist oversees species selection to encourage native species and minimize fertilization for new landscape projects and renovations. In addition, the City Water Conservation Coordinator performs audits of residential, commercial and City-owned irrigation systems to maximize the efficient use of water and prevent runoff.

All of these practices will continue during the current permit term.

In addition the City is continuing to work on implementation of the Pesticide Plan, as adopted by the Water Board October 2006. In accordance with the Pesticide Plan required activities will be completed or initiated by October 2008.

### **Waste Collection**

The City’s Household Hazardous Waste program has expanded to include pickup of all household hazardous waste, and will continue during the current permit term.

### **Maintenance of Fleet Vehicles**

All Fleet vehicles will continue to be washed and maintained at the Corporation Yard, which is covered under the State’s Industrial General Permit.

### **Technical Assistance and Outreach for Municipal Staff**

Since Folsom has responsibility for a variety of municipal operations, it relies on education and outreach as the basis for the Municipal Operations Element strategy. Training and information sharing occurs with City staff at various levels.

Technical assistance is provided to facility operators to promote inclusion of BMPs in routine City operations. In addition, employees are trained in stormwater pollution prevention and the requirements of the permit, as discussed in Section 7.2. Training is simplified, since there are only three main departments affected: Parks and Recreation, Utilities and Public Works.

### **Training for Maintenance Personnel and Facility Managers**

Refer to Section 7.2 for details on Folsom’s annual refresher training for all employees affected by the stormwater permit.

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## 7.6 Illicit Discharge and Detection Program Element

The goal of the Illicit Discharges Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate prohibited non-stormwater discharges.

The storm drain system consists of a network of drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, which discharge to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Any material dumped or discharged into the City's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

### Illicit Discharge Element Strategy

The City's program for controlling illicit discharges includes legal authority, field screening, waste collection programs and outreach as follows:

- Maintain adequate legal authority to prohibit illicit discharges. This is accomplished through the City's Stormwater Ordinance. City staff are authorized to enforce the ordinance within the city limits.

The mission of the Illicit Discharge and Detection Program Element is to effectively eliminate all illegal non-stormwater discharges to the storm drain system and receiving waters.

- Conduct ongoing field screening to detect illicit discharges and connections as a part of routine maintenance and repair of the storm drain system and local creeks, and enforcing against dischargers.
- Provide convenient means for residents to dispose of solid and household hazardous wastes, to deter illegal dumping.
- Educate City staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.
- Provide a hotline for public reporting of problems and responding in a timely manner. The City supports the regional stormwater hotline 808-4H20 for this purpose.

### Intra and Interagency Coordination

The City Public Works Department coordinates with the Utilities Solid Waste Division and Hazardous Materials Division for this program element. Public Works crews conduct ongoing field screening for illicit discharges and connections as part of their work. They, in turn, will coordinate with the Utilities department to clean up and dispose of any polluted or hazardous wastewater. If progressive enforcement action against the discharger does not eliminate the problem, the City will then coordinate with City Code Enforcement.

The City coordinates with the other permittees in the Partnership to produce educational materials and messages designed to eliminate illicit discharges.

### Accomplishments To Date

The following briefly describes accomplishments since 1990 related to this element.

- In 2000 the City adopted a Stormwater Ordinance, which makes most discharges to the storm drain system illegal (some exceptions are noted).

- 100% of storm drain inlets in the City were stenciled with the “No Dumping — Drains to Creek” message and all new inlets were permanently stamped with this message.
- In 2006, a new hotline, 808-4H20, began allowing callers to select Folsom and be routed to the City for assistance on City-related issues or complaints. The hotline is now widely advertised on all Partnership educational materials, media spots, and on the web site.
- Completed field screening for illicit connections for all open channels, underground pipes in priority areas and all underground pipes with a diameter of 36 inches or greater.
- Starting in 2004, the City created and annually updated an illicit discharges map to identify “hot spot” problem areas requiring additional or more frequent investigations.

### Effectiveness Assessment

Table 4.6-1 in the County’s SQIP (Chapter 4, Section 4.6) presents the results of the effectiveness assessment conducted for the 2002-07 permit term for the Illicit Discharges Element. For the most part, they showed completion of permit-required activities at outcome level 1 (documenting activities). These results were used to help identify program improvements and appropriate actions for the 2008-13 permit term.

Table 4.6-1 also proposes assessment methods that the County will use to evaluate the program during the 2008-13 permit term; the City will use similar methods. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of dischargers and the public).

### Proposed Activities for 2008-13 Permit Term

The following paragraphs describe the activities that are proposed for this program element for the 2008-13 permit term.

#### Spill Response

The City on-call maintenance crew and the Hazardous Material Division will continue to provide 24-hour spill response services. All staff involved in spill response are thoroughly trained

according to State regulations and a spill response plan is maintained and followed that includes procedures and reporting requirements. When a report is issued, response personnel work to identify, contain and dispose of any waste as quickly and safely as possible. The Code Enforcement Division will follow up with any fines and case referrals as necessary.

The public may report any illegal discharge through the City’s 24-hour on call number system. Personnel will respond and eliminate the discharge.

As required by the stormwater Permit, for illicit discharges that are known or suspected to contain hazardous substances, the City will respond within one (1) business day to abate, contain, and cleanup any illicit discharge. Five (5) days will be the requirement for all other discharges.

Overflows, spills and infiltration of the sanitary sewer system and the response and elimination procedures employed are covered under the City’s NPDES Permit for the operation of the sanitary sewer collection system.

#### Update Stormwater Ordinance and Improve Enforcement Authority as Needed

The City of Folsom Stormwater Management and Discharge Control Ordinance prohibits the discharge of non-stormwater into Folsom’s storm drain system. Folsom enforces this ordinance as needed to ensure that problems are quickly eliminated. All investigated violations are referred to the Code Enforcement Division that may issue fines, recoup cleanup costs, or refer the case to the City Attorney’s Office.

The City is working on enhancing its enforcement capabilities by giving enforcement authority to additional staff in various departments. This effort will continue into the next permit term.

The stormwater ordinance will be reviewed and updated to ensure adequate coverage and authority is included.

#### Ongoing Field Screening for Illicit Discharges and Connections

As part of the normal drainage system maintenance procedures, crews will routinely inspect all areas of the drainage system for evidence of illicit connections and illegal discharges. When



discharges are found, crews will investigate and conduct follow-up activities as needed to identify the source and eliminate any verified non-authorized, non-stormwater discharge.

Upon discovery of an illicit connection, the City will initiate an investigation within 21 days to determine the source, nature and volume of discharge, and potential responsible party. Upon confirmation of the illicit connection, the City will terminate the connection as soon as possible, but not longer than 180 days after confirmation.

The City will continue to track and updates the illicit discharge map that shows the location of illicit discharges for identifying potential needs for further investigation or possibly outreach material. Each year, this information, along with any investigations underway or completed, will be reported in the Annual Report.

The Hazardous Material Division will continue its program to collect household hazardous waste from City customers. These efforts help to eliminate or reduce dumping of pollutants into the City storm drain system.

### **Education and Outreach**

As with many other control programs, education is the key to successful implementation. The maintenance crews are the eyes and ears of the City and are responsible for responding to a majority of the illegal discharge calls. These crews are all trained on basic stormwater quality protection.

All storm drain maintenance crews are trained in illegal discharge and illicit connection detection and elimination. Hazardous Materials Division personnel and the Sewer Division personnel are trained to properly respond to, contain and dispose of waste from unintentional spills or intentional dumping of waste.

The City will continue the above training and practices and will continue to participate with the other permittees to conduct outreach to, and develop educational materials for, the general public related to stormwater

The City will continue to contribute funding to the Partnership's 808-4H20 hotline to facilitate public reporting of problems in the City. Also, City crews will distribute doorhangers and other educational materials in neighborhoods where they observe illicit discharge problems.

### **Training for City Personnel Regarding Illicit Discharges**

Refer to Section 7.2 for details on Folsom's annual refresher training for all employees affected by the stormwater permit.

## 7.7 Public Outreach Program Element

Public education is the cornerstone of the Stormwater Management Program. Its goal is to inform the general public, targeted industries and the construction community regarding pollution prevention and to foster community stewardship to protect the creeks and watersheds within the City of Folsom.

The City of Folsom works jointly with the other permittees on a number of outreach efforts providing the following significant benefits:

- Joint funding of programs provides an economy of scale that each agency would not enjoy by itself
- Development of informational materials draws on the experiences of many participants
- Educational events are more successful by reaching a greater number of people when many agencies are involved
- Provides a consistent community message on stormwater pollution prevention
- Programs can be adjusted and tailored to the local community

The City also independently provides local, targeted outreach in several ways including public event participation, displays, the development process, and through enforcement means.

### Public Outreach Strategy

The main goals of the Public Outreach Element are to garner support for the City's stormwater program by involving public officials and City staff, promote behavioral change regarding stormwater pollution prevention and fostering a stewardship ethic in future generations through outreach to children.

Public outreach includes the development and distribution of public education materials, workshops and public events; advertising and media campaigns; promotion of citizen participation in activities such as stenciling, volunteer monitoring, and creek cleanups; and development of incentive-based efforts such as the Clean Water Business Partner Program.

The mission of the Public Outreach Program Element is to raise awareness, behavioral change and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

The following is the City's basic strategy for a complete outreach effort:

- Work within each program element to identify target audience(s).
- Identify motivator(s) for the audience(s).
- Create appropriate message points for each audience.
- Determine appropriate media for communication of the message points.
- Distribute the messages, including partnering with other permittees and programs as much as possible for the widest and most cost effective distribution of the message points.

Folsom continually coordinates its activities with those of other permittees so as to present a consistent message to the public since most issues are often multi-jurisdictional.

### Intra and Interagency Coordination

Elk Grove coordinates with the other cities in the County on regional public outreach issues through the Partnership. Activities such as the regional media campaign are generally discussed, and agreements made, during permittee coordination meetings.

### Accomplishments To Date

Chapters 3.7 and 4.7 describe major accomplishments related to public outreach by the Partnership and the County of Sacramento since 1990. In addition, the following describes several accomplishments made by the City:

- The City created a stormwater quality page on the City's web site to better address the stormwater pollution prevention program and provide links to the Partnership web site. The site will continually be updated and improved.

- The City created a creek awareness map (copy provided in Appendix I) which will later be expanded for use as a brochure.

Several major community events are held in the City each year. The City will continue to provide outreach materials and/or sponsor a stormwater booth at the following events:

- Folsom Creeks Cleanup Day - April
- Public Works Day - May
- Folsom Farmer's Market – weekly the during the summer
- The City also will be sending representatives to assist the Partnership with hosting the stormwater booth at various locations each year, such as the Salmon Festival.

Additionally, City staff will meet with managers periodically throughout the year to keep them informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request. The City leaders will also be invited to participate in community events to demonstrate support for the stormwater pollution prevention effort.

- Making Partnership outreach publications such as brochures available to the general public and development project applicants at the public counter.
- Working with community groups and neighborhood associations on various efforts. For example, the volunteer storm drain stenciling program.

### Effectiveness Assessment

Table 4.7-2 in the County's SQIP (Chapter 4, Section 4.7) presents the results of the County's effectiveness assessment conducted for the Public Outreach Element for the 2002-07 permit term. These results were used to help identify proposed activities for Folsom for the 2008-13 permit term. Additionally, the partnership assessed the regional public outreach activities through surveys and focus groups as discussed in Chapter 3, Section 3.6. For both county-specific and regional public outreach, activities were completed in compliance with the stormwater permit at outcome levels 1, 2 and 3 (documenting activities, raising awareness and changing behavior).

Table 4.7-2 in the County's SQIP also proposes assessment methods that the County will use to evaluate the program element and its activities during the 2008-13 permit term; the City will use similar methods. The goal will be to measuring effectiveness at outcome levels 2 and 3 with more emphasis on level 3 (changing behavior) wherever possible.

### Proposed Activities for 2008-13 Permit Term

The following paragraphs describe the activities that are proposed for this program element for the 2008-13 permit term.

#### **Joint Program (Regional) Public Outreach Activities**

See Chapters 3.7 for detailed information about activities that will be conducted by the Partnership on the City's behalf related to regional public outreach. Residents, businesses and students attending Folsom schools are addressed through those efforts.

#### **City Activities**

The City, in coordination and cost sharing with the other permittees, will continue to distribute educational materials to a number of targeted groups and industries including: municipal personnel, the construction community, industrial and commercial businesses, the general public (including the residential community and school children), non-English language communities, and quasi-governmental agencies.

As discussed in Section 7.3, the construction community will be educated through workshops, the entitlement process, fact sheets, standards, and pre-construction meetings. These efforts will include outreach to residential and commercial builders with sites smaller than one acre.

The general public will be targeted in multiple ways including:

- Staff will continue to attend and promote stormwater pollution prevention at annual community events including Public Works Day (May) and the Urban Creek Council's Creek Clean Up Day (April).

- The City will continue to provide information via the City website and utility bill inserts to address activities specified by the Stormwater Permit: auto repair, maintenance and washing; home and garden product use and water conservation; disposal of household hazardous waste, pet waste and green waste; and any additional pollutant source identified as significant.
- The City will work with the Partnership to continue to maintain the stormwater education display at the Folsom Zoo to educate zoo patrons about stormwater pollution and the need for prevention.
- Educational fliers and material will continue to be distributed during water conservation kiosk events and audits.
- Include articles regarding stormwater pollution prevention in the Folsom City newsletter.

The City is a member of CASQA, which strives to keep statewide stormwater program managers apprised of stormwater-related issues and regulations and serves as an information sharing network.

Through coordination and cost sharing with the other permittees, Folsom will be a continued partner in the regional stormwater media campaign including radio, television, and newspaper advertisements. Folsom is in the same radio and television markets as the other permittees and is in the distribution area for the *Sacramento Bee* newspaper. The City will continue its practice of preparing stormwater-related outreach articles for the public and city employees in the City's newsletter and will look for similar opportunities for articles in the local community newspaper: *The Folsom Telegraph*.

The City will continue to support the Partnership's 24-hour telephone hotline number 808-4H20) and advertise on any new educational materials developed and the City's web site. Callers using this number will be routed to the City of Folsom's Public Works Department.

Folsom has completed the stenciling and placard program for drain inlets using volunteer groups in addition to City crews. The City will continue to identify, and place signs along key waterways with a history of dumping problems, to discourage illegal dumping. The signs will be maintained throughout the permit term.

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## 7.8 New Development Program Element

The goal of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

### New Development Element Strategy

Through the New Development Element, the potential adverse effects of development can be mitigated with a combination of strategies. Such strategies include:

- Implementing a regional Design Manual for stormwater quality controls;
- conducting ongoing outreach and education to the development community and City staff;
- ensuring early site planning to limit sources of pollution and implement development standards;
- requiring the installation of permanent BMPs to treat runoff before it reaches creeks and rivers, and
- ensuring that post-construction BMPs are maintained properly.

### Intra and Interagency Coordination

The Public Works and Community Development Departments work together to provide drainage and stormwater review services. The City also coordinates with the other permittees regarding the new Design Manual and implementation of standards.

### Accomplishments To Date

- In the mid 1990s, the City established and began implementing stormwater controls for newly developing projects within the City limits.
- Since 2006, the City has been executing maintenance agreements with property owners to ensure long-term maintenance of stormwater quality facilities.
- The City worked with the other permittees in the Partnership to create the new *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, continued to conduct special studies of BMP effectiveness,

The primary mission of the New Development Program Element is to reduce pollutants in urban runoff discharges to the storm drain system from newly developed and significantly redeveloped sites, including post-construction to the maximum extent practicable (MEP).

and conducted other activities. These accomplishments are described in more detail in the County's SQIP, Chapter 4, (Section 4.8).

- The City updated its CEQA initial study checklist and mitigation measure language to better address water quality protection and stormwater pollution prevention.

### Effectiveness Assessment

Table 4.8-1 in the County's SQIP (Chapter 4, Section 4.8) presents the results of the County's effectiveness assessment conducted for the New Development Element for the 2002-07 permit term. For the most part, activities were completed in compliance with the stormwater permit at outcome level 1 (documenting activities). These results were used to help identify proposed activities for Folsom for the 2008-13 permit term.

Table 4.8-1 also proposes assessment methods that the County will use to evaluate the program element and its activities during the 2008-13 permit term; the City will use similar methods. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of agency staff and the regulated development community).

### Proposed Activities for 2008-13 Permit Term

Impacts from development and redevelopment within Folsom will be mitigated with a combination of strategies such as: early site planning to limit sources of pollution, requiring installation of permanent post-construction stormwater quality facilities to treat runoff before it reaches the drainage system, and ongoing outreach activities through education and training. These activities and more are described in this section.

### **Update Environmental Review Documents as Needed**

The City will periodically evaluate and revise as needed, the CEQA initial study checklist and mitigation measure language used by City planners to condition development projects. Revised checklists and mitigation language will be submitted with Annual Reports.

### **Ensure Compliance with Development Standards and the Design Manual**

Development and redevelopment projects in Folsom will be conditioned for mitigation of receiving water impacts from urban runoff quality and quantity in the same manner as projects are conditioned in Sacramento County.

Community Development planning staff will continue to coordinate with Public Works engineers to ensure that development and redevelopment proposals comply with the regional design standards as adopted by the permittees.

City staff will review initial development applications for conformance with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*. Compliance with the development standards and the design manual will be a standing discussion item on the agenda for all pre-application meetings.

City planning staff will promote the voluntary use of runoff reduction, or LID, control measures on development projects as a means of mitigating downstream habitat and erosion impacts. Such measures are expected to become mandatory for projects in certain areas when the permittees' hydromodification management approach is defined to comply with the 2008 Stormwater Permit.

The City will make sure that the same development standards applied to private development projects are adhered to for public projects.

### **Update Codes As Needed**

The City planning staff will review and update as needed, various City codes that may conflict with the development standards and Design Manual. Alternatively, changes will be proposed to the Design Manual to achieve better consistency.

### **Hydromodification Management Program**

The City will actively participate in efforts with the other permittees to develop a hydro-modification management plan for the permit area, in compliance with the 2008 Stormwater Permit. Additional details about this work will be defined in a future amendment to this SQIP.

### **Waiver Program**

The City will actively participate in efforts with the other permittees to develop a waiver program for the permit area, whereby project applicants may pay into an in-lieu fund when it is determined that runoff reduction and/or stormwater quality control measures are infeasible for their site.

### **Contribute to Regional Special Studies**

The City will contribute funds via the Permittee cost-share MOU to conduct special studies of selected stormwater quality control measures to verify their local pollutant removal effectiveness (see Chapter 3 (Section 3.5)). Some of these studies are continued from the last permit term, for example, the study of a wet water quality detention basin. The City will also continue to contribute to the Partnership's efforts to update the protocol for acceptance of proprietary control measures.

### **Training for Planners and Development Engineers**

Refer to Section 7.2 for details on Folsom's annual refresher training for all employees affected by the stormwater permit.

# Chapter 8

## City of Galt Stormwater Quality Improvement Plan

### 8.1 Introduction

#### Introduction and Background

The Galt (City) Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater Management Program, including a description of activities conducted to ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (Stormwater Permit), of which Galt is a permittee. The required certification for the SQIP is presented in Appendix J.



Galt is the smallest city of the permittees that comprise the Sacramento Stormwater Quality Partnership (formerly known as the Sacramento Stormwater Management Program). The Stormwater Permit is issued to the City of Galt and six other co-permittees (Sacramento County and the Cities of Elk Grove, Folsom, Citrus Heights, Rancho Cordova and Sacramento). Galt voluntarily joined Sacramento Stormwater Management Program on June 22, 1990, although Galt would have been considered a Phase II NPDES community. Galt differs from the other permittees in that the City is non-contiguous with other agencies and is influenced by agricultural run-off.

This chapter describes the City of Galt's Stormwater Management Program. The permittee-specific activities described in this chapter are conducted in addition to those implemented jointly with the other permittees as described in Chapter 3.

The original Stormwater Permit was issued in 1990 (first permit term) and has been renewed three times: in 1996, 2002 and most recently in 2008 (fourth permit term).



This SQIP, originally published in July 2003, has been updated for the fourth term of the Stormwater Permit (2008-2013). Implementation of the activities described in the SQIP is intended to satisfy the provisions of the Stormwater Permit. Those provisions were established to reduce pollutants in stormwater discharges to the maximum extent practicable and comply with receiving water objectives.

The City-specific activities described and referenced in this chapter are conducted in addition to monitoring, special studies, target pollutant reduction and regional public outreach activities that are implemented jointly with the other Permittees as described in Chapter 3. The City contracts with the County of Sacramento (County) for many of its stormwater services.

### City of Galt Characteristics



The City of Galt is a small city located in southern Sacramento County approximately 30 miles south of the City of Sacramento and approximately 10 miles north of the City of Lodi.

Galt sits at the southern boundary of Sacramento County with San Joaquin County. Extensive agricultural lands used mainly for dairy and feed crop purposes surround Galt. Within the City boundaries, the greatest use of land is for residential purposes housing a current population of approximately 22,355 with a build out population of 30,000. In January 2006, the City estimated that there was 576 acres of undeveloped land within the current City limits for single family and multifamily residential development, and 307 acres of undeveloped land for Commercial and Industrial land uses. The City of Galt is currently going through a General Plan update with a proposed build out population of 50,000. Our current General Plan specifies seven percent (7%) of the land designation as an industrial zone with a minimal but growing number of industrial users. Commercial uses encompass fifteen percent (15%) of the land and are mainly focused on essential services for the residential population and provision of agricultural materials.

### Overview of Watersheds

The City of Galt is located within the tributary watersheds of Dry Creek, Deadman Gulch, and Hen Creek. Dry Creek, a tributary of the Mokelumne River, flows along the southern boundary of Galt and forms the boundary between Sacramento County and San Joaquin County. Deadman Gulch, a relatively small local tributary of the Cosumnes River, runs east to west through the center of the northern portion of Galt. Hen Creek, a relatively small local tributary of Deadman Gulch, runs east to west through the City and then northwest. Hen Creek drains a majority of the residential development that is approximately 20 years old along the west side of the City between Elm/Orr Rd and New Hope Rd. All of the runoff from the City is regulated by a detention basin near West A St/Harvey Rd and Fumasi Ave. Each of the three creeks flows during the winter rainy season. Generally Dry Creek has minimal flows and both Deadman Gulch and Hen Creek are completely dry during the summer months. Both the Cosumnes River and the Mokelumne eventually flow to the Sacramento River approximately 20 miles west of the City boundaries.

### Overview of Galt's SQIP

This SQIP describes activities that Galt will conduct in compliance with the Stormwater Permit. Modifications to the program may be necessary as the program evolves, and will be proposed in Annual Reports submitted to the Regional Board on October 1<sup>st</sup> of each year during the permit term.

Following this introduction, there are seven sections in the chapter, to describe activities related to six major program elements, as follows:



**Section 8.2: Program Management** — A description of how Galt’s Stormwater Management Program is organized, legal authority, priorities and funding, and coordination both within the City and externally with other programs and agencies.

**Section 8.3: Construction Program Element** — Activities designed to control the runoff of sediment and other pollutants from construction sites.

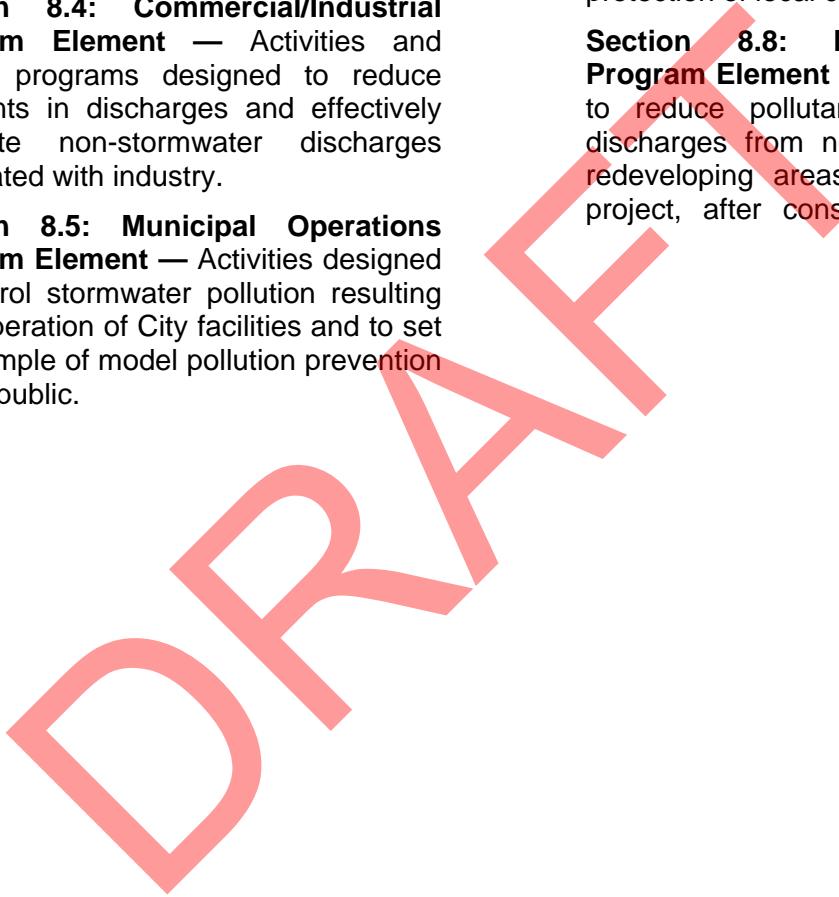
**Section 8.4: Commercial/Industrial Program Element** — Activities and control programs designed to reduce pollutants in discharges and effectively eliminate non-stormwater discharges associated with industry.

**Section 8.5: Municipal Operations Program Element** — Activities designed to control stormwater pollution resulting from operation of City facilities and to set an example of model pollution prevention for the public.

**Section 8.6: Illicit Discharge and Detection Program Element** — Activities designed to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters.

**Section 8.7: Public Outreach Program Element** — Activities designed to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

**Section 8.8: New Development Program Element** — Activities designed to reduce pollutants in urban runoff discharges from newly developing and redeveloping areas for the life of the project, after construction is complete



## 8.2 Program Management and Related Activities

### Organization and Staffing of the Galt Stormwater Program

The City of Galt is a Council-Manager form of government. The Stormwater program is part of the Department of Public Works under the direction of the Director of Public Works, as shown in Figure 8-2. The City has assigned an Associate Civil Engineer to manage the Stormwater Program and participate in permittee meetings and other joint Program activities as needed. Assistance is provided by a Senior Civil Engineer over the New Development programs, Engineering Assistant, and a construction inspector. Additionally, building inspection and administration staffing is provided by other City departments. The approximate staffing breakdown is shown in Table 8-1.

**Table 8-1 - Staffing for the Galt Stormwater Program**

| Staff                                 | FTE*        |
|---------------------------------------|-------------|
| Director of Public Works              | 0.05        |
| Senior Civil Engineer (PW)            | 0.15        |
| Associate Civil Engineer (PW)         | 0.40        |
| Engineering Assistant (PW)            | 0.20        |
| Construction Inspector (PW)           | 0.15        |
| Engineering Staff (PW)                | 0.10        |
| Street Division (PW)                  | 1.20        |
| Street Superintendent (PW)            | 0.05        |
| Code Enforcement (CD)                 | 0.05        |
| Planning and Building Department (CD) | 0.05        |
| <b>Total</b>                          | <b>2.40</b> |

\*Full time equivalent  
(PW) = Public Works  
(CD) = Community Development

**Figure 8-2  
City of Galt Organizational Chart**

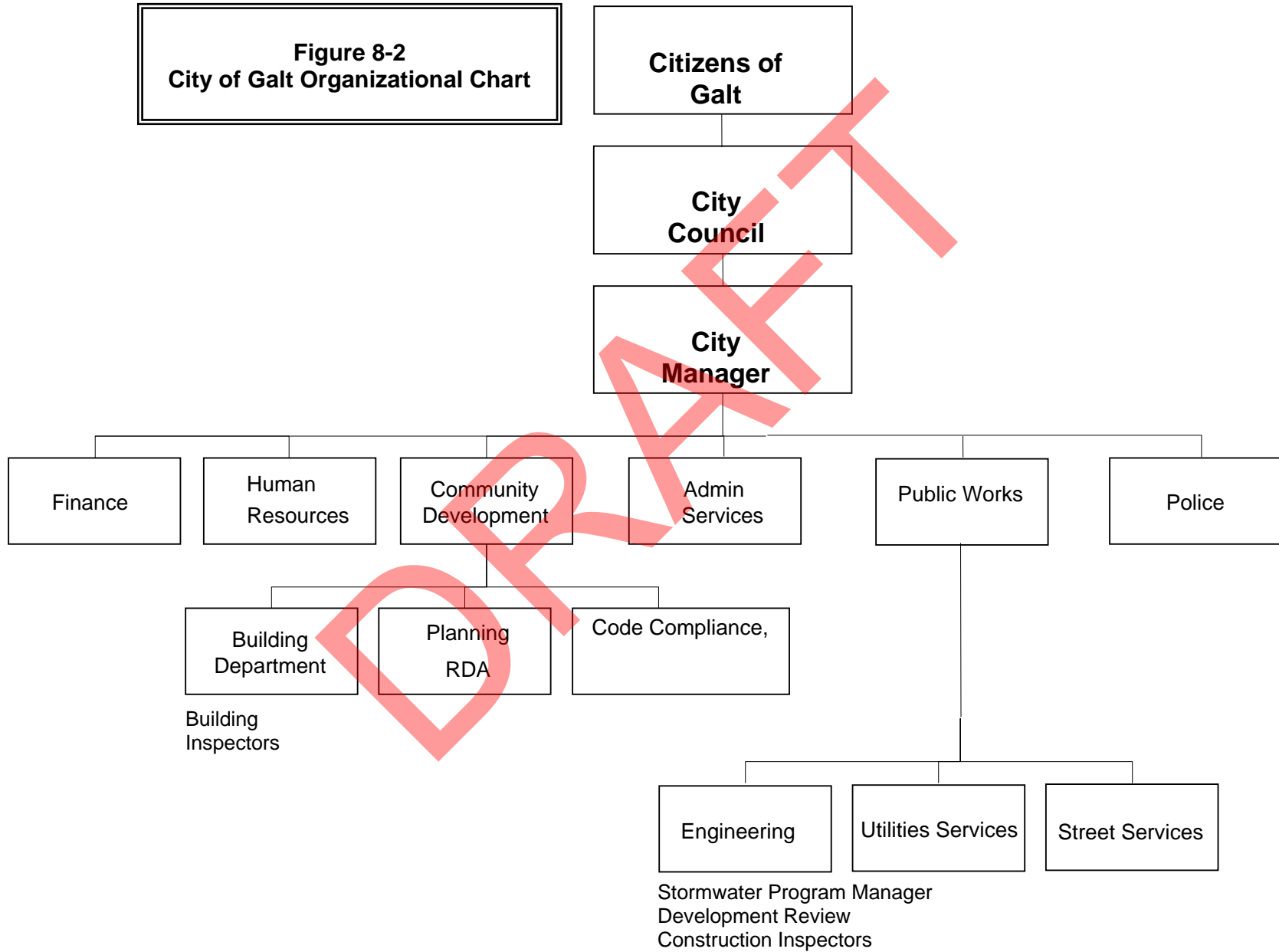


Table 8–2 indicates roles and responsibilities of various city departments for implementation of activities designed to comply with the Stormwater Permit.

**Table 8–2**  
**Responsibilities for Compliance with NPDES Stormwater Permit in Galt**

| <b>Program Element</b>                 | <b>Department/Group</b>  | <b>Major Responsibilities</b>   |
|--|--|---|
| Program Management<br>(Section 8.2)    | Public Works   | Administers and manages the City Stormwater Program on behalf of the City. Provides liaison with the Regional Board and prepares/submits compliance reports.  |
|  | Admin Services   | Conducts legal reviews, prepares legal certifications and oversees revisions to ordinances, codes and other standards.  |
|  | County Dept. of Water Resources/Stormwater Staff<br>(under contract to City) | Assists with preparation of Permit compliance deliverables  |
| Construction<br>(Section 8.3)          | Public Works   | Issues development permits (grading, improvement plans, and encroachment permits) and checks for NOI/SWPPP for all sites subject to State General Construction Permit.  |
|  | Public Works   | Provides inspection services for public infrastructure, public buildings and private development. Inspection services include oversight of contractor compliance with City Stormwater and Grading Ordinances and State Construction General Permit. |
| Commercial/Industrial<br>(Section 8.4) | County Environmental Management Dept (under contract to City)                | Conducts inspections of all Permit-required industries in Galt once every 3 years, and conducts outreach, database management and reporting. Also see Chapter 4, Section 4.4 for more details.  |
|  | County Environmental Health Division (under contract to City)                | Conducts plan review, issues permits for and inspects food-related facilities in Galt. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.   |

**Table 8–2. Responsibilities for Compliance with NPDES Stormwater Permit in Galt (cont'd)**

| <b>Program Element</b>                | <b>Department/Group</b>  | <b>Major Responsibilities</b>  |
|---------------------------------------|--|--|
|                                       | County Environmental Management Dept (under contract to City)                          | Conducts plan review, issues permits for and inspects facilities that handle or store hazardous materials in Galt. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.  |
| Municipal Operations<br>(Section 8.5) | Public Works   | Oversees maintenance of stormwater drainage system to ensure that system is maintained in manner that minimizes water quality impacts.   |
|                                       | Public Works/Parks and Recreation Dept   | Manages City-owned buildings, parking lots and other facilities. Responsible for ensuring that activities at these facilities do not add to stormwater pollution   |
|                                       | City of Galt Parks and Recreation Dept   | Constructs and maintains City parks and recreational facilities in a manner which complies with applicable water quality laws.   |
|                                       | California Waste Recovery Systems  | Provides solid waste services to the City under contract.  |
| Illicit Discharges<br>(Section 8.6)   | County Environmental Management Dept<br>Cosumnes Community Service District- Fire Dept | Responds to hazardous materials spills in the City that may impact stormwater quality and receiving waters, including cleanup and proper disposal.   |
|                                       | County Environmental Management Dept<br>Cosumnes Community Service District- Fire Dept | May respond to non-hazardous spills, including cleanup and proper disposal.  |
| Public Outreach<br>(Section 8.7)      | Public Works   | Provides public outreach to individual property owners and developers and handles calls from the public routed to the City. Provides volunteers to work in Partnership booths at some regional public events. Also contributes funds to the Sacramento Urban Creeks Council to support annual Creek Week activities. |
|                                       | County Dept. of Water Resources/Stormwater   | Conducts most of the public outreach required by the Stormwater Permit, including a regional media campaign that addresses Galt residents and businesses.  |

**Table 8–2. City of Galt Responsibilities (cont'd)**

| <b>Program Element</b>                           | <b>Department/Group</b>                       | <b>Major Responsibilities</b>   |
|--|---|---|
| New Development<br>(Section 8.8)                 | Community Development/Planning & Public Works | Processes applications for private developments. Conducts CEQA reviews. Implements General Plan and Zoning code. Routes plans to Engineering/Public Works to ensure that stormwater quality controls are incorporated as required.  |
|  | Public Works                                  | Conditions development projects to ensure compliance with City drainage and stormwater quality standards, including establishing requirements for stormwater quality control measures.  |
|  | Public Works                                  | Ensures that stormwater quality control measures are incorporated into design/construction of public projects, as applicable.   |
| Monitoring, Special Studies and Target Pollutant | Public Works                                  | Reviews and certifies reports and compliance submittals; approves consultant contract decisions; processes payments to the City/County of Sacramento for consultant services according to the cost-share MOU. Represents Galt in permittee work group meetings to discuss these joint Program activities; reviews draft reports and compliance submittals; administers consultant contracts for the technical studies |

## Legal Authority

Legal authority for Galt Stormwater Management Program is provided in several ways:

- The City's Municipal Code provides the basic legal authority to implement the program and enforce the local regulations.
- The City uses the County Standard Construction Specifications and Improvement Standards which describe requirements for new development projects.
- The City utilizes adopted Partnerships' manuals, such as "Stormwater Quality Design Manual for Sacramento and South Placer Regions" which describe requirements for new development projects.
- Agreements with the County and other permittees provide for a means of cost sharing to implement various portions of the program.

The City's certification of legal authority for implementation of the program is included in Appendix J.

## City Code

The Galt Municipal Code Chapter 16 is the primary basis for the legal authority for the City's Stormwater Management Program. The code constitutes a codification of the general and permanent ordinances of the city.

The predominant municipal code provision is in Chapter 16 - Stormwater Protection was adopted by the City in June 18, 2002 (Ordinance No. 2002-05) and amended in October 2002, October 2003, August 2004 and July 2006. It prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., flows from emergency fire-fighting activities) pursuant to NPDES federal regulations. The Stormwater Ordinance provides legal authority to Galt and the County for inspections, enforcement actions, and cost recovery fees related to control of illicit (unauthorized non-stormwater) discharges to the City storm drainage system and local creeks.

## General Plan

Galt adopted the City's General Plan on May 1990. The General Plan adoption was prior to the issuance of the first NPDES permit in 1990. The City is currently updating the General Plan which is expected to be adopted the beginning of 2008. The General Plan is the long-term policy guide for the physical, economic, and environmental growth of the City. It is composed of goals, policies, and implementation programs, all based on an assessment of current and future needs and available resources. The General Plan update will contain the provisions that lay the framework for protection of water quality and implementation of the Stormwater Management Program.

## Memorandums Of Understanding

Legal authority for administering and implementing the Sacramento Stormwater Quality Partnership jointly with the other permittees is provided by a memorandum of understanding (MOU) executed Spring 2003. The MOU describes administrative roles and responsibilities for management of the program and performance of joint activities, as well as cost-share arrangements. Costs for joint activities are based on population of each permittee and are therefore subject to change during the term of the Stormwater Permit. Galt's cost share percentage is 1.5 % (June 2007). A copy of the Permittee MOU is presented in Appendix D, Exhibit A.

A MOU was executed between the City and the County Environmental Management Department (EMD) in 2004, for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit within the city limits. This MOU authorizes the EMD to conduct inspections and issue enforcement actions, using the legal authority provided by the County's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened.

Agreements with other agencies will be executed as needed.

## Funding

Funding for Galt' stormwater program comes primarily from Stormwater Utility fees. Each year, the City works with the County to develop an annual work plan to describe revenues that will be reimbursed to the City for drainage and stormwater services it provides. The actual and projected revenues and program expenditures are detailed each year in the City's Annual Work Plans and Annual Reports, submitted to the Regional Board.

Stormwater Utility revenues are used to fund City-specific stormwater activities as well as the joint Program activities described in Chapter 3. The City's contribution to the Joint Program is 1.5% based on population, as described in the permittee memorandum of understanding (Appendix D).

In addition to revenues derived from Stormwater Utility fees, Galt collects development impact fees from developers to fund some stormwater-related activities. This would include items such as plan checking for drainage and stormwater-related features, erosion and sediment control inspections during construction, and inspecting installation of stormwater quality facilities by the developer.

The City is also using some measure A and gas tax funds to rehabilitate and maintain streets and associated drainage structures, including drain inlets, culverts, and roadside drainage ditches.

## Recordkeeping and Reporting

The City will prepare and submit the following documents to the Regional Board each year, in compliance with the Stormwater Permit:

- Annual Work Plan (May 1st) – describes proposed activities and budget for coming fiscal year (July 1st – June 30th).
- Annual Report (October 1st) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the Stormwater Permit. Proposes revisions to the Stormwater Quality Improvement Plan, if needed.

Records and data will be collected from all responsible City departments and groups each summer to prepare the Annual Report. The County will assist in compiling and describing information for the activities it conducts on the City's behalf.



The City's stormwater program staff will maintain NPDES Stormwater Permit compliance files at Public Works, including all documentation necessary to demonstrate compliance with the permit. As required, the City will retain copies of all records and reports from the date of generation for at least five years.

### Training for City Staff

Beginning in 2003, the City will ensure that all affected City staff receive annual refresher training as required by the Stormwater Permit. Staff will be informed and educated about the Stormwater Permit and its impacts on their positions and responsibilities. Training will cover the following types of topics:

- General storm water quality awareness objectives: where storm water goes, how it becomes polluted, and how to prevent pollution.
- Background regulatory information appropriate to the audience.
- How to report/refer observed problems in the field.
- Information about enforcement and penalties appropriate to the audience.

Training for City staff is done through courses offered by Caltrans, Sacramento County, and other agencies. The City will train the inspectors and engineers once a year in the Fall, prior to the wet weather season.

### Coordination with Other Agencies and Programs



#### Sacramento Stormwater Quality Partnership

The City participates in regular (approximately monthly) permittee coordination meetings to discuss topics such as:

- Implementation of joint activities, such as monitoring, target pollutant reduction and some public outreach.
- Status of consultant contracts and work products related to monitoring and development standards.
- Funding of activities conducted by others that benefit the Sacramento Program, such as the Brake Pad Partnership and the development of statewide BMP manuals.
- Overall program evaluation and assessment.
- Proposed modifications to the Stormwater Quality Improvement Plans and/or Stormwater Permit.

### Outside Agencies

The City coordinates with several local and regional agencies (over which it lacks jurisdictional control) in order to ensure City-wide compliance with the Stormwater Permit:

- Cosumnes Community Services District – Fire Dept
- Sacramento Metropolitan Fire District
- Sacramento Municipal Utility District (SMUD), Pacific Gas & Electric, AT&T, Comcast and other local utilities.
- Caltrans- owns and maintains several Hwy 99 interchanges/ ramps as well as CA 104, which forms the City's north border east of Hwy 99.

### Other Stormwater Programs

The City supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This effort is facilitated by the City and County of Sacramento, through their active participation in the California Association of Stormwater Quality Agencies (CASQA).

## Effectiveness Assessment

The City's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provide by CASQA in its Effectiveness Assessment Guidance document.

This section describes assessment activities specific to the program management element, including an evaluation of work done during the third permit term and proposed assessment methods for evaluating the fourth permit term activities.

### Assessment of Third Permit Term Activities

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for the third permit term. These results were used to help identify program improvements and appropriate actions for the fourth term.

### Proposed Assessment Methods for Fourth Permit Term

Table 8-3 at the end of this chapter proposes assessment methods that the City will use to evaluate the program during the fourth permit term. The City will evaluate its efforts on two levels, using the CASQA-based approach described in Chapter 2:

- 1) Individual activities and programs, and
- 2) Program element - *For example, how effective are the combined efforts in the construction element at reducing erosion problems on local construction sites?*

This assessment will be done each summer during preparation of the Annual Report, and recommendations for program improvements or modifications will be made based on these assessments.

Evaluation of the overall Program will be done by the permittees as a group, as described in Chapter 2.

## Proposed Activities for the Fourth Stormwater Permit Term

The main goal of the Program Management Element for the fourth permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

### Legal Authority

#### *Update Codes and Standards As Needed*

The City will amend its Stormwater Ordinance if necessary to reflect changes in the program. The City will also adopt any changes made by the County to the Standard Construction Specifications and the Improvement Standards. It is anticipated that the County will make stormwater quality-related changes to these documents during the fourth permit term.

The City will require the local development community to utilize the May 2007 *Stormwater Quality Design Manual for Sacramento and South Placer Regions* and will ensure that City planners and engineers attend training workshops related to implementation of the new manual. It is likely that as the design manual comes into more use, conflicts may arise between the criteria in the manual and the City's codes. In such cases, the City will amend codes as needed or recommend adjustments to the manual.

#### *Incorporate Water Quality Principles into General Plan Update*

#### *Update Agreements As Needed*

The City will work with the other permittees to update the MOU that outlines joint responsibilities, cost sharing based on Sacramento Area Council of Governments (SACOG) population data, decision making, and information management and reporting. Galt' current cost share (1.5 %) is not expected to change, but roles and responsibilities may.

## Fiscal Analysis

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for Stormwater Permit compliance. Projected budgets for each coming fiscal year will be presented in the Annual Work Plans (May 1st), and actual expenditures for the previous fiscal year will be reported in the Annual Reports (October 1st).

## Recordkeeping and Reporting

As required by the Stormwater Permit, the City will submit an Annual Report by October 1<sup>st</sup> of each year detailing the activities accomplished and the quantitative data compiled during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized reporting format consistent with the other permittees and approved by the Regional Board. By May 1<sup>st</sup> of each year, Galt will submit an Annual Work Plan that details the activities proposed for the coming fiscal year.

The City and County of Sacramento will take the lead in submitting Joint Program Work Plans and Annual Reports to describe activities such as monitoring conducted jointly by all the permittees in the Partnership. Refer to Chapter 3 for additional information about joint activities.

City elected officials and managers will be kept apprised of Stormwater Program activities and issues through briefings and interoffice memoranda as needed.

## Training for City Staff

Training is an important aspect of Galt' Stormwater Program. Each year, all affected personnel and managers will be educated on the requirements of the Stormwater Permit relevant to their daily work. The training may be in the form of in-house meetings and briefings or external training conducted by the Partnership or others. For example, each year, City construction inspectors will be encouraged to attend one of the pre-wet season training workshops conducted by the Partnership.

## Intra and Interagency Coordination

The City will coordinate internally to ensure all necessary City staff, management and elected officials are aware of Stormwater Permit requirements and related program efforts. If needed, the City will develop agreements to define roles and responsibilities between the various City departments responsible for compliance with the Stormwater Permit. This was not necessary during the last permit term.

As discussed previously, the City will work with the other permittees to update the MOU which defines cost-sharing and agency roles. The City will also work with EMD as needed to update the MOU which defines responsibilities for the industrial inspection program.

Galt will attend regular permittee coordination meetings (approximately monthly) or will make arrangements for the County to represent the City at such meetings.

The City will continue to participate with other permittees on various work groups and subcommittees that have been formed to address specific activities, such as monitoring, target pollutants, and special studies. The City may make arrangements for the County to represent the City at these meetings.

The City will continue to coordinate with other outside agencies during the fourth permit term, as needed when multi-jurisdictional issues arise. These agencies may include Caltrans, San Joaquin County, US Army Corps of Engineers, US Fish and Wildlife Service, and the California Department of Fish and Game, among others.

## 8.3 Construction Element

The goal of the Construction Element is to reduce the discharge of sediment and construction-related pollutants to the City's storm drain system and local creeks to the maximum extent practicable.

Galt has relatively little new construction underway or planned for the future, since most of the City is nearly built out. Construction activity within the City is usually characterized by disturbance of small size sites, typically 1-5 acres in size. Disturbance of 20-acres or more in construction activity would be on the large end

### Construction Element Strategy

The City has established ordinances that provide the authority necessary for the city inspectors to address threatened and actual discharges of pollutants from construction operations. With this as a foundation, the City's strategy includes outreach and education, plan review and permitting, inspection and enforcement. The program applies to private as well as public construction projects, including those also requiring coverage under the State's Construction General Permit. For the most part, the focus for inspection and enforcement activities is on land disturbing activities of one acre or more. However, smaller sites must comply with the City's Stormwater Protection Ordinance (discussed in Chapter 8.2) and smaller site operators are educated and informed about ways to prevent erosion and pollution problems. As discussed previously, since it is nearly built-out, the City's work in this area is expected to focus on redevelopment activities and continuation of efforts aimed at disturbance of small size sites during the fourth permit term.

### Intra and Interagency Coordination

The two city departments most directly involved in construction activities are Public Works and Community Development. Most interdepartmental coordination is done on an informal basis through written correspondence and meetings related to specific projects.

The City coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. For example, the City utilizes the same standard construction specifications and improvement standards as the County.

The City assists the Regional Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, verifying NOI filings, spot checking SWPPPs, and referring site operators who have not complied with the State regulations.

### Accomplishments to Date

Since becoming a permittee to the Stormwater Permit, Galt has made several notable accomplishments related to the construction element:

- Adopted the Galt Municipal Code, including Chapter 16 (Storm Water) to provide the City legal authority to eliminate construction-related pollutant discharges into its storm drain system.
- Adopted the County's standards and specifications for construction, including standard erosion and sediment control drawings.
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining development permits (grading, improvement plans, and encroachment permits) for applicable projects

### Effectiveness Assessment

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for the third permit term for the Construction Element. For the most part, activities showed compliance with the Stormwater Permit at Outcome Level 1. These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 8-3 also proposes assessment methods that the City will use to evaluate the program during the fourth permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community).

### Proposed Activities for the Fourth Permit Term

The following information describes in greater detail the activities identified on Table 8-3.

#### Outreach and Education

The City will continue to provide education and guidance to both City staff (annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices. City staff training was covered previously in Section 8.2.

The City will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats might include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, preconstruction meetings, and example documents.

Galt will continue to contribute funding (through the cost-share MOU) for the development and production of outreach materials such as brochures for concrete and painting, printed in English and Spanish.

### Plan Review and Permitting

The City's Stormwater Protection Ordinance (Municipal Code Chapter 16.30) requires a grading permit and erosion and sediment controls on all private projects excavating or filling 50 cubic yards or more of soil or disturbing one or more acres of land. Public projects are subject to the City's Stormwater Protection Ordinance, which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system.

Private and public projects in Galt disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a development permit, the City will verify that a State-required Notice of Intent (NOI) was filed and will check the Stormwater Pollution Prevention Plan (SWPPP) for six items required by the Stormwater Permit. This is a continuation of activities conducted during the third permit term.

## Inspection and Enforcement

Galt Public Works Department inspectors will continue to conduct inspections of all construction projects in the City to ensure compliance with the requirements set forth in the City's ordinances. This includes checking sediment and erosion control measures and verifying that a site has obtained coverage under the State's Construction General Permit if applicable. General Permit non-filers and repeat offenders will be referred to the Regional Board as required by the Stormwater Permit.

As with the last permit term, the City will continue to prioritize sites as either "high" or "moderate" threat to water quality and inspects according to this schedule:

- High priority sites – inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.
- Moderate priority sites – inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s). A log of active construction projects and their priorities will be maintained by the City at all times.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks.

## 8.4 Commercial/Industrial Element

The goal of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Galt.

### Commercial/Industrial Element Strategy

The City of Galt contracts with other agencies to conduct activities related to this program element within the city. The City has executed a MOU with County EMD to conduct triennial inspections of facilities within Galt that were identified in the Stormwater Permit. Partnering with EMD has a few advantages:

- EMD has traditionally conducted environmental compliance inspections in the county, with trained staff, structure, policies and procedures in place. Only modest training and enhancement was required to accommodate stormwater compliance inspections, and use of the existing resource helps minimize inconvenience to the regulated businesses.
- EMD has established a Fee Ordinance which allows them to recover costs for their activities without impacting the City's limited funding sources, such as the County Stormwater Utility.
- Having a single entity (EMD) conduct all the inspections countywide ensures consistent and equitable treatment of the regulated community.

The City contracts with the County to conduct complaint-based inspections of all other businesses within the city. The City also relies on the County to conduct targeted outreach to targeted local businesses.

### Intra and Interagency Coordination

A MOU was executed between the City and the County Environmental Management Department (EMD) in 2004, for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit within the city limits. This MOU authorizes the EMD to conduct inspections and issue enforcement actions, using the legal authority provided by the County's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened.

The City or its County representative participates in periodic (approximately biannual) meetings with EMD to discuss the program, resolve problems and identify improvements as needed. EMD coordinates with the other permittees and business groups such as Business Environmental Resource Center (BERC) to implement the inspection program. See Chapter 4.4 for additional details.

### Accomplishments To Date

Refer to Chapter 4.4 for a complete list of accomplishments during the first 17 years of the program.

### Effectiveness Assessment

Table 4.4-1 in Chapter 4.4 presents the results of the effectiveness assessment conducted for the third permit term for the Commercial/Industrial Element. For the most part, activities showed compliance with the Stormwater Permit at Outcome Level 1. These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 4.4-1 also proposes assessment methods that the County will use to evaluate the program during the fourth permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated business community).

### **Proposed Activities for the Fourth Permit Term**

The following information briefly describes the activities conducted by County EMD and County DWR on the City's behalf. Refer to Chapter 4.4 for additional details.

#### **Legal Authority**

The City's Stormwater Protection Ordinance will continue to provide legal authority to the County for regulating commercial businesses and industries in Galt with respect to stormwater pollution. The Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the fourth permit term.

#### **Priority Industry Identification**

The industries and commercial businesses subject to stormwater compliance inspections and targeted outreach for the fourth permit term are identified in the sections below. These are the same businesses that were targeted during the third permit term. These lists will be refined during the fourth permit term as needed.

#### **Triennial Industrial Stormwater Compliance Inspections**

EMD will continue to conduct triennial inspections at priority industrial facilities. The first cycle of inspections was completed in June 2007 and the second cycle will be completed in June 2010. The following priority industrial facilities in Galt will be inspected; the numbers given in parentheses are the number of facilities within the city in that category for the 2006/07 fiscal year:

- Facilities with coverage under the State's Industrial General Permit (7)
- Auto body shops (3)
- Auto repair shops (9)
- Auto dealers (1)
- Equipment rental facilities (0)
- Kennels (0)
- Nurseries (3)
- Retail gasoline outlets (i.e., gas stations) (6)

- Restaurants (47)

This list and the associated definitions of industrial categories in Appendix F will be evaluated and revised as needed by the end of the fourth permit term.

EMD inspectors will distribute educational materials to the operators of these facilities during inspections. They will also refer suspected Industrial General Permit non-filers to the Regional Board.

EMD will continue to follow their enforcement policy that emphasizes compliance of facilities with the County Stormwater Ordinance through progressive enforcement actions. Fines will be assessed as necessary for repeat violations that remain unresolved.

EMD will continue to maintain its database and generate monthly violation reports, as well as all the required information for the Galt Annual Reports.

#### **Complaint-Based Stormwater Compliance Inspections**

City staff will inspect other businesses not addressed by EMD's program described above within the City of Galt on a complaint basis. Complaints can be referred by the public, other County agencies and departments, the Regional Board, and other sources. City stormwater staff will refer to EMD any complaints related to businesses included in the triennial inspection program. All other complaints will be investigated, and associated progressive enforcement will be conducted to ensure that the stormwater pollution problem(s) are eliminated.

County EMD will distribute educational materials during these inspections and will keep a database for annual reporting purposes.

#### **Educational Outreach**

During the fourth permit term, County stormwater staff will continue to conduct outreach to the targeted businesses within the city, on behalf of Galt. Outreach will be conducted with the following priority business operations.



- Automotive washing and detailing businesses
- Carpet cleaning businesses
- Commercial pesticide applicators
- Concrete contractors
- Concrete cutting contractors and businesses
- General building contractors
- Landscape installation contractors and maintenance businesses
- Painting contractors
- Portable toilet rental businesses
- Pressure washing businesses
- Street sweeping businesses
- Swimming pool contractors
- Swimming pool maintenance businesses
- 

Businesses in these priority categories are considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses are mobile operations without a single base of operation, so they are difficult to track.

The County will conduct targeted outreach to the listed business types at least twice during the five-year term of the Stormwater Permit. BERCC will continue to manage the business outreach database and coordinate direct mailing of educational materials on behalf of the permittees. Educational materials will also be distributed via City and County public counters, through trade associations and industry suppliers, and at workshops and other events.

The City and County of Sacramento will continue to implement the Clean Water Business Partners (CWBP) Program, and will expand the program as appropriate and necessary to target other businesses.

## 8.5 Municipal Operations Element

The primary goal of the Municipal Operations Element is to control stormwater pollution resulting from the operation and maintenance of City-owned facilities and areas, including buildings, yards, parks and open space, parking lots, landscape medians, roadways and utilities such as water, sewer and storm drain systems. Routine management and operations and maintenance of these facilities and areas must be conducted in a manner that does not inadvertently contribute pollution to local creeks and rivers. Another goal is to set an example of model pollution prevention for the public.

### Inventory of City Operations and Related Stormwater Activities

The Municipal Operations Element addresses operation of City-owned facilities within the NPDES Permit area (urbanized areas), not already covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).

The following is an inventory of the City-owned facilities and operations addressed by this element:

**Buildings** – The City owns and operates the City Hall complex, Municipal Services Center and the Police Service Center. There are no known stormwater issues with these complexes.

**City parks** – 15 parks within the City are operated and maintained (including vegetation and waste management) by the City's Parks and Recreation Department.

### Storm Drain System

*Piped storm drain system* – Approximately 72 miles of storm drain pipe and associated drain inlets and manholes are maintained by the Street Division under the City's Public Works Department.

*Storm drain inlets* – The City has approximately 1450 storm drain inlets within its jurisdiction. The City was required by the 2002 Stormwater Permit to mark 95% of storm drain inlets by the end of 2007. This was accomplished through the City Staff and Boy Scout volunteers. In the fourth permit term, the remaining 5% of the inlets will be marked and City crews will replace any illegible markings observed during routine storm drain maintenance activities.

*Channels and creeks* – Manmade drainage channels and natural creeks are maintained by City crews.

### Transportation Facilities

*Curbed Streets* – Streets are cleaned by City staff in the Street Division in the Public Works Department. The frequency schedule is:

- Arterials – Once a week, year round
- Collectors – twice a month, year round
- Residential – Once a month, year round

*Roads and Roadside Vegetation* – Public Works Department repairs roads and maintains roadside vegetation.

*City-owned parking lots* – The City Parks and Recreation Department maintains the City owned parking lots on an as needed basis.

The City corporation yard is under the Industrial general permit and inspected by EMD. Monitoring reports are submitted twice a year to Regional Water Quality Control Board.

The City's activities under the Municipal Operations Element do not address facilities operated by federal or state governmental agencies (e.g., Caltrans) and special districts (e.g., Galt Elementary and High School Districts) which are out of the County and City jurisdictional control. City stormwater inspectors are authorized to issue enforcement actions to the operators of such facilities if discharges from the facilities contribute pollution to the City-owned storm drain system or local creeks.

### **Municipal Operations Element Strategy**

In order to minimize potential adverse environmental effects associated with constructing, operating, and maintaining city facilities, the City has adopted these strategies for the Municipal Operations Element:

- Provide training and technical assistance to target employees and facilities.
- Evaluate activities, facilities, employee training and any available Municipal SWPPPs to improve procedures and BMP's to address stormwater quality concerns; and
- Conduct record keeping and documentation of processes to allow for continuous assessment evaluations in order to achieve improvements with Stormwater Permit compliance.

These combined efforts help ensure that City designers, contract administrators, and operations and maintenance staff understand, implement, and demonstrate compliance with the Stormwater Permit in order to reduce stormwater pollution to the maximum extent practicable.

### **Intra and Interagency Coordination**

The City coordinates with the other permittees, stormwater programs, and local, state, and federal agencies to share information, strategies, and recommended practices related to operation and maintenance of County facilities.

The City does not have legal jurisdiction over certain entities and special districts within the City's permit boundaries such fire and school districts as well as state and federal agencies. Because in many cases these entities discharge runoff to the City's storm drain system, the City expects and enforces compliance with local codes, regulations, and ordinances as in the case of any private business or entity. The City coordinates with these districts as needed, to protect the City's storm drain system and local creeks and rivers.

### **Accomplishments To Date**

Since becoming a permittee to the Stormwater Permit, Galt has made several notable accomplishments related to the Municipal Operations Element:

- Established routines for collecting and compiling data to assess activities and document regulatory compliance (e.g., staff routinely log the quantity of pipes, channels, basins, sumps, drop inlets, manholes, and roadways cleaned. This information is tallied and presented in Annual Reports). Compiled the inventory of City-owned facilities and operations. The inventory helps with tracking activities and the City updates the inventory each year for the Annual Report.

### **Effectiveness Assessment**

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for the third permit term for the Municipal Operations Element. Activities showed compliance with the Stormwater Permit at Outcome Level 1 and raised awareness by municipal staff through training (Outcome Level 3). These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 8-3 also proposes assessment methods that the City will use to evaluate the program during the fourth permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community).

### **Proposed Activities for Fourth Stormwater Permit Term**

The following information describes in greater detail the activities identified on Table 8-3.

#### **Maintenance of Buildings**

The main potential for stormwater pollution at City owned buildings are parking lot runoff. See the parking lot maintenance activities described later in this section, which are designed to minimize discharge of pollutants.

#### **Operation and Maintenance of City Parks**

The Parks and Recreation Department will continue to manage the 15 parks within the city limits.

#### **Maintenance of the Piped Storm Drain System**

The Street Division within Public Works Department will continue to service and maintain the Storm Drain System.

#### **Maintenance of Creeks and Channels**

The Street Division within Public Works Department will continue to service and provide maintenance to the local creeks and channels. Hand methods are used for this cleaning and vegetation is retained on slopes to prevent erosion.

#### **Inspection and Maintenance of City-Owned Parking Lots**

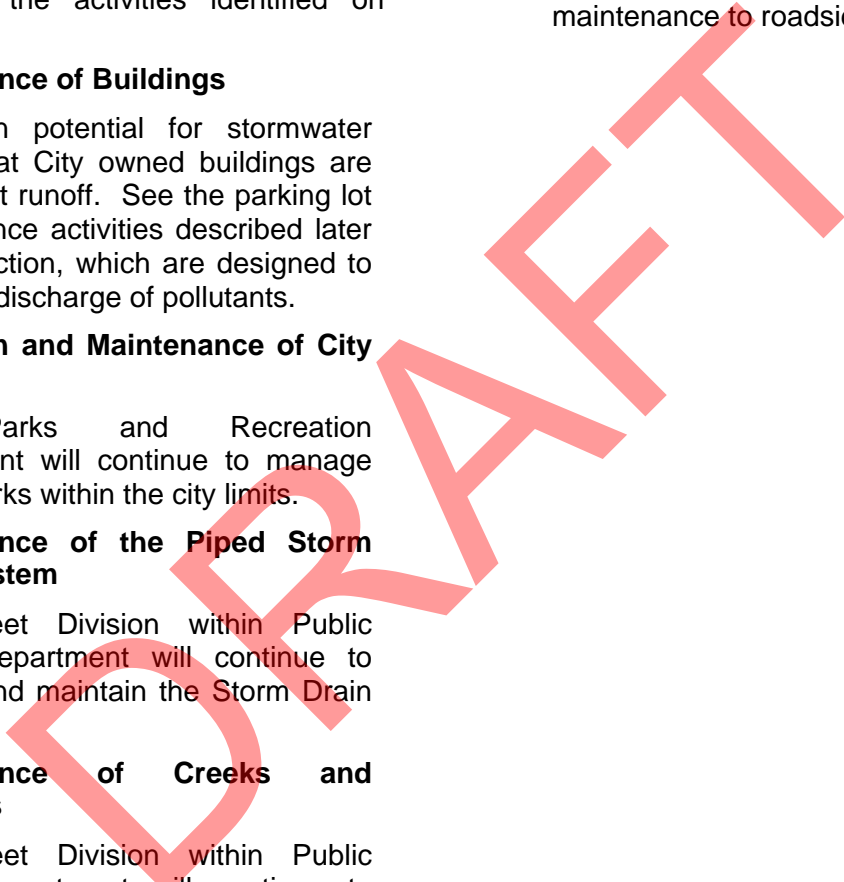
The City owned parking lots exposed to rainfall will be maintained by Parks and Recreation Department. Service will be provided on an as-needed base.

#### **Prioritized Street Sweeping for Curbed Streets**

The Street Division within Public Works will continue to provide street sweeping on curbed streets, to follow the prioritized schedule described at the beginning of this Chapter.

#### **Maintenance of Roads and Roadside Vegetation**

The Street Division within Public Works will continue to provide maintenance to roadside vegetation.



## 8.6 Illicit Discharge Element

The goal of the Illicit Discharges Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illicit non-stormwater discharges.

The storm drain system consists of a network drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, which discharges to local creeks and rivers. Please see Figure 8-6 for map and legend for city storm drain outfalls to local creeks (i.e. waters of the State) Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Any material dumped or discharged into the City's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

### Illicit Discharge Element Strategy

The City's strategy for eliminating illicit discharges to the storm drain system and local waterways is the same as the County's. It includes:

- Maintaining adequate legal authority to prohibit illicit discharges. This is accomplished through the City Stormwater Protection Ordinance. City and County staff are authorized to enforce the ordinance within the City limits.
- Conducting ongoing field screening to detect illicit discharges and connections as a part of routine maintenance and repair of the storm drain system and local creeks, and enforcing against dischargers.
- Providing convenient means for residents to dispose of solid and household hazardous wastes.
- Educating City staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.
- Providing a hotline for public reporting of problems and responding in a timely manner. The City supports the regional stormwater hotline 808-4H20 for this purpose.

### Intra and Interagency Coordination

The Street Division within Public Works provides maintenance of the storm drain system in Galt. City crews conduct ongoing field screening for illicit discharges and connections as part of this work.

The City Public Works Department coordinates with field crews to make sure that they have the education and training needed to detect and report illicit discharges to the creeks in the city.

The City coordinates with the other permittees in the Partnership to produce educational materials and messages designed to eliminate illicit discharges.

Galt contracts with the California Waste Recovery System to conduct solid waste management and recycling and household hazardous waste collection for residents of Galt.

## Accomplishments To Date

The following highlights major accomplishments of the Illicit Discharge Element since 1990:

- In 2002 the City adopted Stormwater Ordinance within the Galt Municipal Code, Chapter 16, which makes most discharges to the storm drain system illegal (some exceptions are noted).
- 95% of storm drain inlets in the City were stenciled with the “No Dumping — Drains to Creek” message, primarily using volunteers.
- As required by the County’s Improvement Standards (used by the City), permanent “No Dumping” stamps were applied to all new concrete storm drain inlets.
- In 2006, a new hotline was set up to supplement the County’s 875-RAIN hotline. This new hotline, 808-4H20, allows callers to select Galt and be routed to Public Works for assistance. The hotline is now widely advertised on all Partnership educational materials, media spots, and on the web site.
- Open channels, priority piped outfalls and outfalls larger than 36 inches were all inspected in a phased program over a two-year period. No illicit discharges or connections were discovered during these investigations.
- The City created and annually updated an illicit discharges map. The goal of the mapping work is to identify “hot spot” problem areas requiring additional or more frequent investigations. To date, no such areas have been identified.

## Effectiveness Assessment

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for the third permit term for the Illicit Discharge Element. Activities showed compliance with the Stormwater Permit at Outcome Level 1 and raised awareness by municipal staff through training (Outcome Level 2). These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 8-3 also proposes assessment methods that the City will use to evaluate the program during the fourth permit term. The key challenge for the fourth permit term will be to investigate ways to compile, analyze and report data to demonstrate changes in awareness and behavior (Outcome Levels 2 and 3) as a result of the inspection, enforcement and outreach efforts. This evaluation will take place near the end of the fourth permit term to coincide with the Report of Waste Discharge application for the fifth permit term.

## Proposed Activities for Fourth Stormwater Permit Term

The following information describes in greater detail the activities identified on Table 8-3.

### Update Stormwater Ordinance and Improve Enforcement Authority as Needed

The City will periodically evaluate the Stormwater Ordinance and amend as needed to enhance legal authority.

### Ongoing Field Screening to Detect Illicit Discharges and Connections

Activities to prevent and reduce illicit discharges to the piped storm drain system and creeks within the City of Galt will continue as a coordinated activity by Galt

City crews responsible for inspecting and maintaining the piped storm drain system, creeks and channels, and roads/roadside ditches in the City will continue to be trained how to identify, clean up and/or refer and report observed incidents of illicit discharges.

City crews will also respond to complaints from the public and referrals from County industrial inspectors, the Regional Board and others. Problems are addressed on an individual basis depending on the nature of the discharge.

#### **Solid Waste and Household Hazardous Waste Programs**

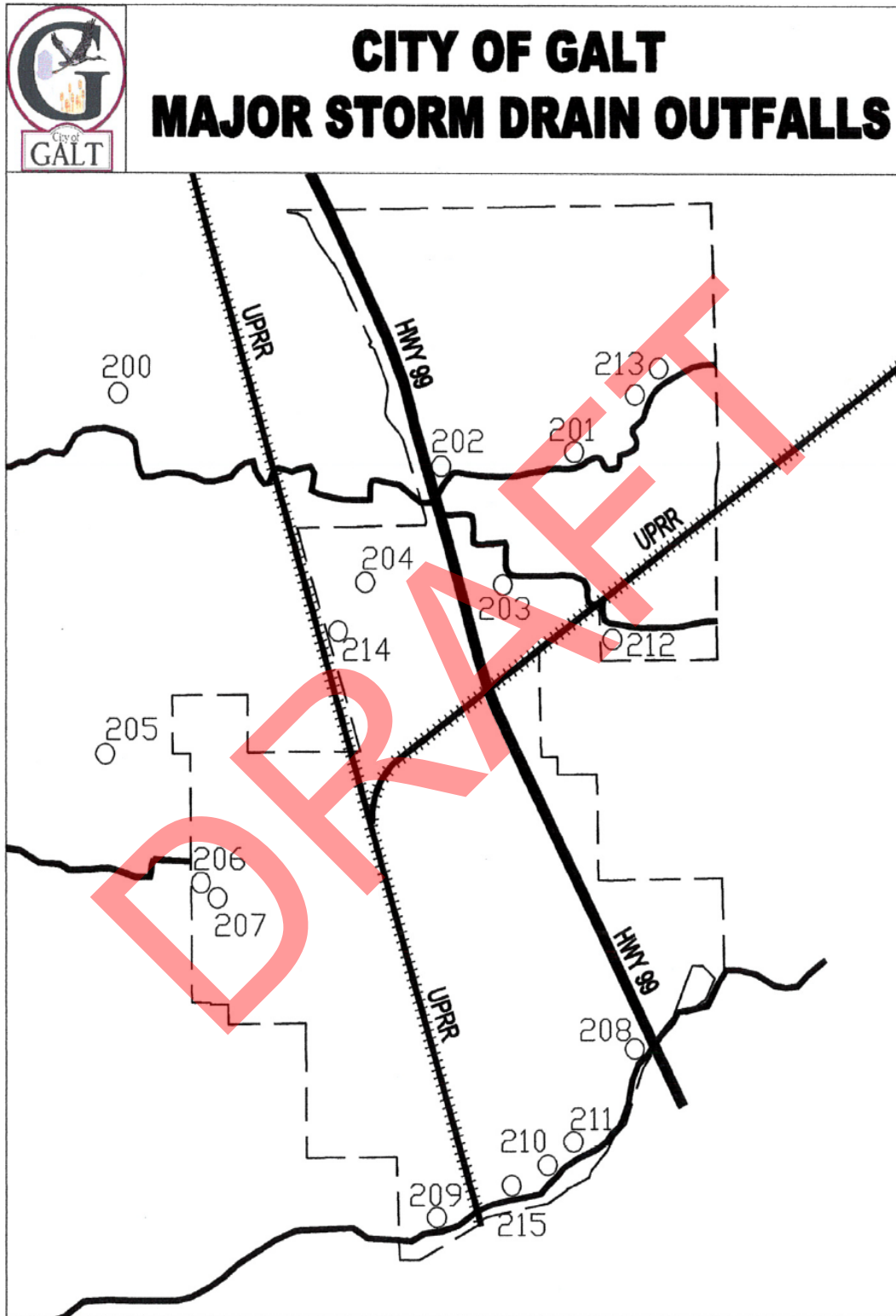
Galt will continue to contract with the California Waste Recovery System to conduct solid waste management and recycling and household hazardous waste collection for residents of Galt.

#### **Education and Outreach**

To educate the public, and to minimize illegal discharges of waste into the storm drain system, Galt will continue to promote marking of storm drain inlets with “No Dumping” messages, using volunteer groups as available or County maintenance crews.

The City will continue to contribute funding to the County’s 808-4H20 hotline to facilitate public reporting of problems in the City.

**Figure 8-6**  
**City of Galt Major Storm Drain Outfall Map**





**Figure 8-6, cont.**

**City of Galt Major Storm Drain Outfall Map Legend**

City of Galt  
Major Storm Drain Outfalls

|     |  |
|-----|--|
| 200 | 54" @ Spring Street to Laguna Creek                            |
| 201 | 2 – 72" @ Carillion Blvd to Dead Man's Gulch (North Tributary) |
| 202 | 60" @ Winn Drive to Dead Man's Gulch (North Tributary)         |
| 203 | 48" @ Lyonia Drive to Dead Man's Gulch (North Tributary)       |
| 204 | 48" @ Industrial Drive to ditch tributary                      |
| 205 | 48" @ Orr Road / Elm Drive to Hen Creek                        |
| 206 | 2 – 48" @ A Street to Hen Creek                                |
| 207 | Greer Pump Station to Hen Creek                                |
| 208 | 48" @ Fairway Drive to Dry Creek                               |
| 209 | 84" @ First Street to Dry Creek                                |
| 210 | 60" @ South Lincoln Way to Dry Creek                           |
| 211 | 42" @ Chase Drive to Dry Creek                                 |
| 212 | 36" @ Trafalgar Circle to Dead Man's Gulch (South Tributary)   |
| 213 | 2 – 72" @ Walnut Avenue to Dead Man's Gulch (North Tributary)  |
| 214 | 2 – 72" @ Pringle Avenue to City Ditch                         |
| 215 | 48" @ Wilder Way to Dry Creek                                  |

## 8.7 Public Outreach Element

The goal of the Public Outreach Element is to raise awareness and foster community stewardship to help prevent pollution and protect local creeks and rivers.

The City coordinates with the Partnership to implement a wide range of activities to increase the knowledge of the community regarding the City's storm drain system, impacts of urban runoff on local creeks and rivers, and potential pollution prevention solutions for the targeted audiences.

### Galt Community Characteristics

There are 22,355 residents in the City of Galt. The Galt Union Joint High School District operates Galt High School with approximately 2000 students. Construction of a new high school will begin at the end of 2008 with the completion date expected in the last quarter of 2009. The Galt Joint Union Elementary School District serves approximately 4,400 students K-8 with 5 elementary schools and 2 middle schools.

The Sacramento Bee is the major newspaper serving the region and the City of Galt. In addition, the Galt Herald, a local newspaper, is published once a week on Wednesday. The Lodi News-Sentinel provides daily coverage of the Galt area also. City publishes its own *Galt Connections* community newsletter about four times a year. Other media includes television and radio stations that serve the greater Sacramento area.

### Public Outreach Element Strategy

The City contracts with Sacramento County to conduct most of the public outreach activities for Galt residents. For details about the County's public outreach activities, refer to Chapter 4.7. Galt also contributes to regional public outreach (discussed in Chapter 3.7) through the permittee cost-share MOU.

In addition, the City conducts these types of public outreach activities on its own:

- Educating City Council and department managers about the stormwater program and impacts to the city, and garnering support for Partnership efforts.
- Responding to local resident and business phone calls received by 808-4H20 and forwarded to City Hall.
- Making Partnership outreach publications such as brochures available to the general public and development project applicants at the public counter.
- Working with community groups and neighborhood associations on various efforts. For example, the volunteer storm drain stenciling program.

### Intra and Interagency Coordination

The City's Public Works Dept. is responsible for administering the stormwater program and overseeing Stormwater Permit compliance. Public Works coordinates with City Council, the City Manager's office and other departments as needed throughout the year to share information.

Galt coordinates with the other cities in the County on regional public outreach issues through the Partnership. Activities such as the regional media campaign are generally discussed, and agreements made, during permittee coordination meetings.

### Accomplishments To Date

Chapters 3.7 and 4.7 describe major accomplishments related to public outreach by the Partnership and the County of Sacramento since 1990. In addition, the following describes several major accomplishments made by the City:

- The City helped coordinate and host the Partnership stormwater informational booth at various annual community events, such as several "I Love My Park" events.

- The City annually contributed funding to the Urban Creek Council's Creek Week program.
- City staff initiated and coordinated volunteer stenciling of storm drain inlets in the city as an educational activity. Community and civic organizations are encouraged to apply "No Dumping" messages to storm drain inlets using City-supplied materials and instructions.

Continue to annually contribute funding to the Urban Creek Council's Creek Week program.

Meet with the City manager periodically throughout the Stormwater Permit term to keep him informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request. City leaders will also be invited to participate in community events to demonstrate support for the stormwater pollution prevention effort.

### **Effectiveness Assessment**

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for the third permit term for the Public Outreach Element. Activities showed compliance with the Stormwater Permit at Outcome Level 1 and raised awareness by municipal staff through training (Outcome Level 3). These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 8-3 also proposes assessment methods that the City will use to evaluate the program during the fourth permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community).

### **Proposed Activities for Fourth Stormwater Permit Term**

The following information describes in greater detail the activities identified on Table 8-3.

Continue to promote volunteer stenciling of storm drain inlets as an educational activity, until all existing inlets in the community have been stenciled. Supply all necessary materials and supplies to community groups upon request.

Continue to work with the County to sponsor and staff a stormwater booth at the following types of community event:

- I Love My Park events

## 8.8 New Development Element

The goal of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

### New Development Element Strategy

Through the New Development Element, the potential adverse effects of development can be mitigated with a combination of strategies. Such strategies include:

- Implementing a regional Design Manual for stormwater quality controls;
- conducting ongoing outreach and education to the development community and City staff;
- ensuring early site planning to limit sources of pollution and implement development standards;
- requiring the installation of permanent BMP's to treat runoff before it reaches creeks and rivers, and
- insuring that post-construction BMP's are maintained properly.

### Intra and Interagency Coordination

The Public Works Department coordinates conditioning of development projects with Community Development Dept. The City also coordinates with the other permittees regarding the new Design Manual and implementation of standards.

### Accomplishments To Date

- In the mid 1990s, the City established and began implementing stormwater controls for newly developing projects within the City limits.
- Since 2004, the City has been executing maintenance agreements with property owners to ensure long-term maintenance of stormwater quality facilities.

- The City worked with the other

The primary mission of the New Development Program Element is to reduce pollutants in urban runoff discharges to the storm drain system from newly developed and significantly redeveloped sites, including post-construction to the maximum extent practicable (MEP).

permittees in the Partnership to create the new *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, continued to conduct special studies of BMP effectiveness, and conducted other activities. These accomplishments are described in more detail in the County's SQIP, Chapter 4, (Section 4.8).

- The City updated its CEQA initial study checklist and mitigation measure language to better address water quality protection and stormwater pollution prevention.

### Effectiveness Assessment

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for the 2002-07 permit term for the New Development Element. Activities showed compliance with the Stormwater Permit at Outcome Level 1 and raised awareness by municipal staff through training (Outcome Level 3). These results were used to help identify program improvements and appropriate actions for the 2008-13 permit term.

Table 8-3 also proposes assessment methods that the City will use to evaluate the program during the 2008-13 permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the agency staff and regulated development community).

### **Proposed Activities for Fourth Permit Term**

Impacts from development and redevelopment within Galt will be mitigated with a combination of strategies such as: early site planning to limit sources of pollution, requiring installation of permanent post-construction stormwater quality facilities to treat runoff before it reaches the drainage system, and ongoing outreach activities through education and training. These activities and more are described in this section. Most residential development projects in Galt fall below the threshold requiring stormwater quality treatment of runoff, but the City will implement Low Impact Development (LID) strategies to the maximum extent practicable.

### **Update Environmental Review Documents as Needed**

The City will periodically evaluate and revise as needed, the CEQA initial study checklist and mitigation measure language used by City planners to condition development projects. Revised checklists and mitigation language will be submitted with Annual Reports.

### **Ensure Compliance with Development Standards and the Design Manual**

Development and redevelopment projects in Galt will be conditioned for mitigation of receiving water impacts from urban runoff quality and quantity in the same manner as projects are conditioned in Sacramento County.

Community Development planning staff will continue to coordinate with Public Works engineers to ensure that development and redevelopment proposals comply with the regional design standards as adopted by the permittees.

Other significant permit requirements include revision of the City's General Plan when it is next updated. Revised General Plan elements will be submitted to the Regional Board as attachments to Annual Reports when available.

Development and redevelopment within Galt will be mitigated with a combination of strategies such as: early site planning to limit sources of pollution, installation of permanent BMP's to treat runoff before it reaches the drainage system, and ongoing outreach activities through education and training.

The City will contribute funds via the Permittee cost-share MOU to conduct special studies of selected stormwater quality BMP's to verify their local pollutant removal effectiveness (see Chapter 3.4). For example, the operation and effectiveness of a wet water quality detention basin will be studied.

City staff will review initial development applications for conformance with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*. Compliance with the development standards and the design manual will be a standing discussion item on the agenda for all pre-application meetings.

City staff will promote the voluntary use of runoff reduction, or LID, control measures on development projects as a means of mitigating downstream habitat and erosion impacts. Such measures are expected to become mandatory for projects in certain areas when the permittees' hydromodification management approach is defined to comply with the 2008 Stormwater Permit.

The City will make sure that the same development standards applied to private development projects are adhered to for public projects.

### **Update Codes As Needed**

The City planning staff will review and update as needed, various City codes that may conflict with the development standards and Design Manual. Alternatively, changes will be proposed to the Design Manual to achieve better consistency.

### **Hydromodification Management Program**

The City will actively participate in efforts with the other permittees to develop a hydromodification management plan for the permit area, in compliance with the 2008 Stormwater Permit. Additional details about this work will be defined in a future amendment to this SQIP.

### **Waiver Program**

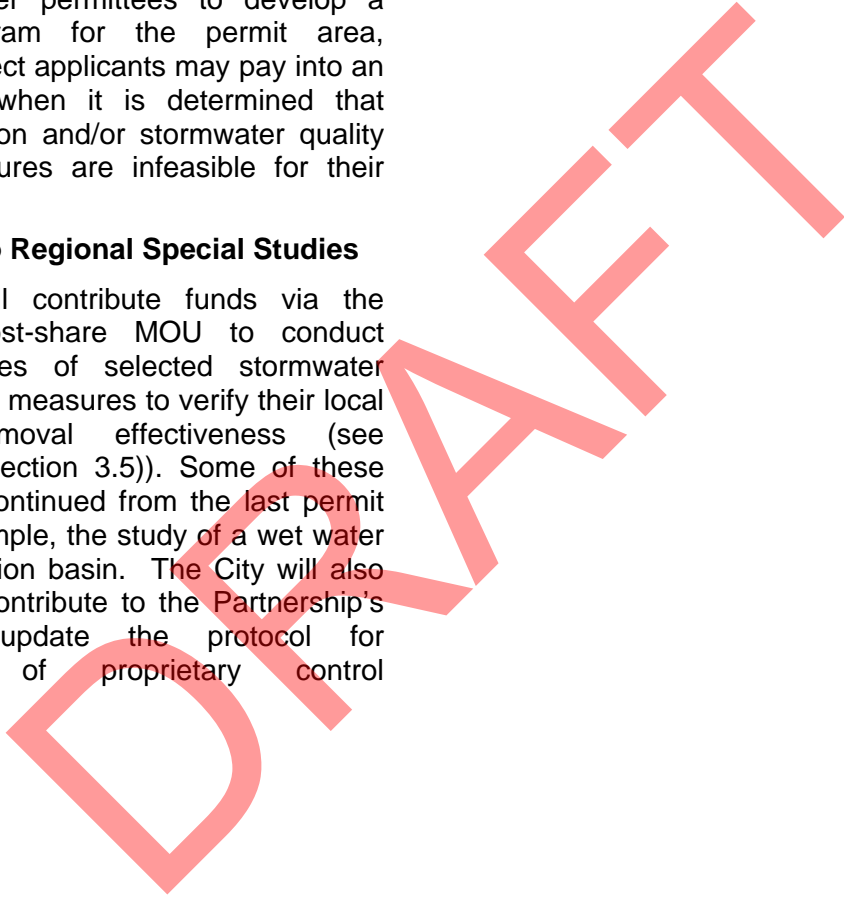
The City will actively participate in efforts with the other permittees to develop a waiver program for the permit area, whereby project applicants may pay into an in-lieu fund when it is determined that runoff reduction and/or stormwater quality control measures are infeasible for their site.

### **Contribute to Regional Special Studies**

The City will contribute funds via the Permittee cost-share MOU to conduct special studies of selected stormwater quality control measures to verify their local pollutant removal effectiveness (see Chapter 3 (Section 3.5)). Some of these studies are continued from the last permit term, for example, the study of a wet water quality detention basin. The City will also continue to contribute to the Partnership's efforts to update the protocol for acceptance of proprietary control measures.

### **Training for Planners and Development Engineers**

Refer to Section 8.5 for details on Galt's annual refresher training for all employees affected by the stormwater permit.



**Table 8-3. Effectiveness Assessment – City of Galt Stormwater Management Program**

| Element Activity/Task           | Performance Standard (Goal)                                      | OUT-COME LEVEL | 3 <sup>rd</sup> Permit Term   | OUT-COME LEVEL       | 4 <sup>th</sup> Permit Term | Effectiveness Method  |
|---------------------------------|--|----------------|---|----------------------|-----------------------------|---|
|                                 |  |                | Effectiveness Assessment  | Baseline Information |                             |   |
| <b>Program Management (8.2)</b> |  |                |   |                      |                             |   |
| Update Codes and Standards      | Adopt revisions as needed  | 1              | SWO revised 2004 and 2006   |                      | NA                          | Confirmation - report revisions in AR   |
| Fiscal Analysis                 | Review Budget  | 1              | Mid-year Budget Review completed May 2007   |                      | NA                          | Confirmation - report revisions in AR   |
| Recordkeeping and Reporting     | Annual Report & Annual Work Plan                                 | 1              | Annual Report submitted by Oct 1, 2006  |                      | NA                          | Confirmation - report revisions in AR   |
| <b>Construction (8.3)</b>       |  |                |   |                      |                             |   |
| Outreach                        | Produce/distribute educational materials (work with Partnership) | 1              | Comment on material and contribute to the Partnership funding to purchase material. Distribute materials. |                      | NA                          | Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed |

| Element Activity/Task                        | Performance Standard (Goal)                              | OUT-COME LEVEL | 3 <sup>rd</sup> Permit Term  | OUT-COME LEVEL       | 4 <sup>th</sup> Permit Term | Effectiveness Method                                    |
|--|--|----------------|--|----------------------|-----------------------------|---|
|  |  |                | Effectiveness Assessment   | Baseline Information |                             |   |
| Plan Review                                  | Review development plans for consistency w/ NPDES permit | 1              | Reviewed Erosion and Sediment Control Plans and SWPPP  |                      | NA                          | Confirmation - report revisions in AR                   |
| Inspections & Enforcement                    | Conduct Inspections. Issue NOVs to non-compliant sites   | 1              | Inspections are occurring as required by permit. Issued 15 NOVs during 2003-07. Assessed \$750 in fines during 2003-07 |                      | NA                          | Confirmation - report revisions in AR                   |
| <b>Commercial/Industrial (8.4)</b>           |  |                |  |                      |                             |   |
| See Table 4.4-1                              |  |                |  |                      |                             |   |
| <b>Municipal Operations (8.5)</b>            |  |                |  |                      |                             |   |
| Maintenance of City facilities and utilities | Develop and improve program as needed                    | 1              | All programs ongoing. City acted promptly to requested improvements at City Corp Yard.                                 |                      | NA                          | Confirmation - report program/ordinance revisions in AR |
| <b>Illicit Discharge (8.6)</b>               |  |                |  |                      |                             |   |



| Element Activity/Task   | Performance Standard (Goal)   | OUT-COME LEVEL | 3 <sup>rd</sup> Permit Term  | OUT-COME LEVEL       | 4 <sup>th</sup> Permit Term | Effectiveness Method   |
|---|---|----------------|--|----------------------|-----------------------------|--|
|   |   |                | Effectiveness Assessment   | Baseline Information |                             |  |
| Ongoing field screening of City facilities for illicit discharges & connections | Cease illicit discharge and connections, and if any reported, act promptly. | 1              | One case of illegal dumping reported within City. No findings of illicit connections to the City's facilities                |                      | NA                          | Confirmation - report program/ordinance revisions in AR  |
| Solid Waste and Hazardous Waste Programs  |   | 1              | City sponsors in partnership w/ California Waste Recovery Systems a Galt Clean-up Day. April 20, 2007 was last clean-up day. |                      | NA                          | Confirmation - report program/ordinance revisions in AR  |
| Education & Outreach  | Educate public  | 1              | Ongoing marking of DI's. Annual reminder in utility flyer.   |                      | NA                          | Confirmation - report program/ordinance revisions in AR  |
| <b>Public Outreach (8.7)</b>  |   |                |  |                      |                             |  |
| Produce/distribute educational materials (work with Partnership)                | Document/<br>Quantify materials   | 1              | Distribute on average 6 pamphlets to local residents each event. Total of approx. 50 since program started.                  |                      | NA                          | Confirmation/<br>Reporting-Include revised/new materials in AR; report no. materials distributed |
| <b>New Development (8.8)</b>  |   |                |  |                      |                             |  |

| Element Activity/Task                            | Performance Standard (Goal)         | OUT-COME LEVEL | 3 <sup>rd</sup> Permit Term   | OUT-COME LEVEL       | 4 <sup>th</sup> Permit Term | Effectiveness Method  |
|--|-------------------------------------|----------------|---|----------------------|-----------------------------|---|
|  |                                     |                | Effectiveness Assessment  | Baseline Information |                             |   |
| Update environmental review documents            | As needed                           | 1              | Completed prior to July 2003  | NA                   | NA                          | Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed |
| Ensure compliance w/ standards and design manual | Condition development appropriately | 1              | 4 stormwater quality treatment devices consistent with Partnership standards have been installed and declarations recorded. Conditioned 8 projects in planning for SWQ treatment or LID | NA                   | NA                          | Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed |
| Update codes                                     | As needed                           | 1              | SWQ treatment matrix from Design Manual adopted May 18, 2006. Complete design manual completed by Partnership, and will be adopted by permittees.                                       | NA                   | NA                          | Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed |

# Chapter 9

## City of Rancho Cordova Stormwater Quality Improvement Plan

### 9.1 Overview

#### Introduction and Background

The Rancho Cordova (City) Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater Management Program, including a description of activities conducted to ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (Stormwater Permit), of which Rancho Cordova is a permittee. The required certification for the SQIP is presented in Appendix K.

Rancho Cordova incorporated on July 1, 2003 and soon thereafter became a permittee to the Stormwater Permit. Before that, the unincorporated area within the present City limits was covered under the County of Sacramento's Stormwater Permit.

The Stormwater Permit is issued to Rancho Cordova and six other co-permittees (Sacramento County and the Cities of Rancho Cordova, Elk Grove, Folsom, Galt and Sacramento) by the Central Valley Regional Water Quality Control Board (Regional Board). Collectively, the group is known as the Sacramento Stormwater Quality Partnership (Partnership; formerly known as the Sacramento Stormwater Management Program). The original Stormwater Permit was issued in 1990 (first permit term) has been reissued twice (1996, 2002) and will be reissued again in 2008 (fourth permit term, or 2008-13 permit term).

This SQIP, originally published in July 2003, has been updated for the 2008-13 permit term. Implementation of the activities described in the SQIP is intended to satisfy the provisions of the Stormwater Permit. Those provisions were established to reduce pollutants in stormwater

This chapter describes the City of Rancho Cordova's Stormwater Management Program. The permittee-specific activities described in this chapter are conducted in addition to those implemented jointly with the other permittees as described in Chapter 3.

discharges to the maximum extent practicable and comply with receiving water objectives.

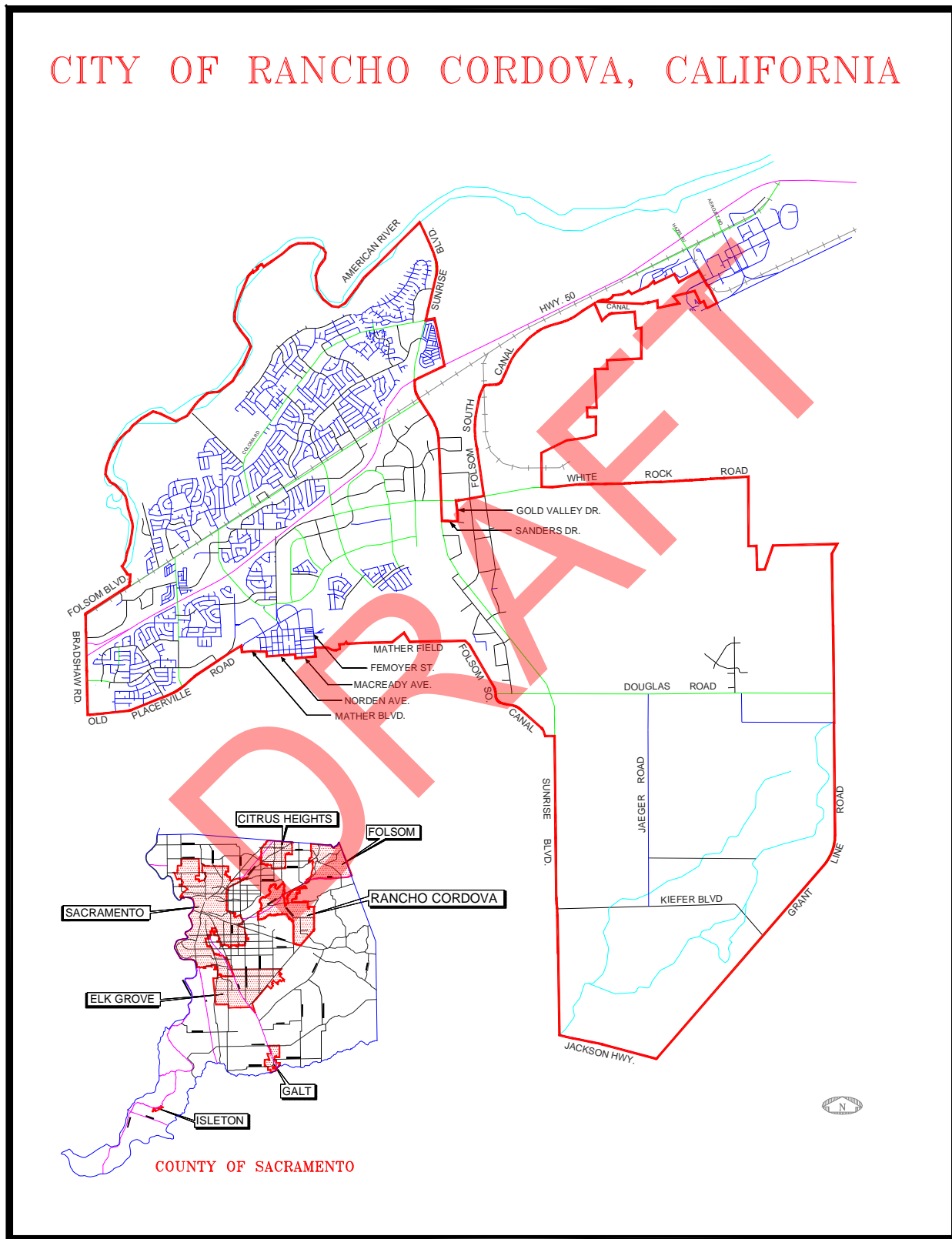
The City-specific activities described and referenced in this chapter are conducted in addition to monitoring, special studies, target pollutant reduction and regional public outreach activities that are implemented jointly with the other Permittees as described in Chapter 3. The City contracts with the County of Sacramento (County) for most of its stormwater services.

#### City of Rancho Cordova Characteristics



Rancho Cordova is located in Sacramento County, along Highway 50 approximately 12 miles east of downtown Sacramento. The city boundaries are shown in Figure 9-1. The City's population was noted as just over 53,000 by the 2000 census, and is estimated to be approximately 94,000 when the General Plan area is built out in many years. The 2007 population is estimated as 59,056.

Figure 9-1.  
City of Rancho Cordova Map



The City is approximately 33 square miles in size and is comprised of lands designated as residential (53%), commercial (14%), industrial (6%), agriculture (0%), open space (21%), and public (6%), according to the City's 2006 General Plan. Of these lands, more than half is currently in an undeveloped condition.

A portion of the north boundary of the city is the American River, so a portion of the city in that area drains into the river. Land within the city also drains to two forks of Morrison Creek as well as Upper Laguna Creek.

#### Overview of Rancho Cordova's SQIP

This SQIP describes activities that Rancho Cordova will conduct in compliance with the Stormwater Permit. Modifications to the program may be necessary as the program evolves, and will be proposed in Annual Reports submitted to the Regional Board on October 1 each year.

Following this introduction, there are seven sections in the chapter, to describe activities related to six major program elements, as follows:

**Section 9.2: Program Management and Related Activities** — A description of how Rancho Cordova's Stormwater Management Program is organized, legal authority, priorities and funding, and coordination both within the City and externally with the County and other programs and agencies.

**Section 9.3: Construction Program Element** — Activities designed to control the runoff of sediment and other pollutants from construction sites.

**Section 9.4: Commercial/Industrial Program Element** — Activities and control programs designed to reduce pollutants in discharges and effectively eliminate non-stormwater discharges associated commercial and industrial land uses.

**Section 9.5: Municipal Operations Program Element** — Activities designed to control stormwater pollution resulting from operation of City facilities and to set an example of model pollution prevention for the public.

**Section 9.6: Illicit Discharge and Detection Program Element** — Activities designed to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters.

**Section 9.7: Public Outreach Program Element** — Activities designed to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

**Section 9.8: New Development Program Element** — Activities designed to reduce pollutants in urban runoff discharges from newly developing and redeveloping areas for the life of the project, after construction is complete.

## 9.2 Program Management and Related Activities

### Organization and Staffing of the City's Stormwater Program

The City of Rancho Cordova is a Council-Manager form of government. The City's Stormwater Program is administered and managed by the Public Works Director in the Engineering Department. When the City incorporated in 2003, it entered into an agreement with Sacramento County (Local Agency Formation Commission [LAFCo] Resolution 1243), that requires the County to provide Rancho Cordova the same level of and type of drainage and flood control services as provided in the unincorporated area. These services include most of the stormwater quality activities required to comply with the Stormwater Permit.

Staff in several city departments conduct activities related to ensuring compliance with the Stormwater Permit. The Public Works Director and his staff oversee citywide permit compliance, manage the stormwater program and represent the program to outside agencies, regulators and the public. Public Works also provides engineers for public transportation projects and coordinates with the County and other contractors who provide various other services. The City's Planning Department provides planning and environmental review services for development projects, and the Building and Safety Department provides construction inspection services.

Table 9-1 shows the division of responsibilities for the various types of work required to comply with the Stormwater Permit. If this arrangement should change in the future, the City will prepare an amendment to this SQIP to define the new roles and responsibilities.

### Legal Authority

Legal authority for Rancho Cordova's Stormwater Management Program is provided in several ways:

- The City's Municipal Code provides the basic legal authority to implement the program and enforce the local regulations,

- The General Plan contains water quality protection policies,
- The City uses the County Standard Construction Specifications and Improvement Standards which describe requirements for development projects, and
- Agreements with the County and other permittees provide for a means of cost sharing to implement various portions of the program.

The City's chief legal counsel has certified that adequate legal authority exists to implement and enforce the stormwater program. This certified statement is provided in Appendix K.

### City Code

When the City incorporated in July 2003, it adopted the County ordinances in effect at the time, including any future amendments until the City otherwise adopts its own unique legal authority. Two County ordinances provide the main legal authority for the City's stormwater program:

- Stormwater Management and Discharge Control Ordinance, also known as "The Stormwater Ordinance" (*Chapter 15.12 of County Code*) — Prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., water from fire-fighting activities) pursuant to NPDES federal regulations. Provides legal authority to the County for inspections and enforcement related to control of illicit (unauthorized non-stormwater) discharges to the City storm drainage system and Morrison/Laguna Creeks.
- Land Grading and Erosion Control Ordinance (*Chapter 16.44 of County Code*) — Requires projects disturbing 350 cubic yards or more of soil or one or more acres of land to prepare an erosion and sediment control plan specifying best management practices (BMPs) for erosion and sediment control. Provides legal authority for inspections and enforcement needed on local construction sites to ensure compliance with the ordinance.

Table 9-1.  
**Responsibilities for Compliance with NPDES Stormwater Permit in Rancho Cordova**

| <b>Program Element</b>              | <b>Department/Group*</b>   | <b>Major Responsibility</b>  |
|-------------------------------------|--|--|
| Program Management (Section 9.2)    | Engineering  | Public Works Director administers and manages the City Stormwater Program on behalf of the City. Manages contracts/agreements with the County and other firms for provision of stormwater services. Provides liaison with the Regional Board and reviews/certifies/submits compliance reports prepared by the County/others on its behalf. |
|                                     | City Attorney  | Conducts legal reviews, prepares legal certifications and oversees revisions to ordinances, codes and other standards.   |
|                                     | County Dept. of Water Resources (DWR), Stormwater Quality Section      | Represents City at permittee coordinating and other meetings as requested; prepares most Permit compliance deliverables for the city; Provides training for selected City staff and technical assistance as needed.  |
| Construction (Section 9.3)          | Building and Safety (contract with County Dept. of County Engineering) | Issues grading permits and checks for NOI/SWPPP for all sites subject to State General Construction Permit (disturbing 1+ acres).  |
|                                     |  | Provides inspection services for private residential developments. Inspection responsibilities include oversight of contractor erosion and sediment control and State General Construction Permit compliance.  |
|                                     |  | Provides inspection services for public infrastructure (e.g. utilities, transportation features, public buildings) and grading/site improvement phase of private development. Inspection responsibilities include oversight of contractor erosion and sediment control and State General Construction Permit compliance.                   |
| Commercial/Industrial (Section 9.4) | County Environmental Management Dept. (EMD), Water Protection Division | Conducts inspections of all Permit-required industries once every 3 years, including outreach/training activities and development and maintenance of database to track efforts. See Chapter 4, Section 4.4.  |
|                                     | County EMD, Environmental Health Division                              | Conducts plan review, issues permits for and conducts inspections of food-related facilities in the city of Rancho Cordova. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.   |
|                                     | County EMD, Hazardous Materials Division                               | Conducts plan review, issues permits for and conducts inspections of facilities that handle or store hazardous materials in the city of Rancho Cordova. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.   |
|                                     | County DWR, Stormwater Quality Section                                 | Conducts business outreach activities required by the Permit for businesses in the city. See Chapter 4, Section 4.4.   |
| Municipal Operations (Section 9.5)  | County DWR, Stormwater Quality Section                                 | Maintains stormwater drainage system to ensure that system is maintained in manner that considers water quality impacts. See Chapter 4, Section 4.9.   |
|                                     | Public Works (contract with SacDOT)                                    | Maintains all street and highway improvements located in the city, including roadside ditches. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required.   |
|                                     | Cordova Parks and Recreation Dept.                                     | Maintains parks and recreational facilities in the City.   |
| Illicit Discharges (Section 9.6)    | County EMD, Hazardous Materials Division or Metro Fire District        | Responds to hazardous materials spills in the city that may impact stormwater quality and receiving waters, including cleanup and proper disposal. See Chapter 4, Section 4.6.   |
|                                     | County DWR Drainage O & M, SacDot, or Metro Fire District              | Responds to non-hazardous spills, including cleanup and proper disposal. See Chapter 4, Section 4.6.   |

| <b>Program Element</b>                 | <b>Department/Group*</b>                | <b>Major Responsibility</b>  |
|--|---|--|
|  | County DWR, Drainage O & M              | Conducts ongoing field screening activities as part of routine maintenance, as well as follow-up investigations as needed to confirm/eliminate illicit discharges  |
|  | County DWR, Stormwater Quality Section  | Assists with follow-up investigations as needed to confirm/eliminate illicit discharges. Responds to calls from the County's hotline, including investigation of complaints.   |
|  | Allied Waste (contractor)               | Provides solid waste management services for residents and businesses in the City, including green waste and general recycling. The services also include weekly curbside motor oil pickup and bulky household items pickup on call, up to three times a year.   |
| Public Outreach (Sections 3.7 and 9.7) | County DWR, Stormwater Quality Section  | Provides all public outreach related to the Stormwater Program for residents in the city. See Chapter 4, Section 4.7.  |
| New Development (Section 9.8)          | Planning                                | Processes applications for private developments. Conducts CEQA reviews and coordinates with other agencies on NEPA and CEQA documents. Implements General Plan and Zoning code. Routes plans to County Dept. of Water Resources to ensure that drainage and stormwater quality controls are incorporated as required. Implements the Stormwater Quality Design Manual for Sacramento and South Placer Regions. |
|  | County DWR, Stormwater Quality Section  | Conditions development projects to ensure compliance with City drainage and stormwater quality standards, including establishing requirements for stormwater quality treatment facilities via the Design Manual.   |
|  | Various County/City departments         | Follows City requirements for inclusion of stormwater quality treatment controls on design/construction of public projects, as applicable.   |
|  | Public Works (under contract to SacDOT) | Provides planning and design for all street and highway improvements located in the city, including addressing stormwater quality requirements, where applicable.  |
| Monitoring and Special Studies         | County DWR, Stormwater Quality Section  | Represents Rancho Cordova in permittee planning meetings related to monitoring activities; prepares and submits monitoring reports and compliance submittals; administers consultant contracts.  |
| Target Pollutant Reduction             | County DWR, Stormwater Quality Section  | Represents Rancho Cordova in permittee planning and work group meetings related to target pollutant reduction activities; prepares and submits monitoring reports and compliance submittals; administers consultant contracts.   |

\*Information subject to change. Changes will be reported in future SQIP amendments.

### General Plan

Rancho Cordova adopted the County's General Plan upon incorporation in July 2003. In June 2006, the City adopted its own General Plan. The new General Plan includes a Natural Resources Element (see copy in Appendix K) with various goals which result in direct or indirect protection of watershed resources and water quality:

#### Natural Resources Element

*Goal NR.2:* Preserve the City's rich and diverse natural wetlands.

*Goal NR.3:* Preserve and maintain creek corridors and wetland preserves with useable buffer zones throughout the new development areas as feasible.

*Goal NR.4:* Encourage the planting and preservation of high-quality trees throughout the City.

*Goal NR.5:* Protect the quantity and quality of the City's water resources.

*Goal NR.8:* Promote waste reduction, reuse, recycling, and composting efforts.



*Each of the above goals has related policies and actions designed to implement that goal. For example:*

*Goal NR.3:* Preserve and maintain creek corridors and wetland preserves with useable buffer zones throughout the new development areas as feasible.

- Policy NR.3.1 - Coordinate with property owners and local interest groups, such as the Sacramento Urban Creeks Council, to restore, enhance, and preserve creeks in Rancho Cordova.
- Policy NR.3.2 - In general, the City will encourage the preservation of existing location, topography, and meandering alignment of creeks. Where necessary, and if consistent with other City policies, the creation and realignment of creek corridors shall be constructed to recreate the character of the natural creek corridor. Channelization and the use of concrete within creek corridors shall not be supported.
  - Action NR.3.2.1 – Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.
  - Action NR.3.2.2 – Adopt and implement improvement standards for soft bottom channels.

### **Intra and Inter-Agency Agreements**

Intra-agency agreements between City departments and groups will be executed if needed as the program progresses to ensure cooperation within the City for compliance with the Stormwater Permit.

Legal authority for administering and implementing the Sacramento Stormwater Program (Program) jointly with the other permittees will be provided through the Permittee Memorandum of Understanding (MOU). A copy of the Permittee MOU is presented in Appendix D. The MOU will be amended during the 2007-08 fiscal year to update cost-share percentages and roles/responsibilities.

The MOU describes administrative roles and responsibilities for management of the Program and performance of joint activities, as well as cost-share arrangements. Costs for joint activities are based on population of each permittee and are therefore subject to change during the term of the Stormwater Permit.

An agreement will be executed in 2004 between the City and the County Environmental Management Department for conducting industrial and commercial inspection and enforcement services required by Provision 9 of the Stormwater Permit.

Agreements with other agencies will be executed as needed.

### **Funding**

Funding for Rancho Cordova's stormwater program comes primarily from Stormwater Utility fees collected and administered by the County as authorized by the Stormwater Ordinance discussed above.

Stormwater Utility revenues are used to fund city-specific stormwater activities as well as joint Program activities with the other permittees described in Chapter 3. The City's contribution to the Joint Program is 4% based on population.

In addition to revenues derived from Stormwater Utility fees, the County collects fees from developers through development impact fees, some of which are used to fund stormwater-related activities. For example, development impact fees fund plan checking for drainage and stormwater-related features, erosion and sediment control inspections during construction, and are used to reimburse developers for the construction of stormwater infrastructure, including stormwater quality facilities such as detention basins.

Fees are also collected by County EMD from most industries and businesses in the City to fund inspection services. Inspections are conducted to verify compliance with environmental and health laws, including stormwater quality regulations.

Finally, the City uses its developer fees, Road Fund and building permit fees to cover salaries and other administrative activities which are required to ensure compliance with the Stormwater Permit.

## Recordkeeping and Reporting

The City will prepare and submit the following documents to the Regional Board each year, in compliance with the Stormwater Permit:

- Annual Work Plan (May 1) – describes proposed activities and budget for coming fiscal year (July 1 – June 30).
- Annual Report (October 1) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the Stormwater Permit. Proposes revisions to the Stormwater Quality Improvement Plan, if needed.

Records and data will be collected from all responsible City departments and groups each summer to prepare the Annual Report. The County will assist in compiling and describing information for the activities it conducts on the City's behalf.

The City's stormwater program staff will maintain NPDES Stormwater Permit compliance files at City Hall, including all documentation necessary to demonstrate compliance with the permit. As required, the City will retain copies of all records and reports from the date of generation for at least five years.

## Training for City Staff and Contractors

The City will ensure that all City staff and contractors involved in or impacted by Stormwater Permit compliance activities receive annual refresher training as required by the Stormwater Permit. County staff working on the City's program are trained as described in Chapter 4.

Staff will be informed and educated about the Stormwater Permit and its impacts on their positions and responsibilities. Training will cover the following types of topics:

- General storm water quality awareness objectives: where storm water goes, how it becomes polluted, and how to prevent pollution.
- Background regulatory information appropriate to the audience.

- Information on stormwater quality compliance targeted to the staff's area of specialty, e.g., inspection, planning, engineering.
- How to report/refer observed problems in the field.
- Information about enforcement and penalties appropriate to the audience.

## Coordination with Other Agencies and Programs

### Sacramento NPDES Permittees

Regular permittee coordination meetings are held approximately monthly to discuss topics such as:

- Implementation of joint activities, such as monitoring, target pollutant reduction and some public outreach.
- Status of consultant contracts and work products related to monitoring and development standards.
- Funding of activities conducted by others that benefit the Sacramento Program, such as the Brake Pad Partnership and the development of statewide BMP manuals.
- Overall program evaluation and assessment.
- Proposed modifications to the Stormwater Quality Improvement Plans and/or Stormwater Permit.

The City Engineer, his designee, or the County Stormwater Program Manager will attend these meetings on behalf of Rancho Cordova.

### Outside Agencies

The City coordinates with several local and regional agencies (over which it lacks jurisdictional control) in order to ensure city-wide compliance with the Stormwater Permit:

- Cordova Parks & Recreation District
- Three local school districts: Folsom-Cordova, Elk Grove and Sacramento Unified School Districts
- Three local water districts: Golden State Water Agency, Cal American Water Agency and Sacramento County Water Agency (Zone 40)
- Sacramento Metropolitan Fire District

- County Sanitation District-1
- Sacramento Regional County Sanitation District (SRCSD)

The City also coordinates with private utilities, including Sacramento Municipal Utility District (SMUD), Pacific Gas & Electric, and several local telephone and cable companies.

### Other Stormwater Programs

The city supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This effort is facilitated by the City and County of Sacramento, through their active participation in the California Association of Stormwater Quality Agencies (CASQA).

### Effectiveness Assessment

The City's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provide by CASQA in its *Effectiveness Assessment Guidance* document (March 2007)

### Assessment of 2002-07 Permit Term Activities

The effectiveness tables in the County's SQIP (Chapter 4) at the end of each program element discussion (Sections 4.2-4.8) present the results of the County's assessment conducted for the 2002-07 permit term. These results were used to help identify proposed activities for Rancho Cordova for the 2008-13 permit term.

### Proposed Assessment Methods for 2008-13 Permit Term

Rancho Cordova will use similar assessment methods as reported in the County's SQIP (Chapter 4) to evaluate activities during the 2008-13 permit term. The City will evaluate its efforts on two levels, using the CASQA-based approach described in Chapter 2:

- 1) Individual activities and programs, and
- 2) Program element — *For example, how effective are the combined efforts in the construction element at reducing erosion problems on local construction sites?*

This assessment will be done each summer during preparation of the Annual Report, and recommendations for program improvements or modifications will be made based on these assessments.

Evaluation of the overall Program will be done once each permit term by the Partnership, as described in Chapter 2.

### Proposed Activities for the 2008-13 Stormwater Permit Term

The main goal of the Program Management Element for the 2008-13 permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

### Legal Authority

#### *Update Codes and Standards As Needed*

The City will amend its Stormwater Ordinance if necessary to reflect changes in the program. The City will also automatically adopt any changes made by the County to the Standard Construction Specifications and the Improvement Standards. It is anticipated that the County will make stormwater quality-related changes to these documents during the 2008-13 permit term.

The City will require the local development community to utilize the May 2007 *Stormwater Quality Design Manual for Sacramento and South Placer Regions* and will ensure that City planners and engineers attend training workshops related to implementation of the new manual. It is likely that as the design manual comes into more use, conflicts may arise between the criteria in the manual and the City's codes. In such cases, the City will amend codes as needed or recommend adjustments to the manual.

#### *Incorporate Water Quality Principles into General Plan Update*

The City's new General Plan was adopted in 2006 and water quality protection policies were added. Major updates are not anticipated during the 2008-13 permit term.

#### *Update Agreements As Needed*

The City will work with the other permittees to update the MOU that outlines joint responsibilities, cost sharing based on Sacramento Area Council of Governments (SACOG) population data, decision making, and information management and reporting.

### **Fiscal Analysis**

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for Stormwater Permit compliance. Projected budgets for each coming fiscal year will be presented in the Annual Work Plans (May 1), and actual expenditures for the previous fiscal year will be reported in the Annual Reports (October 1).

### **Recordkeeping and Reporting**

As required by the Stormwater Permit, the City will submit an Annual Report by October 1<sup>st</sup> of each year detailing the activities accomplished and the quantitative data compiled during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized reporting format created in coordination with the other permittees. By May 1<sup>st</sup> of each year, Folsom will submit an Annual Work Plan that details the activities proposed for the coming fiscal year.

The City and County of Sacramento will take the lead in submitting Joint Program Work Plans and Annual Reports to describe activities such as monitoring conducted jointly by all the permittees in the Partnership. Refer to Chapter 3 for additional information about joint activities.

City elected officials and managers will be kept apprised of Stormwater Program activities and issues through briefings and interoffice memoranda as needed.

### **Training for City Staff**

Training is an important aspect of Rancho Cordova's Stormwater Program. Each year, all affected personnel and managers will be educated on the requirements of the Stormwater Permit relevant to their daily work. The training may be in the form of in-house meetings and briefings or external training conducted by the Partnership or others. For example, each year, City construction inspectors will be encouraged to attend one of the pre-wet season training workshops conducted by the Partnership.

### **Intra and Interagency Coordination**

The City will coordinate internally to ensure all necessary City staff, management and elected officials are aware of Stormwater Permit requirements and related program efforts. If needed, the City will develop agreements to define roles and responsibilities between the various City departments responsible for compliance with the Stormwater Permit. This was not deemed necessary during the last permit term.

As discussed previously, the City will work with the other permittees to update the MOU which defines cost-sharing and agency roles. The City will also work with EMD as needed to update the MOU which defines responsibilities for the industrial inspection program.

Rancho Cordova will attend regular permittee coordination meetings (approximately monthly) or will make arrangements for the County to represent the City at such meetings.

The City will continue to participate with other permittees on various work groups and subcommittees that have been formed to address specific activities, such as monitoring, target pollutants, and special studies. The City may make arrangements for the County to represent the City at these meetings.

The City will continue to coordinate with other outside agencies during the 2008-13 permit term, as needed when multi-jurisdictional issues arise. These agencies may include Caltrans, US Army Corps of Engineers, US Fish and Wildlife Service, and the California Department of Fish and Game, among others.

### 9.3 Construction Element

The goal of the Construction Element is to reduce the discharge of sediment and construction-related pollutants to the City's storm drain system and local creeks (e.g., Upper Morrison and Upper Laguna) to the maximum extent practicable.

A great deal of new construction is taking place in Rancho Cordova now, and this is expected to continue through the 2008-13 permit term. Growth is occurring with residential, commercial and industrial land uses. Thousands of new homes are being constructed and are planned for construction in the future in association with three major subdivision projects: Villages of Zinfandel (the residential component has been complete, the non-residential commercial component is proposed), Capital Village is currently under construction, Sunrise-Douglas (currently under construction), Rio del Oro (proposed), Westborough (proposed), Sun creek (proposed) and The Preserve (proposed).

The City contracts with the County and several consulting firms to provide trained staff to implement the construction element in Rancho Cordova.

#### Construction Element Strategy

The City has established ordinances that provide the authority necessary for the city and county inspectors to address threatened and actual discharges of pollutants from construction operations. With this as a foundation, the City's strategy includes outreach and education, plan review and permitting, inspection and enforcement.

The program applies to private as well as public construction projects, including those also requiring coverage under the State's Construction General Permit. For the most part, the focus for inspection and enforcement activities is on land disturbing activities of one acre or more. However, smaller sites must comply with the City's Stormwater Ordinance (discussed in Chapter 9.2) and smaller site operators are educated and informed about ways to prevent erosion and pollution problems.

#### Intra and Interagency Coordination

The City's Engineering and Building and Safety Departments conducts formal biweekly meetings during the wet season and monthly meetings during the dry season to discuss stormwater issues. Coordination between Public Works and other departments (e.g., Planning) related to stormwater quality controls for construction projects is done on an informal basis through written correspondence and regular meetings related to specific projects.

The City coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. For example, the City utilizes the same standard construction specifications and improvement standards as the County.

City inspectors and County inspectors, on behalf of the City, assist the Regional Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, verifying NOI filings, spot checking SWPPPs, and referring site operators who have not complied with the State regulations.

#### Accomplishments to Date

Since becoming a permittee to the Stormwater Permit in 2003, Rancho Cordova has made several notable accomplishments related to the construction element:

- Adopted the Rancho Cordova Municipal Code, including the adopted County ordinances discussed previously, to provide the City legal authority to eliminate construction-related pollutant discharges into its storm drain system.
- Adopted the County's standards and specifications for construction, including standard erosion and sediment control drawings.
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining grading permits for applicable projects

## Effectiveness Assessment

Table 4.3-1 in the County's SQIP (Chapter 4, Section 4.3) presents the results of the County's effectiveness assessment conducted for the Construction Element for the 2002-07 permit term. For the most part, activities showed compliance with the stormwater permit at outcome level 1 (documenting activities).

Table 4.3-1 also proposes assessment methods that the County will use to evaluate the program element and its activities during the 2008-13 permit term; the City will use similar methods. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community).

## Proposed Activities for the 2008-13 Permit Term

### Legal Authority

Following adoption of the new State Construction General Permit (anticipated 2007-08), the City will work with the County and other permittees to evaluate any necessary changes to this element and related codes and standards, to promote consistency.

### Outreach and Education

The City will continue to provide education and guidance to both City staff (annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices. City staff training was covered previously in Section 9.2.

The City will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, building permit process, preconstruction meetings, and inspection.

Rancho Cordova will continue to contribute funding (through the cost-share MOU) for the development and production of outreach materials such as brochures for concrete and painting, printed in English and Spanish.

### Plan Review and Permitting

The City has adopted the County's Land Grading and Erosion Control Ordinance, which requires a grading permit and erosion and sediment controls on all private projects disturbing 350 cubic yards or more of soil or one or more acres of land. Public projects are subject to the City's Stormwater Ordinance, which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system.

Private and public projects in Rancho Cordova disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the City will verify that a State-required Notice of Intent (NOI) was filed and will check the Stormwater Pollution Prevention Plan (SWPPP) for six items required by the Stormwater Permit. This is a continuation of activities conducted during the 2002-08 permit term.

### Inspection and Enforcement

Rancho Cordova's Engineering/Public Works Department inspectors will continue to conduct inspections of all construction projects in the City to ensure compliance with the requirements set forth in the City's ordinances. This includes checking sediment and erosion control measures and verifying that a site has obtained coverage under the State's Construction General Permit if applicable. General Permit non-filers and repeat offenders will be referred to the Regional Board as required by the Stormwater Permit.

As with the 2002-08 permit term, the City will continue to prioritize sites as either “high” or “moderate” threat to water quality and inspects according to this schedule:

- High priority sites – inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.
- Moderate priority sites – inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

A database of active construction projects and their priorities will be maintained by the City at all times.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks.

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## 9.4 Commercial/Industrial Element

The goal of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Rancho Cordova.

### Commercial/Industrial Element Strategy

The City of Rancho Cordova contracts with other agencies to conduct activities related to this program element within the city. The City has executed a MOU with County EMD to conduct triennial inspections of facilities within Rancho Cordova that were identified in the 2002 Stormwater Permit. Partnering with EMD has a few advantages:

- EMD has traditionally conducted environmental compliance inspections in the county, with trained staff, structure, policies and procedures in place. Only modest training and enhancement was required to accommodate stormwater compliance inspections, and use of the existing resource helps minimize inconvenience to the regulated businesses.
- EMD has established a Fee Ordinance which allows them to recover costs for their activities without impacting the City's limited funding sources, such as the County Stormwater Utility.
- Having a single entity (EMD) conduct all the inspections countywide ensures consistent and equitable treatment of the regulated community.

The City contracts with the County to conduct complaint-based inspections of all other businesses within the city. The City also relies on the County to conduct targeted outreach to targeted local businesses.

### Intra and Interagency Coordination

A MOU was executed between the City and the County EMD in 2004, for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit within the city limits. This MOU authorizes the EMD to conduct inspections and issue enforcement actions, using the legal authority provided by the County's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened.

The City or its County representative participates in periodic (approximately biannual) meetings with EMD to discuss the program, resolve problems and identify improvements as needed. EMD coordinates with the other permittees and business groups such as BERC to implement the inspection program. See Chapter 4.4 for additional details.

The work conducted by the County on the City's behalf is covered by the City/County agreement for services that was executed when the City incorporated in 2003.

### Accomplishments To Date

Refer to Chapter 4.4 for a complete list of accomplishments during the first 17 years of the program.

### Effectiveness Assessment

Table 4.4-1 in the County's SQIP (Chapter 4, Section 4.4) presents the results of the effectiveness assessment conducted for the 2002-08 permit term for the Commercial/Industrial Element. For the most part, activities showed compliance with the stormwater permit at outcome level 1 (documenting activities). These results were used to help identify program improvements and appropriate actions for the 2008-13 term.

Table 4.4-1 also proposes assessment methods that the County will use to evaluate the program during the 2008-13 permit term. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the regulated business community).



## Proposed Activities for the 2008-13 Permit Term

The following information briefly describes the activities conducted by County EMD and County DWR on the City's behalf. Refer to Chapter 4.4 for additional details.

### Legal Authority

The County's Stormwater Ordinance will continue to provide legal authority to the EMD for regulating commercial businesses and industries in Rancho Cordova with respect to stormwater pollution. The Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the 2008-13 permit term.

### Priority Industry Identification

The industries and commercial businesses subject to stormwater compliance inspections and targeted outreach for the 2008-13 permit term are identified in the sections below. These are the same businesses that were targeted during the 2002-08 permit term. These lists will be refined during the 2008-13 permit term as needed.

### Triennial Industrial Stormwater Compliance Inspections

EMD will continue to conduct triennial inspections at priority industrial facilities. The first cycle of inspections was completed in June 2007 and the second cycle will be completed in June 2010. The following priority industrial facilities in Rancho Cordova will be inspected; the numbers given in parentheses are the number of facilities within the city in that category for the 2005/06 fiscal year:

- Facilities with coverage under the State's Industrial General Permit (0)
- Auto body shops (1)
- Auto repair shops (4)
- Auto dealers (1)
- Equipment rental facilities (1)
- Kennels (2)
- Nurseries (0)
- Retail gasoline outlets (i.e., gas stations) (23)
- Restaurants (174)

This list and the associated definitions of industrial categories (see Chapter 4, Section 4.4) will be evaluated and revised as needed by the end of the 2008-13 permit term.

EMD inspectors will distribute educational materials to the operators of these facilities during inspections. They will also refer suspected Industrial General Permit non-filers to the Regional Board.

EMD will continue to follow their enforcement policy that emphasizes compliance of facilities with the County Stormwater Ordinance through progressive enforcement actions. Fines will be assessed as necessary for repeat violations that remain unresolved.

EMD will continue to maintain its database and generate monthly violation reports, as well as all the required information for the Rancho Cordova Annual Reports.

### Complaint-Based Stormwater Compliance Inspections

County DWR stormwater staff will inspect other businesses not addressed by EMD's program described above within the City of Rancho Cordova on a complaint basis. Complaints can be referred by the public, other County agencies and departments, the Regional Board, and other sources. County stormwater staff will refer to EMD any complaints related to businesses included in the triennial inspection program. All other complaints will be investigated, and associated progressive enforcement will be conducted to ensure that the stormwater pollution problem(s) are eliminated.

The County will distribute educational materials during these inspections and will keep a database for annual reporting purposes.

### Educational Outreach

During the 2008-13 permit term, County stormwater staff will continue to conduct outreach to the targeted businesses within the city, on behalf of Rancho Cordova. Outreach will be conducted with the following priority business operations; the numbers given in parentheses are the number of facilities within the city in that category for the 2005/06 fiscal year:

- Automotive washing and detailing businesses (3)
- Carpet cleaning businesses (6)
- Commercial pesticide applicators (0)
- Concrete contractors (3)
- Concrete cutting contractors and businesses (0)
- General building contractors (2)
- Landscape installation contractors and maintenance businesses (30)
- Painting contractors (10)
- Portable toilet rental businesses (0)
- Pressure washing businesses (3)
- Street sweeping businesses (2)
- Swimming pool contractors (2)
- Swimming pool maintenance businesses (9)

Businesses in these priority categories are considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses are mobile operations without a single base of operation, so they are difficult to track.

The County will conduct targeted outreach to the listed business types at least twice during the five-year term of the Stormwater Permit. BERCC will continue to manage the business outreach database and coordinate direct mailing of educational materials on behalf of the permittees. Educational materials will also be distributed via City and County public counters, through trade associations and industry suppliers, and at workshops and other events.

The County of Sacramento will continue to implement the Clean Water Business Partners (CWBP) Program, and will expand the program as appropriate and necessary to target other businesses. For more details, see Chapter 3, Section 3.7.

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## 9.5 Municipal Operations Element

The primary goal of the Municipal Operations Element is to prevent stormwater pollution potentially resulting from the operation and maintenance of City-owned facilities and areas, including buildings, yards, parks and open space, parking lots, landscape medians, roadways and utilities such as water, sewer and storm drain systems. Typical municipal activities include solid waste hauling and disposal; hazardous and recycling waste collection, storage and disposal; vehicle and equipment washing and maintenance, pipe, channel and basin maintenance and repair/replacement, street cleaning, street overlays and repairs, vegetation management and graffiti abatement. Municipal operations activities must be conducted in a manner that does not inadvertently contribute pollution to local creeks and rivers.

Another goal of this element is to set an example of model pollution prevention for the public.

### Inventory of City Operations and Related Stormwater Activities

The Municipal Operations Element addresses operation of city-owned facilities within the NPDES Permit area (urbanized areas), not covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).

The following is an inventory of the City-owned facilities and operations addressed by this element:

**Buildings** – The City owns and operates City Hall and the Killgore Cemetery and building. Building and parking lot maintenance is contracted to offsite vendors. There is no fleet storage or corporation yard at City Hall.

**City parks** – 27 parks within the City are operated and maintained (including vegetation and waste management) by the Cordova Parks and Recreation Department.

**Corporation Yard** - The City does not own a corporation yard. County crews use the County Bradshaw Corporation Yard, as discussed in Chapter 4, Section 4.5.

### Storm Drain System

*Piped storm drain system* – As of spring 2007 there are almost 232 miles of piped storm drain in

the city. Due to new development, there are new facilities being added all the time. The Annual Reports will provide an updated inventory each year. Storm drain pipe and associated drain inlets and manholes in the city are maintained by the County Department of Water Resources, as described in Chapter 4, Section 4.5.

*Storm drain inlets* – As of spring 2007 there are about 7100 storm drain inlets and 3580 manholes in the city. Due to new development, there are new facilities being added all the time. The Annual Reports will provide an updated inventory each year. Older storm drain inlets in the city have been marked with “No Dumping-Drains to Creek” messages. County maintenance crews check the legibility of the markings during routine maintenance activities and replace any that are damaged or missing (see Chapter 4, Section 4.5). New storm drain inlets installed in the city are required to have a permanent “No Dumping” message; this is verified by the city and county inspectors during construction.

*Channels and creeks* – Almost 17 miles of manmade drainage channels and natural creeks are maintained by the County. This includes portions of Morrison and Laguna Creeks, and various unnamed tributaries.

*Detention basins* – In spring 2007 there are two water quality/flood control detention basins in the city. According to drainage master plans, as many as 20 additional detention basins could be constructed as the areas develops. More basins, and other types of stormwater quality control measures are expected in the future as well, due to new development. The Annual Reports will provide an updated inventory each year. The basins are operated by the County on behalf of the City.

### Transportation Facilities

*Curbed Streets* – About 250 curb miles of curbed streets are cleaned by a vendor under contract with Public Works. The frequency schedule is:

- Residential – Once a month, except twice a month during leaf drop season.
- Collectors and arterials – Twice a month.

*Roads and Roadside Vegetation* - About 190 centerline miles of roads and associated roadside vegetation is maintained in the City by the County as described in Chapter 4, Section 4.5.

*City-owned parking lots* – The City owns one parking lot at City Hall and parking lot maintenance is contracted to offsite vendors.

*Animal services* – the City’s Animal Services Department uses the County facility in the Bradshaw area.

Finally, the city contracts with County Sheriff for staffing of the City’s Police Department. There is one nearby command center near Mather, but no fleet maintenance or washing is performed there.

### **State, Federal and Special District Agency Facilities and Activities**

The city’s activities under the Municipal Operations Element do not address facilities operated by federal or state governmental agencies (e.g., Caltrans), private utilities (e.g., SMUD) and the following special districts:

- Folsom-Cordova School District
- Elk Grove Unified School District
- Sacramento Unified School District
- Cordova Recreation and Park District
- Metro Fire District
- Three water districts (see list earlier in this chapter)

These agencies and activities are outside of the City’s jurisdictional control and are not covered by the City’s Stormwater Permit. City stormwater inspectors are authorized to issue enforcement actions to the operators of such facilities if discharges from the facilities contribute pollution to the city-owned storm drain system or local creeks within the city.

Additionally, the City does not have jurisdiction over the sanitary sewer collection and wastewater treatment systems operated by County Sanitation District -1 (CSD-1) and the Sacramento Regional County Sanitation District (SRCSD), respectively, within the city limits.

### **Municipal Operations Element Strategy**

In order to minimize potential adverse environmental effects associated with constructing, operating, and maintaining city facilities, the City has adopted these strategies for the Municipal Operations Element:

- Provide training and technical assistance to target employees and facilities.
- Evaluate activities, facilities, employee training and any available Municipal SWPPPs to improve procedures and BMPs to address stormwater quality concerns; and
- Conduct record keeping and documentation of processes to allow for continuous assessment evaluations in order to achieve improvements with Stormwater Permit compliance.

These combined efforts help ensure that City designers, contract administrators, and operations and maintenance staff understand, implement, and demonstrate compliance with the Stormwater Permit in order to reduce stormwater pollution to the maximum extent practicable.

### **Intra and Interagency Coordination**

The City coordinates with the other permittees, stormwater programs, and local, state, and federal agencies to share information, strategies, and recommended practices related to operation and maintenance of City-owned facilities.

The City coordinates with special districts (listed previously) on a project basis to make sure that measures are in place to protect the City’s storm drain system and local creeks and rivers.

### **Accomplishments To Date**

Since becoming a permittee to the Stormwater Permit in 2003, Rancho Cordova has made several notable accomplishments related to the Municipal Operations Element:

- Established contracts needed to complete municipal operations activities, including contracts with a waste hauler, a street cleaning contractor and the County.
- Compiled the inventory of City-owned facilities and operations. The inventory helps with tracking activities and the City updates the inventory each year for the Annual Report.
- Established routines for collecting and compiling data to assess activities and document regulatory compliance (e.g., staff routinely log the quantity of pipes, channels, basins, sumps, drop inlets, manholes, and roadways cleaned. This information is tallied and presented in Annual Reports.)

## Effectiveness Assessment

Table 4.5-1 in the County's SQIP (Chapter 4, Section 4.5) presents the results of the County's effectiveness assessment conducted for the Municipal Operations Element for the 2002-07 permit term. Activities showed completion of stormwater permit-required activities at outcome level 1 (documenting activities) and raised awareness by municipal staff through training (outcome level 2).

Table 4.5-1 also proposes assessment methods that the County will use to evaluate the program element and its activities during the 2008-13 permit term; the City will use similar methods. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the municipal staff and contractors).

## Proposed Activities for 2008-13 Permit Term

### Maintenance of Buildings

The only building owned by the City is City Hall, and the only potential for stormwater pollution at this location is the parking lot runoff. See the parking lot maintenance activities described later in this section, which are designed to minimize discharge of pollutants.

### Operation and Maintenance of City Parks

The Cordova Recreation and Park District will continue to manage the 27 parks within the city limits and any new parks built as the city develops. The City has no jurisdictional control over this special district, but will coordinate with the district during the 2008-13 permit term to ensure that pollutants are not discharged to the City's storm drain system or local creeks due to the Park District's operations.

### Maintenance of the Piped Storm Drain System

The City will continue to contract with the County Department of Water Resources (DOMS) to conduct these services on the City's behalf. The County will employ the same procedures they use for cleaning their own system. Refer to Chapter 4.5 for this information.

### Maintenance of Creeks and Channels

The City will continue to contract with the County Department of Water Resources (DOMS) to conduct these services on the City's behalf. The County will employ the same procedures they use for cleaning their own system. Refer to Chapter 4.5 for this information.

### Inspection and Maintenance of City-Owned Parking Lots

The City owns about 4.5-acres of parking lots exposed to rainfall (associated with City Hall and Killgore Cemetery) and this will be maintained by a vendor under contract to the City's Public Works Department. Monthly maintenance activities will include trash/debris removal, vacuum sweeping; and pressure washing of oil stains involving collection and proper disposal of the waste water.

The City's activities do not address leased facilities and associated parking areas.

### Prioritized Street Sweeping for Curbed Streets

The City will continue to contract with a vendor for street sweeping of curbed streets, to follow the prioritized schedule described earlier in this chapter.

### Maintenance of Roads and Roadside Vegetation

The City will continue to contract with the County Department of Transportation to conduct these services on the City's behalf. The County will employ the same procedures they use for maintaining their own roadway system. Refer to Chapter 4.5 for this information.

### Waste Management Services

The City will continue to contract with Allied Waste Services for residential green waste and general recycling collection and hauling services in the city. The contractor does not have any storage/staging yards or facilities within the city. They take wastes to a central transfer facility located outside the city limits, and from there the wastes are transported to a Class III landfill.

Rancho Cordova residents will be able to continue to take household hazardous wastes to one of the two regional transfer stations operated by the City and County of Sacramento. The City pays for this service (set fee per vehicle) to make it free and as convenient as possible for residents.

## 9.6 Illicit Discharge Element

The goal of the Illicit Discharges Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate prohibited non-stormwater discharges.

The storm drain system consists of a network of drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, which discharge to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Any material dumped or discharged into the City's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

### Illicit Discharge Element Strategy

The City of Rancho Cordova contracts with Sacramento County to implement this program element within the city. The County's strategy includes legal authority, field screening, waste collection programs and outreach as follows:

- Maintain adequate legal authority to prohibit illicit discharges. Since Rancho Cordova adopted all County ordinances, prohibitions of illicit discharges such as oils, greases, paints, chemicals, dry cleaning waste, etc. into the storm drain system apply within the city in the same manner as they do in the County. City and County staff are authorized to enforce the ordinance within the city limits.

- Conduct ongoing field screening to detect illicit discharges and connections as a part of routine maintenance and repair of the storm drain system and local creeks, and enforcing against dischargers. The City contracts with County DWR for these services for the piped system, and with California Conservation Corps for the natural creek system.
- Provide convenient means for residents to dispose of solid and household hazardous wastes, to deter illegal dumping.
- Educate City staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.
- Provide a hotline for public reporting of problems and responding in a timely manner. The City supports the regional stormwater hotline 808-4H20 for this purpose.

### Intra and Interagency Coordination

The City coordinates with the County through its contract with DWR for this program element. County crews conduct ongoing field screening for illicit discharges and connections as part of this work. They, in turn, will coordinate with other appropriate County departments to clean up and dispose of any polluted wastewater. If progressive enforcement action against the discharger does not eliminate the problem, the County will then coordinate with legal counsel.

The City coordinates with the other permittees in the Partnership to produce educational materials and messages designed to eliminate illicit discharges.

The City has a contract with a private waste hauler to provide solid waste collection services in the city, including curbside pickup of used motor oil. These activities were previously described in Section 9.5.

### Accomplishments To Date

The following briefly describes accomplishments since 1990 related to this element. Refer to the Section 4.6 of the County's SQIP for this information.

- In 2003 the City adopted the County's Stormwater Ordinance, which makes most discharges to the storm drain system illegal (some exceptions are noted).

- 95% of storm drain inlets in the City were stenciled with the “No Dumping — Drains to Creek” message and all new inlets were permanently stamped with this message.
- In 2006, a new hotline, 808-4H20, began allowing callers to select Rancho Cordova and be routed to the County for assistance on City-related issues or complaints. The hotline is now widely advertised on all Partnership educational materials, media spots, and on the web site.
- Starting in 2004, the City created and annually updated an illicit discharges map to identify “hot spot” problem areas requiring additional or more frequent investigations.

### Effectiveness Assessment

Table 4.6-1 in the County’s SQIP (Chapter 4, Section 4.6) presents the results of the effectiveness assessment conducted for the 2002-08 permit term for the Illicit Discharges Element. For the most part, they showed completion of permit-required activities at outcome level 1 (documenting activities). These results were used to help identify program improvements and appropriate actions for the 2008-13 permit term.

Table 4.6-1 also proposes assessment methods that the County will use to evaluate the program during the 2008-13 permit term. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of dischargers and the public).

### Proposed Activities for 2008-13 Permit Term

#### **Solid Waste and Household Hazardous Waste Programs**

Rancho Cordova will continue to contract with a private waste hauler to provide waste collection and disposal services for the city. This program includes curbside pickup of used motor oil and is described in more detail in Chapter 9.5.

The City will continue to accept certain universal wastes (batteries, cell phones) at City Hall for disposal.

#### **Update Stormwater Ordinance and Improve Enforcement Authority as Needed**

As recommended by the County, the City will amend the Stormwater Ordinance as needed to

enhance legal authority. The County will enhance its enforcement authority as needed.

The following information briefly describes the remaining activities for this element, which are conducted by County DWR on the City’s behalf. Refer to Chapter 4.6 for additional details.

#### **Ongoing Field Screening to Detect Illicit Discharges and Connections**

County maintenance crews will continue to be responsible for inspecting and maintaining the piped storm drain system, creeks and channels, and roads/roadside ditches in the City. They will continue to be trained how to identify, clean up and/or refer and report observed incidents of illicit discharges. Follow-up will be conducted for any observed flows suspected of containing pollutants to attempt to trace the flow to its source and eliminate any unauthorized non-stormwater discharges. It is expected that most flows observed during dry periods will be irrigation runoff, an authorized non-stormwater discharge not requiring follow-up.

County crews will also respond to complaints from the public and referrals from County industrial inspectors, the Regional Board and others. Problems are addressed on an individual basis depending on the nature of the discharge. See Section 4.6 for additional details.

#### **Education and Outreach**

To educate the public, and to minimize illegal discharges of waste into the storm drain system, County maintenance crews will continue to maintain “no dumping-drains to creek” messages on all storm drain inlets.

Based on public and maintenance crew recommendations and the illicit discharges map, the County will recommend locations for signage at high priority areas and will create and install the signage.

Through the contract with the County, the City will continue to contribute funding to the Partnership’s 808-4H20 hotline to facilitate public reporting of problems in the City. Also, County crews will distribute doorhangers and other educational materials in neighborhoods where they observe illicit discharge problems.

## 9.7 Public Outreach Element

The goal of the Public Outreach Element is to raise awareness and foster community stewardship to help prevent pollution and protect local creeks and rivers.

The City coordinates with the Partnership to implement a wide range of activities to increase the knowledge of the community regarding the City's storm drain system, impacts of urban runoff on local creeks and rivers, and potential pollution prevention solutions for the targeted audiences.

### Rancho Cordova Community Characteristics

In 2007, there are an estimated 59,056 residents in the City of Rancho Cordova. The City is served by four school districts: Folsom-Cordova, Elk Grove Unified, San Juan Unified and Sacramento Unified. Together, these districts operate 12 elementary, three middle and two high school within the city. For the 2006-07 school year, the combined total student population in the city was estimated to be 6,570, with 4,586 students enrolled in grades 3-6 (this is a target audience for stormwater education).

In 2007 there were six homeowner associations in the city, although that number will grow as the city grows. There are also numerous faith-based, community and business associations represented in Rancho Cordova, including the Chamber of Commerce. In addition, the Cordova Community Council was founded in 1959 and serves as a citizens' forum for discussing the future of Rancho Cordova. The group operates an informational web site for the public.

The city maintains a comprehensive user-friendly web site and publishes the quarterly Rancho Cordova "City Views" newsletter for residents. In addition to being posted on the City's web site, it is distributed via direct mail to every resident. The local newspaper is called "The Grapevine". The Sacramento Bee is the major newspaper serving the region and the City of Rancho Cordova. Other media includes T.V and radio stations that serve the greater Sacramento area.

### Public Outreach Element Strategy

The City contracts with Sacramento County to conduct most of the public outreach activities for Rancho Cordova residents. For details about the

County's public outreach activities, refer to Chapter 4.7. Rancho Cordova also contributes to regional public outreach (discussed in Chapter 3.7) through the permittee cost-share MOU.

In addition, the City conducts these types of public outreach activities on its own:

- Educates City Council and department managers about the stormwater program and impacts to the city, and garners support for Partnership efforts.
- Makes Partnership outreach publications such as brochures available to the general public and development project applicants at the public counter at City Hall.
- Works with community groups and neighborhood associations on various efforts.

### Intra and Interagency Coordination

The City's Engineering Dept. in Public Works is responsible for administering the stormwater program and overseeing Stormwater Permit compliance. This group coordinates with City Council, the City Manager's office and other departments as needed throughout the year to share information.

Rancho Cordova coordinates with the other cities in the County on regional public outreach issues through the Partnership. Activities such as the regional media campaign are generally discussed, and agreements made, during permittee coordination meetings.

### Accomplishments To Date

Chapters 3.7 and 4.7 describe major accomplishments related to public outreach by the Partnership and the County of Sacramento since 1990. In addition, the following describes several accomplishments made by the City since incorporation in 2003:

- The City participated in the Upper Laguna Creek Collaborative, a watershed-based planning process involving all the stakeholders in the upper watershed.
- The City launched the Strong Neighborhoods Initiative in January 2007, to foster City pride, increase property values and encourage residents to enhance their homes, streets and community. One activity conducted through this



program is the Spring Neighborhood Cleanup, where City staff and volunteers work with a neighborhood on a beautification project.

- The City continued to support small community groups which conducted cleanup activities in Rancho Cordova.

### Effectiveness Assessment

Table 4.7-1 in Chapter 4.7 presents the results of the effectiveness assessment conducted for the 2002-08 permit term by the County for the Public Outreach Element. For the most part, they showed completion of stormwater permit-required activities at outcome level 1 (documenting activities). These results were used to help identify program improvements and appropriate actions for the 2008-13 permit term.

Table 4.7-1 also proposes assessment methods that the County will use to evaluate the program during the 2008-13 permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the public and key target audiences).

### Proposed Activities for 2008-13 Permit Term

#### County Activities

See Chapters 3.7 and 4.7 for detailed information about activities that will be conducted by the Partnership and the County on the City's behalf related to public outreach. Residents, businesses and students attending Rancho Cordova schools are addressed through those efforts.

#### City Activities

In addition to supporting the regional events described in Chapter 3.7, work with the County to sponsor and staff a stormwater booth at the annual Fourth of July city celebration.

- Continue to support and participate in the Upper Laguna Creek Collaborative.
- Meet with City managers periodically throughout the year to keep them informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request or as needed. City leaders will also be invited to participate in community events (described above) to demonstrate support for the stormwater pollution prevention effort.
- Include articles regarding stormwater pollution prevention in the Rancho Cordova "City Views" newsletter.
- Create a stormwater quality page on the City's web site to better address the stormwater pollution prevention program and provide links to the Partnership web site. Tell the public how to report illegal dumping, etc. Make this page directly accessible from the main home page.
- Through the Strong Neighborhoods Initiative Program, target neighborhoods bordering creeks for the Spring Neighborhood Cleanup. Consider partnering this with Urban Creeks council's annual Creek Week creek cleanup days in April each year.

## 9.8 New Development Element

The goal of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

The City of Rancho Cordova is positioned for rapid urban development upon lands generally located south of White Rock Road and east of Sunrise Boulevard. Approved prior to incorporation of the City, the Sunrise Douglas Community Plan, currently under construction proposes up to 22,000 homes at build out is located south of Douglas Road. The Rio del Oro, Sun creek, West Borough and The Preserve project, propose an additional 43,000 homes and a variety of supporting and employment generating uses. As currently proposed, these projects would include 6,743 acres of residential uses, 920 acres of employment generating uses, 1,067 acres of public uses and 1,249 acres of habitat reserves.

The residential component of the Villages of Zinfandel project has been constructed and has also increasing the city's population. Development of the non-residential component is expected to continue for the next several years in the commercial and industrial sectors, with projects expected in the Mather Business Park, the Capital Center business park, and along major roads such as Folsom Boulevard and Sunrise Boulevard.

### New Development Element Strategy

The County provides some of the services described in this section, and the City's Planning Department (contract employees) provides planning and environmental review services.

### Intra and Interagency Coordination

The City contracts with the County for drainage and stormwater review services. The City also coordinates with the other permittees regarding the new Design Manual and implementation of standards.

### Accomplishments To Date

#### County Activities Prior to Incorporation

The area now served by the City of Rancho Cordova has been covered by the Sacramento Stormwater

Permit since the permit was first adopted in 1990. Prior to incorporation of the city in 2003, the County established and implemented stormwater controls for newly developing projects in this area.

Since the mid 1990s, the County maintained a proactive role in this regard, requiring regional water quality detention basins for new development via the master drainage planning process. Redevelopment projects and other newly developing sites where runoff did not get directed to regional basins typically required on-site stormwater quality treatment devices.

Since about 2004, the County has been executing maintenance agreements with property owners to ensure long-term maintenance of stormwater quality facilities.

On the City's behalf, the County worked with the other permittees in the Partnership to create a guidance manual for stormwater quality control measures, conduct special studies of BMP effectiveness, and other activities. These accomplishments are described in more detail in Section 4.8.

#### Accomplishments Since 2003

Upon incorporation, the City established a planning department to handle processing of development applications and environmental review. The City established a work plan agreement with the County to provide drainage and stormwater review services.

In June 2006, the City adopted its first General Plan. The Plan includes a Natural Resources Element which features various goals, policies and actions intended to protect creek and water quality resources. The General Plan is discussed in more detail in Section 9.2.

The City updated its CEQA initial study checklist and mitigation measure language to better address waters quality protection and stormwater pollution prevention. The revised checklist and mitigation language was submitted with the Annual Report.

On the City's behalf, the County worked with the other permittees in the Partnership to create the new *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, continued to conduct special studies of BMP effectiveness, and conducted other activities. These accomplishments are described in more detail in Section 4.8.

## Effectiveness Assessment

Table 4.8-1 in the County's SQIP (Chapter 4, Section 4.8) presents the results of the County's effectiveness assessment conducted for the New Development Element for the 2002-07 permit term. Activities showed completion of permit-required activities at outcome level 1 (documenting activities) and raised awareness of municipal employees through training (outcome level 2).

Table 4.8-1 also proposes assessment methods that the County will use to evaluate the program element and its activities during the 2008-13 permit term; the City will use similar methods. The goal will be to move more toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the agency staff and regulated development community).

## Proposed Activities for 2008-13 Stormwater Permit Term

Development and redevelopment within Rancho Cordova will be mitigated with a combination of strategies such as: early site planning to limit sources of pollution, requiring installation of permanent post-construction stormwater quality facilities to treat runoff before it reaches the drainage system, and ongoing outreach activities through education and training. These activities and more are described in this section.

The County provides some of the services described in this section, and the City's Planning Department (contract employees) provides planning and environmental review services.

### **Update Environmental Review Documents as Needed**

The City will periodically evaluate and revise as needed, the CEQA initial study checklist and mitigation measure language used by City planners to condition development projects. Revised checklists and mitigation language will be submitted with Annual Reports.

### **Ensure Compliance with Development Standards and the Design Manual**

Development and redevelopment projects in Rancho Cordova will be conditioned for mitigation of receiving water impacts from urban

runoff quality and quantity in the same manner as projects are conditioned in Sacramento County.

Rancho Cordova planning staff will continue to coordinate with County DWR drainage engineers to ensure that development and redevelopment proposals comply with County standards as adopted by the City of Rancho Cordova.

City staff will review initial development applications for conformance with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*. Compliance with the development standards and the design manual will be a standing discussion item on the agenda for all pre-application meetings.

City planning staff will promote the voluntary use of runoff reduction, or LID, control measures on development projects as a means of mitigating downstream habitat and erosion impacts. Such measures are expected to become mandatory for projects in certain areas when the permittees' hydromodification management approach is defined to comply with the 2008 Stormwater Permit.

The City will make sure that the same development standards applied to private development projects are adhered to for public projects.

### **Update Codes As Needed**

The City planning staff will review and update as needed, various City codes that may conflict with the development standards and Design Manual. Alternatively, changes will be proposed to the Design Manual to achieve better consistency.

### **Hydromodification Management Program**

The City will actively participate in efforts with the other permittees to develop a hydromodification management plan for the permit area, in compliance with the 2008 Stormwater Permit. Additional details about this work will be defined in a future amendment to this SQIP.

### **Waiver Program**

The City will actively participate in efforts with the other permittees to develop a waiver program for the permit area, whereby project applicants may pay into an in-lieu fund when it is determined that runoff reduction and/or stormwater quality control measures are infeasible for their site.

**Contribute to Regional Special Studies**

The City will contribute funds via the Permittee cost-share MOU to conduct special studies of selected stormwater quality control measures to verify their local pollutant removal effectiveness (see Chapter 3). Some of these studies are continued from the last permit term, for example, the study of a wet water quality detention basin. The City will also continue to contribute to the Partnership’s efforts to update the protocol for acceptance of proprietary control measures.

DRAFT

# Appendix A

## History of the Sacramento Stormwater Management Program

This appendix provides a brief history of the Sacramento Stormwater Management Program (Program). Since its beginning in 1990, the Program has evolved significantly by building on accomplishments made, utilizing experience and data gained, and responding to changing regulations and permit provisions. Early efforts focused on program development, but as priorities and activities became better defined through the years, the Program has shifted more towards implementation, while continuing to adapt and improve activities based on effectiveness evaluation.

### Sacramento Areawide NPDES Municipal Stormwater Permit

As explained briefly in Chapter 1 and in more detail in Appendix B (Regulatory Background), under the federal Clean Water Act, stormwater discharges are regulated through National Pollutant Discharge Elimination System (NPDES) stormwater permits. In California, the State Water Board and its nine Regional Water Boards oversee implementation of the Clean Water Act, and the Central Valley Regional Water Quality Control Board (referred to simply as “Regional Water Board” in this SQIP) issues and enforces NPDES stormwater permits within the Central Valley.

In 1990, under the Phase I NPDES stormwater regulations adopted by U.S. EPA, municipal stormwater permits are required for municipalities located in metropolitan areas with a population greater than 100,000. In 1990, the Regional Board issued the Sacramento area municipal stormwater permit to the County of Sacramento and Cities of Sacramento, Folsom and Galt (collectively permittees). The municipal stormwater permit requires the permittees to implement best management practices to reduce pollutants in urban stormwater discharges to the maximum extent practicable (MEP)<sup>1</sup>.

The Sacramento area municipal stormwater permit was renewed in 1996 and again in 2002. Three cities within the county (Citrus Heights, Elk Grove and Rancho Cordova) have become incorporated since the program began and were added as permittees.

### Sacramento Stormwater Management Program

The Program’s initial emphasis in the early 1990s was on securing support and stable funding from upper management and their respective jurisdictions’ governing bodies, as well as establishing a basic program structure consistent with federal stormwater regulations. Evolution of the Program has included significant refinements of program activities primarily aimed at promoting the most effective use of resources. Several key strategies listed below have guided the permittees in the selection and design of best management practices:

- Identification and focus on pollutants that pose the highest risk for water quality impacts.
- Evaluation of the Program’s effectiveness
- Leveraging of resources through coordination with other agencies and programs

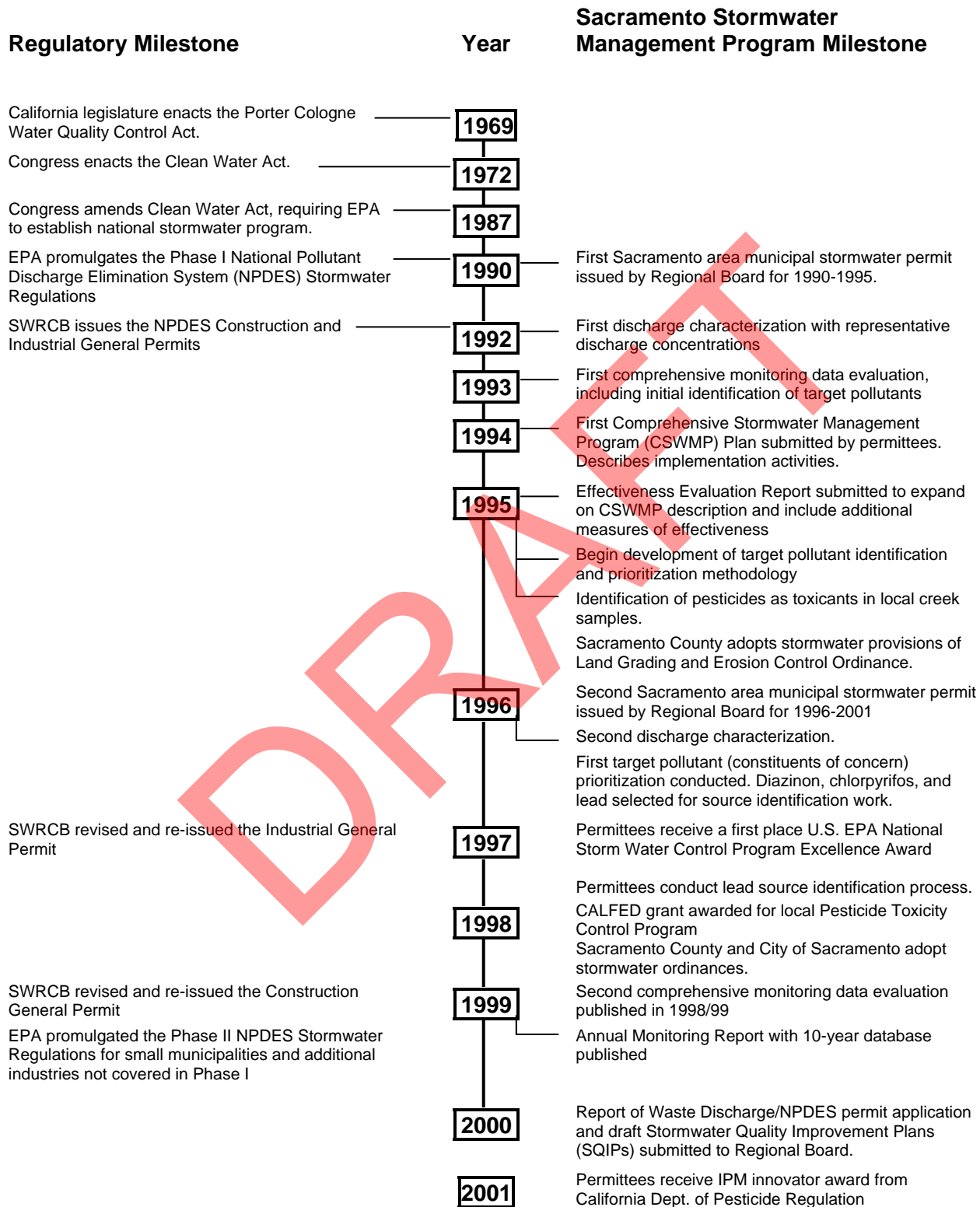
Figure A-1 shows major regulatory and Program milestones. Additional detail about the significant monitoring accomplishments since 1989 is provided on Figure A-2.

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<sup>1</sup> The term MEP is discussed in more detail in Appendix B.

Figure A-1

**Milestones of the Sacramento Stormwater Quality Partnership**



|  |             |  |
|--|-------------|--|
| SWRCB revised and re-issued the Construction General Permit  | <b>2002</b> | Third Sacramento NPDES Municipal Stormwater Permit (No. CAS082597) issued by Regional Board for 2003-2007<br>Newly incorporated Citrus Heights and Elk Grove added as permittees.<br>Second target pollutant ID and ranking conducted. |
| SWRCB issued the Phase II NPDES municipal stormwater general permit. Municipalities in Placer, Yolo and El Dorado Counties began submitting Notices of Intent to Comply and associated stormwater management plans | <b>2003</b> | SQIPs modified to address new municipal stormwater permit requirements.<br>Industrial inspection program begins.<br>Cost share MOU adopted by Permittees.  |
| Regional Board adopts TMDL for Diazinon and Chlorpyrifos in Urban Creeks   | <b>2004</b> | Modified Sacramento County/Small Cities SQIP to add information for new City of Rancho Cordova   |
|  | <b>2005</b> | City of Elk Grove modified its SQIP in response to directive from RWQCB<br>Mercury and Pesticide Plans submitted to Regional Board.  |
| Regional Board releases draft Delta mercury TMDL.  | <b>2006</b> | Pesticide Plan approved<br>Permittees adopt drainage design regulations  |
| SWRCB issued the Preliminary Draft Construction General Permit (March 2007)  | <b>2007</b> | Report of Waste Discharge/NPDES permit application and SQIPs submitted to RWQCB 180 days prior to expiration of 2002 permit (Submitted to RWQCB June 2007)<br>Drainage Design Manual finalized by Permittees                           |
| <i>See Glossary at front of SQIP for definitions of acronyms.</i>  |             |  |

## Sacramento Stormwater Monitoring Program

The Permittees have been implementing the Monitoring Program (described in Chapter 3, Section 3.4) since the 1989/90 fiscal year. Notable accomplishments over the seventeen-year history are summarized below and illustrated on the timeline in Figure A-2. Also, Appendix E includes an executive summary prepared in May 2007 of urban runoff discharge and receiving water characterization.

- Considerable environmental data have been collected to characterize water quality of urban runoff discharges, urban creeks and local rivers.
- Water quality data collected by the permittees, along with other available data, have been used to identify top priority pollutants (target pollutants) in local urban runoff discharges and receiving waters.
- Studies of selected structural best management practices (BMPs) have been conducted to provide information on performance and effectiveness of these devices for potential use in the Sacramento area.
- Water quality database tools have been developed to facilitate data access and evaluation using statistical analysis tools and water quality objective (WQO) comparison tools.
- A study was conducted to quantify the statistical power of the water quality data being collected to reliably measure changes in urban runoff water quality over time.
- During the 2002-07 stormwater permit term, the permittees added significant new activities to the monitoring program, including additional pesticide monitoring, bioassessment monitoring and several studies (toxicity modeling and chronic exposure assessments) to further understand metals and pesticide toxicity in urban tributaries.

- A methodology was developed during the 2002-07 permit term to evaluate receiving water data, notify the Regional Water Board of receiving water quality exceedances and modify program activities to address receiving water quality concerns.

Figure A-2

**Sacramento Stormwater Monitoring Program Highlights (1990-2006/07)**

|                   |         |  |
|-------------------|---------|--|
| <b>Pre-Permit</b> | 1989/90 | <ul style="list-style-type: none"> <li>• Conducted American River and urban runoff monitoring under a 205(j) grant</li> </ul>  |
| <b>Year 1</b>     | 1990/91 | <ul style="list-style-type: none"> <li>• Initiated the Sacramento Stormwater Monitoring Program under NPDES Stormwater Permit issued in June 1990</li> </ul>   |
| <b>Year 2</b>     | 1991/92 | <ul style="list-style-type: none"> <li>• Conducted the First Discharge Characterization Project study</li> <li>• Completed the Auto Dismantler Special Study</li> </ul>  |
| <b>Year 3</b>     | 1992/93 | <ul style="list-style-type: none"> <li>• Developed first target pollutant lists (formerly called “constituents of concern”)</li> </ul>   |
| <b>Year 4</b>     | 1993/94 | <ul style="list-style-type: none"> <li>• Prepared the first comprehensive Annual Monitoring Report (1992/93)</li> <li>• Augmented Regional Board 104(b) grant study to identify toxicants in urban creeks and urban runoff</li> <li>• Completed Gasoline Station BMP Special Study</li> </ul>  |
| <b>Year 5</b>     | 1994/95 | <ul style="list-style-type: none"> <li>• Supported the Coordinated Monitoring Program for continued river monitoring</li> <li>• Continued to augment the Regional Board 104(b) grant study which identified diazinon as urban creek and urban runoff toxicant</li> <li>• Investigated oil/water separators</li> </ul>  |
| <b>Year 6</b>     | 1995/96 | <ul style="list-style-type: none"> <li>• Completed toxicity identification evaluation special study on urban runoff, Arcade Creek, and Elder Creek</li> <li>• Conducted second Discharge Characterization Project study</li> <li>• Developed long-term effectiveness evaluation methodology</li> <li>• Developed procedures for target pollutant prioritization, source identification, and control measure identification.</li> <li>• Conducted inlet protection device special study for the Construction Element</li> </ul> |
| <b>Year 7</b>     | 1996/97 | <ul style="list-style-type: none"> <li>• Augmented the Sacramento River Watershed Program Pesticide Toxicity Survey on Arcade Creek</li> </ul>   |



Figure A-2 (Continued)

**Sacramento Stormwater Monitoring Program Highlights (1990-2006/07)**

|                |         |   |
|----------------|---------|---|
| <b>Year 8</b>  | 1997/98 | <ul style="list-style-type: none"> <li>• Developed stormwater quality database</li> <li>• Developed long-term discharge monitoring strategy of monitoring two years on and one year off</li> <li>• Completed copper source identification work</li> <li>• Awarded grant from CALFED for Pesticide Toxicity Control Program</li> <li>• Began monitoring for New Development Element special studies</li> </ul>   |
| <b>Year 9</b>  | 1998/99 | <ul style="list-style-type: none"> <li>• Began Pesticide Toxicity Control Program Phase 1 monitoring</li> <li>• Conducted copper/lead workshop to identify opportunities to incorporate target pollution reduction activities into program elements</li> <li>• Completed investigation of structural control measure for new development</li> </ul>   |
| <b>Year 10</b> | 1999/00 | <ul style="list-style-type: none"> <li>• Conducted a comprehensive analysis of 10-year stormwater quality database</li> <li>• Completed the Pesticide Toxicity Control Program Phase 1 monitoring</li> <li>• Prepared the Clean Water Business Partner Program Non-Structural Control Measures Report</li> </ul>  |
| <b>Year 11</b> | 2000/01 | <ul style="list-style-type: none"> <li>• Amended the target pollutant prioritization process and conducted a full target pollutant prioritization</li> <li>• Submitted the final Pesticide Toxicity Control Program report to CALFED</li> </ul>   |
| <b>Year 12</b> | 2001/02 | <ul style="list-style-type: none"> <li>• Completed the Brown Road Detention Basin Study</li> <li>• Completed the Landscape Control Measure Study</li> </ul>   |
| <b>Year 13</b> | 2002/03 | <ul style="list-style-type: none"> <li>• Transition to New permit requirements</li> <li>• Prepared for Creek, Bioassessment, Additional Pesticide &amp; Water Column Toxicity Monitoring</li> </ul>   |
| <b>Year 14</b> | 2003/04 | <ul style="list-style-type: none"> <li>• Began Water Column Toxicity Monitoring</li> <li>• Began Additional Pesticide Monitoring</li> <li>• Conducted Bioassessment Monitoring in Willow &amp; Laguna Creeks</li> <li>• Conducted rainwater monitoring</li> <li>• Conducted urban tributary monitoring</li> <li>• Coordinated urban tributary, urban runoff &amp; river monitoring</li> <li>• Submitted work plan for Wet Water Quality Detention Basin Study</li> <li>• Began Erosion Potential Study</li> </ul> |

Figure A-2 (Continued)

**Sacramento Stormwater Monitoring Program Highlights (1990-2006/07)**

**Year 15** 2004/05

- Completed Erosion Potential Study
- Began Structural BMP Effectiveness Study
- Conducted Bioassessment Monitoring in Arcade and Morrison Creeks
- Continued preparation for Wet Water Quality Detention Basin Effectiveness Study
- Continued coordinated river, urban tributary, additional pesticide, rainwater and Bioassessment monitoring
- Cooperated with UC Davis on pathogen source tracking

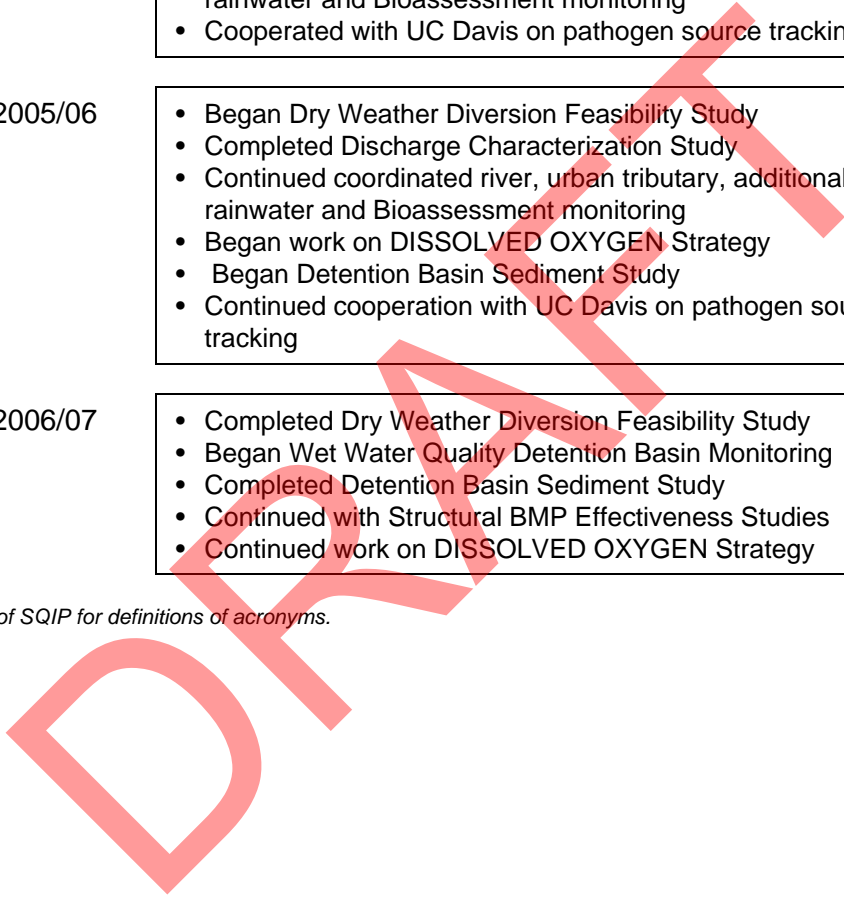
**Year 16** 2005/06

- Began Dry Weather Diversion Feasibility Study
- Completed Discharge Characterization Study
- Continued coordinated river, urban tributary, additional pesticide, rainwater and Bioassessment monitoring
- Began work on DISSOLVED OXYGEN Strategy
- Began Detention Basin Sediment Study
- Continued cooperation with UC Davis on pathogen source tracking

**Year 17** 2006/07

- Completed Dry Weather Diversion Feasibility Study
- Began Wet Water Quality Detention Basin Monitoring
- Completed Detention Basin Sediment Study
- Continued with Structural BMP Effectiveness Studies
- Continued work on DISSOLVED OXYGEN Strategy

*See Glossary at front of SQIP for definitions of acronyms.*



# Appendix B

## Regulatory Background and Requirements Relevant to the Sacramento Stormwater Management Program

### Regulations Directly Relevant to the Sacramento Stormwater Management Program

The principal regulatory vehicles for protection of water quality in California are the Federal Clean Water Act and the State of California Porter-Cologne Water Quality Control Act. Relevant sections of these two laws pertaining to the control of pollutants in stormwater discharges are discussed in the following sections. In addition, refer to Figure A-1 in Appendix A which shows regulatory milestones as related to milestones in the 17-year history of the Sacramento Stormwater Management Program.

### Federal NPDES Program

In 1972, the US Congress enacted the Clean Water Act (CWA), a landmark piece of legislation intended to restore the nation's waterways to "fishable and swimmable" conditions. The United States Environmental Protection Agency (USEPA) is the federal agency charged with implementation of the CWA. The CWA includes a "zero discharge" goal, in which discharges of pollutants to waters of the United States from any point source are effectively prohibited, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which established a framework for regulating municipal, industrial, and construction site stormwater discharges under the NPDES program. Section 402(p) also established the NPDES permit program goals for the municipal stormwater programs, which are to reduce the discharge of pollutants to the "maximum extent practicable" and to eliminate non-stormwater discharges. To meet these requirements the municipality uses "management practices, control techniques and systems, design and engineering methods and such other provisions ... appropriate for the control of such pollutants" (CWA Section 402(p)). These measures are commonly referred to as best management practices (BMPs).

On November 16, 1990 USEPA published the Phase I stormwater regulations<sup>1</sup>, which established application requirements for stormwater NPDES permits for municipal separate storm sewer systems (MS4s). The Phase I regulations required municipalities with a population greater than 100,000 and selected industries (including construction sites greater than five acres) to obtain a NPDES permit for their stormwater discharges. In 1999 USEPA promulgated the Phase II regulations<sup>2</sup>, which established permit application requirements for communities with a population between 50,000 and 100,000, and construction sites that disturb an area from one to five acres in size.

## State of California Basin Plans, NPDES Program

The Porter-Cologne Water Quality Control Act requires the development of water quality management plans for drainage basins within California (“basin plans”). The basin plans serve as the regional policy for protecting water quality within each watershed, defined as the area of land draining to a particular water body. The basin plans include identification of the beneficial uses of each receiving water, establishment of water quality objectives necessary to protect these beneficial uses, and development of an implementation plan to ensure long-term protection of the water body and its beneficial uses. In establishing water quality objectives, the regulatory agencies must consider: (1) past, present, and probable future beneficial uses, (2) environmental characteristics of the watershed, (3) water quality conditions that could reasonably be achieved, (4) economic considerations, (5) the need for developing housing in the area, and (6) the need to develop and use recycled water. The basin plans are implemented principally through waste discharge requirements specified in NPDES permits.

In California, the State Water Resources Control Board (SWRCB) administers the NPDES stormwater permitting program through the nine Regional Water Quality Control Boards (Regional Boards). The SWRCB issues statewide permits, including categorical “general permits” for construction sites and industrial facilities, while the nine Regional Boards issue individual permits to specific dischargers within their geographic areas of jurisdiction. Municipalities, including the permittees in the Sacramento Stormwater Management Program, obtain individual NPDES permits from the Regional Boards. It should be noted that even though construction sites and industries are covered under the general permits, the Phase I municipalities (including the Sacramento permittees) are also required to address construction and industrial activities in their own programs. This intentional overlap by USEPA was intended to induce more local regulation and enforcement and enable the municipalities to control construction and industrial discharges into their own storm drainage systems.

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<sup>1</sup> November 16, 1990, U.S. Environmental Protection Agency (USEPA) National Pollutant Discharge Elimination System (NPDES) Permit Application Regulations for Stormwater Discharges; Final Rule, 40 CFR Part 122.26.

<sup>2</sup> December 9, 1999. National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program – Additional Stormwater Discharges; Final Rule. 40 CFR Parts 9, 122, 123 and 124.

The NPDES permits issued by the SWRCB and Regional Boards include Waste Discharge Requirements in conformance with the state's Porter-Cologne requirements. The State waste discharge program is broader than the NPDES Program, covering nonpoint sources and groundwater in addition to point sources and surface waters. The Regional Water Quality Control Board, Central Valley Region (referred to hereafter as "the Regional Board") issues and administers the Sacramento NPDES municipal stormwater permit for the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento.

As part of Phase II, the State Water Resources Control Board adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes.

In California, stormwater NPDES Permits include standard requirements to the effect that discharges shall not cause or contribute to violations of water quality objectives nor shall they cause certain conditions to occur which create a condition of nuisance or water quality impairment in receiving waters. The SWRCB requires that these standard requirements be addressed through the implementation of control measures to reduce pollutants in storm water discharges.

## Sacramento NPDES Municipal Stormwater Permit

The original Phase I municipal permits were issued between 1991 and 1994, following development and submittal of an extensive two-part application by each permittee or group of permittees. The Sacramento NPDES stormwater permit was one of the first permits to be issued in the nation, in 1990 (Order No. 90-158). This early permit preceded promulgation of the Phase I regulations (in December 1990) and did not require the development of the formal two-part application, although similar information was generally required of the permittees during the first permit term. NPDES permits are normally renewed every five years. The second Sacramento NPDES permit was issued in 1996 (Order No 96-105), and the permittees are currently operating under the third permit, issued in December 2002 and effective in late January, 2003. The small municipalities that were individually brought into the Phase I program as permittees along with larger municipalities, such as the cities of Folsom and Galt, are considered part of the Phase I regulated community, regardless of size.

The County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento have subsequently developed their Stormwater Quality Improvement Plans in conformance with the Phase I regulations. However, for planning purposes, the permittees also reviewed and considered the Phase II regulations in developing the Stormwater Quality Improvement Plans, to account for advances in stormwater programs made in the ten years between the Phase I and Phase II regulations. A summary of the pertinent points of the Phase I and II regulations is presented in Table 1 at the end of this appendix.

## Receiving Water Quality Objectives

The Sacramento Stormwater NPDES Permit requires comparison of receiving water monitoring data to receiving water quality objectives (WQOs), and submittal of a Notice of Water Quality Exceedance (NWQE) to the Regional Board within 90 days of an exceedance of a WQO in a receiving water monitoring event. A Report of Water Quality Exceedance (RWQE) is then required on determination by either the Permittees or Regional Board that municipal stormwater discharges are causing or contributing to an exceedance of an applicable WQO in a specific receiving water. The RWQE “describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of Water Quality Standards.”

Water quality objectives (WQOs) for the Sacramento River, American River and their tributaries are considered in the evaluations. The applicable WQOs are derived from the California Toxics Rule (CTR), the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan), and objectives specified in the NPDES Permit (currently including diazinon and chlorpyrifos).

### “Maximum Extent Practicable” Standard

Section 402(p)(3)(B) of the CWA requires the Regional Boards to issue NPDES municipal stormwater permits that require dischargers to develop and implement programs with the goal of reducing the discharge of pollutants in stormwater runoff to the maximum extent practicable (MEP). Although the CWA established the permit requirement of MEP for municipal permittees, neither the CWA nor subsequent regulations provide a specific definition. It is clear, however, that MEP is a requirement to reduce the discharge of pollutants, not to prohibit such discharge. The stormwater regulations state that MEP is to be achieved through implementation of control measures that involve public outreach, illegal discharge elimination, construction site controls, new development controls, pollution prevention and good housekeeping for municipal operations, and industrial site controls. The Phase II regulations provide additional insight into MEP by linking the implementation of BMPs with the achievement of measurable goals. The SWRCB’s Senior Counsel, in a 1993 memorandum<sup>3</sup>, further made the point that achieving the MEP standard requires a meaningful, rather than a perfunctory, program. The 1993 memorandum interprets the meaning of MEP to include *technical feasibility, cost, and benefit derived with the burden being on the municipality to demonstrate compliance with MEP by showing that a BMP is not technically feasible in the locality or that BMP costs would exceed any benefit to be derived*. The SWRCB further discusses the term in two Water Quality Orders: WQ 1000-11 and 91-03.

The Sacramento Stormwater Management Program defines MEP in a functional way, as an iterative process of (1) developing a sound and thorough program of BMPs commensurate with available resources, (2) implementing the program, and (3) evaluating and refining the program over time. These steps are briefly described below:

<sup>3</sup> Elizabeth Miller Jennings, “Definition of Maximum Extent Practicable”, State Water Resources Control Board Memorandum, February 11, 1993.

- **Development** of the program relies on stormwater program guidance from USEPA, applicable regulations, best professional judgment, information gained from implementation and evaluation of the program, information learned from other municipal stormwater programs, evolving local conditions, communication with regulators, and public input. This is consistent with the SWRCB’s expressed opinion that compliance with MEP requires a meaningful program.
- **Implementation** activities, including BMPs, are the foundation of the program. Considerations in selecting appropriate BMPs include technical feasibility, pollutant removal effectiveness, legal authority, compatibility with other agency programs and goals, economic factors (including the ability to capitalize on existing opportunities and cost effectiveness), public acceptance, and whether the BMP focuses on Sacramento’s target pollutants.
- The **evaluation** process for the program addresses both the overall program and its individual program elements through assessment of effectiveness measures and performance measures. Effectiveness measures are those intended to directly measure the effect that certain activities are having on making a difference in water quality, the public’s behavior, etc. Performance measures are intended to measure the level of effort that the permittees are expending to satisfy the NPDES permit requirements in reducing stormwater pollution. See Chapter 3 of the County’s Stormwater Quality Improvement Plan for more information.

The effectiveness of the iterative program outlined above is enhanced by the Stormwater Sacramento Permittees’ Target Pollutant process, in which “target pollutants” are identified in urban runoff discharges and priority-ranked according to a comprehensive set of criteria. Source investigations are then conducted for high-ranking target pollutants, and control measures are identified for the reduction of significant sources of the high-priority pollutants.

Finding 38 of the current Sacramento NPDES Stormwater Permit No. CAS082597 states:

*It is not feasible at this time to establish numeric effluent limits for pollutants in storm water discharges from MS4s. Therefore, the effluent limitations in this Order are narrative, and include the requirement to reduce pollutants in storm water discharges to the MEP. Implementation of BMPs and compliance with performance standards in accordance with the Permittees’ SQIPs and their schedules constitutes compliance with the MEP standard.*

### ***Consequences of Noncompliance***

The NPDES Permit is federally enforceable, which means that if a permittee does not comply with the terms of the permit, it may be subject to enforcement actions and penalties by the Regional Board. Penalties for noncompliance with the CWA can be up to \$25,000 per incident per day. Moreover, federal enforceability includes the right of interested parties to sue under the CWA Section 405 citizen suit provision. Environmental advocacy groups have brought numerous lawsuits against NPDES permittees, various state regulatory agencies, and the EPA since the early 1990’s.

## Statewide/General Permits

Within the NPDES program, the State of California has adopted several statewide general permits, covering stormwater discharges from specific types of activities. Those wishing to engage in the specified activities must conform to the requirements of the relevant general permit. The general permits are administered and enforced by the State, even when the activities take place in a municipality covered by an individual MS4 NPDES permit. The general permits are therefore generally of benefit to the permitted MS4s, as they provide an additional level of regulatory oversight and responsibility for the covered categories of discharges. The most pertinent statewide/general permits are discussed below.

### *Construction General Permit*

Construction projects that disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity ([Construction General Permit](#), SWRCB Order #99-08-DWQ). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit was reissued by the SWRCB on August 19, 1999. A preliminary draft of the revised General Permit was issued on March 2, 2007.

To obtain coverage under this General Permit, applicants must electronically submit the Permit Registration Documents (PRDs), which include a Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and SWPPP Compliance Checklist, and mail the appropriate permit fee to the State Water Board. A Notice of Termination is filed by the applicant upon project completion.

The SWPPP must contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the applicant will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The March 2007 draft General Permit differs from Order 99-08-DWQ in the following significant ways, according to the SWRCB:

- **Minimum Requirements Specified:** specifies more minimum BMPs and requirements that were previously only required as elements of the SWPPP or were suggested by guidance.
- **Risk-based Permitting Approach:** includes a three-tiered system for discharges based on the relative risk the project poses in causing water quality impacts. The site- and project-specific factors used in this determination include the "R" factor, proximity to receiving waters, acreage of site to be graded, dominant soil type, design of sedimentation basins, and slope-length of disturbed area.



- **Project Site Soil Characteristics Monitoring and Reporting:** requires all projects to monitor and report the soil characteristics at the project location. This primary purpose of this requirement is to provide better risk determination and eventually better program evaluation.
- **Technology-based Numeric Action Levels (ALs):** includes ALs for pH, turbidity, and Total Petroleum Hydrocarbons (TPH).
- **Technology-based Numeric Effluent Limitations (NELs):** includes a time schedule (18 months) to implement NELs for pH in all discharges of storm water from construction activities.
- **Action Level Exceedance Evaluation Report (ALEER):** requires any discharger who exceeds two consecutive ALs for a single parameter at a single effluent sampling location to electronically submit to the State Water Board (and make publicly available) a report of the exceedance and their response.
- **Effluent Monitoring and Reporting:** requires effluent monitoring and reporting for pH, turbidity and TPH in storm water discharges to compare against the NEL for pH and ALs for the other parameters, and provide needed information to use in overall program evaluation.
- **Receiving Water Monitoring and Reporting:** requires medium risk dischargers to monitor receiving waters when there are two exceedances of ALs or two exceedances of the NEL for pH. High risk dischargers are required to monitor receiving waters when there are two Exceedance of ALs or one Exceedance of the NEL for pH. The primary purpose is to provide needed information to use in overall program evaluation.
- **Active Treatment System (ATS) or Specific Source Control:** if the soils to be exposed on a site contain more than 10% (by weight) particle sizes smaller than 0.02 mm (medium silt), the discharger must either deploy an ATS or implement specific source control requirements to prevent the mobilization of small sediment particles that are difficult to treat using conventional BMPs.
- **New and Re-Development Performance Standards for Hydromodification Impacts:** requires all sites to meet performance standards designed to avoid, minimize and/or mitigate the hydromodification impacts.
- **Rain Event Action Plan (REAP):** requires development and implementation of a REAP designed to protect all exposed portions of the site within 48 hours prior to any likely precipitation event.
- **Site Photographic Self Monitoring and Reporting:** requires all medium and high risk projects to self-report photographs of their sites at least once quarterly if there are rain events that cause a discharge.

- **Annual Reporting:** requires all projects that are enrolled for more than one quarter to submit information and annually certify that their site is in compliance with these requirements. Most of the information required to be reported is required to be submitted throughout the year (usually within some specified time after a triggering event occurs).
- **Certification/Training Requirements for Key Project Personnel:** requires that key personnel (e.g., SWPPP preparers, inspectors, etc.) have specific training or certifications to ensure their level of knowledge and skills are adequate to ensure compliance.

From the standpoint of the municipal stormwater program, the net effect of this General Permit is to assist MS4s in the implementation of the construction element of the stormwater management program, by providing an independent means of ensuring compliance with stormwater regulations at construction sites.

### *Industrial General Permit*

The Industrial Storm Water General Permit ([Industrial General Permit](#), SWRCB Order #97-03-DWQ) regulates discharges associated with 10 broad categories of industrial activities. Facilities that discharge storm water associated with industrial activity requiring a General Permit are listed by category in 40 CFR Section 122.26(b)(14). For the most part, these facilities are identified in the federal regulations by a Standard Industrial Classification (SIC). This permit was adopted in 1999; a draft revised permit was published in 2005 but not adopted.

To obtain coverage for storm water discharges and authorized non-storm water discharges pursuant to this General Permit, facility operators must submit a Notice of Intent (NOI) and annual fee to the SWRCB. This General Permit requires facility operators to:

- Eliminate unauthorized non-storm water discharges;
- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP); and
- Perform monitoring of storm water discharges and authorized non-storm water discharges.

The Industrial General Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). Through the SWPPP, sources of pollutants are identified and the means to manage the sources to reduce storm water pollution (i.e., BMPs) are described.

This General Permit does not preempt or supersede the authority of local agencies (e.g., municipal NPDES Permit-holders) to prohibit, restrict, or control storm water discharges and authorized non-storm water discharges to storm drain systems or other water-courses within their jurisdictions as allowed by State and Federal law. The net effect of this General Permit for local agencies is to assist MS4s in the implementation of the municipal stormwater program, by providing an independent means of ensuring compliance with stormwater regulations at industrial facilities.

## *Caltrans Statewide Stormwater Permit*

Discharges of runoff from Caltrans facilities are regulated under a statewide NPDES permit issued to Caltrans in 1999 (Order # 99 - 06 – DWQ). This permit is currently under revision for renewal by the SWRCB.

Caltrans discharges consist of stormwater and non-storm runoff generated from (a) maintenance and operation of State-owned highways, freeways, and roads; (b) maintenance facilities; (c) other properties, facilities, activities, and construction projects; (d) permanent discharges from subsurface dewatering, and (e) temporary construction related dewatering activities which discharge directly to surface waters or through municipal storm water conveyance systems to surface water bodies in the State. Some stormwater discharges from Caltrans-owned rights-of-way, properties, facilities, and activities discharge to stormwater conveyances managed by NPDES-permitted municipalities. On the other hand, some stormwater discharges from these municipalities discharge to storm water conveyances managed by Caltrans.

The Regional Boards have issued stormwater NPDES Permits for the discharge of stormwater from MS4s to municipalities in California that require such permits. Caltrans operates highways and highway-related properties, activities, and facilities that cross through all of these permitted areas. This statewide Caltrans permit covers all municipal stormwater activities by Caltrans in California, both in areas that require an MS4 permit and areas that do not currently require a permit, and all Caltrans construction activities that require a permit under the federal stormwater regulations.

This NPDES Permit does not preempt or supersede the authority of local municipal agencies to prohibit, restrict, or control storm water discharges and authorized non-storm water discharges to storm drain systems or other watercourses within their jurisdictions as allowed by State and federal law. However, the principal responsibility for management of stormwater discharges from state transportation facilities in the Sacramento urban area rests with Caltrans.

## *Aquatic Pesticides*

In response to court cases and guidance, in 2004 the SWRCB adopted two general permits for discharges of aquatic pesticides into waters of the United States. One permit regulates the use of aquatic weed killers (WQO 2004-0009-DWQ for aquatic weed control) and the other regulates aquatic pesticides used to control mosquitoes and other vectors (WQO 2004-0008-DWQ for vector control). In adopting these permits, the SWRCB found that Ninth Circuit decisions (beginning in 2001 with the “Headwaters” decision) appeared to require these permits and that relevant USEPA guidance documents might not be a legal basis for a lack of coverage under an NPDES permit. According to the Ninth Circuit Court, the application of pesticides into waters of the United States, or onto aquatic plants growing in waters of the United States, results in discharges of pollutants and requires coverage under a National Pollutant Discharge Elimination System (NPDES) permit.

On November 20, 2006, USEPA issued its [final rule](#) on aquatic pesticides (40 C.F.R. § 122.3(h)(1)). This rule eliminates the need for a NPDES permit for the application of pesticides to waters, if the application is made in accordance with Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) labels. USEPA’s regulation took effect on January 26, 2007.

The two California General Permits specifically apply to uses of aquatic pesticides for which the new regulations provide that a permit is not required. [The State has not adopted any permits for the situation described in paragraph (h)(2) of the USEPA regulation, re: application above waters of the United States.] However, in light of legal challenges to the new regulation, the SWRCB did not rescind the two general permits at this time, but clarified that persons whose discharges are exempt pursuant to the new regulation may file a Notice of Termination. This immediately allows dischargers to terminate coverage under the General Permits. In the event a court decision invalidates USEPA's new regulation, persons who submitted notices of termination could reenroll under the existing permits. If the regulation is upheld by the courts, the State Water Board may subsequently rescind the permits or allow them to expire.

The State Water Board submitted comments to USEPA that expressed concerns about impacts of the new rule on other programs that regulate pesticide residues, including storm water permits and TMDLs. For the Sacramento MS4 permittees, NPDES Permit provisions relating to control of pesticide discharges will remain the principal regulatory focus for such pollutants.

### *Low Threat Discharges*

Low threat discharges are those with low potential for causing or contributing to a water quality impairment. For such discharges general permits have been issued by Regional Boards on a regional basis, rather than on a statewide basis by the SWRCB. For the Central Valley Region, the relevant order is Regional Board Order No. 5-00-175, *General Order for Dewatering and Other Low Threat Discharges to Surface Waters*.

This NPDES Permit covers discharges to waters of the United States of clean or relatively pollutant-free wastewater that pose little or no threat to water quality, provided they do not contain significant quantities of pollutants and they are either (1) four months or less in duration, or (2) the average dry weather discharge does not exceed 0.25 mgd. The following categories are covered by this order: well development water, construction dewatering; pump/well testing; pipeline/tank pressure testing; pipeline/tank flushing or dewatering; condensate discharges; water supply system discharges; miscellaneous dewatering/low threat discharges. Adoption of this general permit significantly reduces the regulatory time spent on dewatering and other low water quality threat projects which are currently regulated under individual NPDES Permits.

Applicants must file a separate NOI and filing fee with the Regional Board for each system owner or project to be eligible for coverage under this Order.

This Order does not preempt or supersede the authority of State or local agencies to prohibit, restrict, or control the discharge of wastewater subject to their control. The net effect for local stormwater agencies should be to reduce the level of effort required to address the covered discharges within the municipal stormwater NPDES Permit.

## Other Regulations That May Affect the Sacramento Stormwater Management Program

### CWA Section 303(d) - Total Maximum Daily Loads

Section 303(d) of the CWA requires the states to identify waters that are not attaining water quality standards. The identified water bodies comprise the state's "303(d) list", also referred to as the "impaired waters" list. The CWA requires the states to establish priority rankings for listed water bodies and to establish the total maximum daily load (TMDL) for pollutants impairing those waters. According to USEPA, a TMDL is a numerical calculation of the amount of a pollutant – or load – that a water body can assimilate and still meet standards. A TMDL includes one or more numerical targets calculated to represent attainment of the applicable standards, considering seasonal variations and a margin of safety, and allocation of the target or load among the various sources of the pollutant. The states must incorporate TMDLs and load reduction requirements into the basin plans.

USEPA Region IX (which includes Sacramento) developed guidance for California on minimum requirements to meet TMDL regulations, the application of water quality standards, and how NPDES permits are to be written for discharges to listed waterbodies.

The State of California subsequently adopted two policies related to the TMDL process:

- ***The Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List*** (SWRCB Resolution 2004-0063, September 2004). The "Listing Policy" describes the process by which the State Water Resources Control Board and Regional Water Quality Control Boards will comply with the listing requirements of section 303(d) of the federal Clean Water Act (CWA). The Policy establishes a standardized approach for developing California's section 303(d) list.
- ***The Water Quality Control Policy for Addressing Impaired Waters*** (SWRCB Resolution 2005-0050, June 2005). The "TMDL Policy" is intended to ensure that the impaired waters of the state are addressed in a timely and meaningful fashion. The majority of TMDLs are established through an implementation plan adopted as a Basin Plan amendment (BPA), but the TMDL Policy allows a TMDL to be established through alternative regulatory actions. For the Amendment to become final, it must be approved by the State Water Resources Control Board, the California Office of Administrative Law, and USEPA.

NPDES permit holders that discharge into 303(d) listed water bodies are affected by TMDLs developed for those water bodies, as the state develops load allocations to support each TMDL. Listed water bodies on the 2002 303(d) list<sup>4</sup> into which Sacramento urban runoff ultimately flows include: Arcade Creek, Chicken Ranch Slough, Strong Ranch Slough, Elder Creek, Elk Grove Creek, Morrison Creek, the Natomas East Main Drain, the lower American River, the Sacramento River from Red Bluff to the Delta, and Delta waterways. The Sacramento Stormwater Management Program addresses pollutants for pertinent listed water bodies through its target pollutant reduction activities and monitoring program (see Chapter 3 of this Stormwater Quality Improvement Plan).

The following TMDLs are currently in effect or proceeding through the TMDL/BPA adoption and approval process.

#### ***Sacramento/Feather River Diazinon TMDL/BPA***

This TMDL and Basin Plan Amendment were adopted in 2003 “For the Control of Orchard Pesticide Runoff and Diazinon Runoff into the Sacramento and Feather Rivers.” Sacramento municipal runoff received a load allocation. Diazinon water quality objectives were set at 80 ng/L (acute) and 50 ng/L (chronic). The TMDL stipulated review of the diazinon objectives and loadings by June 30, 2007. In 2007 the Regional Board renamed the amendment to “Basin Plan Amendment for the Control of Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers ” and revised the TMDL. Water quality objectives and TMDL targets/loadings were added for chlorpyrifos, and the diazinon water quality objectives were revised to match the updated Department of Fish and Game (DF&G) recommended criteria of 160 ng/L (acute exposure) and 100 ng/L (chronic exposure) for protection of aquatic life.

#### ***Sacramento Urban Creeks TMDL – Diazinon/Chlorpyrifos***

This TMDL was implemented in 2004 without a Basin Plan amendment, via provisions in the Sacramento Stormwater NPDES Permit. The TMDL contains the former DF&G criteria as objectives for diazinon and chlorpyrifos. The TMDL targets and load allocations are concentration based, and account for the additive effects of diazinon and chlorpyrifos. The requirements of the TMDL are addressed by the NPDES Permit requirement for development of a pesticide control plan. The TMDL is due to be reviewed for possible revision in 2007, in conjunction with the revision of the Sacramento Stormwater NPDES Permit.

#### ***Sacramento/San Joaquin Delta TMDL/BPA for Diazinon and Chlorpyrifos***

The “Basin Plan Amendment for the Control of Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta” established water quality objectives for diazinon and chlorpyrifos in Delta waterways. The BPA was adopted by the Regional Board in June, 2006. The adopted diazinon objectives/TMDL targets are equal to the revised CA DF&G objectives (160 ng/L acute and 100 ng/L chronic).

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<sup>4</sup> The SWRCB adopted the 2002 Clean Water Act section 303(d) list of water quality limited segments at a February 4, 2003 Board Meeting.

### ***Central Valley Pesticides TMDL/BPA***

This ongoing TMDL project covers most of the Central Valley Regional Water Quality Control Board jurisdiction, i.e. the Sacramento and San Joaquin River watersheds, and is much broader in technical scope than any of the other previous or ongoing TMDLs. The project includes:

- all natural streams below major reservoirs that could receive agricultural or urban runoff (not constructed drains unless listed in Basin Plan)
- comprehensive coverage of current-use pesticides (not just diazinon and chlorpyrifos); excludes legacy pesticides (such as DDT)
- preparation of a Risk Assessment for pesticides in Sacramento Valley
- evaluation and development of Water Quality Criteria for selected pesticides
- evaluation and development of Sediment Quality Criteria for selected pesticides (likely including pyrethroids)
- a perfunctory Aquatic Life Beneficial Use Assessment for selected streams
- monitoring for pesticides identified in the Risk Assessment

### ***Delta Mercury/Methylmercury TMDL/BPA***

The TMDL and Basin Plan Amendment “For the Control of Methylmercury in the Sacramento-San Joaquin Delta Estuary” is currently in development. This TMDL will be precedent-setting, as the Regional Board intends to work upstream from the Delta in developing mercury TMDLs for the American, Sacramento and Feather Rivers, building on the precedents/loadings set in the Delta TMDL. Proposed Delta water quality objectives include three fish tissue objectives for mercury, covering different size classes/trophic levels of fish, to protect both human health and wildlife re: consumption of fish. Allocations for known mercury sources are proposed to limit fish mercury exposure and assimilation. The draft TMDL/BPA includes wasteload allocations for urban runoff equal to the annual average mercury load calculated for 2002-2011, to become effective in 2014.

Related mercury policies under development:

- *Proposed CTR Objective for Methylmercury* The SWRCB has begun the process to develop “Proposed Methylmercury Objectives for Inland Surface Waters, Enclosed Bays, and Estuaries in California” (December 2006). The elements of the proposed policy may include methylmercury fish tissue objectives, total mercury water quality objectives, methylmercury water quality objectives, or some combination.

- *Proposed Mercury Offset Policy for SF Bay and Delta* The SWRCB’s “Proposed State Policy for Water Quality Control, San Francisco Bay, Sacramento-San Joaquin River Delta and Tributaries Mercury Discharge Offset Policy” (January 2007) would allow mercury dischargers (especially those subject to NPDES permits) to offset some mercury TMDL loading allocations by taking other actions, such as removing mercury from Delta sediments. This policy would presumably be a highly desirable component of mercury control efforts for NPDES dischargers, including urban runoff discharge agencies.

## Central Valley Drinking Water Policy

To address drinking water treatment challenges and potential public health concerns in the crucial Sacramento/San Joaquin River Delta region, a multi-year effort is currently underway to develop a drinking water policy for surface waters in the Central Valley. The goal is to develop a policy that provides clear guidance to ensure consistent source water protection. This policy may include provisions that affect municipal stormwater dischargers upstream of the Delta.

## Wetlands and Riparian Area Protection Policy

A statewide Wetland and Riparian Area Protection Policy (WRAPP) is under development by the SWRCB to provide additional protection for wetlands and riparian areas, which are considered to be critical to the protection and enhancement of water quality throughout California’s diverse watersheds. Additional regulatory attention to these areas is affirmed by statewide policies such as the Wetlands Conservation Policy (Executive Order W-59-93), also known as the state’s “No Net Loss” Policy for Wetlands; and the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (State Water Board Resolution No. 2004-0030).

Special protections are considered warranted for wetlands, riparian areas, and headwaters because these areas have high resource value, are vulnerable to filling, and are not systematically protected by other programs. Insufficient protections for wetlands and riparian areas in the past led to significant historic losses of these resources in California. As a result, the remaining wetlands and riparian areas in the state are considered to be extremely valuable resources. The WRAPP policy will encourage basin-level analysis and protection, because some functions of wetlands, riparian areas, and headwater streams - including pollutant removal, flood water retention, and habitat connectivity - are manifest at the watershed level.

This new policy is primarily intended to address the following three areas:

- Provide clarity in the existing regulatory framework for protecting those wetlands and riparian areas that are no longer regulated under the CWA, due to recent federal court cases that have limited federal jurisdiction and increased the relative role and importance of the State’s water quality programs and authorities.
- Provide statewide consistency in the definition of wetlands and riparian areas, to ensure protection of beneficial uses under the California Water Code.



- Provide statewide consistency in definitions of beneficial uses for wetland and riparian area functions (e.g., pollutant removal, floodwater retention, and habitat connectivity) and lack of consistent statewide requirements for evaluating the condition of wetland and riparian area resources. Condition assessments are necessary for determining potential impacts from discharges and other activities on wetland and riparian area water quality and associated beneficial uses; and for determining the actions that are necessary to avoid, minimize, and mitigate any potential impacts to protect wetland and riparian resources.

Upon adoption, this Policy may expand the areas covered as regulated receiving waters of the State beyond those covered by the federal definition.

## Low Impact Development/Sustainability

On January 20, 2005, the SWRCB adopted sustainability as a core value for all California Water Boards' activities and programs, and directed California Water Boards' staff to consider sustainability in all future policies, guidelines, and regulatory actions.

An emerging tool of sustainability that is directly applicable to urban stormwater management is Low Impact Development (LID), which uses site design and storm water management practices to maintain, as nearly as possible, a site's pre-development runoff rates and volumes. Design techniques are employed to infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall. The Water Boards are encouraging the use of LID in California in various ways:

- Regulation through site-specific and general permits;
- Providing advocacy and outreach to local governments through the Water Board's Training Academy and regional workshops;
- Researching how to incorporate LID language in to Standard Urban Storm Water Mitigation Plan (SUSMP) requirements;
- Funding LID-related projects through the consolidated grants program; and
- Funding through CWA 319 funds to provide for researching the applicability of the Impervious Surface Analysis Tool (ISAT) for land use planners.
- Participation in the California Water and Land Use Partnership (CaWaLUP) Center at U.C. Davis, a collaborative effort made up of representative staff from government agencies, non-profit organizations, and academia, which aims to improve consideration of the water resource implications of land use in California's local government decisions.

LID design tools present promise for assisting local stormwater agencies in meeting SUSMP requirements and reducing potential discharges of pollutants from areas of new and re-development.

**Table 1. Summary of the Phase I and Phase II Stormwater Regulations**

| <b>Phase I</b>  | <b>Phase II</b>   |
|---|---|
| <i>Promulgated in 1990</i>  | <i>Promulgated in 1999</i>  |
| <ul style="list-style-type: none"> <li>• Regulated community: municipal separate storm sewer systems serving populations of 100,000 or more, construction sites over 5 acres, and specified industrial activities</li> </ul>  | <ul style="list-style-type: none"> <li>• Regulated community: municipal urban systems under 100,000 and construction sites of 1 acre or more</li> <li>• Also provides for a “no exposure” exemption for any Phase I industrial facility.</li> </ul> |
| Goals: eliminate illegal discharges and reduce discharges of stormwater pollutants to the MEP   | Goals: reduce the discharge of stormwater pollutants to the MEP and protect water quality   |
| <p>Application Process:</p> <ul style="list-style-type: none"> <li>• Two-part permit application</li> <li>• Individual municipal permits, which incorporate, by reference, the permittees’ management program.</li> <li>• General Permits are issued by the SWRCB to cover construction and industrial activities.</li> </ul> | <p>Application Process:</p> <ul style="list-style-type: none"> <li>• General Permit (SWRCB, 2003)</li> <li>• Application includes NOI, SWMP, and fee.</li> </ul>  |

DRAFT

|   |  |
|---|--|
| <p>The proposed management program must address the following elements:</p> <ul style="list-style-type: none"> <li>• Commercial and residential area source control (includes municipal operations, new development, and pesticides control)</li> <li>• Illicit discharges and improper disposal (includes illicit connections, illegal dumping, and public education)</li> <li>• Industrial facilities</li> <li>• Construction sites</li> </ul> <p>The application must also specify proposed:</p> <ul style="list-style-type: none"> <li>• Monitoring</li> <li>• Assessment and reporting activities</li> </ul> <p>The two-part permit application also requires:</p> <ul style="list-style-type: none"> <li>• Statement of legal authority</li> <li>• Discharge characterization</li> <li>• Map of the system</li> <li>• Identification of industries</li> <li>• Field screening for illegal discharges</li> <li>• Identification of outfalls</li> </ul> | <p>Minimum control measures to be included in SWMP:</p> <ul style="list-style-type: none"> <li>• Public education</li> <li>• Public participation</li> <li>• Illicit discharge detection and elimination</li> <li>• Construction site stormwater runoff control</li> <li>• Post-construction stormwater management</li> <li>• Pollution prevention and good housekeeping for municipal operations</li> </ul> <p>BMPs and measurable goals must be specified in SWMP for each control measure.</p> <p>Must include assessment of effectiveness of SWMP and revision as necessary.</p> |
|---|--|

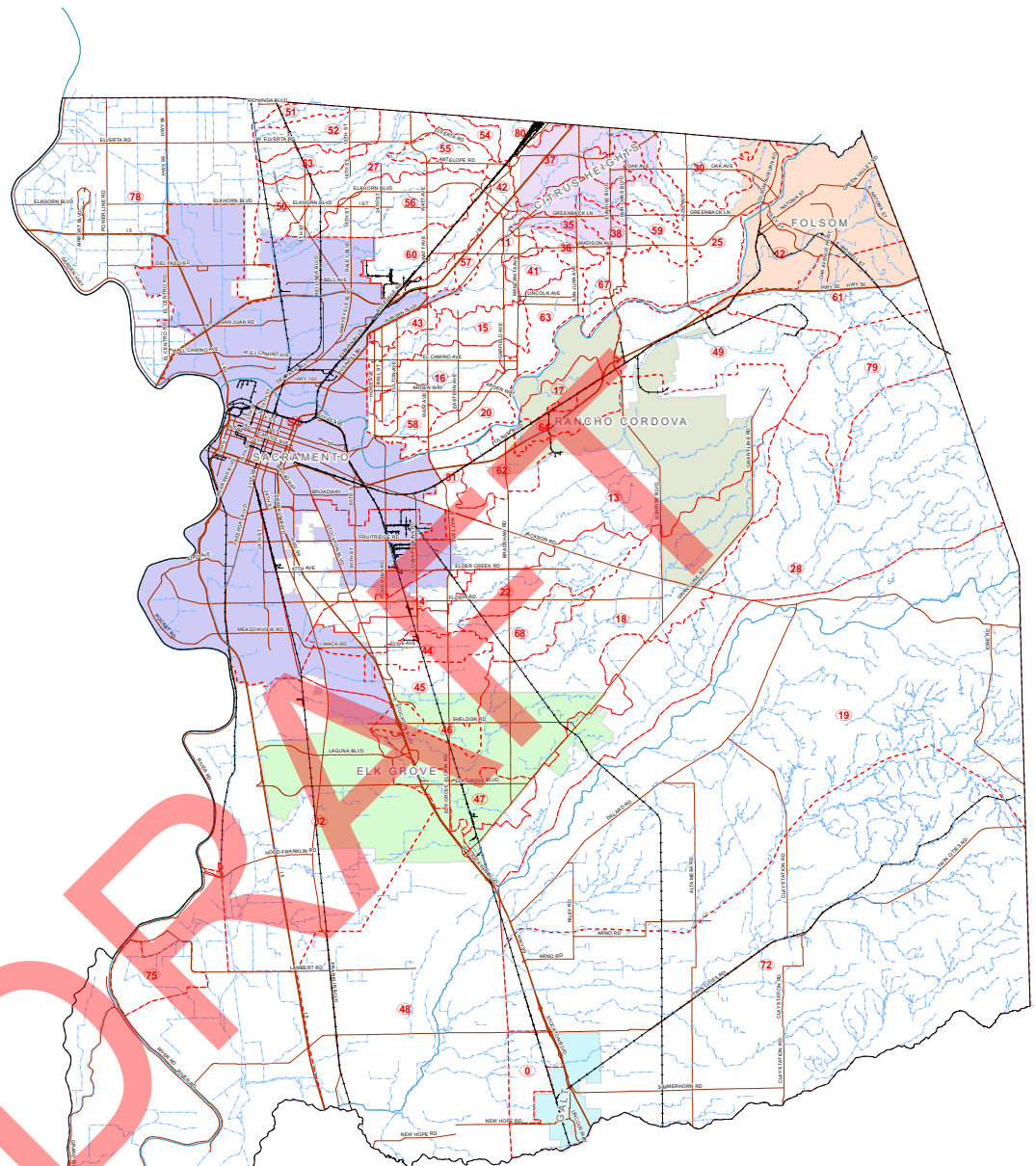
# Appendix C

## Sacramento County Watersheds

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# SACRAMENTO COUNTY WATERSHEDS

- WATER SHEDS**
- 0 GALT
  - 11 ARCADE CREEK
  - 12 WILLOW CREEK
  - 13 MORRISON CREEK
  - 14 FLORIN CREEK
  - 15 CHICKEN RANCH SLOUGH
  - 16 STRONG RANCH SLOUGH
  - 17 CORDOVA/COLOMA STREAM
  - 18 LAGUNA CREEK
  - 19 COSUMNES RIVER
  - 20 HAGGINBOTTOM
  - 22 ELDER CREEK
  - 25 FAIR OAKS STREAM GROUP
  - 27 DRY CREEK
  - 28 DEER CREEK
  - 30 LINDA CREEK
  - 32 BEACH-STONE LAKE
  - 34 NEGRO SLOUGH
  - 35 BROOKTREE CREEK
  - 36 COYLE CREEK
  - 37 CRIPPLE CREEK
  - 38 SAN JUAN CREEK
  - 39 MARIPOSA CREEK
  - 40 SUNRISE CREEK
  - 41 VERDE CRUZ CREEK
  - 42 DIABLO CREEK
  - 43 HAGGINWOOD CREEK
  - 44 UNIONHOUSE CREEK
  - 45 STRAWBERRY CREEK
  - 46 WHITEHOUSE CREEK
  - 47 ELK GROVE CREEK
  - 48 HEN CREEK
  - 49 BUFFALO CREEK
  - 50 EAST NATOMAS
  - 51 NEMDC TRIB 1
  - 52 NEMDC TRIB 2
  - 53 NEMDC TRIB 3
  - 54 ANTELOPE CREEK
  - 55 SIERRA CREEK
  - 56 ROBLA CREEK
  - 57 DATE CREEK
  - 58 SIERRA BRANCH
  - 59 ARCADE CREEK SOUTH BRANCH
  - 60 MAGPIE CREEK
  - 61 ALDER CREEK
  - 62 MAYHEW SLOUGH
  - 63 CARMICHAEL CREEK
  - 64 BOYD CREEK
  - 67 MINNESOTA CREEK
  - 68 GERBER CREEK
  - 71 WALNUT GROVE
  - 72 DEADMAN'S GULCH
  - 75 COURTLAND
  - 76 HOOD
  - 78 NATOMAS BASIN
  - 79 COYOTE CREEK
  - 80 EAST ANTELOPE
  - 81 MANLOVE



# Appendix D

## Permittee Memorandum of Understanding

Included in this appendix is the final executed memorandum of understanding (MOU) between the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt and Sacramento. It defines roles and responsibilities and cost-share arrangements for achieving compliance with Sacramento NPDES Municipal Stormwater Permit No. CAS082597 (Stormwater Permit), adopted by the Central Valley Regional Water Quality Control Board (Regional Board) in December 2002. The term of the Stormwater Permit is five years (January 2003 – December 2007).

A draft of this MOU was submitted to the Regional Board on April 1, 2003 in compliance with Stormwater Permit Provision 7e.

As necessary, amendments will be made to the MOU, with copies of amendments provided in the Annual Reports (October 1 each year).

DRAFT

The foregoing is a correct copy of a resolution adopted by the Board of Supervisors, Sacramento County, California

on 4-22-2003

Dated 4-23-2003

Clerk of said Board of Supervisors

By Kay F. Johnson  
Deputy

RESOLUTION NO. 2003-0396

BE IT RESOLVED AND ORDERED that the Chair of the Board of Supervisors be and is hereby authorized and directed to execute the "Memorandum of Understanding Regarding Administrative Responsibilities and Apportionment of Costs Under NPDES Permit No. CAS0082597", in the form hereto attached, on behalf of the COUNTY OF SACRAMENTO, a political subdivision of the State of California, with the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Sacramento, and to do and perform everything necessary to carry out the purpose of this Resolution.

On a motion by Supervisor Johnson, seconded by Supervisor Dickinson, the foregoing Resolution was passed and adopted by the Board of Supervisors of the County of Sacramento this 22nd day of April, 2003, by the following vote, to wit:

- AYES: Supervisors, Dickinson, Johnson, Niello, Nottoli, Collin
- NOES: Supervisors, None
- ABSENT: Supervisors, None
- ABSTAIN: Supervisors, None

In accordance with Section 25103 of the Government Code of the State of California a copy of the document has been delivered to the Chairman of the Board of Supervisors, County of Sacramento on **APR 22 2003**

By Kay F. Johnson  
Deputy Clerk, Board of Supervisors



Gene Collins

Chair of the Board of Supervisors of Sacramento County, California

**FILED**

APR 22 2003

ATTEST: Cindy A. Turner  
Clerk of the Board of Supervisors

BOARD OF SUPERVISORS  
Cindy A. Turner  
CLERK OF THE BOARD

RESOLUTION NO. 2003-30

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS,  
CALIFORNIA, APPROVING A MEMORANDUM OF UNDERSTANDING REGARDING  
ADMINISTRATIVE RESPONSIBILITIES AND APPORTIONMENT OF COSTS UNDER  
NPDES PERMIT NO. CAS0082597

WHEREAS, Congress in 1987 amended Section 402 of the Federal Clean Water Act (33 U.S.C.A. Section 1342 (p)) to require the U.S. Environmental Protection Agency ("EPA") to promulgate regulations ("regulations") for permits for stormwater discharges; and

WHEREAS, the regulations are designed to control pollutants associated with stormwater discharges through the use of the National Pollutant Discharge Elimination System ("NPDES") permit system which allows the lawful discharge of stormwater into the waters of the United States; and

WHEREAS, the regulations are designed to require NPDES permits for discharges from municipal storm sewers on a system-wide or jurisdiction-wide basis; and

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region ("Regional Board") has been charged by the State of California, as delegated by the EPA, with the responsibility to issue NPDES permits within the Central Valley Region; and

WHEREAS, the Regional Board has adopted a NPDES stormwater permit (NPDES No. CAS0082597, Order No. R5-2002-0206 and hereinafter referred to as "Permit") for the County and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento (hereinafter referred to collectively as the "Permittees") on December 2002, effective January 25, 2003; and

WHEREAS, the Permit requires the Permittees to monitor stormwater discharges and implement multiple programs to reduce the level of pollutants discharged into receiving waters; and

WHEREAS, the Permittees desire to develop an integrated stormwater discharge management program with the objective of improving water quality in urban creeks, the Sacramento River, American River, and the Delta; and

WHEREAS, the parties desire to receive and/or share the work product of consultants retained by the other parties, the direct work product of the parties themselves, and costs associated with monitoring and implementation of the program; and

WHEREAS, in an effort to meet the deadline set forth by the NPDES permit, City Council grants authority to the city attorney and City Manager to approve minor changes to the MOU without returning to City Council.

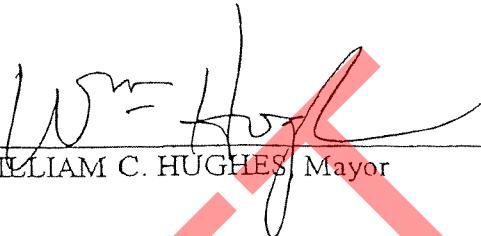
NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the City Council of the City of Citrus Heights that the City Manager is hereby authorized to execute a Memorandum of Understanding Regarding Administrative Responsibilities and Apportionment of Costs Under NPDES Permit No. CAS0082597.



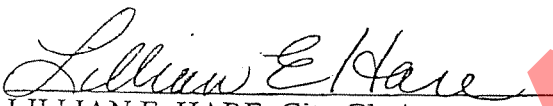
The City Clerk shall certify the passage and adoption of this Resolution and enter it into the book of original resolutions.

**PASSED AND ADOPTED** by the City Council of the City of Citrus Heights, California, this 26<sup>th</sup> day of March, 2003, by the following vote, to wit:

AYES: Council Members Bruins, Daniels, MacGlashan, Shelby and Hughes  
NOES: None  
ABSTAIN: None  
ABSENT: None

  
WILLIAM C. HUGHES, Mayor


ATTEST:

  
LILLIAN E. HARE, City Clerk

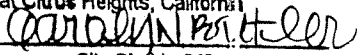
STATE OF CALIFORNIA  
COUNTY OF SACRAMENTO  
CITY OF CITRUS HEIGHTS

I, Lillian E. Hare, City Clerk of the City of Citrus Heights, certify the foregoing is the full and true Resolution 2003- 30, passed and adopted by the City Council of the City of Citrus Heights at a regular meeting held on March 26, 2003.

Dated: March 27, 2003

  
Lillian E. Hare, City Clerk

I hereby certify, under penalty of perjury, that this is a true and correct copy of the original document consisting of 2 pages which is on file in this office.

Executed on 6-24-03  
at Citrus Heights, California  
  
City Clerk's Office

RESOLUTION NO. 2003-76

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE TO AUTHORIZE THE CITY ELK GROVE TO ENTER INTO A MEMORANDUM OF UNDERSTANDING WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTEES IN SACRAMENTO COUNTY**

WHEREAS, the City of Elk Grove desires to take over responsibility for the Stormwater Drainage Program on July 1, 2003, from Sacramento County, which will include the responsibility for meeting the requirements of the NPDES permit; and

WHEREAS, the City of Elk Grove must sign a formal Memorandum of Understanding (MOU) with the other permittees in Sacramento County to meet the NPDES permit requirements.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby authorizes the Mayor to sign the new Memorandum of Understanding with permittees in Sacramento County.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 16th day of April 2003.

*Rich Soares*  
RICK SOARES, MAYOR of the  
CITY OF ELK GROVE

ATTEST:

*Peggy E. Jackson*  
PEGGY E. JACKSON, CITY CLERK

APPROVED AS TO FORM:  
*Anthony B. Manzanetti*  
ANTHONY B. MANZANETTI,  
CITY ATTORNEY



The foregoing is a correct copy of a resolution adopted by City Council, City of Elk Grove, California

On 4-16-03  
Dated 6-24-03  
By *Peggy E. Jackson*  
City Clerk of the City of Elk Grove

AYES: Soares, Briggs, Cooper, Leary  
NOES: None  
ABSTAIN: None  
ABSENT: Scherman

RESOLUTION NO. 7052

**A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A MEMORANDUM OF UNDERSTANDING REGARDING ADMINISTRATIVE RESPONSIBILITIES AND APPORTIONMENT OF COSTS UNDER NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT NO. CAS082597**

WHEREAS, in July 1992, a Memorandum of Understanding (MOU) was executed by the County of Sacramento and the Cities of Folsom, Sacramento, and Galt (the Co-Permittees) to define the apportionment of costs for joint activities conducted to comply with the provisions of National Pollutant Discharge Elimination System (NPDES) Permit CAS082597 (Permit); and,

WHEREAS, Resolution 3779 authorized execution of the apportionment MOU; and,

WHEREAS, in November 1996, an additional MOU was executed by the Co-Permittees to define the roles and responsibilities of conducting administrative services for joint activities to comply with the Permit; and,

WHEREAS, Resolution 5240 authorized execution of the administrative services responsibilities MOU; and,

WHEREAS, on December 19, 2002, the California Regional Water Quality Control Board adopted a renewal of the Permit which included the addition of the Cities of Citrus Heights and Elk Grove; and,

WHEREAS, Provision 7e of the new Permit requires an updated MOU be executed no later than April 1, 2003, to identify the roles and responsibilities and apportionment of costs for joint activities to be conducted by the Co-Permittees:

**NOW, THEREFORE, BE IT RESOLVED** that the City of Folsom authorizes the Mayor to execute the Memorandum of Understanding regarding administrative responsibilities and apportionment of costs under NPDES permit no. CAS082597

**PASSED AND ADOPTED** on this 25<sup>th</sup> day of March 2003, by the following roll-call vote:

|          |                    |                                      |
|----------|--------------------|--------------------------------------|
| AYES:    | Council Member(s): | Howell, King, Morin, Starsky, Miklos |
| NOES:    | Council Member(s): | None                                 |
| ABSENT:  | Council Member(s): | None                                 |
| ABSTAIN: | Council Member(s): | None                                 |

  
\_\_\_\_\_  
Stephen E. Miklos, MAYOR

ATTEST:

  
\_\_\_\_\_  
Christa Schmidt, INTERIM CITY CLERK

IT IS HEREBY CERTIFIED THAT THIS  
IS A TRUE AND CORRECT  
COPY OF Resolution No. 2003-40  
ADOPTED ON 4-15-03  
DATE CERTIFIED 4-22-03

*Elizabeth Aguirre*  
CITY CLERK, CITY OF GALT

RESOLUTION NO. 2003-40

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GALT,  
CALIFORNIA, APPROVING THE MEMORANDUM OF UNDERSTANDING  
BETWEEN THE COUNTY OF SACRAMENTO, AND THE CITIES OF  
SACRAMENTO, CITRUS HEIGHTS, ELK GROVE, FOLSOM AND GALT  
REGARDING ADMINISTRATIVE RESPONSIBILITIES UNDER  
NATIONAL POLLUTANTS DISCHARGE  
ELIMINATION SYSTEM (NPDES)

WHEREAS, the City of Galt is a co-permittee with Sacramento County and Cities of Sacramento, Citrus Heights, Elk Grove, and Folsom under a Stormwater National Pollutant Discharge Elimination System (NPDES) permit issued by Regional Water Quality Control Board (RWQCB); and

WHEREAS, this permit was adopted on December 6, 2002 by RWQCB and became effective January 25, 2003; and

WHEREAS, the NPDES permit required development and implementation of programs to reduce pollution caused by stormwater runoff in accordance with the Federal Clean Water Act and administered by the State of California Department of Water Resources; and

WHEREAS, the NPDES permit also requires that permittees enter into a Memorandum of Understanding outlining various activities required and each permittee's financial and permit requirement responsibilities.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the City Council of the City of Galt, California, that the Mayor, or in his absence, the Vice Mayor, is hereby authorized and directed to execute said Memorandum of Understanding between the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom and Galt.

BE IT FURTHER RESOLVED AND ORDERED that said Memorandum of Understanding is available and on file in the City Clerk's Office, and is incorporated herein by reference and made a part of this Resolution.

The City Clerk shall certify the passage and adoption of this resolution and enter it into the book of original resolutions.

PASSED AND ADOPTED by the City Council of the City of Galt, California, this 15th day of April, 2003, upon a motion by Council Member Malson, seconded by Council Member Raboy, by the following vote, to wit:

|          |                  |  |
|----------|------------------|--|
| AYES:    | Council members: | Shelton, Stancil, Malson, Raboy, Clare |
| NOES:    | Council members: | None                                   |
| ABSTAIN: | Council members: | None                                   |
| ABSENT:  | Council members: | None                                   |

*Darrell Clare*  
MAYOR, City of Galt

ATTEST:

*Elizabeth Aguirre*  
CITY CLERK, City of Galt

CERTIFIED AS TRUE COPY

OF Resolution 2003-202

May 7, 2003  
DATE CERTIFIED

Jessica Johnson  
CITY CLERK, CITY OF SACRAMENTO  
ST.

**RESOLUTION NO. 2003-202**

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF APR 22 2003

**RESOLUTION TO AUTHORIZE THE DEPARTMENT OF UTILITIES TO SIGN  
A STORMWATER PROGRAM COST SHARING MEMORANDUM OF  
UNDERSTANDING (MOU) WITH THE COUNTY OF SACRAMENTO AND THE  
CITIES OF FOLSOM, GALT, ELK GROVE AND CITRUS HEIGHTS**

**BE IT RESOLVED BY THE SACRAMENTO CITY COUNCIL THAT:**

The Director of Utilities is authorized to sign a Stormwater Program Cost Sharing Memorandum of Understanding (MOU) with the County of Sacramento and the Cities of Folsom, Galt, Elk Grove and Citrus Heights.

HEATHER FARGO

MAYOR

ATTEST:

VALERIE BURROWES  
CITY CLERK

**FOR CITY CLERK USE ONLY**

RESOLUTION NO.: 2003-202

DATE ADOPTED: APR 22 2003

**MEMORANDUM OF UNDERSTANDING REGARDING  
ADMINISTRATIVE RESPONSIBILITIES AND  
APPORTIONMENT OF COSTS UNDER  
NPDES PERMIT NO. CAS0082597**

This Memorandum of Understanding ("MOU") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2003 by the County of Sacramento ("County"), the City of Sacramento ("City of Sacramento"), the City of Citrus Heights ("Citrus Heights"), the City of Elk Grove ("Elk Grove"), the City of Folsom ("Folsom"), and the City of Galt ("Galt").

**RECITALS**

**WHEREAS**, Congress in 1987 amended Section 402 of the Federal Clean Water Act (33 U.S.C.A. Section 1342 (p)) to require the United States Environmental Protection Agency ("EPA") to promulgate regulations ("Regulations") for permits for stormwater discharges; and

**WHEREAS**, the Regulations are designed to control pollutants associated with stormwater discharges through the use of the National Pollutant Discharge Elimination System ("NPDES") permit system which allows the lawful discharge of stormwater into the waters of the United States; and

**WHEREAS**, the Regulations are designed to require NPDES permits for discharges from municipal storm sewers on a system-wide or jurisdiction-wide basis; and

**WHEREAS**, the EPA has delegated to the State of California the authority to issue NPDES permits; and

**WHEREAS**, the California Regional Water Quality Control Board, Central Valley Region ("Regional Board") has been charged by the State of California State Water Resources Control Board (SWRCB) with the responsibility to issue NPDES permits within the Central Valley Region; and

**WHEREAS**, on December 6, 2002 the Regional Board has adopted a NPDES stormwater permit, NPDES No. CAS0082597, Order No. R5-2002-0206, (hereinafter referred to as "Permit") for the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento (hereinafter referred to collectively as the "Permittees" and individually as a "Permittee"); and

**WHEREAS**, the Permit is effective January 25, 2003; and

**WHEREAS**, the incorporation of the City of Rancho Cordova was approved by the voters in November 5, 2002; and

**WHEREAS**, the provisions of the Permit will apply to Rancho Cordova upon its incorporation which is effective July 1, 2003; and

**WHEREAS**, upon the incorporation of Rancho Cordova, the County will provide services to Rancho Cordova at least until June 30, 2004 related to compliance with the Permit; and

**WHEREAS**, the Permit requires the Permittees to monitor stormwater discharges and implement multiple programs to reduce the level of pollutants discharged into receiving waters; and

**WHEREAS**, the Permittees desire to develop an integrated stormwater discharge management program with the objective of improving water quality in receiving waters identified in the Permit including but not limited to, urban creeks, the Sacramento River, and the American River; and

**WHEREAS**, the Permittees will incur various other costs relating to monitoring and/or implementing programs; and

**WHEREAS**, the parties desire to receive and/or share the work product of consultants retained by the other parties, or the direct work product of the parties themselves; and

**WHEREAS**, the Permit requires execution of a MOU regarding administrative responsibilities and apportionment of costs.

**NOW, THEREFORE**, in consideration of the mutual promises hereinafter set forth, the Permittees agree as follows:

**1. Purpose**

This MOU formalizes the manner in which each Permittee shall collaborate with all other Permittees to address common issues, promote consistency among each Permittees' stormwater quality programs, coordinate resources in regional monitoring and public outreach programs, and plan and coordinate activities required to comply with the Permit.

This MOU provides a management structure and cost sharing method for the following:

- a. Term of MOU and participant responsibilities;
- b. Primary contacts and decision making;
- c. Designation of Joint Activities and cost sharing;
- d. Information management and reporting; and

- e. Other collaborative arrangements for NPDES Permit compliance activities.

## 2. Previous MOU superseded

This MOU supersedes and terminates the following agreements previously existing between the parties to this MOU:

- The MOU entitled "Memorandum Of Understanding Regarding Administrative Responsibilities Under NPDES Permit No. CA0082597", dated November 12, 1996.
- The MOU entitled "Memorandum of Understanding Regarding Apportionment of Costs for NPDES Program Activities" dated July 28, 1992.

This MOU does not affect, supersede, or modify any other agreements presently existing between any of the parties to this MOU.

## 3. Participants in MOU

The parties to this MOU include the County, Citrus Heights, Elk Grove, Folsom, Galt, and City of Sacramento.

## 4. Addition of new Permittees to MOU

Any newly incorporated city, including the City of Rancho Cordova, or any other local jurisdiction that becomes a Permittee due to action by the Regional Board, may become a party to this MOU. To become a party to this MOU, the governing body of the new Permittee must approve a separate addendum to the MOU making the new Permittee bound by its terms and conditions. Addition of a new Permittee in this manner shall not require further modification of this MOU nor approval by the other Permittees, except that Exhibit A shall be modified to reflect the new permittee and appropriate shared costs. A copy of any such addendum shall be made available to all the Permittees.

## 5. Rancho Cordova

Upon the incorporation of the City of Rancho Cordova ("Rancho Cordova") it will become a Permittee and the County will provide services pursuant to Government Code section 57348 to Ranch Cordova related to its compliance with the Permit and will implement the provisions of this MOU on behalf of Rancho Cordova. After June 30, 2004, Rancho Cordova may choose to comply with the Permit using its own staff or may contract with another entity to provide services related to its compliance with the Permit. After June 30, 2004, the Rancho Cordova City Council must approve an addendum to this MOU to bind Rancho Cordova to the terms of this MOU. If it fails to take this affirmative action, Rancho Cordova will not become a party to this MOU.



## **6. Term of MOU**

The provisions of this MOU shall commence upon approval of this MOU by each of the Permittees and shall terminate upon adoption of a successor MOU or in a manner consistent with section 8 of this MOU.

## **7. Withdrawal of Individual Permittees**

If any Permittee withdraws or ceases to be covered by the Permit, then said Permittee shall no longer be bound by all terms and conditions of this MOU except for the indemnity and hold harmless provisions of this MOU, which shall remain in full force as to acts or omissions occurring prior to withdrawal. The withdrawal of any Permittee shall not affect the terms and conditions of this MOU among the remaining Permittees, except that the cost sharing proportions shall be recalculated to reflect the changes caused by the withdrawal.

## **8. Termination**

Each party shall have the right to withdraw from and terminate its responsibilities under this MOU at any time by serving upon all other parties thirty (30) business days advance written notice of withdrawal. The notice shall be deemed served and effective for all purposes on the date it is deposited in the United States mail, postage prepaid and addressed in accordance with the terms and provisions of this MOU.

Any party withdrawing from this MOU shall pay its proportionate share of any work performed under the MOU up to the effective date of withdrawal. This shall include unexpected expenses that were not known at the time of withdrawal, but are related to work or actions that occurred before the effective date of the withdrawal.

## **9. Indemnification and Claims**

Notwithstanding any other provisions of this MOU, each Permittee shall indemnify, defend and hold harmless all other Permittees, their officers, agents, and employees from and against any and all claims, losses, liabilities or damages, including payment of reasonable attorney's fees and costs, arising, out of the Permittee's non-compliance with the Permit, through negligence, internal act or omission, or through any other act or omission by the Permittee, its officers, agents, employees, and/or subcontractors.

It is the intention of each Permittee that the provisions of this paragraph be interpreted to impose on each party responsibility to the other for the acts and omissions of their respective officers, directors, agents, employees, and/or contractors. It is also the intention of each Permittee that, where comparative fault is determined to have been contributory, principles of comparative fault will be followed and each party shall bear the proportionate cost of any damage

attributable to the fault of that party, its officers, directors, agents, employees, and/or contractors.

The County will be responsible for the administration of any public liability claims made against the parties to the MOU.

#### **10. Insurance or Self-Insurance**

Each party, at its sole cost and expense, shall carry insurance -or self-insure - its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent programs of self-insurance, for general liability, workers compensation, property, professional liability, and business automobile liability with coverage limits that are adequate to cover its potential liabilities hereunder, subject to the reasonable approval of the other parties. Each party agrees to provide the other thirty (30) days' advance written notice of any cancellation, termination or lapse of any of the insurance or self-insurance coverages.

#### **11. Amendments**

This MOU may be modified or amended in writing if executed by the governing body of all parties.

#### **12. Responsibilities of Each Permittee**

a. Each Permittee understands and agrees that there is no agency relationship between the Permittees. It is further understood and agreed by the Permittees that any person employed by each Permittee shall be entirely and exclusively under the direction, supervision, and control of the employing Permittee.

b. The Permittees are legal entities and have the authority to develop, administer, implement, and enforce stormwater management programs within their own jurisdictions. The individual Permittees are solely responsible for compliance with the Permit within their respective jurisdictions. The County is solely responsible for compliance with the Permit within the urbanized unincorporated areas of the County of Sacramento.

c. Each Permittee acknowledges, understands, and accepts that it is legally bound by the terms and conditions of the Permit as issued by the Regional Board.

d. Each Permittee is solely responsible for the retention and/or storage of its own data, documents, and reports or writings, for the length of time required by the Permit or until three years after the expiration of the Permit, whichever is greater.

e. Each Permittee is responsible for complying with the provisions of the California Environmental Quality Act (CEQA, Public Resource Code section 21000, et seq.) in connection with the implementation of the terms, conditions, and requirements of the Permit and this MOU.

### **13. Separate Agreements between Permittees**

Nothing in this MOU shall prevent individual Permittees from entering into agreements with each other or with other parties to obtain or to provide services related to implementation of Permit or MOU obligations. Such service agreements do not relieve individual Permittees from their obligations under the Permit or this MOU, and obligations under this MOU will supercede any conflicting obligations of separate agreements.

### **14. Primary Contacts**

The County and City of Sacramento shall serve as the primary co-contacts with regulating agencies such as EPA, SWRCB, and the Regional Board regarding Permit matters that are of interest to all Permittees. Permit matters that are specific to a particular jurisdiction should be addressed directly to that jurisdiction. The County and City of Sacramento shall relay and transmit any correspondence relating to the Permit received from the Regional Board, SWRCB, or EPA to the other Permittees within five (5) business days of receipt. The designation of primary contacts is intended only as a convenience for the regulating agencies, and each Permittee understands and agrees that this provision does not relieve each Permittee of any of its Permit obligations, nor imposes any new Permit obligations on the County and City of Sacramento.

### **15. Information sharing**

Except as provided in the section of this MOU entitled "Non-participation in Joint Activities", if any Permittee submits any required documents, reports, or writings relating to stormwater discharges to the Regional Board, SWRCB, or EPA, said Permittee shall send a copy of the document, report, or other writing to the each other Permittee. At its discretion, the Permittee sending copies of documents may require reimbursement from the receiving parties for its copying costs.

Each Permittee agrees to make available to the other parties to this MOU all non-confidential and non-privileged data, documents, reports, or writings that are public records relating to the Permit upon written request. At the discretion of the Permittee that is providing the copies, the Permittee requesting the information shall be responsible for all costs incurred in connection with said request, including copying costs.

## 16. Steering Committee

The Permittees shall establish a Steering Committee, consisting of representatives designated by their jurisdiction's management. The purpose of the Steering Committee is to provide forum for making decisions and providing guidance to the Permittees relative to the implementation of common activities that are subject to the terms of this MOU. The responsibilities and activities of the Steering Committee including, but not limited to, the following:

- Oversight of MOU implementation
- Resolution of issues and disputes regarding this MOU
- Management of Joint Activities defined in this MOU
- Management and designation of additional Joint Activities not specified in this MOU.
- Approval of the scope of Joint Activities.
- Designation and approval of reimbursable staff support for Joint Activities.
- Determination of reimbursement mechanisms.

Any action by the Steering Committee requires the support of at least two-thirds of all the Steering Committee members. The Steering Committee may conduct its business, including any official actions or approvals, in various reasonable manners as it sees fit, provided that a good faith effort is made to accommodate the preferences of all members. Methods for conducting Steering Committee business may include but are not limited to the following: meetings conducted in person, telephone, email, on-line discussions, routing of hard copy by courier or U.S. Mail, or any reasonable combination of methods.

Each Steering Committee representative has an equal vote on the Steering Committee.

The management of any Permittee jurisdiction may delegate authority to another authorized representative to represent it on the Steering Committee, including the casting of its vote. This does not relieve each Permittee of the responsibility to obtain funding authority or any other authority necessary for participation in a Joint Activity.

## 17. Joint Activities

The terms and conditions of this MOU apply to activities, as defined in this section, that are related to compliance with the requirements of the Permit, and that provide work products, services, or other benefits that are of common benefit to all Permittees. Such activities shall be referred to herein as "Joint Activities".

## 18. Joint Activities designated in MOU

a. Mandatory Joint Activities. The following activities are hereby designated as Joint Activities and include projects specified in the Permit. All the signatories of this MOU agree to participate in cost sharing for these activities:

- (1) Annual Monitoring Report
- (2) Development Standards Plan
- (3) Urban Discharge Monitoring
- (4) River Monitoring
- (5) Water Column Toxicity Monitoring
- (6) Urban Tributary Monitoring
- (7) Additional Pesticide Monitoring
- (8) Bioassessment
- (9) Water Quality Detention Effectiveness Study
- (10) Erosion Potential Study
- (11) Dry weather flow diversion study
- (12) Structural BMP Effectiveness Studies

b. Optional Joint Activities. With respect to the Joint Activities described in this section, the Permittee advocating the activity will query the Permittees to determine whether or not they agree to cost-share in the particular support activity. If a Permittee does not desire to cost share in the support activity, they will not be included in the cost share formula for that activity, and will be considered a non-participant subject to the restrictions in the Non-Participation in Joint Activities section of this agreement. Optional Joint Activities include, but are not limited to:

- (1) Monitoring Program Support contract
- (2) The following elements of the Pesticide Control Program:
  - (a) Water Wise Pesticide Outreach
  - (b) PRISM grant for pesticide activities
  - (c) Participation in Urban Pesticide Committee
  - (d) Pesticide Program Support contract
- (3) Certain portions of the Public Education and Outreach Programs requirements as designated and approved by the Steering Committee

## 19. Joint Submittals

All Permittees agree to cooperate on a consolidated submittal for the Joint Activities designated in this MOU. To facilitate and coordinate these submittals, each year the Steering Committee shall designate a lead agency or agencies for each submittal. The lead agency will be responsible for overall coordination, completion, and delivery of the submittal. The lead agency shall deliver or mail to the Regional Board joint compliance documents, reports, or other writings.

The other Permittees agree to prepare and forward to the lead agency in a timely manner, any jurisdiction specific sections that are necessary for these submittals. When the Permit requires submission of any joint compliance documents, reports, or other writings by a specific date, each Permittee shall ensure that the lead agency receives the document, report, or other writing to be filed thirty (30) business days prior to the specified date unless a different time is otherwise agreed to in writing by the Permittees. In the event that a Permittee is unable to comply with this provision for any reason, said Permittee shall notify the other Permittees in writing of the anticipated submission date and the reason for the delay, and shall provide a copy of the letter to the Regional Board.

## **20. Designation of Additional Joint Activities**

The Steering Committee shall be responsible for the consideration and designation of additional activities as Joint Activities. Joint Activities should be activities that provide work products, services, or other benefits that are of benefit to all Permittees.

## **21. Documentation of Joint Activities**

For each Joint Activity designated by this MOU or by the Steering Committee, the Steering Committee or the lead agency responsible for the implementation of the activity shall provide all Permittees with adequate documentation. This documentation shall include the following elements and any other documentation as determined by the Steering Committee:

- a. Description of the scope and purpose of the activity;
- b. Copies of applicable contracts;
- c. Significant decisions regarding the management of the activity;
- d. Any changes to the scope and purpose of a joint activity shall be in writing.

Each Permittee shall submit documentation to the other Permittees indicating whether or not it will participate in each Joint Activity, except for mandatory Joint Activities designated in this MOU.

## **22. Non-participation in Joint Activities**

Permittees must participate in the mandatory Joint Activities as designated in this MOU. For any other Joint Activity, a Permittee may choose not to participate. A Permittee that chooses not to participate, fails to obtain proper authority to fund the Joint Activity, or fails to pay its portion of costs, will be considered a Non-Participant and shall not be entitled to the consultant services or the use of work products resulting from the Joint Activity. In addition, Non-Participants for a given Joint Activity may not claim or imply participation in any public documents, including any reports to the Regional Board, such as Annual Progress Reports or Annual Monitoring Reports. Any Non-Participant that fails to comply with these

restrictions, thereby gaining the benefit of a particular Joint Activity, shall be liable to reimburse the other Permittees, according to the cost sharing provisions of this MOU, as though it had been a full participant in the Joint Activity.

### **23. Contract Administrator**

For each designated Joint Activity that requires contracted services, the Steering Committee shall designate one Permittee that is willing to serve as the Contract Administrator. The Contract Administrator shall be responsible for the following activities for each contract:

- a. Establish a contract through its jurisdiction.
- b. Act as the fiscal agent for the contract and provide accounting of costs as needed.
- c. Provide on-going contract administration.
- d. Maintain records regarding Permittee decisions, agreements, and obligations related to the contract and the Joint Activity.
- e. Update other Permittees in a timely manner regarding implementation of the Joint Activity and the status of pertinent contracts.
- f. Distribute to other Permittees copies of studies, reports, and other work products prepared per the contract.

Upon approval by the Steering Committee, the Contract Administrator for a particular Joint Activity may be entitled to reimbursement of costs from the other Permittees, according to the cost sharing proportions in Exhibit A. Such reimbursement may include staff time and other resources used to provide contract administration on behalf of the other Permittees.

The Contract Administrator shall be authorized to conduct day-to-day administration of the contract. However, no changes to the scope of services or the approved contract amount shall be made without the approval of the Steering Committee.

### **24. Ownership of Work Product**

All technical data, evaluations, plans, specifications, reports or other work products associated with a Joint Activity produced by a consultant or any party to the Joint Activity shall become the mutual property of all participating parties, subject to Federal copyright laws.

### **25. Communication with Consultant**

Each party may communicate directly with a consultant, except as set forth below:

- a. Any communications relating to a change or modification in the scope of work to be performed by a consultant, or any communication which will

increase or should reasonably be expected to increase the compensation due to a consultant shall not be submitted to the consultant unless:

1. The Steering Committee approves the change or modification; or
  2. The Steering Committee does not object and the party requesting the change or modification advises all other parties in writing that it will be solely responsible for any and all compensation due to the consultant resulting from said change or modification.
- b. Any communications relating to a change or modification in the schedule of performance shall not be submitted to a consultant unless all parties agree to the change or modification.
- c. If any party submits any document, reports or writing to a consultant, as provided herein, a copy of such document, report or writing shall be submitted to all other parties.

## **26. Permittee responsibilities for Joint Activities**

Each Permittee is responsible for the following:

- a. Designation of an authorized representative and any necessary alternates to the Steering Committee.
- b. Accurate documentation of staff time and other resources for which Joint Activity cost share reimbursement is claimed.
- c. Obtaining any necessary legal and administrative authority to participate in each Joint Activity.
- d. Timely payment of all monetary obligations as a Participant.

## **27. Cost Apportionment for Joint Activities**

- a. Each Permittee understands and acknowledges that the implementation of the terms, conditions, or requirements of the Permit by each Permittee may result in significant benefit to the other Permittees. It is the intent of the Permittees to fairly and equitably apportion the costs of such benefits. When a Permittee agrees to participate in a Joint Activity it agrees to share the costs of the Joint Activity as defined by this MOU and the Steering Committee.
- b. Cost apportionment for Joint Activities shall apply to any costs associated with contracting under this MOU, including but not limited to, services, materials, and equipment.
- c. Cost apportionment for Joint Activities may include the following as specified and approved by the Steering Committee:



1. Contract administration by Permittee staff.
  2. Significant Joint Activity support provided by specified Permittee staff.
  3. Any other expenses that provide a shared benefit to the Permittees.
- d. Each Permittee is responsible for confirming or obtaining the necessary authority from its governing body and to meet any other legal and administrative requirements of its jurisdiction to provide the funding for its participation in Joint Activities.

## **28. Cost Apportionment Method**

All parties hereby agree that any compensation due to consultants or any other party under the terms and conditions of this MOU shall be apportioned among all parties participating in a given Joint Activity, in proportion to their respective populations, utilizing the following method:

- The populations used for this apportionment shall be based on the official population estimates of the Sacramento Area Council of Governments (SACOG) for the years 2000 and 2010,
- The arithmetic mean of the population of each Permittee for these years will be calculated.
- The calculated mean populations will be used to determine the cost share proportions of each Permittee.

The SACOG population estimates and calculated population proportions agreed to by the Permittees are shown in Exhibit A of this MOU.

Upon approval by the Steering Committee, revised official SACOG estimates may be used to recalculate the population proportion used for allocating costs.

## **29. Invoicing, Payment, and Notices**

The Contract Administrator shall, upon receipt of an invoice from the consultant, or upon the computation of the charges for the work product, send a copy of said invoice or computation to all participating parties.

The participating parties shall advise the Contract Administrator of any disputed amount in writing within ten (10) business days of the receipt of said invoice. The Contract Administrator shall thereafter submit separate invoices to the participating parties for their proportioned share of the undisputed amount. The participating parties shall pay to the Contract Administrator their invoiced share within thirty (30) business days of receipt of the separate invoice. The parties agree to exercise good faith and diligence in the resolution of any disputed invoiced amounts.

Unless the persons or addresses are otherwise identified in the manner specified in this paragraph, all invoices, payments or notices or other writings authorized or

required by this MOU shall be deposited in the United States mail, postage prepaid and addressed to the respective parties as follows:

|  |   |
|--|---|
| County:<br>Department of Water Resources<br>County of Sacramento<br>827 7 <sup>th</sup> Street, Room 301<br>Sacramento, CA 95814<br>Attn: Stormwater Program Manager | City of Sacramento:<br>Director<br>Department of Utilities<br>City of Sacramento<br>1391 35 <sup>th</sup> Ave<br>Sacramento, CA 95822 |
| Elk Grove:<br>Manager of Engineering and Building<br>City of Elk Grove<br>8400 Laguna Palms Way<br>Elk Grove, CA 95758   | Folsom:<br>Director<br>Department of Public Works/City Engine<br>City of Folsom<br>50 Natoma Street<br>Folsom, CA 95630               |
| Galt:<br>Director<br>Public Works Department<br>City of Galt<br>495 Industrial Drive<br>Galt, CA 95632   | Citrus Heights:<br>Director, General Services Department<br>6237 Fountain Square Drive<br>Citrus Heights, CA 95621-5577               |

**30. Dispute resolution**

Whenever any party disagrees as to any matter covered under this MOU, this dispute resolution process shall govern. Until the dispute is resolved, all parties shall continue to perform pursuant to the terms of this MOU.

The parties shall make a good faith effort to resolve the dispute at the Steering Committee level. If this effort is unsuccessful, within ten (10) business days after the identification of the dispute, any party may give the other party a written request for a meeting between the respective Department Directors or Directors' designees. The purpose of this meeting shall be to ascertain whether a resolution of the disagreement is possible without third party intervention.

**31. Entire MOU**

Except as provided otherwise herein, this instrument and any attachments hereto constitute the entire MOU between the parties concerning the subject matter hereof.

**32. Execution in Counterparts**

This agreement may be executed in counterparts.

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.



County of Sacramento

By: Illa Collin  
Illa Collin, Chair  
Board of Supervisors

Gladys A. Turner  
Clerk of the Board of Supervisors

REVIEWED AND APPROVED BY  
COUNTY COUNSEL

\_\_\_\_\_  
Deputy County Counsel

DRAFT

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Citrus Heights

By: Henry Tingle  
Henry Tingle, City Manager

Attest:

Lillian E. Hawn  
City Clerk

Approved as to form:

Richard D. Ziegler  
City Attorney, City of Citrus Heights

DRAFT

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Elk Grove

By: *Rick Soares*  
Rick Soares  
Mayor

Attest:

*Raymond J. Johnson*  
City Clerk



Reviewed and Approved:


*[Signature]*  
City Attorney, City of Elk Grove

**DRAFT**

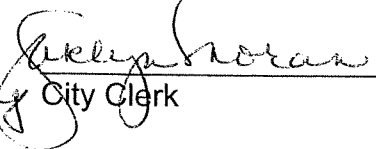
Memorandum of Understanding Regarding  
Administrative Responsibilities and Apportionment  
of Costs Under NPDES Permit No. CAS0082597

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.


City of Folsom

By:   
Stephen E. Miklos  
Mayor

Attest:

 Kelly Moran 5-8-03  
Deputy City Clerk

Reviewed and Approved:

 Atty Kathleen 4/30/03  
City Attorney, City of Folsom

DRAFT

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Galt

By: Darryl Clare  
Darryl Clare  
Mayor

Attest:

Elizabeth  
City Clerk

Reviewed and Approved:

Richard D. Zeege  
City Attorney, City of Galt

DRAFT

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Sacramento

By: Heather Fargo  
Heather Fargo  
Mayor

By: G. A. Reents  
Gary A. Reents  
Director of Utilities

Attest: [Signature]  
City Clerk

Reviewed and Approved:  
[Signature]  
Deputy City Attorney

CITY  
AGREEMENT NO. 2003-054



Exhibit A

**Cost Share Percentages for Stormwater Permittee Joint Activities**

| Jurisdiction                                    | 2000<br>Population | 2005<br>Population | 2010<br>Population | Average<br>Population<br>2000-<br>2010 | Percent of<br>Average<br>Population<br>2000-<br>2010 | Cost Share<br>Percentage,<br>Based on Percent<br>of Average<br>Population,<br>rounded to<br>nearest 0.5% |
|---|--------------------|--------------------|--------------------|--|--|--|
| Citrus Heights                                  | 89,050             | 91,350             | 91,650             | 90,350                                 | 6.75%  | 7.0%   |
| Elk Grove                                       | 72,685             | 98,110             | 122,600            | 97,643                                 | 7.30%  | 7.0%   |
| Folsom  | 53,810             | 62,900             | 74,185             | 63,998                                 | 4.78%  | 5.0%   |
| Galt  | 18,425             | 23,450             | 26,490             | 22,458                                 | 1.68%  | 1.5%   |
| Rancho<br>Cordova                               | 46,642             | 53,234             | 65,143             | 55,893                                 | 4.18%  | 4.0%   |
| Sacramento,<br>City                             | 409,610            | 446,960            | 485,420            | 447,515                                | 33.44%   | 33.5%  |
| County,<br>Unincorp<br>(less Rancho<br>Cordova) | 527,788            | 558,269            | 593,304            | 560,546                                | 41.88%   | 42.0%  |
| County total<br>less Isleton                    | 1,218,010          | 1,334,273          | 1,458,792          | 1,338,401                              | 100.00%  | 100.0%   |

# Appendix E

## Executive Summary – Discharge and Receiving Water Characterization

*(a copy of this document was also included in the 2007 Report of Waste Discharge submittal to the Regional Water Board)*

DRAFT

# MEMORANDUM

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DATE: June 1, 2007

TO: Delia McGrath, City of Sacramento  
Janet Parris, Sacramento County

CC: Bill Busath, City of Sacramento  
Kerry Schmitz, Sacramento County  
Ben Doctor, LWA

**Brian M. Laurenson, P.E.**

707 4th Street

Suite 200

Davis, CA 95616

530.753.6400 ext.230

530.753.7030 fax

[BrianL@lwa.com](mailto:BrianL@lwa.com)

**e-mail transmittal only**

SUBJECT: **REPORT OF WASTE DISCHARGE EXECUTIVE SUMMARY –  
DISCHARGE AND RECEIVING WATER CHARACTERIZATION**

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The purpose of this technical memorandum is to summarize the assumptions and methods for calculation of summary statistics, loads, and trend analysis and present the results in a format that can be transmitted to the Water Board as part of the Report of Waste Discharge (ROWD) to be submitted in June 2007. Additionally, this memorandum will be used in the June 2007 Stormwater Quality Improvement Plans (SQIP) prepared by the Sacramento Stormwater Permittees.

## Methods

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### **DATA TEMPORAL RANGE**

For the purposes of characterizing the ROWD data period, data since the end of 2002 are used as this coincides with the third Permit period. This limits the available urban runoff data to three years (six dry weather events and twelve wet weather events) because every third year monitoring is not performed at the urban runoff sites. Wet weather data through February 2007 are included as a fourth year of data. This is adequate to reasonably calculate summary statistics. For the purpose of the trend analysis, additional data will be used to look at changes between the Permit-period data and previous periods as discussed later in this report.

### **CONSTITUENT SELECTION**

The Permit does not specify which of the more than one hundred constituents monitored should be included in the required trend and loading analyses. The Permit does include an “evaluation of any correlation between target pollutants identified by the Permittees (including but not limited

to metals and PAHs) and TSS loadings...” (page 3 of the 2002 Monitoring and Reporting Program Requirements section of the Permit). The DC2005 analysis selected constituents that were identified as Program target pollutants in the most recent (2002) target pollutants prioritization and those constituents that were reported in Reports of Water Quality Exceedance (RWQE) through the 2003-04 reporting year. It is recommended that this same list be used with the addition of methyl mercury and other “new” RWQE constituents. The “short” list, based on the above criteria, is shown in Table 1.

**Table 1. Short List Constituents for Detailed Analysis**

|                         |
|-------------------------|
| Cadmium, dissolved      |
| Copper, dissolved       |
| Lead, dissolved         |
| Mercury, total          |
| Mercury, total methyl   |
| Zinc, dissolved         |
| Total Dissolved Solids  |
| Total Suspended Solids  |
| <i>Escherichia coli</i> |
| Diazinon                |
| Chlorpyrifos            |
| DDT                     |
| Chrysene and Total PAHs |
| Pentachlorophenol       |
| Lindane                 |

### **LOAD ANALYSIS**

There is also no specific guidance in the Sacramento Stormwater Permit (Permit) or from other sources on how the loading analyses should be performed. The loading analysis report in the Discharge Characterization 2005 Report (DC 2005) shows the load calculations performed on the 1999-2004 data period. The results of these data were considered in addition to the “simple” loading calculations performed for the ROWD for the short list of constituents. Loads were broken into dry season, wet weather, and inter-storm wet season ‘regimes’. Median concentration and average flows for each period were used to calculate loads.

### **TREND ANALYSIS**

There is no specific guidance in the Sacramento Stormwater Permit (Permit) or from other sources on how the trend analyses should be performed. The trend analysis performed for the ROWD includes visual inspection, distributional comparisons, and summary statistic comparisons. A graphical representation of the historical data was prepared for the short list of constituents. Time series plots were prepared that show detected (shaded points), not detected (unshaded at the MDL or RL), and the applicable lowest WQOs for urban runoff and receiving water sites.

Summary statistics and distributional comparisons were used to assess how urban runoff and receiving water quality have changed over the course of the Monitoring Program (status and trend monitoring). The following comparisons were performed:

- Summary statistics for all constituents using Regression on Order Statistics (ROS) to estimate when non-detects are present for discharge characterization, urban tributary, and river sampling for the Permit period.
- Comparison to WQOs and exceedance rates for urban runoff and receiving waters for short list constituents for December 2002 through February 2007 Permit period. Results are compared against all WQOs, and the resulting “probability” of meeting the WQO is based on all comparisons, not just the comparison to the lowest WQO.
- Probability plots for entire urban runoff data set (1990-2007).
- A summary of monitoring event parameters (rainfall, last rainfall date, etc) and monthly rainfall for the 1999-2007 period.
- Comparison of summary statistics between the 1990-2002 and 2002-2007 data periods for the short list of constituents, when available (urban tributaries have only been monitored during the 2002-2007 Permit period).
- Time series plots 1990-2007 for the short list of constituents, where available
- Box-plots comparing 1990-2002 and 2002-2007 data periods by sites for the short list of constituents, where available.

These data summaries, along with the DC 2005 report that was submitted in the 2004-05 Annual Monitoring Report, satisfy several ROWD data requirements from 40 CFR 122.6 (122.26.1.iv.A – rainfall data, 122.26.1.iv.B - discharge data, and 122.26.2.iii – characterization data).

A more comprehensive regression-based statistical analysis will be performed in the next Permit term as part of the Long Term Effectiveness (LTE) Study and was in part performed as part of DC 2005 for the urban runoff. In addition, because there is currently insufficient bioassessment data to perform a regression-based analysis and no promulgated reference stream for Central Valley low gradient streams, the Permittees are planning future monitoring activities to combine bioassessment monitoring with sediment, water column chemistry, and water column toxicity sampling in a *multiple lines of investigation* approach. This approach will provide a means to assess the overall water body health without relying on a simple *threshold* comparison whereby a water column concentration is compared against a presumed WQO.

## Results

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Key Results and findings for the data analyses included in the June 2007 ROWD are summarized in this report, especially as the findings pertain to the Stormwater Program's effectiveness in measuring changes in urban runoff and receiving water quality.

### **URBAN RUNOFF**

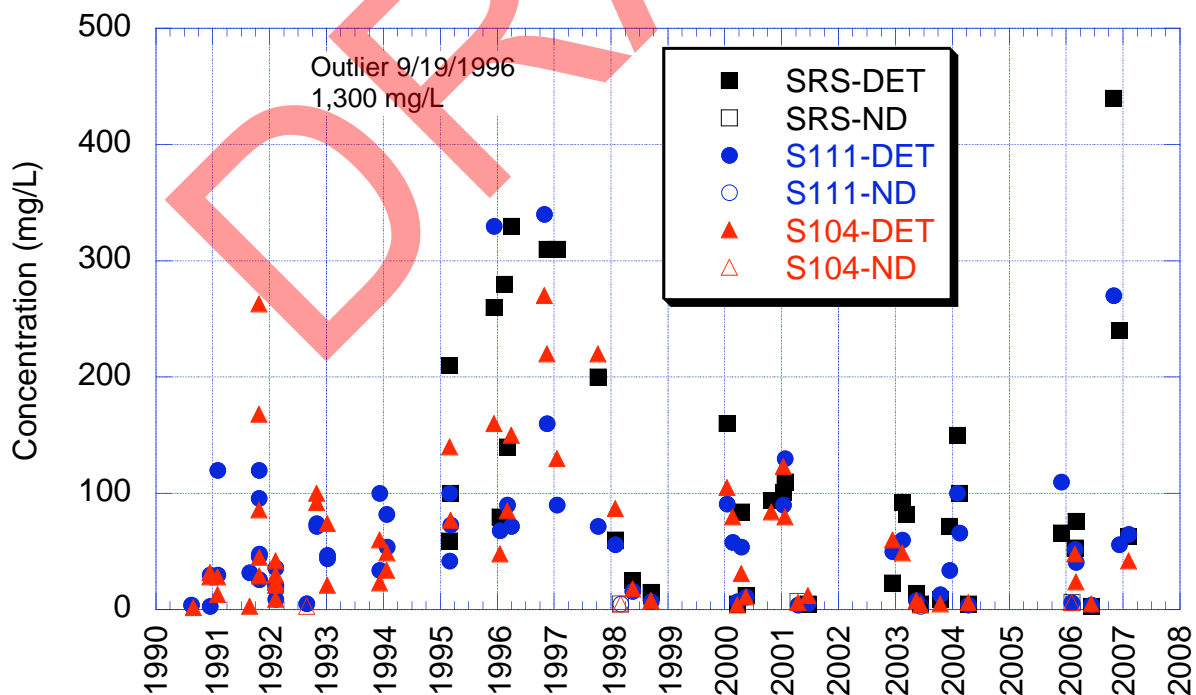
Complete summary statistics by sites (Sump 104, Sump 111, and Strong Ranch Slough) and a description of the monitored events are included in Part I of the ROWD data submittal. In general, urban runoff data indicate significant reductions in nearly every constituent of interest. Table 2 compares the central value (median) and variability (interquartile range) for the short list constituents of interest and unfiltered metals (i.e., total metals) at all three sites combined.

It is not possible to ascertain all of the factors contributing to the changes observed in urban discharge quality. In addition to actual differences in urban runoff concentrations over time, changes could also be the result of sample collection or data quality differences. For example, early 1990's data include multiple samples per storm which are all included in the analysis and could possibly bias the 1990-2002 median higher if that particular storm had higher concentrations of the constituent of interest. Figure 1 is a time series plot for TSS that illustrates a decreasing trend in concentration. Isolated high values can sometimes be attributed to long antecedent dry periods.

**Table 2. Comparison of Urban Runoff Median and Interquartile Range Between Monitoring Periods**

| Constituent             | Units      | 1990-2002 |          |        |        | 2002-2007 |          |         |         | RPD     |         |
|-------------------------|------------|-----------|----------|--------|--------|-----------|----------|---------|---------|---------|---------|
|                         |            | Percent   |          |        |        | Percent   |          |         |         | Median  | IQR     |
|                         |            | n         | Detected | Median | IQR    | n         | Detected | Median  | IQR     |         |         |
| Cd - DIS                | µg/L       | 115       | 59.1%    | 0.087  | 0.13   | 54        | 92.6%    | 0.035   | 0.04    | -85.8%  | -104.9% |
| Cd - TR                 | µg/L       | 109       | 83.5%    | 0.31   | 0.44   | 54        | 100.0%   | 0.16    | 0.24    | -63.8%  | -58.9%  |
| Cu - DIS                | µg/L       | 119       | 100.0%   | 5.37   | 5.15   | 54        | 100.0%   | 4.21    | 3.07    | -24.3%  | -50.5%  |
| Cu - TR                 | µg/L       | 109       | 100.0%   | 13.57  | 15.67  | 54        | 100.0%   | 10.71   | 13.12   | -23.6%  | -17.7%  |
| Pb - DIS                | µg/L       | 119       | 71.4%    | 0.75   | 1.50   | 54        | 98.1%    | 0.44    | 0.61    | -52.6%  | -84.6%  |
| Pb - TR                 | µg/L       | 109       | 98.2%    | 12.27  | 24.53  | 54        | 100.0%   | 5.74    | 12.80   | -72.6%  | -62.8%  |
| Hg, Total               | µg/L       | 79        | 65.8%    | 0.032  | 0.084  | 56        | 100.0%   | 0.015   | 0.025   | -75.1%  | -106.7% |
| Hg, Methyl              | µg/L       | 0         | id       | id     | id     | 54        | 100.0%   | 0.00024 | 0.00027 | id      | id      |
| Zinc, DIS               | µg/L       | 119       | 98.3%    | 45.74  | 64.09  | 54        | 100.0%   | 23.06   | 30.30   | -65.9%  | -71.6%  |
| Zinc, Total             | µg/L       | 109       | 100.0%   | 122.37 | 223.98 | 54        | 100.0%   | 62.02   | 102.19  | -65.5%  | -74.7%  |
| TDS                     | µg/L       | 108       | 100.0%   | 82.24  | 94.55  | 53        | 98.1%    | 88.57   | 116.44  | 7.4%    | 20.8%   |
| TSS                     | µg/L       | 123       | 95.9%    | 43.03  | 87.93  | 46        | 93.5%    | 25.79   | 59.75   | -50.1%  | -38.2%  |
| E. coli                 | MPN/100 mL | 12        | 91.7%    | 6,023  | 14,474 | 55        | 100.0%   | 4,769   | 16,255  | -23.2%  | -11.6%  |
| Diazinon                | µg/L       | 196       | 82.1%    | 0.21   | 0.32   | 54        | 53.7%    | 0.034   | 0.091   | -144.9% | -110.8% |
| Chlorpyrifos            | µg/L       | 171       | 44.4%    | 0.032  | 0.038  | 54        | 3.7%     | id      | id      | id      | id      |
| DDT and By- Products    | µg/L       | 186       | 0.0%     | id     | id     | 180       | 6.1%     | id      | id      | id      | id      |
| Chrysene                | µg/L       | 32        | 6.3%     | id     | id     | 53        | 71.7%    | 0.029   | 0.077   | id      | id      |
| PAHs                    | µg/L       | 24        | 87.5%    | 0.16   | 0.69   | 52        | 82.7%    | 0.22    | 0.83    | 30.8%   | 18.8%   |
| Pentachlorophenol       | µg/L       | 94        | 21.3%    | 0.071  | 0.12   | 53        | 50.9%    | 0.077   | 0.13    | 7.4%    | 8.5%    |
| Lindane and By-Products | µg/L       | 248       | 0.8%     | id     | id     | 302       | 4.0%     | id      | id      | id      | id      |

Notes:  
n = number of observations (samples)  
Median = 50th percentile as estimate of median calculated using regression of order statistics  
IQR = estimated inter quartile range (75th percentile - 25th percentile) calculated using regression of order statistics  
RPD = relative percent difference calculated as the difference divided by the average of two values  
id = insufficient detected data



**Figure 1. TSS at Urban Runoff Sites 1990-2007**

## URBAN TRIBUTARY

Summary statistics and WQO comparisons for the urban tributaries and additional (urban tributary) pesticide monitoring sites are provided in Part II of the ROWD data submittal. Because the urban tributary data are limited to the third Permit term (2002-2007), it is not possible to draw conclusions on trends. Moreover, only a limited set of constituents are monitored at these sites (Arcade Creek at Watt Ave., Morrison Creek at Brookfield Dr., and Willow Creek at Blue Ravine Road) more than once per year. However, there are two exceptions where decreases are evident. Pesticide registration changes (i.e., residential bans) for chlorpyrifos and diazinon and public outreach efforts have clearly led to significant decreases in observed concentrations as shown in Figure 2 and Figure 3.

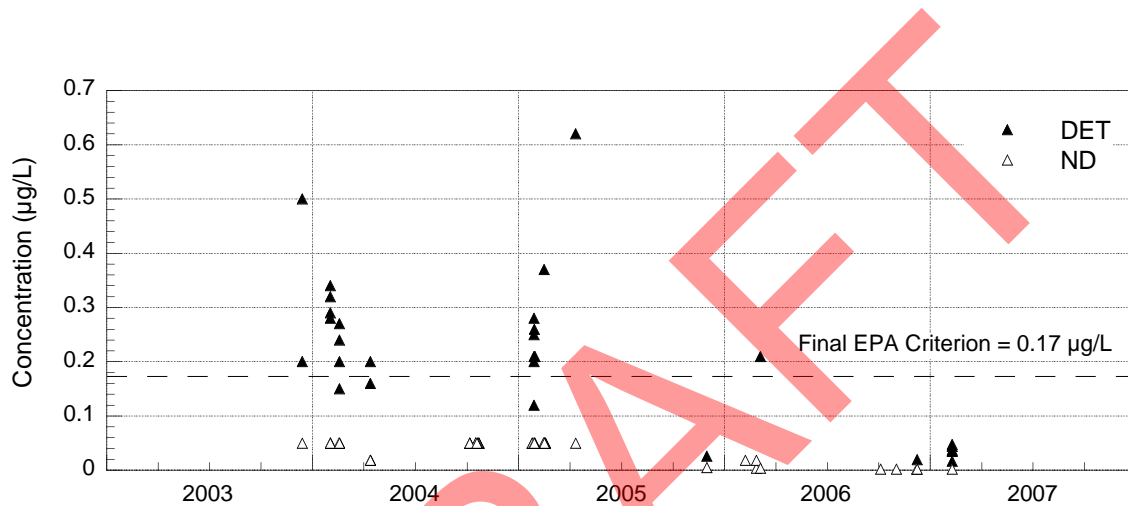


Figure 2. Diazinon Concentrations ( $\mu\text{g/L}$ ) in Sacramento Urban Tributaries 2003-2007

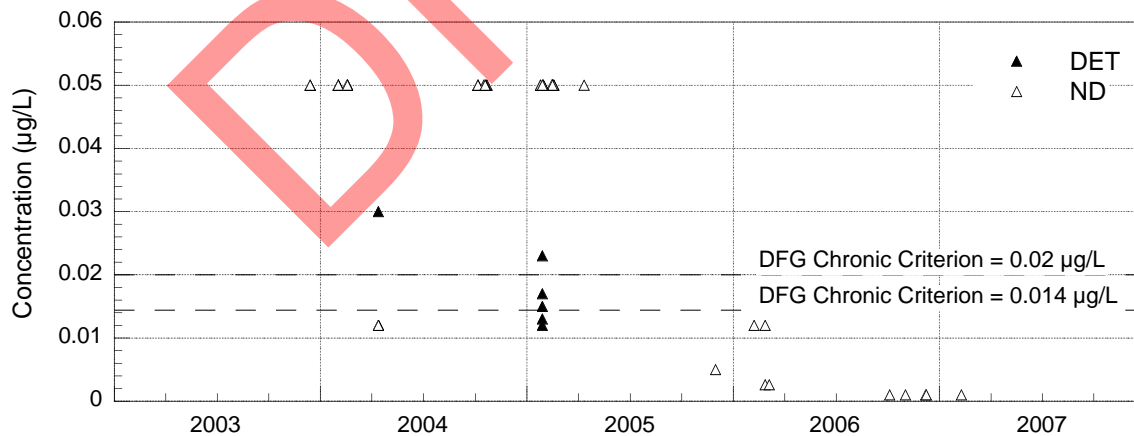


Figure 3. Chlorpyrifos Concentration ( $\mu\text{g/L}$ ) in Sacramento Urban Tributaries 2003-2007

A detailed analysis of the urban tributary data was also completed to compare/characterize pesticide concentrations in the different tributaries. Based on this analysis of the additional



pesticide data<sup>1</sup> it is apparent that diazinon and chlorpyrifos monitoring of the six additional pesticide locations and the Morrison Creek at Brookfield location is not necessary as these sites are sufficiently characterized by the Arcade Creek at Watt Ave. and Willow Creek at Blue Ravine Rd. locations.

Following some exceedances California Toxics Rule (CTR) WQOs of copper and zinc in urban tributaries, the Permittees performed extensive metals monitoring including input parameters for the Biotic Ligand Model (BLM)<sup>2</sup>. The BLM is a toxicity model that is most refined for and is promulgated for an EPA criterion. Results of the monitoring and modeling effort demonstrate that the noted WQO exceedances would not pose toxic concentrations to sensitive freshwater fish that may be present in the urban tributaries.

## RIVER

Both the American and Sacramento Rivers include drainage from large, mostly un-urbanized areas. Trends in water quality can be difficult to detect without more sophisticated techniques or unless a significant change occurs (i.e., a major source is removed). Because the flow rates in these rivers is high relative to urban runoff, changes in concentrations between monitoring locations upstream and downstream of urban runoff outfalls are difficult to detect. The downstream monitoring locations on the Sacramento River (Freeport Marina and River Mile 44) generally have lower concentrations than the monitoring location upstream of the urban area (Veterans Bridge). This is in great part due to the input from the American River as the confluence of the two rivers is downstream from Veterans Bridge. In some cases the American River at Highway 80 site is observed to have higher concentrations than both the site upstream (Nimbus) and downstream (Discovery Park). This effect is most likely due to site specific sampling conditions. The Permit requires monitoring downstream of the Strong Ranch/Chicken Ranch Slough outfall, but upstream of Highway 80. During lower flow conditions, this reach of the River is not accessible from a boat and is generally shallow. During higher flow conditions (i.e., storm events) sediments are more easily disturbed into the water column.

Figure 4 and Figure 5 are box-plots for TSS in the Sacramento and American Rivers, respectively. Box-plots provide distributional information (inter-quartile range, data range, distribution type, etc.) and are presented to compare changes in these characteristics between upstream and downstream sites, as well as between data periods (1990-2002 vs. 2002-2007). TSS was used only as a general indicator of typical patterns. The complete set of box-plots is included in Part III of the ROWD data submittal.

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<sup>1</sup> Brian Laurenson, Larry Walker Associates. *Evaluation of Additional Pesticide Monitoring Data – 2007 Update*. Memorandum prepared for Sacramento Stormwater Quality Partnership. May 2007

<sup>2</sup> Iain Clark, Larry Walker Associates. *Results of Biotic Ligand Model Analysis of Sacramento Urban Tributary Data for Copper, Cadmium and Zinc*. Memorandum prepared for Sacramento Stormwater Quality Partnership. May 2007

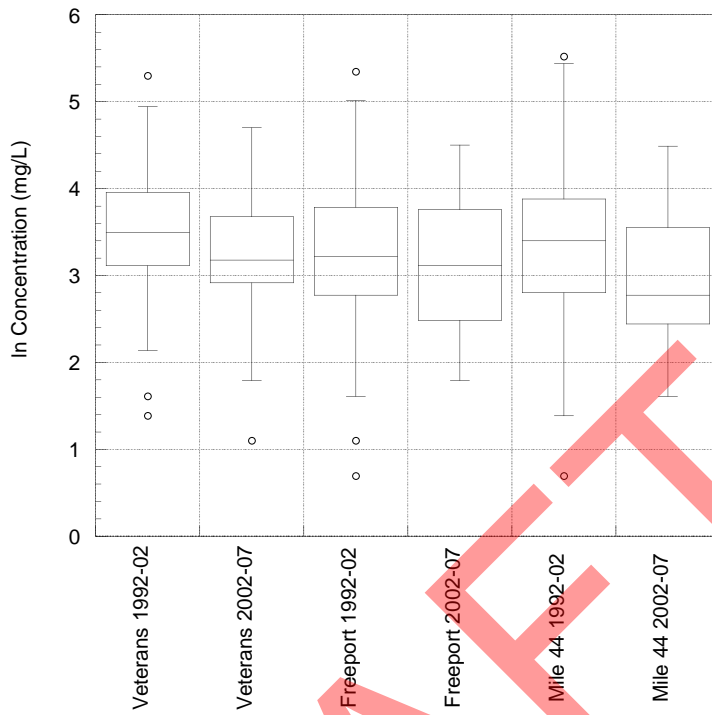


Figure 4. TSS in Sacramento River 1990-2007

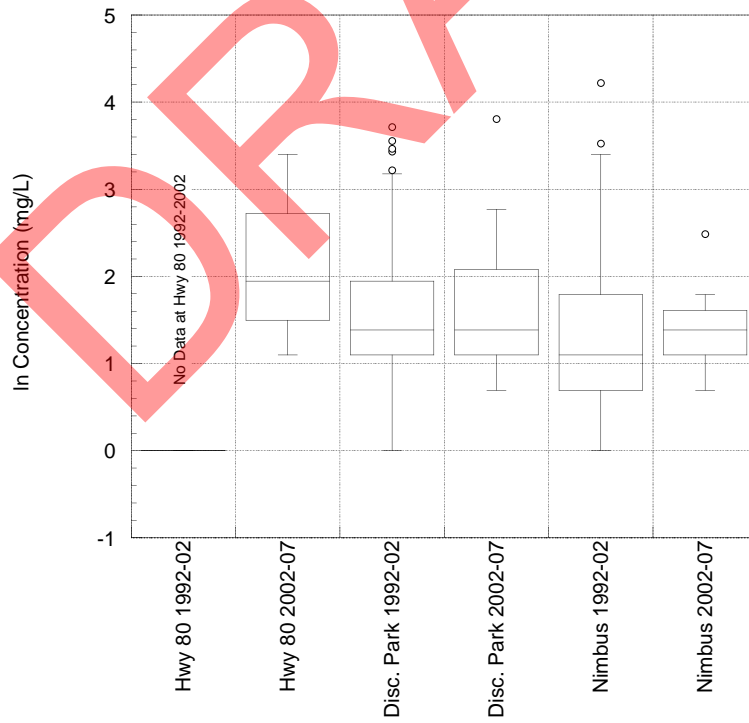


Figure 5. TSS in American River 1990-2007

# Conclusions

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Based on a review of the results presented in the 2007 ROWD data submittal, the following conclusions can be made with regard to status and trend monitoring:

## URBAN RUNOFF

- Median concentrations for the 2002-2007 monitoring period are consistently lower than the previous monitoring period (1990-2002) for the ‘short list’ of key constituents selected (see Table 1). This may be attributable to better sampling techniques or other management program activities (e.g., street sweeping, public outreach, etc.). This pattern is evident in box plot comparisons, time series plots, in addition to comparisons of period median concentrations.
- Since pesticide registration changes went into effect in 2006, chlorpyrifos has not been detected and diazinon concentrations have been detected consistently below the (EPA revised) WQO (0.17 µg/L).
- Sump 104 and Strong Ranch Slough distributions are more similar to each other than to Sump 111. Sump 104 and Strong Ranch Slough drainage areas land uses are residential with some commercial and Sump 111 is light industrial and much smaller in area.
- Data collected to date are insufficient to characterize trends in new development urban runoff quality.

## URBAN TRIBUTARY

- Data collected to date are insufficient to characterize trends except in the case of chlorpyrifos and diazinon where pesticide registration changes have clearly reduced concentrations of these pesticides below WQO concentrations.
- When adjusted to consider site specific conditions using the BLM, copper, zinc, and cadmium observed concentrations generally do not exceed WQOs or site specific LC50s, even in cases where the observed concentrations exceeded the CTR WQO.
- The Arcade Creek at Watt Ave. and Willow Creek at Blue Ravine Rd. monitoring locations are representative of the other “additional pesticide” locations and the Morrison Creek at Brookfield location in terms of chlorpyrifos and diazinon concentrations. Continued monitoring of the additional sites does not provide useful information, especially in light of the registration changes.
- Arcade Creek and Morrison Creek are distributionally similar for most constituents; Willow Creek tends to have lower concentrations of most constituents.

## RIVER

- Differences between the upstream and downstream Sacramento River sites are explained by the confluence and influence of the American River, and site comparison are generally not useful.
- The American River at Highway 80 site location has been problematic because of the shallow depth in the reach where sample collection is required. It is not usually possible,

especially in dry weather, to navigate a boat upstream, and it has been necessary to move the site location frequently in order to safely access the river between the Chicken/Strong Ranch Slough discharge point and the Highway 80 Bridge. Collecting the transect composite without disturbing the sediments can also be difficult in this shallow reach. Finally, the Sump 10 urban runoff location is near to the upstream location during wet weather. Sampling in this location may be subject to localized discharge plume issues and may not be representative of river at that location.

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# Appendix F

## County of Sacramento SQIP Appendices

Appendix F-1. SQIP Certification

Appendix F-2. Certification of Legal Authority (*Section 4.2*)

Appendix F-3. EMD Fee Ordinance (*Section 4.4*)

Appendix F-4. Definitions of Industrial Categories (*Section 4.4*)

Appendix F-5. EMD Enforcement Policy (*Section 4.4*)

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## STORMWATER QUALITY IMPROVEMENT PLAN (SQIP)

### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the 30th day of May, 2007,

at Sacramento, CA.

Keith DeVore  
Signature

Keith DeVore, Director  
Dept. of Water Resources  
County of Sacramento



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**OFFICE OF THE COUNTY COUNSEL - DOWNTOWN OFFICE**

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**Statement Of Legal Authority**

This Statement is provided on behalf of the County of Sacramento pursuant to the "Waste Discharge Requirements for County of Sacramento and Cities of Citrus Heights, Elk Grove, Folsom, Galt and Sacramento Storm Water Discharges from Municipal Separate Storm Sewer Systems Sacramento County, NPDES No. CAS082597, Order No. R5-2002-0206," issued by the California Regional Water Quality Control Board Central Valley Region on December 6, 2002 (hereafter referred to as the "Order").

Section C.6 of the Order requires the preparation of a statement "certified by the Chief Legal Counsel," verifying that adequate authority exists to implement the terms of the Order and requirements of federal stormwater regulations. Section C.6 specifies four items that must be included in the statement:

*"6. Each Permittee shall provide to the Regional Board a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in Permittees' revised SQIP(s), shall include the following:*

a. Citation of storm water related ordinances adopted by the Permittees and the reasons the ordinances are enforceable;

b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' storm water related ordinances, which incorporates the conditions of this Order;

c. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and

d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions."

As required by the Order, a complete discussion of each issue with respect to the County of Sacramento follows.

**a. Citation of storm water related ordinances adopted by the Permittees and the reasons the ordinances are enforceable.**

The principal ordinance governing discharges to the County's municipal separate storm sewer system (MS4) is Chapter 15.12 of the Sacramento County Code (the "Storm Water Ordinance"). The purpose of the Storm Water Ordinance is to "protect and enhance the water quality of watercourses, water bodies and wetlands within the unincorporated area of the County in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal Discharge Permit No. CA0082597 by controlling the contribution of urban pollutants to stormwater runoff which enters the County stormwater conveyance system." The provisions of the Storm Water Ordinance authorize implementation or enforcement of each mandate of the Order or stormwater regulation, except those noted herein.

Additionally, the County's Grading Ordinance, Chapter 16.44 of the Sacramento County Code, regulates grading projects and sets conditions for approval of such projects. The County enacted this ordinance specifically to minimize the degradation of the water quality of watercourses caused by grading, filling and excavation of land, and to control sediment and pollutant runoff from other construction-related activities. These goals are achieved by establishing administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other construction-related pollution.

These ordinances were properly published, introduced and adopted by the Sacramento County Board of Supervisors and constitute enforceable enactments pursuant to the County's police power. Copies of these ordinance are attached to this letter.

The County's authority under its ordinances is very wide-ranging and is sufficient to address the majority of the mandates contained in the Order. However, a few of the requirements are not explicitly addressed through existing ordinances, and thus staff will recommend revisions to the Storm Water Ordinance. The Order requires the County to "carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits, including the prohibition of illegal discharges to the MS4. Each Permittee must have authority to enter, sample, inspect, review and copy records, and require regular reports from industrial facilities and construction sites discharging into its MS4." The Storm Water Ordinance currently authorizes inspections and monitoring by County but does not authorize requirements for regular reports from dischargers.



The County plans on amending the ordinance to gain authority to require regular reports from dischargers for industrial facilities and construction sites. Additionally, the Order requires the County to have the legal authority to require “that treatment control BMPs be properly operated and maintained.” Sacramento County Code sections 15.12.200-230 and section 16.44.170 require most industrial facilities and construction sites to implement and maintain BMPs. However, these sections do not apply to all types of new development. It is anticipated that the process currently underway to evaluate existing County development standards and prepare the Development Standards Plan will recommend amendments to the Storm Water Ordinance to authorize treatment control BMP requirements (including provisions for long-term maintenance of structural BMPs) for “priority development projects” specified by the Development Standards provisions of the Order.

The Order and federal storm water regulations require the County to “control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Permittees.” While not specifically covered in any existing interagency agreements, the current Cost Sharing Memorandum of Understanding discussed in Chapter 3 of the County SQIP implicitly addresses this requirement.

**b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees’ storm water related ordinances, which incorporate the conditions of this Order.**

The County Storm Water Ordinance has several administrative procedures available to mandate compliance with the requirements contained in the ordinance. As discussed further below, these options include issuing notices of non-compliance, administrative enforcement orders and cease and desist orders. In addition to administrative enforcement options, the County may seek civil and criminal penalties against a violator and may seek nuisance abatement through the court system. Lastly, Section 15.12.230 allows the Administrator of the County Public Works Agency to promulgate regulations for the implementation of the County’s Storm Water Ordinance. This section gives the County the ability to further refine its administrative compliance options.

**c. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed.**

The County implements its Storm Water Ordinance through the stormwater program detailed in the SQIP. The Storm Water Ordinance sets forth a detailed process for appealing enforcement action brought pursuant to it. Section 15.12.440 provides that any person receiving a notice of non-compliance, an administrative compliance order or otherwise suffers an adverse determination under the ordinance may request an administrative hearing before an administrative hearing officer

designated by the Board of Supervisors. The ordinance requires the appellant to file, within thirty (30) days of receipt of notice of an adverse determination, a written request for an administrative hearing, accompanied by an administrative hearing fee as established by resolution of the Board, with the Administrator. The County will then hold a hearing on the matter before a hearing officer within forty-five (45) days of the filing of the written request unless, in the reasonable discretion of the hearing officer and pursuant to a request by the appealing party, a continuance of the hearing is granted. The hearing officer must issue his or her final decision within ten (10) days of the hearing.

**d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.**

As stated above, the Storm Water Ordinance includes an extensive section on enforcement actions (giving the County a wide variety of administrative options in case of violations. The administrative enforcement options include issuing a notice of non-compliance, administrative compliance orders, and cease and desist orders. Issuance of a cease and desist order functions as an injunction in that it allows the Administrator to direct the owner or occupant of any premises, or any other person responsible for any violation of the Ordinance, to take one or more of the following actions: (1) Immediately discontinue any prohibited discharge to the County stormwater conveyance system; (2) Immediately discontinue any other violation of the Ordinance; and (3) Clean up the area affected by the violation. The Administrator may direct by a Cease and Desist Order that any person immediately cease any activity that may lead to a violation of Receiving Water Limitations.

The County has similar authority under the Grading Ordinance. The powers include the issuance of stop work notices, denial of future grading permits and the abatement of nuisance conditions.

Based on the foregoing discussion and subject to the exceptions described herein, the Office of the County Counsel respectfully submits this certification.

Certified by,

ROBERT A. RYAN, JR.  
County Counsel

By \_\_\_\_\_  
LISA A. TRAVIS  
Deputy County Counsel

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Appendix F-3

EMD Fee Ordinance  
*(Section 4.4)*

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SCC NO. \_\_\_\_\_

**AN ORDINANCE REPEALING VARIOUS SECTIONS OF CHAPTER 6.99 OF THE SACRAMENTO COUNTY CODE; AMENDING VARIOUS SECTIONS OF CHAPTER 6.99 OF THE SACRAMENTO COUNTY CODE; AND ADDING VARIOUS SECTIONS TO CHAPTER 6.99 OF THE SACRAMENTO COUNTY CODE RELATING TO ENVIRONMENTAL MANAGEMENT DEPARTMENT REGULATORY FEES**

The Board of Supervisors of the County of Sacramento, State of California, ordains as follows:

SECTION 1. Sections 6.99.023, 6.99.024, 6.99.062, 6.99.065, 6.99.110, 6.99.111, 6.99.115, 6.99.120, 6.99.127, 6.99.130, 6.99.140, 6.99.145, 6.99.170, 6.99.172, 6.99.360, 6.99.365, 6.99.370, 6.99.375, 6.99.380, 6.99.385 and 6.99.390, 6.99.395 of Chapter 6.99, Title 6 of the Sacramento County Code are hereby repealed in their entirety.

SECTION 2. Section 6.99.010 of Chapter 6.99, Title 6, of the Sacramento County Code is hereby amended to read as follows:

**6.99.010 Certified Unified Program Agency (CUPA).**

CUPA as defined in Division 20, Chapter 6.11, Section 25404(c) of the California Health and Safety Code refers to the Agency certified by the Secretary of the California Environmental Protection Agency.

SECTION 3. Section 6.99.011 of Chapter 6.99, Title 6, of the Sacramento County Code is hereby amended to read as follows:

**6.99.011 Auto Body Shops.**

An auto body shop is defined as any commercial facility that meets the definition of Standard Industrial Classification Code 7532 except as noted below, and engages in the repair, replacement, painting, or alteration of automobile bodies or body parts when auto body work is the primary activity. This definition also includes auto body work when it is conducted as an ancillary activity within at least 300 square feet of dedicated shop space. If the facility meets the definition of SIC Code 7532 but is exclusively engaged in repair or replacement of automotive interiors, upholstery, or tops, it shall not be considered an auto body shop. This definition does not include facilities whose primary

business is metal plating or powder coating, except to the extent that other activities as described above are conducted on site.

SECTION 4. Section 6.99.012 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.012 Auto Dealers.**

An auto dealer is defined as any commercial facility engaged in the sale, leasing, or rental of new or used cars, trucks and vans, motorcycles, or other similar vehicles. This includes facilities that meet the definition of Standard Industrial Classification Codes 5012, 5511, 5521, 5571, 7513, 7514, 7515, or 7519. Some facilities in SIC Code 7999 also fit this definition. This definition excludes commercial facilities engaged exclusively in the sale of the following: automotive bodies, campers, mopeds, motor scooters, snowmobiles, trailers and mobile homes. This definition is limited to facilities that have at least five thousand (5,000) square feet of outdoor area devoted to the display of all autos as defined above, employee parking or other related purposes.

SECTION 5. Section 6.99.013 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.013 Auto Repair Shops.**

An auto repair shop is defined as any facility engaged in the repair or replacement of car, truck, van, motorcycle or other motorized vehicle mechanical or exhaust components, or in the replacement of motor oil and other lubricants and fluids when auto repair work is the primary activity. This definition also includes auto repair work when it is conducted as an ancillary activity with at least 300 square feet of dedicated shop space. Facilities that meets the definition of Standard Industrial Classification Code sections 7533 (exhaust system repair), 7537 (transmission repair), 7538 (general automotive repair), or 7539 (automotive repair, not elsewhere classified) or 7539 (motorcycle repair shops only) are included in this definition. Facilities in SIC Code 7539 that are engaged exclusively in frame repair, air conditioning repair, axle straightening, or wheel alignment are not included in this definition. This definition includes businesses that conduct retail or wholesale auto repair, as well as those that conduct in house auto repair to service business owned vehicles, as well as those described above

SECTION 6. Section 6.99.014 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby added to read as follows:

**6.99.014 Illegal Methamphetamine Manufacturing or Storage Site.**

Means property where a person manufactures methamphetamine or stores methamphetamine or a hazardous chemical used in connection with the manufacturing or storage of methamphetamine.

SECTION 7. Section 6.99.015 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.015 Chemical Compounds.**

The number of chemical compounds shall be determined by either discreet Chemical Abstract Service (CAS) or Hazardous Waste Number or individual Material Safety Data Sheets.

SECTION 8. Section 6.99.016 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.016 County Director.**

The term "County Director" shall mean the Director of the County Department of Environmental Management, the County staff of that Department who are subordinate to the Director, and any party designated by the Director.

SECTION 9. Section 6.99.017 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby added to read as follows:

**6.99.017 Equipment Rentals.**

An equipment rental facility is defined as any facility whose primary business is to rent machinery or equipment used for construction, demolition, digging and grading, building maintenance and repair, painting, plastering and texturing, landscaping, cleaning, pressure washing or steam cleaning, or similar activities. An equipment rental facility is also defined as any facility with a different primary business, but that utilizes more than 200 square feet of outdoor uncovered area for storage, display, or as a workspace associated with rental equipment (as described above), provided that the facility cleans, maintains, repairs or disposes of waste from any equipment at the site. Facilities engaged in the rental of trucks, trailers and automobiles but not also engaged in the rental of any types of equipment listed above are included in the definition of auto dealer and are not considered equipment rental facilities.

SECTION 10. Section 6.99.018 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby added to read as follows:

**6.99.018 General Permit Industries.**

A General Permit Industry is defined as any facility that should be covered under the State of California's General Industrial Storm Water Permit.

SECTION 11. Section 6.99.019 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.019 Hourly Rate.**

The term “Hourly Rate” refers to the rate used to calculate all program fees provided for in this Chapter. The rate is calculated using methodologies approved and adopted by the Board of Supervisors. The Board of Supervisors may establish the hourly rate for up to five fiscal years in advance and may increase or decrease the hourly rate for any fiscal year if it determines that there has been a significant change in projected program costs.

SECTION 12. Section 6.99.020 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby added to read as follows:

**6.99.020 Plan Review.**

For purposes of this code, the term “Plan Review” is defined as a review of any necessary plans and or documents required for the issuance of a permit or any other regulatory approval

SECTION 13. Section 6.99.028 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.028 Reinspection.**

A reinspection means an inspection made for the purpose of determining compliance with corrective orders issued on a Notice to Comply or other official notice of an inspection report.

SECTION 14. Section 6.99.029 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.029 Special Handling/Service.**

The term “Special Handling/service” means any office activity including but not limited to, a plan review, permit application, or other office review that is expedited, and or any field inspection or oversight service that is provided outside of normal business hours. Special handling/service will be provided pursuant to need or request and upon availability of staff, by paying the basic fee, plus an additional fee pursuant to Section 6.99.035.



SECTION 15. Section 6.99.035 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.035 Permit/License/Registration/Surcharge/Inspection/Reinspection Fees.**

The County Director shall charge the regulatory, permit, inspection, re-inspection and surcharge fees provided in this chapter. The fees charged pursuant to this section shall be established by the Board of Supervisors based upon the County’s recovery of the projected program costs for that fiscal year. The permit, license, registration and surcharge fees provided for in this chapter shall not be transferable or in any other way assignable. The Board of Supervisors may establish fees for up to five fiscal years in advance based upon projected program costs. The Board may increase or decrease any and all fees for any fiscal year if it determines that there has been a significant change in projected program costs.

SECTION 16. Section 6.99.070 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.070 Exceptional Facility Fee—Special Fees.**

If the time required by the County Director to conduct inspections or otherwise review, administer, or process issuance of those permits and licenses described by Sections 6.99.076 through 6.99.100, exceed the times specified below, an Exceptional Facility Fee, at one-half the hourly rate, shall be payable for each additional one-half hour or portion thereof:

|    |   |           |
|----|---|-----------|
| a. | Permit to install underground storage tanks under Section 6.99.080:               |           |
| 1. | First tank  | 16 hours  |
| 2. | Each additional tank  | 2 hours   |
| b. | Permit to close underground storage tanks under Section 6.99.085                  |           |
| 1. | First tank  | 7 hours   |
| 2. | Each additional tank  | 1 hour    |
| c. | Permit to upgrade underground storage tanks with piping under Section 6.99.086:   |           |
| 1. | First tank  | 13 hours  |
| 2. | Each additional tank  | 2 hours   |
| d. | Permit to upgrade underground storage tanks without piping under Section 6.99.087 | 8 hours   |
| e. | Permit to temporarily abandon   | 3.5 hours |

|    |  |           |
|----|--|-----------|
|    | underground storage tanks under Section 6.99.090   |           |
| f. | Permit to repair underground storage tank, piping or monitoring system under Section 6.99.100                        | 5 hours   |
| 1. | Permit for the replacement or repair of spill container (bucket)   | 3.5 Hours |
| g. | Fee for review of first time submittals of Risk Management Plan (RMP) under Section 6.99.135                         |           |
| 1. | Level 1 facility   | 11 hours  |
| 2. | Level 2 or 3 facility  | 24 hours  |
| h. | Fee for remediation or property contaminated by methamphetamine production related activities under Section 6.99.136 | 18 hours  |

SECTION 17. Section 6.99.075 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.075 Fee for Incident Response Cost Recovery.**

In connection with the costs incurred by the County Director and/or the County Director's contractor for services provided in the event of a response to the release or threatened release of a hazardous material or any other substance that could potentially have a negative impact to the environment or public health, a fee based on the current hourly rate established pursuant to Section 6.99.019 shall be owed by the Responsible Party for each hour expended or portion thereof per responding specialist, plus contractor costs if any, mitigating the incident.

SECTION 18. Section 6.99.076 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby added to read as follows:

**6.99.076 Fee for oversight of the remediation of an Illegal Methamphetamine Manufacturing or Storage Site.**

In connection with regulatory services by the County Director and or the County Director's contractor for services under Division 20, Chapter 6.9.1 of the California Health and Safety Code, a fee shall be payable in the amount established pursuant to section 6.99.035.

SECTION 19. Section 6.99.080 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.080 Fee for Tank Installation .**

In connection with the installation of underground storage tanks as regulated by Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035.

SECTION 20. Section 6.99.085 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.085 Fee for Tank Closure.**

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035.

SECTION 21. Section 6.99.086 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.086 Fee for Tank(s) With Piping Upgrade.**

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035.

SECTION 22. Section 6.99.087 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.087 Fee for Tank(s) Without Piping Upgrade.**

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035.

SECTION 23. Section 6.99.090 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.090 Fee for Tank Temporary Abandonment.**

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035.

SECTION 24. Section 6.99.100 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.100 Fee for Pipe or Monitoring System Repair.**

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee in the amount established pursuant to Section 6.99.035 shall be paid in connection with the repair of a pipe as defined in Section 25281.5 of the California Health and Safety Code for an existing underground storage tank facility or repair of a monitoring system for such facility.

SECTION 25. Section 6.99.105 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.105 Fee for Well Construction and Concurrent Pump Installation.**

In connection with services by the County Director under Chapter 6.28 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035.

SECTION 26. Section 6.99.147 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.147 Permit Extension Fee.**

In connection with the issuance of a one time extension of any permit granted under Sections 6.99.080 through 6.99.105 a fee equal to twenty percent (20%) of the original permit shall be paid.

SECTION 27. Section 6.99.160 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.160 Consultation Fee.**

A fee in the amount established pursuant to Section 6.99.019 shall be payable for each hour or portion thereof of service delivered by the County Director in connection with site remediation, investigation and/or consultation activities required or requested in connection with the contamination of a site by discharge of a hazardous substance, material or waste.

SECTION 28. Section 6.99.175 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.175 Food Facility Fee.**

a. The annual regulatory program fees for a food facility as defined in California Health and Safety Code Section 114380 through Section 114387 shall be established pursuant to Section 6.99.035 for the following facilities:

- Food Preparation Establishment (without hood)
- Restaurant
- Bar
- Restaurant/Bar
- School/Non Profit Sr. Meal Program
- Bakery-No Preparation
- Caterer/Low Risk
- Caterer/High Risk
- Temporary Food Facility (Food Prep/High Risk)
- Temporary Food Facility (Packaged Food/Low Risk)
- Temporary Food Facility Multi-Event (Food Prep/High Risk)
- Temporary Food Facility Multi-Event (Packaged Food/Low Risk)
- Produce Stand
- Certified Farmers' Market
- Retail Mkt (15,000 + Sq.Ft.)
- (6,000-14,999 Sq.Ft.)
- (Less Than 6,000 Sq. Ft.)
- Mobile Food Facility
- (Category A)
- (Category B)
- (Category C)
- (Category D)
- Mobile Support Unit
- Commissary
- Satellite Food Dist. Fac.
- Seasonal/Low Risk
- Seasonal/High Risk
- Restricted Food Service Est.
- Swap Meet Prepackaged Food Stand (Variable Locations)

b. A Mobile Food Facility Category A is a vehicle as defined in California Health and Safety Code Section 113831 that is permitted to sell prepackaged food, whole uncut produce, whole fish, and whole aquatic invertebrates.

c. A Mobile Food Facility Category B is a vehicle as defined in California Health and Safety Code Section 113831 that is permitted to sell unpackaged food that requires no preparation other than heating, popping, blending, portioning, or dispensing. The Mobile Food Facility Category B utilizes a mobile support unit or a permitted facility for its commissary.

d. A Mobile Food Facility Category C Is a vehicle as defined in California Health and Safety Code Section 113831 that is permitted to sell unpackaged food that requires no preparation other than heating, popping, blending, portioning or dispensing. The Mobile Food Facility Category C utilizes an onsite commissary that is not used by any other mobile food facility and is not permitted as a separate food facility.

e. A Mobile Food Facility Category D is a vehicle as defined in the California Health and safety Code, section 113831 that is permitted to sell unpackaged food that is cooked or baked on the vehicle or any unpackaged food that requires preparation beyond heating, popping, blending, portioning or dispensing.

f. A Food Preparation Establishment (without hood) is a “food facility” as defined in Section 113789 of the California Health and Safety Code that handles unpackaged food, and in which any installed heat processing equipment is limited to equipment that does not require mechanical exhaust ventilation pursuant to Section 114149.1 of the Health and Safety Code.

SECTION 29. Section 6.99.180 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.180 Community Event Permit Fees.**

a. Sections 114338.1 through 114381.2 of the California Health and Safety Code require that the person or organization in control of any community event having temporary food facilities must obtain a permit. The applicant for a permit shall pay fees established pursuant to Section 6.99.035 based upon one of the following categories:

1. Community Event Permit - 5 or fewer Temporary Food Facilities.
2. Community Event Permit - 6 or more Temporary Food Facilities.
3. Community Event Permit - 5 or fewer Non-Profit Temporary Food Facilities.

b. No fee shall be charged to nonprofit charitable temporary food facilities, nor to the person or organization responsible for the nonprofit charitable temporary food facilities that operate in conjunction with a community event as defined in Section 113755 of the Health and Safety Code, provided that there are no more than five temporary food facilities at such event and provided all facilities are nonprofit charitable temporary food facilities as defined in Section 113842 of the Health and Safety Code. The County Director shall make educational materials concerning basic concepts of food protection available to the participants of such events. .

c. In addition to the Community Event Permit, the operator of each complying Temporary Food Facility must also obtain a permit. Permit fees shall be established pursuant to Section 6.99.035 based upon the following two categories:  
Temporary Food Facility - Packaged Foods/Low Risk  
Temporary Food Facility - Prepared Foods/High Risk

d. A penalty fee established pursuant to Section 6.99.035 shall be charged to the person or organization in charge of any community event when no permit has been obtained at least two weeks prior to the event.

e. A late fee established pursuant to Section 6.99.035 shall be charged to the operator of any Temporary Food Facility when no permit has been obtained at least

two weeks prior to the event.

f. If the applicant for permit to operate a temporary food facility desires to operate at multiple events, a multi-event permit may be issued provided the operator of the temporary food facility:

1. Uses the annual permit only at permitted community events;
2. Completes a risk assessment sheet and receives approval from the County Director for food protection operating procedures, including storage, transportation, preparation, holding and serving, as well as approval for any changes in such procedures;
3. Completes and posts the self-inspection check list prior to operating at each event;
4. Operates in compliance with all applicable laws and codes;
5. Obtains a separate permit for each facility if the applicant operates more than one facility at an event;
6. Provides a list of events at which the applicant plans to operate;
7. Provides proof of satisfactory completion of a class within the 3 years preceding application approved by the County Director in basic fundamentals of food protection for food preparation operators;
8. Applies for the multi-event permit prior to operating and pays any applicable fees; and
9. Submits a menu.
10. Utilizes an approved commissary and submits a valid commissary letter

The annual multi-event permit fees shall be established pursuant to Section 6.99.035 for the following:

Temporary Food Facility Multi-event (Pkg. Foods/Low Risk)

Temporary Food Facility Multi-event (Food Prep/High Risk)

#### SECTION 30. Section 6.99.185 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

#### **6.99.185 Food Facility Reinspections.**

The reinspection fee for food facilities as defined in California Health and Safety Code Section 113700 through Section 113910 shall be established pursuant to Section 6.99.035 for the following facilities:

Food Preparation Establishment (without hood)

Restaurant

Bar

Restaurant/Bar

School/Non Profit Sr. Meal Program

Bakery No Preparation

Caterer/Low Risk

Caterer/High Risk

Temporary Food Facility (Food Prep/High Risk)

Temporary Food Facility (Packaged Food/Low Risk)

Temporary Food Facility Multi-Event (Food Prep/High Risk)

Temporary Food Facility Multi-Event (Pkgd Food/Low Risk)  
Produce Stand  
Certified Farmers' Market  
Retail Mkt (15,000 + Sq. Ft.)  
(6,000-14,999 Sq. Ft.)  
(Less Than 6,000 Sq. Ft.)  
Mobile Food Facility (Category A)  
Mobile Food Facility (Category B)  
Mobile Food Facility (Category C)  
Mobile Food Facility (Category D)  
Mobile Food Prep. Unit  
Mobile Support Unit  
Commissary  
Satellite Food Dist. Facility  
School Satellite Facility  
Restricted Food Service Est.  
Swap Meet Prepackaged Food Stand  
(Variable Locations)  
Seasonal (Low Risk)  
Seasonal (High Risk)

SECTION 31. Section 6.99.195 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.195 Multiple Food Facilities.**

Any premises with multiple food facilities operating under the same ownership, shall pay the following fees: one hundred percent (100%) of the annual fee for the type facility with the highest prescribed fee, and seventy percent (70%) of each remaining fee. Temporary Food Facilities, Mobile Food Facilities, Mobile Support Units, Swap Meet Prepackaged Food Stands, or Satellite Food Distribution Facilities shall not be included as multiples and shall pay the basic fee.

SECTION 32. Section 6.99.211 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby added to read as follows:

**6.99.211 Mandatory Food Safety Education Course Fee.**

A per person and per class fee for the Food Safety Education Course shall be established pursuant to Sections 6.99.035 and 6.04.022.



SECTION 33. Section 6.99.256 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby added to read as follows:

**6.99.256 Temporarily Inactive Fee-Pool/Spas**

For the purposes of this section, the phrase “Temporarily Inactive Pool, Spa, or Wading Pool” shall mean any pool, spa or wading pool that is maintained empty or unused. The fee for Temporarily Inactive Pool, Spa or Wading Pool shall be established pursuant to Section 6.99.035.

SECTION 34. Section 6.99.315 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.315 Small Public Water System.**

Small public water systems are those systems as defined in the California Health and Safety Code, Section 116275. A new permit application fee, permit amendment fee, repair permit fee and an annual fee for each small public water system regulated by the County Director shall be established pursuant to Section 6.99.035.

SECTION 35. Section 6.99.330 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.330 On site Sewage Treatment (Septic Tank) System.**

In connection with services by the County Director under Chapter 6.32 of this code, fees in the amount established pursuant to Section 6.99.035 shall be payable.

SECTION 36. Section 6.99.345 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.345 Consulting Services.**

The fee for consultations for the installation, location or abandonment of an onsite sewage treatment (septic) system shall be established pursuant to Section 6.99.035.

SECTION 37. Section 6.99.440 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.440 Closed Site, Refuse Vehicle, Refuse Exemption, and New Facility Permit.**

The annual fee for a closed site, refuse vehicle, refuse exemption, and processing a new facility permit shall be established pursuant to Section 6.99.035 for the following:

Closed Site, Quarterly Inspection  
Closed Site, Annual Inspection  
Closed Site, Bi-Annual Inspection  
Refuse Vehicle  
Refuse Exemption  
New Facility Permit

SECTION 38. Section 6.99.480 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.480 Surcharge.**

If the County Director is requested or required to perform regulatory functions or work in excess of the cost recovery provided by the fees established pursuant to this Chapter, a surcharge to recover the excess costs shall be assessed at the hourly rate established pursuant to Section 6.99.019.

SECTION 39. Section 6.99.495 of Chapter 6.99, Title 6, of the Sacramento

County Code is hereby amended to read as follows:

**6.99.495 Collection.**

The County Director shall be responsible for the collection of all fees prescribed by this Chapter. All fees the exact or estimated amount of which can be calculated at the time an application for a Permit or License under Chapters 6.28, 6.34, 6.96 or 6.98 is filed of this Code, shall be so calculated and estimated, and owing pursuant to the filing of the application. No application for such a Permit or License shall be deemed to be complete or valid unless all fees calculated and estimated by the County Director have been submitted with the application. The County Director shall be authorized to order refunds and the County Auditor-Controller shall draw warrants for such refunds in such amounts as the County Director prescribes in connection with any fees collected at the time of application for a Permit or License which were overestimated. Any fees prescribed by this Chapter not collected by the County Director at the time of application for a Permit or License required by Chapters 6.28, 6.34, 6.96 or 6.98, and all other fees prescribed by this Chapter, shall be billed by the County Director to the party or parties responsible for payment therefore. A fee which is owing and unpaid shall become delinquent thirty (30) calendar days following the date of mailing by the County Director of the billing. A delinquency charge in an amount of ten percent (10%) of the outstanding account balance, but not less than seventy-five dollars (\$75.00) shall be applied and collectable from the parties responsible in connection with all delinquent accounts. All costs, beyond those recovered by any delinquency charge either directly or indirectly incurred by the County Director, including but not limited to court costs, collection costs and handling charges, in collecting unpaid and delinquent accounts shall be owed by the responsible party or parties. The County Director shall be authorized to file and diligently prosecute in the name of the County civil suits in Small Claims Courts and/or Municipal/Superior Courts of competent jurisdiction or seek liens

in the name of the County for the collection and recovery of delinquent fees and/or other charges prescribed by this Chapter.

SECTION 40. This ordinance was introduced and the title thereof read at the regular meeting of the Board of Supervisors on \_\_\_\_\_ and on \_\_\_\_\_ further reading was waived by the unanimous vote of the Supervisors present.

This ordinance shall take effect and be in full force on and after thirty (30) days from the date of its passage, and before the expiration of fifteen (15) days from the date of its passage it shall be published once with the names of the members of the Board of Supervisors voting for and against the same, said publication to be made in a newspaper of general circulation published in the County of Sacramento.

On a motion by Supervisor \_\_\_\_\_, seconded by Supervisor \_\_\_\_\_, the foregoing ordinance was passed and adopted by the Board of Supervisors of the County of Sacramento, State of California, this \_\_\_\_ day of \_\_\_\_\_ 200\_\_, by the following vote:

AYES: Supervisors,

NOES: Supervisors,

ABSENT: Supervisors,

ABSTAIN: Supervisors,

---

Chair of the Board of Supervisors  
of Sacramento County, California

(SEAL)

ATTEST: \_\_\_\_\_  
Clerk, Board of Supervisors

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For the most current version of Title 6, Chapter 6.99 of County code, which has been amended as described above, go to the following website address:

[http://municipalcodes.lexisnexis.com/codes/sacramento\\_co/](http://municipalcodes.lexisnexis.com/codes/sacramento_co/)

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Appendix F-4

Definitions of Industrial Categories

*(Section 4.4)*

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## Definitions of Industrial Inspection Categories

**Auto Body Shops.** An auto body shop is defined as any commercial facility that meets the definition of SIC Code 7532 except as noted below, and engages in the repair, replacement, painting, or alteration of automobile bodies or body parts when auto body work is the primary activity. This definition also includes auto body work when it is conducted as an ancillary activity with at least 300 square feet of dedicated shop space. If the facility meets the definition of SIC Code 7532 but is exclusively engaged in repair or replacement of automotive interiors, upholstery, or tops, it shall not be considered an auto body shop.

This definition does not include facilities whose primary business is metal plating or powder coating, except to the extent that other activities as described above are conducted onsite.

**Auto Dealers.** An auto dealer is defined as any commercial facility engaged in the sale, leasing, or rental of new or used cars, trucks and vans, motorcycles, or other similar vehicles. This includes facilities that meet the definition of SIC Codes 5012, 5511, 5521, 5561, 5571, 7513, 7514, 7515, or 7519. This definition excludes commercial facilities engaged exclusively in the sale of the following: automotive bodies, campers, mopeds, motor scooters, snowmobiles, trailers and mobile homes.

This definition is limited to facilities that have at least 5,000 square feet of outdoor area for the display of all autos, as defined above, employee parking, or other related purposes.

**Auto Repair Shops.** An auto repair shop is defined as any commercial facility engaged in the repair or replacement of car, truck and van, motorcycle or other motorized vehicle mechanical or exhaust components, or in the replacement of motor oil and other lubricants and fluids when auto repair work is the primary activity. This definition also includes auto repair work when it is conducted as an ancillary activity with at least 300 square feet of dedicated shop space. Facilities that meet the definition of SIC Codes 7533 (exhaust system repair), 7537 (transmission repair), 7538 (general automotive repair), 7539 (automotive repair, not elsewhere classified), or 7699 (motorcycle repair shops only) are included in this definition.

Facilities in SIC Code 7539 that are engaged exclusively in frame repair, air conditioning repair, axle straightening, or wheel alignment are not included in this definition.

This definition includes businesses that conduct retail or wholesale auto repair, as well as those that conduct in-house auto repair to service business-owned vehicles, as described above.

**Equipment Rentals.** An equipment rental facility is defined as any facility whose primary business is to rent machinery or equipment used for construction, demolition,

digging and grading, building maintenance and repair, painting, plastering and texturing, landscaping, cleaning, pressure washing or steam cleaning, or similar activities.

An equipment rental facility is also defined as any facility with a different primary business, but that utilizes more than 200 square feet of outdoor, uncovered area for storage, display, or as workspace associated with rental equipment (as described above), provided that the facility cleans, maintains, repairs, or disposes of waste from any of the equipment at the site.

Facilities engaged in the rental of trucks, trailers, and automobiles but not also engaged in the rental of any of the types of equipment listed above are included in the definition of auto dealer and are not considered equipment rental facilities.

**Nurseries.** A nursery is defined as any facility that meets the definition of SIC Code Section 0181, Ornamental Floriculture and Nursery Products. A nursery is also an establishment that sells plants at wholesale or retail and applies pesticides or fertilizers to the plants at that location.

**Kennels.** A kennel is defined as any facility engaged commercially in the rearing, breeding, sheltering, or boarding of dogs, and at which at least 400 square feet of area is used for the keeping of dogs.

**Restaurants.** A restaurant is defined as any room, building, or place or portion thereof, maintained, used or operated for the purpose of preparing, serving, manufacturing, packaging, transporting, salvaging, or otherwise handling food at the retail level.

This definition includes mobile food distribution and mobile food vehicle storage facilities.

The definition of a restaurant does not include the following:

- satellite food distribution facility
- restricted food service establishment (bed and breakfast)
- certified farmers market
- mobile food categories A (ice cream trucks) and B (hot dog carts)
- mobile food preparation
- swap-meet prepackaged food stands.

**Retail Gasoline Outlet. SIC Code 5541** A retail gas outlet is defined as any fixed facility that sells or distributes gasoline from pumps, including retail sales to the public or as a cardlock facility. It does not include mobile suppliers that service fleets at the customer's work place or job site. A retail gas outlet is not a facility that operates and uses its own gasoline pump to supply gasoline to vehicles that it either owns or operates as part of its own business.

**General Permit Industries.** A General Permit industry is defined as any facility that should be covered under the State of California's General Industrial Stormwater Permit as defined by the State of California in the General Industrial Permit fact sheet.

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Appendix F-5

EMD Enforcement Policy

*(Section 4.4)*

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**County of Sacramento Environmental Management Department  
Water Protection Division Stormwater Compliance Section  
Stormwater Enforcement Policy**

**PURPOSE AND INTENT**

The purpose and intent of this document is to provide a framework for inspections and enforcement actions taken by County of Sacramento Environmental Management Department (EMD) Stormwater Compliance Section (SCS) pursuant to Chapter 15.12 of the Sacramento County Code (Stormwater Ordinance) and the stormwater ordinances of the cities of Sacramento, Folsom, Citrus Heights, Galt, Elk Grove and Rancho Cordova (which defer to Chapter 15.12 in matters relating to stormwater enforcement at businesses that EMD regulates).

Effective enforcement against dischargers of pollutants to County and municipal storm drainage systems is a requirement of the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (MS4 Permit) and EMD has agreed to regulate nine required categories of businesses for stormwater compliance on behalf of the MS4 Permittees.

Implementation and interpretation of this policy should be consistent with local stormwater ordinances (hereafter referred to as “Stormwater Ordinance”), including but not limited to, the protection of water quality and compliance with the provisions of the MS4 Permit.

**DEFINITIONS**

- A. **Best Management Practices (BMPs).** Best Management Practices or BMPs are defined in section 15.12.130 (b) of the County Stormwater Ordinance and includes policies, practices, structures, and any other means of reducing or eliminating the discharge of pollutants and non-stormwater discharges to the storm drain system.
- B. **Enforcement Official.** An enforcement official is any person authorized to conduct inspections and/or issue enforcement actions pursuant to the Stormwater Ordinance. Within the Environmental Management Department, SCS staff will be primarily responsible for enforcing the stormwater ordinance, although, Environmental Health Division and Hazardous Materials Division staff may also enforce.
- C. **Fine.** A fine is a monetary Administrative Civil Penalty assessed under the authority of County Section 15.12.560 of the County Stormwater Ordinance and corresponding sections of municipal stormwater ordinances.
- D. **General Permit.** The Industrial General Stormwater Permit is a permit issued by the California State Water Resources Control Board, under the National Pollutant Discharge Elimination System provisions of the Federal Clean Water Act. The Industrial General Permit applies to facilities that discharge stormwater associated with industrial activities as defined in 40 CFR 122.26 (b)(14) *i-ix* and *xi*. The MS4 Permit requires inspection of these facilities on a triennial basis.

- E. **Hearing Officer.** The hearing officer is any person approved by the Board of Supervisors or Stormwater Program Administrator to conduct administrative hearings as provided by Chapter 15.12.
- F. **MS4 Permit.** The Municipal Separate Storm Sewer System Permit is a permit issued by the Regional Board under the Federal Clean Water Act National Pollutant Discharge Elimination System for discharges from Municipal Separate Storm Sewer Systems. For the purposes of this policy, MS4 Permit is NPDES Permit number CAS082597 and any successor permits, issued to the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento.
- G. **Operator.** Any individual that runs, manages, or owns a business.
- H. **Receiving Water Limitations.** Receiving water limitations are those limitations included in Provision B of the MS4 Permit.
- I. **Regional Board.** The Regional Board is the California Regional Water Quality Control Board, Central Valley Region.
- J. **Stormwater Compliance Section (SCS).** SCS is the group within the Water Protection Division that manages EMD's Commercial / Industrial Stormwater Compliance Program.
- K. **Storm Drain System.** The storm drain system or stormwater conveyance system, are those public facilities within the County which are owned, operated, maintained or controlled by the County or cities, by which stormwater may be conveyed to waters of the United States, including, but not limited to, any roads with drainage systems, municipal streets, roadside drainage ditches, catch basins, water quality basins, detention basins, constructed wetlands, artificial channels, aqueducts, curbs, gutters, ditches, sumps, pumping stations, and storm drains. The storm drain system also includes natural creeks and streams which are identified as receiving waters by the MS4 Permit, but does not include the Sacramento, American, Mokelumne, or Cosumnes rivers, or navigable waters of the Delta.
- L. **Stormwater Ordinance.** Stormwater Ordinance refers to Chapter 15.12 of the Sacramento County Code, and/or any equivalent ordinance adopted by a City that establishes authority under which the Environmental Management Department provides stormwater inspection and enforcement services. Each of the incorporated cities within the County (except Isleton) has a stormwater ordinance that has been modified to provide inspection and billing authority to EMD for stormwater compliance. Each of the city ordinances refer to County chapter 15.12 for enforcement matters at businesses that EMD regulates for stormwater on their behalf, to allow for consistent, county-wide enforcement.
- The City of Folsom's stormwater ordinance are sections 8.70.010 – 420
  - The City of Sacramento's stormwater ordinance are sections 13.16.010 – 200
  - The City of Galt's stormwater ordinance are sections 16.10.010 – 220
  - The City of Elk Grove's stormwater ordinance are sections 15.12.010 - 560
  - The City of Citrus Heights and Rancho Cordova refer to the County's ordinance

## **AUTHORITY**

- **Source of Authority.** The authority for this enforcement policy is established in the stormwater ordinance. All enforcement actions must be generally in accordance with the provisions of chapter 15.12, the County Stormwater Ordinance.
- **Delegation of Authority.** Authority for the interpretation, implementation and enforcement of the stormwater ordinance has been delegated to the Director of EMD by the Administrator of the County OF Sacramento's Municipal Services Agency and through agreements with city departments responsible for administering stormwater ordinances.

## **FLEXIBILITY**

This policy is intended to provide a reasonable framework for selecting and conducting enforcement actions in a manner that is fair, consistent, and well-documented. However, this policy can not anticipate all factors or define all situations that are relevant to determining the proper enforcement action for all violations. Therefore, EMD staff who are responsible for conducting enforcement of the Stormwater Ordinance are expected to exercise a reasonable amount of discretion in implementation of this policy.

## **RECORDKEEPING**

Records shall be kept that include inspection reports, warning letters, violation notices, and other pertinent documents that demonstrate the effort made to bring the violator into compliance. All enforcement records should be imaged and photo should be placed on the I: drive, and/or other appropriate file.

## **INSPECTION**

### **Types of Businesses:**

The MS4 Permit requires triennial stormwater compliance inspections and stormwater complaint response at the following categories of businesses:

- Businesses covered under the State's General Industrial Stormwater Permit
- Auto repair
- Auto body
- Auto dealers (dealers with over 5000 sq-ft of outdoor display space)
- Equipment rental businesses (facilities with over 200 sq-ft of outdoor storage or display space)
- Nurseries (small retailers that do not apply pesticides, fertilizers are excluded)
- Kennels (facilities with over 400 sq-ft. of space devoted to dog kenneling)
- Retail gasoline outlets
- Restaurants and related non-mobile food prep facilities

## **Stormwater Inspection Compliance Criteria:**

- No prohibited discharges to the storm drain system are evident
- No illicit connections to the storm drain system are evident
- No prohibited conditions are evident that are likely to result in pollutant discharges to the storm drain system upon contact with rainfall irrigation overflows, etc. such as:
  1. Poor housekeeping resulting in pollutants on the ground and other outdoor areas
  2. Inadequate spill response resulting in unattended spills and leaks on outdoor areas throughout the facility, or indoor areas that could impact outdoor areas.
  3. Uncovered stored wastes, materials, or inventory items that may be expected to be transported to storm drain system by rainfall, irrigation runoff, etc.
  4. Open waste receptacles such as tallow bins, dumpsters and compactors that contain pollutants that may be made to wash or leak out by rainfall, and/or leak wastes that may be expected to be transported to storm drain system by rainfall, irrigation runoff, etc.
  5. Leaky or contaminated equipment stored or used outdoors that are likely to result in wash-off or leakage of significant pollutants
  6. Track-out of sediment or other materials to street or outdoor areas where it may be expected to be transported to storm drain system by rainfall, irrigation runoff, etc.

## **Checklist / Notice of Violation (NOV)**

Two types of checklists / NOV's are utilized:

1. Food facility checklists / NOV's
2. All other facilities (non-food) checklist / NOV's

When stormwater compliance inspections are conducted, the specialist will always fill out and issue a stormwater checklist and NOV to the facility operator. If there are no violations, the specialist will write "no violations noted" on the NOV form. The checklist and NOV are to be signed by the business operator and is left with a copy of each. In all instances, appropriate compliance literature is provided to the facility operator.

## **Corrective Actions**

The specialist will require the facility operator to correct violations within the 19/35 day time frame, as described in the NOV section below. A re-inspection may be avoided by the facility operator if he/she submits clear proof of compliance to the specialist within the required time frame, or submits an acceptable request for extension prior to the compliance due date.

Acceptable proof of compliance submittals may include photos, receipts, or invoices that clearly demonstrate correction. In many instances, statements from the operator explaining how he/she intends to change practices to correct and/or avoid repeating violations and/or training logs showing that employees have been trained may be appropriate, in addition to other proof of compliance.

In some instances, it may not be feasible for a facility operator to make necessary corrections within the required time frame, especially when corrections include major repairs or facility modifications. Extensions may be granted but the specialist should require an action plan or statement to be submitted by the facility operator within the initial compliance time frame. The action plan or statement should specify the corrections that are to be made and should provide a time frame for completion.

### **PROGRESSIVE ENFORCEMENT:**

The following steps will be taken to ensure return to compliance at facilities found to be in violation of the Stormwater Ordinance:

#### **Notice of Violation (NOV)**

A NOV will be left with the operator after the inspection, regardless of whether violations were found or not. If there are **no** violations found, the NOV will clearly state that there are no violations.

Depending upon the nature of violations noted, the NOV will typically specify the following compliance deadlines:

- **14 days to correct violations** and **19 days to provide proof of compliance** in situations involving unauthorized non-stormwater (prohibited) discharges to the storm drain system or illicit connections.

Although 14 days are allowed to make corrections, unauthorized non-stormwater discharges should be stopped immediately, especially if the discharge contains hazardous constituents, or hazardous levels of non hazardous constituents.

However, if a prohibited discharge results from vehicle washing activities at an auto dealer, the operator may be allowed to continue discharging the vehicle wash water for 14 days as he/she explores compliance options (see Commercial Vehicle Wash Policy).

- **30 days to correct violations** and **35 days to provide proof of compliance** for violations that are not prohibited discharges.

#### **\*Cease and Desist Order**

The County's Stormwater Ordinance (section 15.12.520) says that a Cease and Desist Order may be issued as an alternative to a NOV when immediate action by the responsible party is necessary to eliminate a continuing or threatened serious violation of the Stormwater Ordinance.

#### **Extensions of Compliance Deadlines**

There will be instances when a business operator will not be able to comply with requirements within the time frame specified. The specialist may grant an extension to the operator if the inspector determines that an extension is warranted. **A request for extension must be received in writing (mail, e-mail, fax, hand delivered, etc) by the inspector by no later than the specified compliance**

**deadline date.** It is strongly recommended that a business operator discusses the extension request with the inspector well before the deadline to determine if the inspector is likely to grant the extension. The extension request must include an explanation as to why the extension is needed, as well as a summary of actions taken to date by the operator to comply with requirements of the NOV.

Typically, it will be more appropriate to allow extensions for violations involving pollutant exposure problems that require the implementation of a broad set of BMPs, or significant facility cleanup or remediation.

In general, extensions should not be granted to allow the continuation of unauthorized non-stormwater discharges (NSDs). Exceptions may be made, however, in situations involving vehicle washing. When extensions are allowed for the continuation of NSDs, the extension must be made with the condition that storm drain filters are installed and other appropriate measures implemented in order to help mitigate continuing discharges during the extension period.

### Re-Inspections

A facility will be subject to a stormwater compliance re-inspection (typically within 8 weeks) to ensure return to compliance for the following conditions:

- Illicit connections are found.
- Violations are so serious, numerous, or complicated that specialist does not feel that photo or similar document (RTC) submission will be adequate to demonstrate compliance.
- Specialist does not believe that operator is credible enough to rely on document (RTC) submission based upon operator's compliance history, nature of violation(s), and/or inconsistent or contradictory information provided by operator
- Operator fails to provide clear proof of compliance submission (RTC), or fails to request (and is granted) an extension within the NOV specified time frame (19/35 days). The specialist will review the facility file to determine if violations warrant a re-inspection. If the specialist believes that the operator has failed to bring the facility into compliance, a re-inspection should occur within 8 weeks of the initial inspection. **If violations have not been corrected, specialist may charge for re-inspection and associated drive and office time.**
- In lieu of fine, for moderate and repeat minor violations, the specialist may deny the operator the option of submitting a proof of compliance (RTC) submittal and do a re-inspection with fee. For more serious moderate and repeat moderate violations, the specialist may place the facility on **monitoring status**.

### Monitoring Status

As an alternative to issuing fines for repeat multiple minor violations and for any moderate violations, the operator may place a facility on monitoring status.

This means that in addition to a charged re-inspection at the end of 19 or 35 days, the operator is put on written notice that he/she will be subject to unannounced re-inspection at charge, one or more times over a given year or years, depending upon the severity of the violations. Repeat multiple minor violations should result in no more than one re-inspection and one monitoring status re-inspection. Moderate violations may result in multiple monitoring status re-inspections.

If the operator is **not** found to have repeat same or similar violations while on monitoring status, he/she is to be released from monitoring status, after final re-inspection. If same or similar repeat violations are noted during monitoring status re-inspections, a fine is to be issued, following policy guidelines.

If, during monitoring status re-inspections, violations unrelated to the violation(s) that resulted in monitoring status are noted, the monitoring status should be extended, at a minimum. If the violations are moderate or major, further enforcement actions should follow, per policy.

Charge for re-inspections should include related drive time and office time.

### **Charging for re-inspections and complaint responses.**

\*The cost of performing one complaint response visit and one re-inspection, if necessary, for each facility every three years is included in the stormwater inspection program fees approved by the Board of Supervisors.

Within any given 3-year period beginning with either the start of the stormwater inspection Program in July 2004, or the addition of a given facility to the inspection inventory, whichever best applies, each facility is entitled to one complaint response visit and one re-inspection visit, if needed, without charge (except as noted below).

Any second complaint response or second re-inspection is to be charged for at the current EMD hourly Rate in six minute increments, rounded up, including drive time. If, however, the inspector wishes to reward compliance or provide a compliance incentive, he/she may waive the fee for a second complaint or re-inspection visit, upon his/her discretion. All third or subsequent complaint or re-inspection visits within the 3 year period will be charged.

When a re-inspection is necessary to verify compliance because RTC documentation was not submitted, or submittal was incomplete, a re-inspection fee may be charged at the discretion of the inspector even if it is a first re-inspection.

**\*Re-inspection fee in lieu of fine.** Re-inspection fees that include inspection, drive time, and associated office time may be assessed as an alternative to a fine, in instances where the re-inspection reveals that a facility operator has failed to correct, or at least make a meaningful effort to correct violations. The fee alone, as an alternative to the fine should not be used in cases involving egregious violations (where a fine and possibly fine and re-inspection billing is more appropriate).

### **Assessment of Fines**



The Stormwater Ordinance (section 15.12.560) authorizes assessment of administrative civil penalties (referred to in this policy as “fines”). In addition to providing the operator the right to appeal the fine or NOV, the assessment of fine amounts will be determined by an assigned Administrative Appeals Hearing Officer except in cases where pre-set fine levels are established by the Board of Supervisors for specific violations. EMD staff will not determine fine levels.

The enforcement notice (typically an NOV) informs the responsible party of the right to a hearing within the given time frame and informs the responsible party regarding the necessary steps to make an appeal.

When a violation involves a continuing violation that does not create an immediate danger to health or safety, as determined by the enforcement official, the violator shall be provided with a reasonable time to correct or otherwise remedy the violation prior to imposition of the penalty. The enforcement official shall determine and notify the violator of the time within which the violator must correct or remedy the violation. The notice shall provide that a fine will be imposed if the continuing violation is not remedied or corrected within the time stated.

### **When/How to Issue a Fine**

Fines should be issued under the following circumstances:

- Despite warning, operator has failed to bring his/her facility into either short or long-term compliance despite having been provided standard compliance time frame (19/35 days) and at least one reasonable extension time frame, if requested. This includes failure to implement appropriate BMPs for pollutant sources/activities.
- Despite warning, operator has failed to submit Proof of compliance, and has refused to allow EMD staff access to re-inspect.
- Operator has committed a repeat violation(s) identical in principal to violation(s) that he/she was issued a violation notice for within the past 5 years.
- Operator has committed an egregious, first time offense that results in serious environmental harm and/or potential or actual threat to human health and offense appears intentional, or is a result of gross negligence.

Note: The preceding conditions will not apply to minor violations such as open dumpster/receptacle lids until such time that pre-set fine amounts are established, unless said minor violations have occurred at least 4 times. Fines shall typically only be issued for moderate to major violations with emphasis on repeat violations and situations where the operator refuses to comply

When the Specialist feels that the imposition of a fine is appropriate he/she shall:

1. Prepare and submit a written report via e-mail or memo regarding the nature of, and circumstances surrounding, the violation to the WPD Chief and gain written approval to proceed with the fine.
2. Prepare all evidence including a summary of the violations, photos, and copies of all notes and notices relevant to the case.

3. Propose a fine level based upon the matrix and guidelines shown below and draft a Notice of Determination (fine letter) to provide to the hearing officer.
4. Contact the assigned Appeals Hearing Officer (or county counsel) to arrange a hearing / fine assessment date
5. Inform County Counsel of intention to issue a fine and provide copies of all pertinent materials.
6. Within 24 hours of setting a hearing date, send fine letter to the business operator informing him/her of the time, date, and location of the hearing.
7. Attend hearing
8. Submit a report to WPD Chief summarizing results of hearing

**Draft Fine Matrix:** Fine level suggestions are made to the hearing officer based upon authority to impose maximum fines of \$5000 per day, per violation, using the matrix below. Settlement offers may be made to the violator to avoid a hearing. The proposal of a settlement amount should be based upon a percentage (less than 25%) of the total suggested fine amount.

| AUTHORITY:<br>SACRAMENTO COUNTY<br>CODE, CHAPTER 15,<br>SECTION 12.560 | ACTUAL OR POTENTIAL HARM                 |  |  |
|--|--|--|--|
| EXTENT OF<br>DEVIATION<br>▼  | Major                                    | Moderate                                 | Minor                                    |
| Major  | <u>Maximum:</u><br>\$5,000               | <u>Maximum:</u><br>\$3,000               | <u>Maximum:</u><br>\$2,000               |
|  | <b><u>Average:</u></b><br><b>\$4,000</b> | <b><u>Average:</u></b><br><b>\$2,500</b> | <b><u>Average:</u></b><br><b>\$1,500</b> |
|  | <u>Minimum:</u><br>\$3,000               | <u>Minimum:</u><br>\$2,000               | <u>Minimum:</u><br>\$1,000               |
| Moderate   | <u>Maximum:</u><br>\$3,000               | <u>Maximum:</u><br>\$2,000               | <u>Maximum:</u><br>\$1,000               |
|  | <b><u>Average:</u></b><br><b>\$2,500</b> | <b><u>Average:</u></b><br><b>\$1,500</b> | <b><u>Average:</u></b><br><b>\$750</b>   |
|  | <u>Minimum:</u><br>\$2,000               | <u>Minimum:</u><br>\$1,000               | <u>Minimum:</u><br>\$500                 |
| Minor  | <u>Maximum:</u><br>\$2,000               | <u>Maximum:</u><br>\$1,000               | <u>Maximum:</u><br>\$500                 |
|  | <b><u>Average:</u></b><br><b>\$1,500</b> | <b><u>Average:</u></b><br><b>\$750</b>   | <b><u>Average:</u></b><br><b>\$250</b>   |
|  | <u>Minimum:</u><br>\$1,000               | <u>Minimum:</u><br>\$500                 | <u>Minimum:</u><br>\$0                   |

**Guidelines for using matrix to propose fine levels:**

- B. Steps in Determining Penalties

1. Initial Penalty. SCEMD will determine an initial penalty for each violation by considering the actual and potential harm and the extent of the deviation from well ordinance requirements. Assigning degrees of actual and potential harm:

- (1) Major – the nature of the violation has the potential to present a major threat to human health or safety or the environment and the circumstances of the violation indicate a high potential for harm, or significant harm has occurred.
- (2) Moderate – the nature of the violation does not present a major threat to human health or safety or the environment and the likelihood of harm from noncompliance is not high, or moderate harm has occurred.
- (3) Minimal – the overall threat to human health or the environment is low or minimal harm has occurred.

b. **Assigning degrees of extent of the deviation.**

- (1) Major – the act deviates from the requirement to such an extent that the requirement is completely ignored or the function of the requirement is rendered ineffective because some of its provisions are not complied with.
- (2) Moderate – the act deviates from the requirement but functions to some extent.
- (3) Minimal – the act deviates from the requirement but functions nearly as intended.

2. **Adjusted Initial Penalty**

a. The initial penalty may be adjusted based on the violator’s intent in committing the infraction. The following factors will be considered as a basis for adjustment.

| ADJUSTMENT FACTOR               | CIRCUMSTANCES   |
|---------------------------------|---|
| Downward adjustment of 100%     | Violation was completely beyond the control of the violator.                            |
| Downward adjustment of 0 to 50% | Violation occurred even though good faith efforts to comply with regulations were made. |
| No adjustment                   | Violation indicated neither good faith efforts nor intentional failure to comply.       |
| Upward adjustment of 50 to 100% | Violation was the result of intentional failure to comply.                              |

b. Economic Benefit Adjustment. The initial penalty may be increased if, in the opinion of the SCEMD, the violator realized significant economic benefit as a result of the failure to comply.

(1) The adjustment to the initial penalty cannot exceed the statutory maximum.

(2) Economic benefits to consider include: avoided or delayed costs, or increased profits.

3. ***Combining Multiple Violations. A single penalty may be assessed for multiple violations for the following situations:***

a. The Respondent has violated the same requirement in different locations or units within a site.

b. The Respondent has violated the same requirement on different days. This would not be appropriate if the Respondent has been notified of the violation and has had sufficient time to correct the violation.

4. ***Adjustment factors for cooperation.***

| Degree of Cooperation/Effort | Adjustment Factor                 | Circumstance  |
|------------------------------|-----------------------------------|---|
| Extraordinary                | Downward adjustment of up to 25 % | Violator exceeded minimum requirements in returning to compliance or returned to compliance faster than requested.  |
| Good Faith                   | No adjustment                     | Violator demonstrated a cooperative effort.   |
| Recalcitrance                | Upward adjustment of up to 25 %   | Violator failed to cooperate, delayed compliance, created unnecessary obstacles to achieving compliance, or the compliance submittal failed to meet requirements.       |
| Refusal                      | Upward adjustment of 50 to 100 %  | Violator intentionally failed to return to compliance with regulations or to allow cleanup operations to take place. This does not include refusal to allow inspection. |

b. Adjustment to create a preventive or deterrent effect. The total base penalty may be adjusted upward or downward to ensure that the penalty

is sufficient to provide a deterrent effect on both the violator and/or the regulated community as a whole.

- c. Adjustment for compliance history. The total base penalty may be adjusted upward or downward based on the Respondent's compliance history.
  - (1) General considerations.
    - (a) Previous violations at the site should receive more weight than previous violations at another site owned or operated by the same person.
    - (b) Recent violations should receive more weight than older violations.
    - (c) The same or substantially similar previous violations should receive more weight than previous unrelated violations.
  - (2) Specific guidance.
    - (a) Downward adjustments of up to 5% for each previous consecutive inspection with no violations can be made up to a maximum of 10%.
    - (b) Upward adjustments of up to 100% can be made if a Respondent has a consistent history of noncompliance over the past five (5) years

### **Project or Training in Lieu of Fine**

In lieu of paying a fine, upon approval of the Chief of the WPD, the responsible party may apply all or part of the amount of an imposed fine to complete projects or programs designed to reduce or eliminate the possibility of future violations. Allowable projects or programs may include, but are not limited to, structural BMP installation or staff training, but should generally not include on-going operational or maintenance costs. The cost of the project should roughly equal the amount of the fine to be waived. When considering approval of such projects or programs, the Enforcement Official should consider at a minimum, the following factors:

- A. Severity of the violation.
- B. Compliance history of the responsible party.
- C. Competitive advantage gained by the responsible party as a result of the violation.
- D. Existence of malicious intent or gross negligence that contributed to the violation.
- E. Environmental benefit

## **Cost Recovery**

When, in association with a complaint response or violation that requires clean-up and/or extensive investigation by county/municipal staff, EMD staff determines who is responsible for a violation, the responsible party may be required to reimburse the County for all costs incurred by the County or city related to the violation, pursuant to County Stormwater Ordinance, or corresponding sections of the appropriate city ordinance

Cost recovery fees that may be collected include, but are not limited to, investigation, enforcement, compliance assistance, damage, control, and clean-up.

## **Appeals**

The County's Stormwater Ordinance (section 15.12.540) requires that any person served with a notice, order, or fine, be provided an opportunity for a hearing before an appeals hearing officer. Any notice, order, or fine issued, must inform the recipient of his/her right to appeal and provide instructions for requesting an appeals hearing.

To request a hearing, the recipient of the notice, order, or fine must submit a written request, along with a fee of \$360 to this department within **30 days** of receipt of the notice, order, or fine. The request is valid if it is postmarked within that **30 day** period. If the appeal is upheld in its entirety by the hearing officer the appellant's fee is to be refunded. If not, the fee is retained.

The hearing must be held within **90 days** of receipt of the hearing request unless a Cease and Desist Order is being appealed, in which case the hearing must be held within **15 days**. This means that when a cease and Desist Order is issued, the operator should be informed that if he/she wishes to appeal, he/she must notify EMD immediately. When the issuing inspector receives a hearing request, he/she should contact the approved hearing officer within 24 hours, to arrange a hearing date. Within 72 hours, the inspector will send a letter by certified mail, informing the appellant as to the date and location of the hearing, as well as other necessary information.

## **Referrals to the Regional Board**

All significant violations and all NOI non-filers must be referred to the Regional Board within 30 days of determination that a significant violation or NOI non-filer status exists. At a minimum, the following information must be included: Name of facility, name of operator, name of owner, type of activities conducted at the facility and copy of the violation.

## **Abatement by County**

When a responsible party is not available, or is otherwise unable or unwilling to cease or control a condition that results in or is likely to result in further or continuing violations, abatement of the condition by the County may be required. Section 15.12.450 of the Stormwater Ordinance authorizes the County Enforcement Official to abate violations on private property.

## **Referral of Violations to Other Agencies**

## **A. Regional Board**

All significant violations and all NOI non-filers must be referred to the Regional Board within 30 days of determination that a significant violation or NOI non-filer status exists. At a minimum, the following information must be included: Name of facility, name of operator, name of owner, type of activities conducted at the facility and copy of the violation.

## **B. Other County and City Departments**

The County Enforcement Official may defer enforcement action against Stormwater Ordinance violations by referring the violation to other County or city departments for enforcement. This may be done when enforcement against the violation itself, or against the practice or condition that caused the violation, is clearly within the jurisdiction and responsibility of the other department.

## **C. District Attorney**

Severe or continuing violations should be referred to the District Attorney for consideration of criminal charges.

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# Appendix G

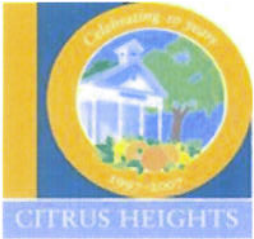
## City of Citrus Heights SQIP Appendices

Appendix G-1. SQIP Certification - *To be included in final SQIP (see attached letter to Regional Water Board regarding extension request)*

Appendix G-2. Certification of Legal Authority

DRAFT





## CITY OF CITRUS HEIGHTS

6237 Fountain Square Drive • Citrus Heights, CA 95621-5577 • (916) 725-2448  
Fax (916) 725-5799 • TDD (916) 725-6185 • www.citrusheights.net

*The City of Citrus Heights is committed to providing high quality economical, responsive services to our community.*

May 30, 2007

Ms. Pamela Creedon  
Executive Officer  
RWQCB Central Valley Region  
11020 Sun Center Drive # 200  
Rancho Cordova, CA 95670

**SUBJECT: Sacramento National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Discharge Permit Renewal (NPDES No. CA0082597, Order No. R5-2002-0206)**

Dear Ms. Creedon:

The City of Citrus Heights, due to the military service of our primary stormwater staff person, must request an extension for the submittal of the Stormwater Quality Improvement Plan until July 2, 2007. This extension was tentatively agreed to in a phone conversation with the Sacramento area permittees that took place on May 30, 2007.

The Report of Waste Discharge and required information will be submitted on the date of June 4, 2007 as part of the Sacramento County permittee submittal.

If you have any questions or require additional information, please do not hesitate to call me at (916) 727-4770. Thank you for your consideration.

Very truly yours,

David Wheaton  
General Service Director

Cc: Kerry Schmitz, County of Sacramento  
Kevin Becker, City of Citrus Heights  
Doug Gault, City of Elk Grove  
Sarah Amaya, City of Folsom  
Trung Trinh, City of Galt  
Kathy Garcia, City of Rancho Cordova  
Bill Busath, City of Sacramento

June 30, 2003

Mr. William Marshall, Supervising WRC Engineer  
Central Valley Regional Water Quality Control Board  
3443 Routier Road, Suite A  
Sacramento, CA 95827

**Re: Legal Authority to Comply with Federal NPDES Storm Water Regulations and Water Discharge Requirements Order No. R5-2002-02026**

Dear Mr. Marshall:

This letter shall serve as the statement verifying the authority of the City of Citrus Heights ("City") to implement and enforce certain Federal NPDES Storm Water Regulations and the requirements of Water Discharge Requirements Order No. R5-2002-0206 ("Order") which implements NPDES Permit CAS082597 ("Permit"). The City submits this statement along with its Stormwater Quality Improvement Plan ("SQIP") as required by the Order.

Section C.6 of the Order requires the preparation of a statement "certified by its Chief Legal Counsel," verifying that adequate authority exists to implement the terms of the Order and requirements of federal stormwater regulations. Section C.6 specifies four items that must be included in the statement:

"6. Each Permittee shall provide to the Regional Board a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in Permittees' revised SQIP(s), shall include the following:

- a. Citation of storm water related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;
- b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' storm water related ordinances, which incorporate the conditions of this Order;
- c. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and
- d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions."

As required by the Order, a complete discussion of each issue follows.

**a. Citation of storm water related ordinances adopted by the Permittees and the reasons the ordinances are enforceable.**

The City was incorporated on January 1, 1997 at about which time it adopted Ordinances 97-01 and 97-13 providing that all Sacramento County codes and ordinances shall remain in force and effect as City ordinances for a period of 120 days or until the City Council has enacted ordinances superseding them, whichever occurs first. The City later adopted Ordinance 97-17 which continued in effect the applicability and enforceability of all County ordinances within the territory of the City until expressly superseded by subsequent City ordinance.

On June 16, 1998, the County adopted Ordinance SCC No. 1110 which added Chapter 15.12 to the County Code entitled Stormwater Management and Discharge Control (the "County Storm Water Ordinance"). The County Storm Water Ordinance is the principal ordinance governing discharges to the municipal separate storm sewer system (MS4) of which the City's storm sewer system is a designated part as described in paragraph 7, page 2 of the Order. The purpose of the County Storm Water Ordinance is to "protect and enhance the water quality of watercourses, water bodies and wetlands within the unincorporated area of the City in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal Discharge Permit No. CA0082597 by controlling the contribution of urban pollutants to stormwater runoff which enters the County stormwater conveyance system." The provisions of the County Storm Water Ordinance authorize implementation or enforcement of each mandate of the Order or stormwater regulation, except those noted herein.

Additionally, the City's Land Grading and Erosion Control Ordinance ("Grading Ordinance"), Chapter 16A.52 of the City of Citrus Heights Municipal Code, regulates grading projects and sets conditions for approval of such projects. The City enacted this ordinance specifically to minimize the degradation of the water quality of watercourses caused by grading, filling and excavation of land, and to control sediment and pollutant runoff from other construction-related activities. These goals are achieved by establishing administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other construction-related pollution.

The Grading Ordinance was properly published, introduced and adopted by the City Council and constitutes an enforceable enactment pursuant to the City's police power. The City has been operating under the provisions of the County Storm Water Ordinance but the City has not adopted its own ordinance. Therefore, in order to bring the City into compliance with the Order, the City intends to introduce a storm water ordinance ("City Storm Water Ordinance") similar to the County Storm Water Ordinance for first reading at a Council meeting in July of this year.

The City's authority under the Grading Ordinance and the City Storm Water Ordinance is very wide-ranging and is sufficient to address the majority of the mandates contained in the Order. However,

a few of the requirements are not explicitly addressed, and staff will recommend additional revisions to the City Storm Water Ordinance either prior to the first reading on July 9, 2003 or as an amendment at the first reasonable opportunity after adoption. The Order requires the County to "carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits, including the prohibition of illegal discharges to the MS4. Each Permittee must have authority to enter, sample, inspect, review and copy records, and require regular reports from industrial facilities and construction sites discharging into its MS4." The City Storm Water Ordinance authorizes inspections and monitoring by the City but it does not authorize requirements for regular reports from dischargers. The City will, therefore, ensure that City Storm Water Ordinance requires regular reports from dischargers for industrial facilities and construction sites. Additionally, the Order requires the City to have the legal authority to require "that treatment control BMPs be properly operated and maintained." Proposed City Storm Water Ordinance sections 15.12.200-230 and section 16A.52.210 of the Grading Ordinance require most industrial facilities and construction sites to implement and maintain BMPs. However, these sections do not apply to all types of new development. The City will monitor the process currently underway by the County to evaluate existing County development standards and will recommend amendments to the City Storm Water Ordinance to authorize treatment control BMP requirements (including provisions for long-term maintenance of structural BMPs) for "priority development projects" as specified by the Development Standards provisions of the Order.

The Order and federal storm water regulations require the City to "control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Permittees." While not specifically covered in any existing interagency agreements, the current Memorandum of Understanding (MOU) between the City and the other permittees implicitly addresses this requirement.

**b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' storm water related ordinances, which incorporate the conditions of this Order.**

The City Storm Water Ordinance has several administrative procedures available to mandate compliance with the requirements contained in the ordinance. As discussed further below, these options include issuing notices of non-compliance, administrative enforcement orders and cease and desist orders. In addition to administrative enforcement options, the City may seek civil and criminal penalties against a violator and may seek nuisance abatement through the court system. Lastly, Section 15.12.230 of the City Storm Water Ordinance allows the City General Services Director to promulgate regulations for the implementation of the City's Storm Water Ordinance. This section gives the City the ability to further refine its administrative compliance options.

**c. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed.**

The City will implement the City Storm Water Ordinance through the stormwater program detailed in the SQIP.

The City Storm Water Ordinance sets forth a detailed process for appealing enforcement action brought pursuant to it. Section 15.12.440 provides that any person receiving a notice of non-compliance, an administrative compliance order or otherwise suffers an adverse determination under the ordinance may request an administrative hearing before an administrative hearing officer designated by the City Council. The Ordinance requires the appellant to file, within 30 days of receipt of notice of an adverse determination, a written request for an administrative hearing, accompanied by an administrative hearing fee as established by resolution of the Council, with the Director. The City will then hold a hearing on the matter before a hearing officer within 45 days of the filing of the written request unless, in the reasonable discretion of the hearing officer and pursuant to a request by the appealing party, a continuance of the hearing is granted. The hearing officer must issue his or her final decision within ten days of the hearing.

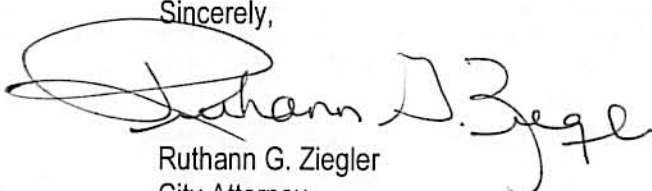
**d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.**

As stated above, the City Storm Water Ordinance includes an extensive section on enforcement actions (giving the City a wide variety of administrative options in case of violations). The administrative enforcement options include issuing a notice of non-compliance, administrative compliance orders, and cease and desist orders. Issuance of a cease and desist order functions as an injunction in that it allows the Director to direct the owner or occupant of any premises, or any other person responsible for any violation of the proposed ordinance, to take one or more of the following actions: (1) Immediately discontinue any prohibited discharge to the City stormwater conveyance system; (2) Immediately discontinue any other violation of the ordinance; and (3) Clean up the area affected by the violation. The Director may direct by a Cease and Desist Order that any person immediately cease any activity that may lead to a violation of Receiving Water Limitations.

The City has similar authority under the Grading Ordinance. The powers include the issuance of stop work notices, denial of future grading permits and the abatement of nuisance conditions.

Based on the foregoing discussion and subject to the exceptions described herein, the City Attorney respectfully submits this certification. Please do not hesitate to contact me if you need further information.

Sincerely,



Ruthann G. Ziegler  
City Attorney



COUNTY OF SACRAMENTO  
PUBLIC WORKS AGENCY – WARREN HARADA, ADMINISTRATOR

## Department of Water Resources

*Including service to the Cities of Citrus Heights, Elk Grove and Rancho Cordova*

Keith DeVore, Director

---

June 30, 2003

Mr. William Marshall  
Supervising WRC Engineer  
California Regional Water Quality Control Board,  
Central Valley Region  
3443 Roubidoux Road, Suite A  
Sacramento, CA 95827-3003

**RE: SACRAMENTO STORMWATER MANAGEMENT PROGRAM**

**SUBJECT: PERMIT COMPLIANCE DELIVERABLE (Order No. R5-2002-0206, NPDES Permit No. CAS082597, Provision 2) – STORMWATER QUALITY IMPROVEMENT PLAN FOR SACRAMENTO COUNTY AND THE CITIES OF CITRUS HEIGHTS, ELK GROVE, FOLSOM AND GALT**

Dear Mr. Marshall:

Transmitted herewith are two (2) copies of the Stormwater Quality Improvement Plan (SQIP) for Sacramento County and the Cities of Citrus Heights, Elk Grove, Folsom and Galt. The City of Sacramento is submitting its SQIP under separate cover. The following are some important notes concerning this deliverable:

### Public Review Process

- The enclosed SQIP is considered our final draft. If comments are received during the Regional Board's 30-day public review process that should require modification of the SQIP, the document will be modified by the permittees and returned to you as final.
- Your staff provided us a copy of the "interested party" list that will be used by the Regional Board to notify the public about the availability of the SQIP for review. This list contains 24 entries and lacks information for some key stakeholders, including several local environmental groups and professional associations representing the regulated industrial and development communities. Your staff indicated that they would notify additional stakeholders if the permittees could provide the necessary information. We plan to send you the additional stakeholder information later in July.

### Permittee Memorandum of Understanding

- The updated Permittee MOU was sent to the Regional Board on April 1, 2003 in compliance with Stormwater Permit Provision 7e. Since that time, all permittees have signed onto the

Mr. Bill Marshall  
June 30, 2003  
Page 2

MOU. The final executed MOU is included in Appendix D of the SQIP.

Annual Report Format

- Appendix E of the SQIP contains the proposed Annual Report format, including a draft standardized reporting form that would be used by the permittees to prepare their Annual Reports, starting with the October 1, 2003 submittal. The standardized reporting form is intended to replace the form included as Attachment C to the Stormwater Permit. The Annual Report format is being reviewed by the permittees concurrently with Regional Board staff review during the month of July.
- Your staff indicated that they could provide written comments on the draft Annual Report format by the end of July, so that the permittees can immediately begin the process of preparing their 2002/03 Annual Reports. We thank you for expediting this review process.
- We anticipate that the Annual Report format will continue to evolve as the forms are tested later this summer during preparation of the 2002/03 Annual Reports.

Please contact me at 874-8642, if you have any questions regarding this submittal.

Sincerely,

Cecilia Jensen  
Sacramento County Stormwater Program Manager

cc: Christine Palisoc, Central Valley Regional Water Quality Control Board  
Bill Busath, City of Sacramento  
Kevin Becker, City of Citrus Heights  
Maynard Flohaug, City of Elk Grove  
Chuck Aukland, City of Folsom  
Tony Elce, City of Galt

# Appendix H

## City of Elk Grove SQIP Appendices

Appendix H-1. SQIP Certification

Appendix H-2. Certification of Legal Authority

DRAFT





8400 LAGUNA PALMS WAY • ELK GROVE, CALIFORNIA 95758  
TEL: 916.683.7111 • FAX: 916.691.2001 • www.elkgrovecity.org

**DEVELOPMENT SERVICES**

|                              |                |
|------------------------------|----------------|
| BUILDING SAFETY & INSPECTION | (916) 478-2235 |
| COMMUNITY ENHANCEMENT        | (916) 478-2266 |
| ECONOMIC DEVELOPMENT         | (916) 478-2261 |
| PLANNING                     | (916) 478-2265 |
| PUBLIC WORKS                 | (916) 478-2263 |

**SACRAMENTO STORMWATER MANAGEMENT PROGRAM**

**STORMWATER QUALITY IMPROVEMENT PLAN  
FOR CITY OF ELK GROVE**

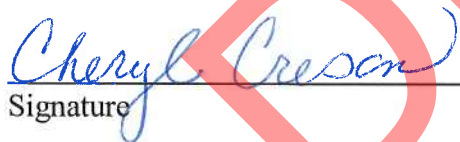
**CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the 31 day of May, 2007,

At The City of Elk Grove, CA .

  
Signature

Cheryl Creson  
Director of Public Works

**STATEMENT OF LEGAL AUTHORITY  
FOR THE CITY OF ELK GROVE  
TO IMPLEMENT AND ENFORCE  
STORMWATER PERMIT REQUIREMENTS**

This document shall serve as written certification to the Central Valley Regional Water Quality Control Board that the City of Elk Grove has adequate legal authority to implement and enforce each of the requirements contained in 40 C.F.R. 122.26(d)(2)(i)(A-F), as well as those requirements specified in the National Pollution Discharge Elimination System ("NPDES") Permit No. CAS0082597, Order No. R5-2002-0206 ("Permit"). Provision 6 of the NPDES Permit states:

6. Each Permittee shall provide to the Regional Board a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 C.F.R. 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in the Permittees' revised SQIP(s), shall include the following:

- (a) Citation of stormwater related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;
- (b) Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' stormwater related ordinances, which incorporate the conditions of this Order;
- (c) Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and
- (d) Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

### General Statement of Adequate Legal Authority

The City of Elk Grove had adequate legal authority to implement and enforce each of the requirements contained in 40 C.F.R. 122.26(d)(2)(i)(A-F), as well as those requirements specified in the NPDES Permit.

#### Provision 6(a). Stormwater Related Ordinances.

The stormwater related ordinances adopted by the City of Elk Grove are generally contained in Chapter 15.12, "Stormwater Management and Discharge Control," of the Elk Grove City Code. Certain ordinances relating to the management and control of stormwater discharges from construction and grading activities are contained in Chapter 16.44, "Land Grading and Erosion Control," of the Elk Grove City Code. These ordinances are enforceable by the City of Elk Grove pursuant to the authority granted under Article XI, Section 7 of the California Constitution. The ordinances were adopted in order to protect and promote public health, safety and general welfare, and the ordinances are not in conflict with general laws.

#### Provision 6(b). Compliance Procedures.

The applicable administrative and legal procedures are contained in Chapter 15.12 and Chapter 16.44 of the Elk Grove City Code. Article 2 of Chapter 15.12 of the Elk Grove City Code lists the general prohibitions against discharges to the stormwater system, and against illegal connections to the stormwater system. Article 3 of Chapter 15.12 provides for the containment and notification of discharges to the City's stormwater conveyance system, as well as the adoption of Best Management Practices ("BMPs") in order to minimize discharges to the stormwater system. Article 4 provides for inspection and monitoring of discharges to the stormwater system. Article 5 provides for enforcement of the stormwater discharge regulations by the City. Chapter 16.44 requires City-approved permits for construction and grading activities.

#### Provision 6(c). Implementation and Appeals.

The provisions of Chapter 15.12 and Chapter 16.44 are implemented by the Administrator of the City of Elk Grove's Department of Public Works, and his order of designees. (See EGCC 15.12.080.) The Administrator conducts any necessary inspections, develops necessary regulations, and determines when to seek administrative, civil or criminal penalties. Section 16.44.300 provides for appeals of grading permit conditions. Enforcement actions under Chapter 15.12 may be appealed under the process set forth in Section 15.12.440. In general, persons may request an administrative hearing before a hearing officer appointed by the City Council. At the hearing, the Administrator appears on behalf of the City, and the City bears the burden to support any enforcement action by a preponderance of the evidence. Each party has the right to present testimony and other evidence as necessary for the appropriate presentation of the case. If necessary,

the challenging party may appeal the decision of the administrative hearing officer pursuant to the provisions of the Code of Civil Procedure sections 1094.5 and 1094.6.

Provision 6(d). Administrative Orders and Injunctions.

Under the stormwater ordinances, the City can issue various types of administrative orders, including cease and desist orders. The City is not required to go through the court system for enforcement actions, but Chapter 15.12, at Sections 15.12.400-480, provides that the City may pursue enforcement actions through the court system.

**CERTIFICATION**

I certify that the foregoing is true and correct:

Date:

6/23/2003



\_\_\_\_\_  
Anthony B. Manzanetti,  
City Attorney for the City of Elk Grove

DRAFT

# Appendix I

## City of Folsom SQIP Appendices

Appendix I-1. SQIP Certification

Appendix I-2. Certification of Legal Authority

Appendix I-3. Creek Awareness Poster

DRAFT

# CITY OF FOLSOM

50 Natoma Street  
Folsom, California 95630



Public Works Department

## SACRAMENTO STORMWATER QUALITY PARTNERSHIP

### STORMWATER QUALITY IMPROVEMENT PLAN (SQIP) FOR THE CITY OF FOLSOM

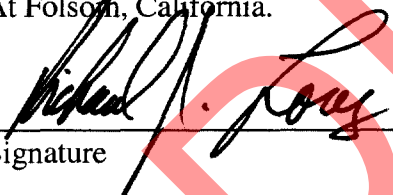
#### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the 22<sup>ND</sup> day of May, 2007,

At Folsom, California.

  
\_\_\_\_\_  
Signature

Richard J. Lorenz  
Director of Public Works/City Engineer  
City of Folsom

**CITY OF FOLSOM**

Office of the City Attorney  
50 Natoma Street  
Folsom, California 95630



Steven P. Rudolph  
City Attorney

Kathleen Ann Markham  
Assistant City Attorney

Bruce C. Cline  
Assistant City Attorney

June 30, 2003

William Marshall, Supervising WRC Engineer  
Central Valley Regional Water Quality Control Board  
3443 Routier Road, Suite A  
Sacramento, CA 95827

**Re: Statement of Legal Authority to Comply with Federal  
NPDES Storm Water Regulations and Sacramento  
NPDES/MS4 Permit No. CAS082597**

Dear Mr. Marshall:

The "Waste Discharge Requirements for County of Sacramento and Cities of Citrus Heights, Elk Grove, Folsom, Galt and Sacramento Storm Water Discharges from Municipal Separate Storm Sewer Systems Sacramento County, NPDES No. CAS082597, Order No. R5-2002-0206" (Order) which was issued by the California Regional Water Quality Control Board Central Valley Region on December 6, 2002 requires a statement of legal authority to implement and enforce the requirements contained in 40 CFR Section 122.26(d)(2)(i)(A-F) and the Order. The statement is required to include the following:

- a. Citation of Storm Water related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;
- b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittee's Storm Water related ordinances, which incorporate the conditions of the Order;
- c. Description of how these ordinances are implemented and how enforcement and actions under these ordinances may be appealed; and
- d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

The City of Folsom submits the following statement verifying its authority to implement and enforce the requirements of the Order and associated federal Storm Water

regulations. The City submits this statement along with its Storm Water Quality Improvement Plan ("SQIP") as required by the Order.

### Statement of Legal Authority

**a. Citation of Storm Water related ordinances adopted by the Permittee and the reasons the ordinances are enforceable**

The primary ordinance regulating and controlling discharges to the City's municipal separate storm sewer system (MS4) is Chapter 8.70, Storm Water Management and Discharge Control (a copy of which is attached hereto as Exhibit A) (Storm Water Ordinance) of the Folsom Municipal Code (FMC). One of the stated objectives of the Storm Water Ordinance is to provide the City with the legal authority to comply with the requirements of the NPDES permit.

FMC Chapter 14.29, Grading (a copy of which is attached hereto as Exhibit B) (Grading Ordinance) was adopted, in part, to maintain the natural environment; address the harmful effects of runoff; to assure the proper restoration of vegetation and soil systems; and to control against dust and erosion and their consequent effects on soil structure and water quality. The Grading Ordinance sets forth rules and regulations to control excavation, grading and earthwork construction including fills and embankments; establishes the procedure for the issuance of grading permits; provides for approval of plans; and authorizes inspection of grading activities.

The City of Folsom Charter (Charter) was adopted on June 5, 1990 and filed with the Secretary of State on August 13, 1990. Section 1.01 of the Charter establishes the general powers of the City, including the power to make and enforce all ordinances and regulations with respect to municipal affairs and other matters subject to applicable general laws. The ordinances set forth in Chapters 8.70 and 14.29 of the FMC are enforceable because they were adopted by the Folsom City Council pursuant to the procedural requirements set forth in Section 2.12 of the Charter. These ordinances were codified pursuant to the provisions of the Government Code of the state of California.

Although Chapter 8.70, the Storm Water Ordinance, provides broad authority to mandate compliance with the Order, there are a few requirements in the Order which are not specifically addressed. Accordingly, City staff will recommend to the City Council that revisions be made to the Storm Water Ordinance to address the following:

1. The Order requires the Permittees to "carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits, including the prohibition of illegal discharges to the MS4. Each Permittee must have authority to enter, sample, inspect, review and copy records, and require regular reports from industrial facilities and construction sites discharging into its MS4." The Storm Water Ordinance currently authorizes the City to inspect, monitor, enter upon private property, sample and review records; however, the ordinance



does not address copying records and does not authorize the requirement of regular reports from industrial facilities and construction sites discharging into the MS4.

2. The Order prohibits unauthorized non-Storm Water discharges where pollutants have not been reduced to the MEP, including discharges of pool or fountain water containing chlorine, biocides, or other chemicals and discharges of pool or fountain filter backwash water. The current Storm Water Ordinance specifically exempts dechlorinated swimming pool water from otherwise applicable discharge prohibitions but the exemption does not address removal of biocides or other chemicals. Although the ordinance establishes broad authority to make determinations that an otherwise exempt discharge is causing or significantly contributing to the violation of any receiving water limitation, or resulting in the conveyance of significant quantities of pollutants to surface waters, or is otherwise a danger to public health or safety and is therefore unlawful the specific reference to dechlorinated pool water should be clarified.

3. Additionally, the Order requires the Permittees to have the legal authority to require "that treatment control BMPs be properly operated and maintained." FMC Sections 8.70.200 through 8.70.240 require dischargers designated by the administrator as "significant dischargers" to implement and maintain BMPs. BMP requirements are specifically limited to "significant dischargers" and do not automatically apply to all types of new development. The administrator has broad authority to designate significant dischargers (which is defined as "any user or potential user determined by the administrator to discharge or have the potential to discharge pollutants into Storm Water or non-Storm Water in quantities or concentrations which may cause exceedance of receiving water limitations) and to establish rules and regulations for the designation of significant dischargers. Despite this broad authority which could encompass new types of development as the need arises, City staff intends to recommend that the administrator review, clarify, expand and update the rules and regulations for the designation of significant dischargers and the types of development which are currently designated as significant dischargers.

The Order and federal Storm Water regulations require the Permittees to "control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Permittees." Although there is no interagency agreement specifically covering this issue, the current Cost Sharing Memorandum of Understanding between the Permittees implicitly addresses this requirement. There is currently no shared MS4.

**b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittee's Storm Water related ordinances, which incorporate the conditions of the Order**

The local administrative and legal procedures available to mandate compliance with Folsom's Storm Water Ordinance and Grading Ordinance are set forth in FMC Chapter 8.70, Storm Water Management and Discharge Control (Exhibit A), and FMC Chapter 14.29, Grading (Exhibit B). The provisions set forth in Chapter 8.70 are enforced

pursuant to Chapter 1.08, Enforcement of the Folsom Municipal Code and Other Applicable Laws, Chapter 1.09, Administrative Violations and Administrative Enforcement Procedures, and Chapter 1.10, Additional Remedies, of the FMC (Sections 8.70.400, 8.70.410, 8.70.420). The provisions set forth in Chapter 14.29 are enforced pursuant to Sections 14.29.430 and 14.29.410.

**c. Description of how these ordinances are implemented and how enforcement and actions under these ordinances may be appealed**

**Storm Water Ordinance**

Section 8.70.090 of the City's Storm Water Ordinance charges the "administrator" with the responsibility of administration, implementation and enforcement of the provisions of Chapter 8.70 (See also, Section 8.70.400 B.). The powers and duties granted or imposed upon the administrator may be delegated to other city employees or, upon the approval of the City Council, to employees of other public agencies. The "administrator" is defined as the City Manager or his or her designees (Folsom Municipal Code Section 8.70.030). The City Manager has delegated the responsibilities of administration, implementation and enforcement of the Storm Water Ordinance to the City's Director of Public Works. Implementation and enforcement of the ordinance may also require the participation of other departments and staff including, but not limited to, Code Enforcement, Community Development, Utilities and the City Attorney.

Pursuant to Section 8.70.240 A., the administrator has the authority to develop administrative rules and regulations governing the content and implementation of required Best Management Practices, the designation of significant dischargers, and the implementation of other provisions of the Storm Water Ordinance. Any person who asserts that he/she is aggrieved by the terms of a regulation may appeal the issuance of such regulation to the City Council (Section 8.70.240 B.). The City Council's decision on the appeal is final (Section 8.70.240 B.).

Any person charged with a violation of the Storm Water Ordinance and who has been served with a notice to correct, stop order or notice of administrative violation may contest the violation or proposed sanction by requesting a hearing (Section 1.09.030). Any stop order remains in effect until the time of the hearing and any subsequent judicial review (Section 1.09.031). The decision of the hearing officer constitutes the final administrative decision and such decision is not appealable to the City Council or any other City body (Section 1.09.050). Appeal is only available through judicial review of the final administrative decision by the filing of a writ of mandate (Section 1.09.051).

**Grading Ordinance**

Section 14.29.140 of the City's Grading Ordinance designates the Public Works department as the department responsible for the administration of the Grading Ordinance. Section 14.29.430 A. imposes the duty to enforce the provisions of the Grading Ordinance on the Public Works Director and other authorized employees of the

City. Unless exempted, a grading permit must be issued by the Public Works Director prior to the initiation of any grading, excavation, fill or dredging activities (Section 14.29.200, 14.29.260, 14.29.261, and 14.29.263). All grading operations for which a permit is required is subject to inspection by the Public Works Director (Section 14.29.400 A.). The Public Works Director also has the authority to suspend or revoke a permit (Section 14.29.410).

If a grading permit applicant or any other person is dissatisfied with any determination made by the Public Works Director, they may appeal the decision to the City Council (Sections 14.29.210 and 14.29.410 B.).

(Although the Grading Ordinance designates the Public Works Director and the Public Works Department as the department and director responsible for administration and enforcement of the ordinance, due to departmental reorganizations the Grading Ordinance is being administered and enforced by the Community Development Director and the Community Development Department. The departmental reorganizations have been generally addressed by Ordinance 994, however, specific changes to departmental references in the Grading Ordinance will be addressed in a future amendment to the Grading Ordinance.)

**d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions**

**Storm Water Ordinance**

If the Regional Board or the administrator determines that a discharge that is otherwise exempt from the prohibition on discharges causes or significantly contributes to the violation of any receiving water limitation, or results in the conveyance of significant quantities of pollutants to surface waters, or is otherwise a danger to public health or safety, the administrator has the authority to declare the exemption inapplicable to the discharge at issue and, after appropriate notice, any such discharge is deemed unlawful (Section 8.70.130).

Pursuant to Section 8.70.240 A., the administrator has the authority to develop administrative rules and regulations governing the content and implementation of required Best Management Practices, the designation of significant dischargers, and the implementation of other provisions of the Storm Water Ordinance. A violation of the Storm Water Ordinance is subject to the administrative enforcement procedures set forth in Chapter 1.08, Enforcement of the Folsom Municipal Code and Other Applicable Laws, Chapter 1.09, Administrative Violations and Administrative Enforcement Procedures, and Chapter 1.10, Additional Remedies (Sections 8.70.400, 8.70.410, 8.70.420). Violations are subject to a notice to correct, stop order, notice of administrative violation and administrative sanctions (1.09.023, 1.09.024, 1.09.012, 1.09.013, 1.09.014). Administrative sanctions range from \$100 to \$10,000 (Section 8.70.410 C. and 1.09.012). A violation of the Storm Water Ordinance is also punishable as a misdemeanor (Section 8.70.410). Enforcement of the FMC or other applicable laws is not limited to the


administrative enforcement procedures. If the City Attorney determines that enforcement through administrative procedures will not result in effective redress then enforcement may be sought through civil and criminal actions (Section 1.09.011).

### Grading Ordinance

Unless exempted, a grading permit must be issued by the Public Works Director prior to the initiation of any grading, excavation, fill or dredging activities (Section 14.29.200, 14.29.260, 14.29.261, and 14.29.263). All work must be done in accordance with approved plans and specifications which cannot be changed, modified or altered without authorization from the Public Works Director. The Public Works Director may require modification of grading operations and project designs if delays occur which incur weather generated problems not considered at the time the permit was issued (Section 14.29.263 A.). Section 14.29.410 authorizes that Public Works Director to suspend or revoke a permit for various reasons, including failure to conform to the approved permit or threats to health, safety or public welfare. If the permittee fails to correct objectionable or emergency conditions, the City may correct the conditions and take action against the permittee's security to cover the cost (Section 14.29.410 C.). In the event any person, firm or corporation performs any work in violation of the Grading Ordinance or fails or refuses to perform any work required by the Grading Ordinance, such violation is declared a public nuisance, and at the direction of the City Council, the City Attorney is authorized to bring and prosecute an action to enjoin the performance of such work or maintenance of the completed work (Section 14.29.430 C.) A violation of the Grading Ordinance is also an infraction punishable by fines (Section 14.29.430 D.).

Based on the ordinances discussed above and subject to the noted exceptions, this statement of legal authority is respectfully submitted. Please notify the undersigned if you need further information.

Very truly yours,



Steven P. Rudolph  
City Attorney

SPR/ma

# Discover Folsom's Creeks.....



.... Respect, Protect and Enjoy.



CITY OF  
**FOLSOM**  
DISTINCTIVE BY NATURE

# Appendix J

## City of Galt SQIP Appendices

Appendix J-1. SQIP Certification

Appendix J-2. Certification of Legal Authority

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**SACRAMENTO STORMWATER QUALITY PARTNERSHIP**  
**STORMWATER QUALITY IMPROVEMENT PLAN (SQIP)**  
**FOR THE CITY OF GALT**

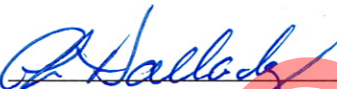
**CERTIFICATION**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. In this case, the system established is that qualified personnel from the County of Sacramento and/or the City of Sacramento are assigned to oversee the quality and accuracy of the data gathering and report preparation for all the joint permittees. The City of Galt reviews and concurs in the final report submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the 30<sup>th</sup> day of May, 2007,

At Galt, California.

  
\_\_\_\_\_  
Gregg L. Halladay, P.E.  
Director Public Works  
City of Galt

SOMACH, SIMMONS & DUNNA PROFESSIONAL CORPORATION  
ATTORNEYS AT LAW813 SIXTH STREET  
THIRD FLOOR  
SACRAMENTO, CA 95814-2403  
(916) 446-7979  
FACSIMILE (916) 446-8199CITY OF GALT  
STATEMENT OF LEGAL AUTHORITY

This Statement is provided on behalf of the City of Galt pursuant to the "Waste Discharge Requirements for County of Sacramento and Cities of Citrus Heights, Elk Grove, Folsom, Galt and Sacramento Storm Water Discharges from Municipal Separate Storm Sewer Systems Sacramento County, NPDES No. CAS082597, Order No. R5-2002-0206," issued by the California Regional Water Quality Control Board Central Valley Region on December 6, 2002 (hereafter referred to as the "Order").

Order No. R5-2002-0206

Section C.6. of the Order provides as follows:

"Each Permittee shall provide to the Regional Board a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in Permittees' revised SQIP, shall include the following:

- a. Citation of storm water related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;
- b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittee's storm water related ordinances, which incorporate the conditions of this Order.
- c. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and
- d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions."



### Legal Authority

- a. Storm water related ordinances adopted by the Permittee and the reasons the ordinances are enforceable:

The principle ordinance governing discharges to the City's municipal separate storm sewer system (MS4) is Chapter 16.10 of the Galt Municipal Code, Storm Water Protection. In addition, the City's Grading Ordinance, Chapter 16.30 of the Municipal Code, regulates grading projects and sets conditions for approval. Copies of these ordinances are attached as Exhibits A and B.

These ordinances were duly adopted by the Galt City Council and constitute valid municipal enactments pursuant to the City's police power. The California Constitution provides that a city "may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws." (Cal. Const. Art XI, § 7.) A general law city's police power within its own territory is subject to preemption by the State, but "otherwise is as broad as the police power exercisable by the legislature itself." (*Birkenfield v. City of Berkeley*, 17 Cal. 3d. 129, 140 (1976).)

- b. Administrative and legal procedures available to mandate compliance with the Permittee's storm water related ordinances, which incorporate the conditions of the Order:

The Galt Municipal Code sets forth a variety of mechanisms that can be utilized by the City to ensure compliance with storm water related ordinances. The Storm Water Protection ordinance provides that persons violating the ordinance are subject to monetary penalties, charges and cleanup costs, judgments and associated costs, and costs of containment, treatment or disposal necessary to abate adverse impacts on water quality. (Section 16.10.060.) Administrative penalties are set forth in Chapter 1.08 of the Municipal Code. In addition, the City's enforcement officer may issue cease and desist orders, order abatement of any discharge, undertake to abate the discharge in emergency circumstances, and arrest or cite any person violating the ordinance for committing a misdemeanor. (Section 16.10.180.)

In addition, the City has the authority to inspect property, take samples and require any person to conduct monitoring and submit the results to the City. (Section 16.10.150.) The City may also bring a civil action against violators for, among other things, injunctive relief, cost recovery and civil penalties of up to \$25,000 per day. (Section 16.10.200.)

The Grading Ordinance includes similar enforcement provisions. (See Section 16.30.240.)

- c. How the ordinances are implemented and how enforcement actions under these ordinances may be appealed:

The Storm Water Protection Ordinance is implemented by the Director of Public Works, or his or her designee, and the authorized enforcement officer, defined as the Director, the code enforcement officer, and the building official and their designees. (Section 16.10.180; Section 16.10.030.) The ordinance sets forth the enforcement mechanisms the enforcement officer may use, including compliance schedules, cease and desist orders, abatement orders, criminal citations and declaration of a public nuisance. (Section 16.10.180.) Any person served with any of these administrative orders may appeal by providing to the City Manager or his or her designee, a written request for hearing within seven days of the effective date of service of the notice. (Section 16.10.190.) The City Manager shall set a date for hearing before a hearing officer, and notify the party requesting the hearing in writing of the time, date and place for hearing at least 10 calendar days before the hearing. Procedures for conduct of the hearing are set forth in the Code. (Section 16.10.190(C).) The hearing officer's decision must be in writing, and can be appealed pursuant to Government Code section 53069.4. (Section 16.10.190(F)-(G).)

The Grading Ordinance is implemented by the Director of Public Works and the Building Official. The ordinance requires written notice to violators and provides that a person served with a notice may request a hearing. (Section 16.30.240(D)-(F).) The City Manager shall set a date for hearing before a hearing officer, and notify the party requesting the hearing in writing of the time, date and place for hearing at least 10 calendar days before the hearing. Procedures for conduct of the hearing are set forth in the Code. (Section 16.30.240(F).) The hearing officer's decision must be in writing, and can be appealed pursuant to Government Code section 53069.4. (Section 16.30.240(F)-(G).)

- d. Administrative Orders and Injunctions

The City's administrative enforcement powers under the Storm Water Protection ordinance are described in Section 16.10.180. As noted above, these powers include the issuance of various administrative orders and notices, including compliance schedules, cease and desist orders, abatement orders, criminal citations and declaration of a public nuisance. The Code also authorizes the filing of a civil action to enforce the ordinance and provides that the City may seek, among other remedies, injunctive relief. (Section 16.10.200.)

The City has similar authority under its Grading Ordinance. (Section 16.30.240.) The powers include the issuance of stop work notices, denial of future grading permits, and the abatement of nuisance conditions. (Section 16.30.090; Section 16.30.230.)

Additional Legal Authority/Clarification of Legal Authority

The City's authority under its ordinances is quite broad, and sufficient to address the vast majority of the pollutant sources set forth in the Order. Certain of these activities are not explicitly addressed in the ordinance, and thus staff will recommend revisions to the Storm Water Protection ordinance as follows:

- (1) Amend the Prohibited Activities Section to specifically reference discharges of pool or fountain filter backwash water and state or federally-banned pesticides.
- (2) Amend the ordinance to specifically address food-related wastes and discharges from mobile operations.
- (3) Amend the ordinance to require that treatment control BMPs be properly operated and maintained.

In addition, the MS4 permit requires each Permittee to control the contribution of pollutants from one portion of the "shared" MS4 to another portion of the MS4 through interagency agreements. (MS4 Permit Provision C.4.f.) As the Order expressly recognizes, the City of Galt is unlike the other Permittees in that its MS4 is non-contiguous with the other MS4s, and it is surrounded by rural and agricultural areas not subject to NPDES regulation. (Permit Finding No. 6.) In light of this, we conclude that this provision is not applicable to the City of Galt, as it does not share its MS4 with the other permittees.

Date: June 26, 2003

Certified by:



Roberta L. Larson  
Special Counsel, City of Galt

# Appendix K

## City of Rancho Cordova SQIP Appendices

Appendix K-1. SQIP Certification

Appendix K-2. Certification of Legal Authority

Appendix K-3. 2006 General Plan Excerpt: Natural Resources Element

DRAFT



**David Sander**  
Mayor

**Linda Budge**  
Vice Mayor

**Ken Cooley**  
Council Member

**Robert McGarvey**  
Council Member

**Dan Skoglund**  
Council Member

## SACRAMENTO STORMWATER MANAGEMENT PROGRAM

### STORMWATER QUALITY IMPROVEMENT PLAN (SQIP) FOR THE CITY OF RANCHO CORDOVA

#### CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the 16 day of May, 2007,

at Rancho Cordova, California.



Cyrus Abhar  
Public Works Director/City Engineer

### Statement of Legal Authority Update

This statement serves as an update to the Statement of Legal Authority previously submitted by the City of Rancho Cordova ("City") with its Stormwater Quality Improvement Plan ("SQIP") in 2003. This statement verifies that the City still has the authority to comply with certain Federal NPDES Storm Water Regulations and the requirements of the California Regional Water Quality Control Board, Central Valley Region Order No. R5-2002-0206, which also serves as NPDES Permit CAS082597. All City Municipal Code references to Chapter 15.12 and 16.44 are still accurate. The original Statement of Legal Authority is attached hereto as Attachment 1.

Since 2003 the City has amended Municipal Code Chapter 15.12, "Stormwater Management and discharge Control," to authorize Sacramento County to implement and enforce the City's industrial and commercial facilities stormwater program and to make other minor changes. These changes were made pursuant to City Ordinance No. 41-2004.

The City still has all authority specified by the original Statement of Legal Authority. Revisions to Chapter 15.12 were made primarily to ensure that the County of Sacramento has legal authority to implement and enforce the City's stormwater control program and to reflect the "Agreement between the County of Sacramento and the City of Rancho Cordova for Enforcement of Regulatory Compliance with National Pollutant Discharge System Permit." The Agreement outlines a program to allow Sacramento County to conduct the required inspections within the City. The Agreement also details the responsibilities for the inspection program, enforcement, industry notification, record-keeping and complaint response.


Pursuant to Article XI, Section 8 of the California Constitution, the City and County may enter into agreements whereby the County assumes and discharges specified municipal functions within the City, such as stormwater management and discharge control functions described in Chapter 15.12. The City Council, pursuant to City Resolution No. 78-2004, and the County Board of Supervisors, pursuant to the Sacramento County Charter, agreed that the County would act as the regulatory body authorized to administer and enforce the provisions of Chapter 15.12, with respect to commercial and industrial facilities located within the City, and to ensure compliance with NPDES Permit No. CAS082597.

In addition to the primary goal of ensuring that the County has legal authority to implement and enforce the City's stormwater control program, the revisions restate the City's legal authority to prohibit the discharge of pollutants to the stormwater conveyance system within the City and local waterways, ensure that appropriate enforcement procedures and penalties for violations are in place; and provide for the recovery of administrative and regulatory costs incurred by the City or by the County.

All changes to Chapter 15.12 are consistent with Federal NPDES Storm Water Regulations and the requirements of the California Regional Water Quality Control Board, Central Valley Region Order No. R5-2002-0206, which also serves as NPDES Permit CAS082597.

Based on the foregoing discussion, the City Attorney respectfully submits this update and certification to the Statement of Legal Authority previously submitted by the City of Rancho Cordova ("City") with its Stormwater Quality Improvement Plan ("SQIP") in 2003.

Certified by,

By:   
ADAM U. LINDGREN  
City Attorney  
City of Rancho Cordova

970803\_1

DRAFT

Adam U. Lindgren  
 Attorney at Law  
 510.808.2000

### Statement of Legal Authority

This statement verifies the authority of the City of Rancho Cordova ("City") to comply with certain Federal NPDES Storm Water Regulations and the requirements of the California Regional Water Quality Control Board, Central Valley Region Order No. R5-2002-0206 ("Order"), which also serves as NPDES Permit CAS082597 ("Permit"). The City submits this statement along with its Stormwater Quality Improvement Plan ("SQIP") as required by the Order.

Section C.6 of the Order requires the preparation of a statement "certified by its Chief Legal Counsel," verifying that adequate authority exists to implement the terms of the Order and requirements of federal stormwater regulations. Section C.6 specifies four items that must be included in the statement:

"6. Each Permittee shall provide to the Regional Board a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in Permittees' revised SQIP(s), shall include the following:

- a. Citation of storm water related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;
- b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' storm water related ordinances, which incorporate the conditions of this Order;
- c. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and
- d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions."



As required by the Order, a complete discussion of each issue follows.

**a. Citation of storm water related ordinances adopted by the Permittees and the reasons the ordinances are enforceable.**

The City was incorporated on July 1, 2003. Upon incorporation, the City adopted Ordinance 01-2003, providing that all Sacramento County codes and ordinances would remain in force and effect as City ordinances for a period of 120 days or until the City Council enacted ordinances superseding them, whichever occurred first. Following the first 120 days of incorporation, the City adopted Ordinance 21-2003 which continued in effect a majority of the provisions contained in the Sacramento County Code, including Chapter 15.12, "Stormwater Management and Discharge Control," (the "City Storm Water Ordinance") and Chapter 16.44, "Land Grading and Erosion Control," (the "Grading Ordinance."). These adopted provisions will remain in effect within the territory of the City until expressly superceded by subsequent City ordinance.

The City's Storm Water Ordinance is the principal ordinance governing discharges to the municipal separate storm sewer system (MS4) of which the City's storm sewer system is a designated part. The purpose of the City Storm Water Ordinance is to "protect and enhance the water quality of watercourses, water bodies and wetlands within the unincorporated area of the City in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal Discharge Permit No. CA0082597 by controlling the contribution of urban pollutants to stormwater runoff which enters the County stormwater conveyance system." The provisions of the City Storm Water Ordinance authorize implementation or enforcement of each mandate of the Order or stormwater regulation, except those noted herein.

Additionally, the Grading Ordinance regulates grading projects and sets conditions for approval of such projects. This ordinance is specifically designed to minimize the degradation of the water quality of watercourses caused by grading, filling and excavation of land, and to control sediment and pollutant runoff from other construction-related activities. These goals are achieved by establishing administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other construction-related pollution.

These ordinances were properly adopted by reference by the City Council pursuant to California law and constitute enforceable enactments pursuant to the City's police power.

The City's authority under the Grading Ordinance and the City Storm Water Ordinance is very wide-ranging and is sufficient to address the majority of the mandates contained in the Order. However, a few of the requirements are not explicitly addressed, and City staff will be recommending revisions to the City Storm Water Ordinance. The Order requires the City to "carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits, including the prohibition of illegal discharges to the MS4. Each Permittee must have authority to enter, sample, inspect, review and copy

records, and require regular reports from industrial facilities and construction sites discharging into its MS4.” The City Storm Water Ordinance authorizes inspections and monitoring by the City but it does not authorize requirements for regular reports from dischargers. The City plans on amending the ordinance to gain authority to require regular reports from dischargers for industrial facilities and construction sites. Additionally, the Order requires the City to have the legal authority to require “that treatment control BMPs be properly operated and maintained.” City Code sections 15.12.200-300 and section 16.44.170 require most industrial facilities and construction sites to implement and maintain BMPs. However, these sections do not apply to all types of new development. The City will monitor the process currently underway by the County of Sacramento to evaluate existing County development standards and will recommend amendments to the City Storm Water Ordinance to authorize treatment control BMP requirements (including provisions for long-term maintenance of structural BMPs) for “priority development projects” as specified by the Development Standards provisions of the Order.

**b. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees’ storm water related ordinances, which incorporate the conditions of this Order.**

The City Storm Water Ordinance has several administrative procedures available to mandate compliance with the requirements contained in the ordinance. As discussed further below, these options include issuing notices of non-compliance, administrative enforcement orders and cease and desist orders. In addition to administrative enforcement options, the City may seek civil and criminal penalties against a violator and may seek nuisance abatement through the court system. Lastly, Section 15.12.230 of the City Storm Water Ordinance allows the City’s Public Works Director to promulgate regulations for the implementation of the City’s Storm Water Ordinance. This section gives the City the ability to further refine its administrative compliance options.

**c. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed.**

The City will implement the City Storm Water Ordinance through the stormwater program detailed in the SQIP.

The City Storm Water Ordinance sets forth a detailed process for appealing enforcement action brought pursuant to it. Section 15.12.440 provides that any person receiving a notice of non-compliance, an administrative compliance order or otherwise suffers an adverse determination under the ordinance may request an administrative hearing before an administrative hearing officer designated by the City Council. The Ordinance requires the appellant to file, within 30 days of receipt of notice of an adverse determination, a written request for an administrative hearing, accompanied by an administrative hearing fee as established by resolution of the Council, with the Director. The City will then hold a hearing on the matter before a hearing officer within 45 days of the filing of the written request unless, in

the reasonable discretion of the hearing officer and pursuant to a request by the appealing party, a continuance of the hearing is granted. The hearing office must issue his or her final decision within ten days of the hearing.

**d. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.**

As stated above, the City Storm Water Ordinance includes an extensive section on enforcement actions (giving the City a wide variety of administrative options in case of violations). The administrative enforcement options include issuing a notice of non-compliance, administrative compliance orders, and cease and desist orders. Issuance of a cease and desist order functions as an injunction in that it allows the City's Public Works Director to direct the owner or occupant of any premises, or any other person responsible for any violation of the proposed ordinance, to take one or more of the following actions: (1) Immediately discontinue any prohibited discharge to the City stormwater conveyance system; (2) Immediately discontinue any other violation of the ordinance; and (3) Clean up the area affected by the violation. The City's Public Works Director may direct by a Cease and Desist Order that any person immediately cease any activity that may lead to a violation of Receiving Water Limitations.

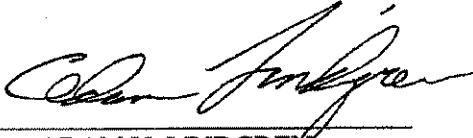
The City has similar authority under the Grading Ordinance. The powers include the issuance of stop work notices, denial of future grading permits and the abatement of nuisance conditions.

Based on the foregoing discussion and subject to the exceptions described herein, the City Attorney respectfully submits this certification.

Certified by,

STEVEN R. MEYERS  
City Attorney  
City of Rancho Cordova

By:

  
ADAM U. LINDGREN  
Assistant City Attorney



## IX - NATURAL RESOURCES ELEMENT

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## IX NATURAL RESOURCES ELEMENT

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## VISION STATEMENT

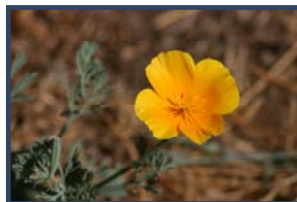
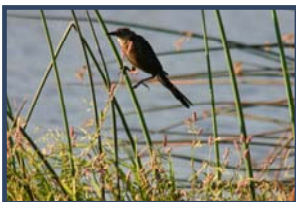
Rancho Cordova will achieve a balance of natural resources and urban form through the compatible preservation of natural resources within the man-made environment. Natural resources will be protected, conserved, and reflected in the built environment. Creek corridors, preserves, trees, and open space areas will enhance neighborhoods and public spaces. The community's water resources will be conserved and protected from contamination. All new development will be consistent with stormwater regulations and protect against erosion. The community will strive to conserve energy and to recycle construction materials, green waste, and consumer goods.

## INTRODUCTION

Natural resources connect with urban life in many ways, providing an important relationship between humans and the natural environment; including biological resources, and water resources. Ensuring quality management and protection of the City's numerous natural resources will contribute to Rancho Cordova's environmental health as well as to quality of life for residents. The City will become a leader in natural resource conservation, managing natural resources to ensure long-term sustainability while evaluating new opportunities and techniques in conservation.

## PURPOSE

The Natural Resources Element identifies the ways in which Rancho Cordova will protect, maintain, and enhance its natural resources for the betterment of current residents and future generations. In combination, the Natural Resources Element and the Open Space, Parks and Trails Element represent the conservation element of the General Plan. The Open Space, Parks and Trails Element contains details on the City's Open Space Plan. It also attempts to balance the present needs of resource users with the need for resource conservation for the common good. The goals, policies, and actions in this Element will foster the preservation of Rancho Cordova's many valuable natural resources, including wildlife, habitat, water resources, soils, and mineral resources.





## IX NATURAL RESOURCES ELEMENT

### RELATED PLANS AND PROGRAMS

The Natural Resources Element relates to several other federal, State and local plans and programs, including the following:

- **National Environmental Policy Act.** The National Environmental Policy Act (NEPA) is a federal environmental review process for projects that have a federal nexus (e.g., impact federal resources or lands, receive federal funding, or require federal approval or permits). NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. This Element is consistent with the intent of NEPA. It contains a goal and supporting policies and actions related to protecting and preserving diverse wildlife and plant habitat.
- **Federal Endangered Species Act.** The Federal Endangered Species Act (FESA) is a federal law that protects species that are endangered or threatened with extinction. FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined as harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3). Actions in this Element require the City to coordinate with federal agencies on wetland preserves and creek corridors.
- **Vernal Pool Recovery Plan.** The U.S. Fish & Wildlife Service’s Vernal Pool Recovery Plan (Recovery Plan) covers 33 plant and animal species that occur exclusively or primarily within the California and southern Oregon vernal pool ecosystem. As drafted, the Recovery Plan identifies a five-part strategy to ameliorate or eliminate threats to affected species and to preserve intact vernal pools. This Element contains a goal, policies and actions related to preserving wetlands.
- **Section 404 of the Clean Water Act (404 Permits).** Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into waters of the United States (waters of the U.S.), including wetlands and vernal pools. Activities in waters of the U.S. that are regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. This Element contains a goal, policies and actions related to preserving and mitigating for the loss of wetlands.



# IX NATURAL RESOURCES ELEMENT



- **Section 401 of the Clean Water Act (Water Quality Certification).** Section 401 of the Clean Water Act requires a State Water Quality Certification for all federal permit or license applications for any activity that may result in a discharge to a water body to ensure compliance with state water quality standards. Most Certifications are issued in connection with section 404 permits for dredge and fill discharges. The Central Valley Regional Water Quality Board issues Section 401 water quality certifications for projects in Rancho Cordova. This Element contains a goal with supporting policies and actions related to creeks and a goal with supporting policies and actions related to water quality.
- **Section 402 of the Clean Water Act (NPDES Permits).** Section 402 of the Clean Water Act establishes permit programs to authorize discharge of storm water from municipal storm sewer systems. Rancho Cordova has a Municipal Stormwater Permit under the National Pollutant Discharge Elimination System (NPDES) Permit Program with Sacramento County, Elk Grove, Galt and the City of Sacramento. The Regional Water Quality Control Board, Central Valley Region, issues and administers the Sacramento NPDES municipal stormwater permit. This Element contains a policy and supporting actions related to urban runoff and discharging materials into creeks.
- **California Environmental Quality Act.** The California Environmental Quality Act (CEQA) is the State's environmental review process that requires public agencies to identify the significant environmental effects of a project and either avoid the significant environmental effects, where feasible, or mitigate the significant environmental effects, where feasible. This Element contains an action that specifically requires CEQA analysis of projects.
- **California Endangered Species Act.** The California Endangered Species Act is the State's listing of endangered and threatened species. It requires state agencies to consult with the California Department of Fish and Game (CDFG) when preparing CEQA documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. This Element contains a goal and supporting policies and actions related to protecting and preserving diverse wildlife and plant habitat, and an action requiring coordination with CDFG on Swainson's hawk mitigation.
- **California Fish and Game Code.** The California Fish and Game Code contains laws and regulations relating to California's fish, wildlife, plants, and their habitats. The Code is administered by the California Department of Fish and Game. This Element contains a goal and supporting policies and actions related to protecting and



## IX NATURAL RESOURCES ELEMENT

preserving diverse wildlife and plant habitat, and an action requiring coordination with CDFG on Swainson's hawk mitigation.

- **Surface Mining and Reclamation Act.** The Surface Mining and Reclamation Act (SMARA) addresses the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. SMARA's requirements apply to all surface mining operations in California that disturb more than one acre or remove more than 1,000 cubic yards of material including, but is not limited to, prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and the stockpiling of mined materials. This Element contains a goal and supporting policies and actions related to environmentally sensitive extraction of minerals and reclamation.
- **California Integrated Waste Management Act.** The California Integrated Waste Management Act (CIWMA) requires each city and county to prepare, adopt, and submit to the California Integrated Waste Management Board a source reduction and recycling element (SRRE) that demonstrates how the jurisdiction will meet the IWMA's mandated diversion goals. This Element contains a goal and supporting policies and actions related to waste reduction, reuse, recycling and composting.
- **California Public Resources Code, Sections 41500-41510.** The Public Resources Code (PRC) requires each city and county to prepare, adopt and submit to the Waste Management Board a program for the safe collection, recycling, treatment, and disposal of hazardous wastes that are generated by households. This Element contains a goal and supporting policies and actions related to recycling and a goal and supporting policies and actions related to recycling of hazardous materials.
- **South Sacramento Habitat Conservation Plan (SSHCP).** The South Sacramento Habitat Conservation Plan (SSHCP) is a mitigation plan being prepared and managed by Sacramento County that seeks strategies that allow commercial, residential, and other development, while balancing the needs of sensitive plant and animal species. The SSHCP covers land within Sacramento County, including portions of the cities of Rancho Cordova, Elk Grove and Galt. The SSHCP is intended to consolidate environmental efforts to protect and enhance wetlands (primarily vernal pools) and upland habitats to provide ecologically viable conservation areas. The SSHCP will also minimize regulatory hurdles and streamline the development permit process for projects that are covered by and consistent with the plan. This Element contains a goal with supporting policies and actions related to protecting and preserving diverse wildlife and plant habitat, a policy about

# IX NATURAL RESOURCES ELEMENT



participation in an HCP, and a goal with supporting policies and actions related to preserving natural wetlands.

- **American River Parkway Plan.** The American River Parkway Plan was adopted by the City of Sacramento, Sacramento County and the State Legislature to manage the Parkway's natural resources and promote recreation in a natural environment with minimal impacts. Sacramento County is currently updating the American River Parkway Plan. The ARPP Update is required because the context and usage of the three areas has changed considerably since the Plan was adopted. The City of Rancho Cordova is participating in the ARPP Update. This regional resource/amenity passes through the northern portion of Rancho Cordova. This Element contains a goal with supporting policies and actions related to protecting and preserving diverse wildlife and plant habitat.

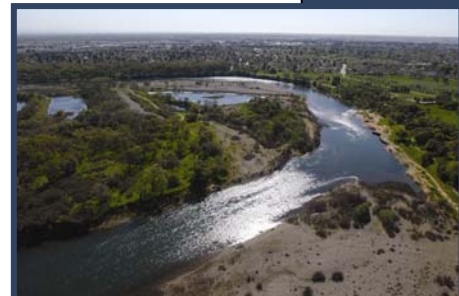
## RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The Natural Resources Element is closely related to the Open Space, Parks, and Trails Element and Air Quality Element of the General Plan. The Open Space, Parks and Trails Element contains goals, policies and actions that establish the open space plan for the City. Together, the two elements represent the conservation element of the General Plan. The Air Quality Element contains policies about maximizing air quality benefits through the use of landscaping and trees, which are directly related to policies in the Natural Resources Element. Where appropriate, cross-references are provided to alert the reader to information in the other elements.

## ISSUES AND CONSIDERATIONS

### NATURAL RESOURCES SETTING

The Planning Area contains many varied natural resources, from habitats to creeks to water supplies. Each resource has an important function within the City and the region. The City does not contain forests, harbors, or fisheries. Therefore, the Natural Resources Element does not contain goals, policies or actions related to such resources.





## IX NATURAL RESOURCES ELEMENT

### Plant and Animal Habitat



A variety of unique and valuable habitats are found within the Planning Area, including, but not limited to, oak and cottonwood woodlands, various grasslands, vernal pool areas, and open water and rivers. The habitats of the Planning Area contain numerous special status plant and animal species. A comprehensive list of the habitats and species in the Planning Area is provided in the Background Report that accompanies the General Plan.

Table NR-1 at the end of this Element includes a current list of special-status species that occur within the Rancho Cordova Planning Area.

### Wetlands and Creeks

Wetlands and creeks in the Planning Area provide a variety of functions to the community. Creeks provide important ecosystem functions. The riparian habitat associated with creeks supports diverse and abundant plant and animal life and provides movement corridors for animals. Wetlands in the project area also have important ecological functions in that they support unique assemblages of specially adapted biota. In addition to their ecological functions, wetlands and creeks provide important water filtration and treatment, water supply, water storage, and recreational functions.

### Water Resources

The Planning Area contains several surface water and groundwater resources. Major surface water resources include the American River, the Cosumnes River, Morrison Creek, Laguna Creek, Elder Creek, Buffalo Creek, Blodgett Reservoir, and the Folsom South Canal. Groundwater is found in aquifer zones underneath the Planning Area.



Former Aerojet and Boeing operations associated with rocket testing resulted in groundwater contamination in portions of the Planning Area. The groundwater contamination spread in a plume that extends south and west within Rancho Cordova, as well as north under the American River into Carmichael. The Environmental Protection Agency (EPA) designated the Aerojet property as a Superfund site. A site is only designated as a Superfund site if it has been contaminated by hazardous waste and if the Environmental Protection Agency (EPA) has identified the site as a candidate for cleanup because it poses a risk to human health and/or the environment. In 2000, the EPA proposed a plan to clean up the plume of groundwater contamination to the west of the Aerojet property and to ensure continued, safe water supplies for area residents. Aerojet has installed wells, pipelines, and

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treatment systems in the first phase of their effort to remove the groundwater contamination. Cleaning of the contamination officially began in 1979.

The current groundwater remediation is anticipated to be a long-term commitment, possibly operating more than 100 years. A significant volume of extracted and treated groundwater, possibly exceeding 30,000 acre-feet per year, is expected to be discharged to the American River. After flowing downstream to the Sacramento River and south to the Freeport pumping station, the water will be introduced into the County's municipal water system. The use of this water has been established through legal agreements between Aerojet, Sacramento County, and affected local water agencies.

Water is provided to the Rancho Cordova's Planning Area by three water purveyors including Sacramento County Water Agency (SCWA) Zone 40, Golden State Water Company (GSWC), and California-American Water Company (Cal-Am). The City's water supply is currently provided by a combination of ground and surface water resources. Future water supplies will be provided from a variety of sources, including: water from the Central Valley Project; appropriate water supplies; water transfer supplies; groundwater; recycled water; surface water from the American River; SMUD transfer water; and Aerojet replacement water.

A Water Supply Evaluation was prepared for the General Plan to identify water supply needs of the proposed General Plan under buildout of proposed land uses in the City's current boundaries as well as the Planning Area outside of the City under the State law providing for coordination between cities and counties and water planning activities of water purveyors and agencies. This work involved consultation with the current public and private water purveyors in the Planning Area, as well as requests for formal consultation regarding water supply availability by the City. Urban Water Management Plans (UWMP) for all water purveyors were obtained and used in the Water Supply Evaluation. The UWMPs identified the purveyor's existing and projected future water supplies and projected water demands through 2030 within each of their service areas.

## **Soils/Aggregate Resources**

The soils in the Planning Area are largely expansive clay soils, which tend to present challenges for construction. The Planning Area also contains approximately 10,275 acres of mine tailings, which are comprised of high-quality aggregate resources and possibly mineral resources such as gold. There are several existing mining operations within the Planning Area, some of which may expand in the future. These operations will play an important role in supplying materials for the build-out of the community.



## IX NATURAL RESOURCES ELEMENT

### ISSUES THIS ELEMENT ATTEMPTS TO SOLVE

The goals, policies, and actions in this Element attempt to solve the following issues, raised during discussion of natural resource conservation:

- Protecting wildlife and wetlands areas.
- Encouraging the City and various public agencies to work together to establish natural resource protection areas both inside and outside of the City.
- Ensuring compatibility and mutual benefit, to the maximum extent feasible, between mitigation preserves and urban development.
- Reducing the impacts of new development on the use of water and mineral resources.
- Ensuring the availability of aggregate resources to support construction within the City.
- Maintaining continuous and uninterrupted connections between mitigation preserves providing habitat corridors that allow species migration and minimize habitat and species isolation.
- Reducing solid waste production and promoting recycling activities that seek to reduce the amount of solid waste to state-mandated levels.

### GOALS, POLICIES, AND ACTIONS

The goals of this element are as follows and are listed subsequently with corresponding policies and actions.

- **Goal NR1: Protect and preserve diverse wildlife and plant habitats, including habitat for special status species.**
- **Goal NR.2: Preserve the City's rich and diverse natural wetlands.**
- **Goal NR.3: Preserve and maintain creek corridors and wetland preserves with useable buffer zones throughout the new development areas as feasible.)**

# IX NATURAL RESOURCES ELEMENT



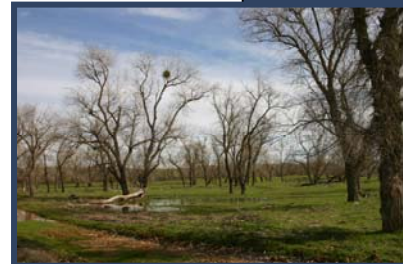
- **Goal NR.4:** Encourage the planting and preservation of high-quality trees throughout the City.
- **Goal NR.5:** Protect the quantity and quality of the City’s water resources.
- **Goal NR.6:** Support the environmentally sensitive extraction of minerals and the subsequent reclamation of mined areas.
- **Goal NR.7:** Reduce per capita energy consumption.
- **Goal NR.8:** Promote waste reduction, reuse, recycling, and composting efforts.

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## **GOAL NR.1 - PROTECT AND PRESERVE DIVERSE WILDLIFE AND PLANT HABITATS, INCLUDING HABITAT FOR SPECIAL STATUS SPECIES.**

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**Policy NR.1.1** - Protect rare, threatened, and endangered species and their habitats in accordance with State and federal law.



- **Action NR.1.1.1** - Incorporate large habitat preserves and interconnected wildlife corridors in new development areas to provide ample space for animal movement.
- **Action NR.1.1.2** – Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks, and/or wooded corridors.
- **Action NR.1.1.3** - As part of the consideration of development applications for individual Planning Areas containing habitats that support special-status plant and animal species that are planned to be preserved, the City shall require that these preserved habitats have interconnections with other habitat areas in order to maintain the viability of the preserved habitat to support the special-status species identified. The determination of the design and size of the “interconnections” shall be made by the City, as recommended by a qualified professional, and will include consultation with the California Department of Fish and Game and U.S. Fish and Wildlife Service.
- **Action NR.1.1.4** - Prior to the approval of any public or private development project in areas containing trees, the City shall require that a determinate survey be

Cross reference:  
LU.3.4



## IX NATURAL RESOURCES ELEMENT

conducted during the nesting season (March 1 and August 31) to identify if active nesting by birds protected under the Migratory Bird Treaty Act (MBTA) is taking place. If all site disturbance is to occur outside this time, the actions described in this mitigation measure are not required. If nesting activity is observed, consultation with the City of Rancho Cordova Planning Department shall be conducted in order to determine the appropriate mitigation, if any, required to minimize impacts to nesting birds. No activity may occur within 100 feet of any nesting activity or as otherwise required following consultation with the California Department of Fish and Game.

**Policy NR.1.2** - Conserve Swainson's hawk habitat consistent with State policies and Department of Fish and Game guidelines.

- **Action NR.1.2.1** – Establish a Swainson's Hawk Ordinance in coordination with the California Department of Fish and Game to establish the process of mitigating for the loss of Swainson's hawk foraging habitat based on habitat value lost to development. The ordinance will set forth a process where habitat lost to development will be mitigated through the permanent protection of equivalent or better existing habitat conditions (referred to hereafter as "mitigation lands"). The specific required mitigation ratios (habitat acreage lost versus mitigation lands) and any other provisions to mitigation process shall be established through technical studies as part of the development of the ordinance and will take into account value of habitat to be converted in relation to habitat value of the mitigation lands (e.g., relation to nesting sites), proximity of the mitigation lands to adjacent conditions affecting habitat (e.g., nearby land uses and already permanently protected lands), and other relevant factors. The ordinance will also establish standards ensuring that mitigation land will be adequately protected and managed in perpetuity (e.g., via conservation easement, deed restriction or other appropriate method), and setting forth the timing of the required provision of mitigation lands in relation with the timing of the loss of habitat in the City (as its boundaries may be changed through subsequent annexations), such that mitigation lands shall be provided no later than prior to ground disturbance.

**Policy NR.1.3** – Promote educational programs that inform the public about natural resources.

- **Action NR.1.3.1** – Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City's natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.



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**Policy NR.1.4** - Discourage the planting of invasive species.

- **Action NR.1.4.1** - Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.
- **Action NR.1.4.2** - The City shall adopt and maintain a Noxious Weed Ordinance. The Noxious Weed Ordinance shall include regulatory standards for construction activities that occur adjacent to natural areas to inhibit the establishment of noxious weeds through accidental seed import.

**Policy NR.1.5** - Ensure the protection of wildlife through the establishment of programs to control feral pet populations.

**Policy NR.1.6** – Participate in the development of a habitat conservation plan to address the unique biological resources in Rancho Cordova.

**Policy NR.1.7** – Prior to project approval, the City shall require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain listed plant and/or wildlife species based upon the City’s biological resource mapping provided in the General Plan EIR or other technical materials.

- **Action NR.1.7.1** - For those areas in which special status species are found or likely to occur or where the presence of species can be reasonably inferred, the City shall require mitigation of impacts to those species that ensure that the project does not contribute to the decline of the affected species populations in the region to the extent that their decline would impact the viability of the regional population. Mitigation shall be designed by the City in coordination with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG), and shall emphasize a multi-species approach to the maximum extent feasible. This may include development or participation in a habitat conservation plan.

**Policy NR.1.8** - The City shall encourage creation of habitat preserves that are immediately adjacent to each other in order to provide interconnected open space areas for animal movement.

**Policy NR.1.9** - The City shall require that impacts to riparian habitats be mitigated at a no net loss of existing function and value based on field survey and analysis of the riparian habitat to be impacted. No net loss may be accomplished by avoidance of the habitat,



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restoration of existing habitat, or creation of new habitat, or through some combination of the above.

**Policy NR.1.10** - The City shall avoid the placement of new roadways within habitat preserves to the maximum extent feasible.

**Policy NR.1.11** - In such cases where habitat preserves are crossed by a roadway, or where two adjacent preserves are separated by a roadway, the roadway shall be designed or updated



with wildlife passable fencing separating the roadway from the preserve and/or shall incorporate design features that allow for the movement of wildlife across or beneath the road without causing a hazard for vehicles and pedestrians on the roadway.

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### **GOAL NR.2 - PRESERVE THE CITY'S RICH AND DIVERSE NATURAL WETLANDS.**

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**Policy NR.2.1** – Require mitigation that provides for “no net loss” of wetlands consistent with current State and federal policies.

- **Action NR.2.1.1** - During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.

**Policy NR.2.2** - Ensure that direct and indirect effects to wetland habitats are minimized by environmentally sensitive project siting and design, to the maximum extent feasible.

**Policy NR.2.3** – Work with private and non-profit conservation organizations to ensure competitive pricing for mitigation bank credits by allowing government agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.

**Policy NR.2.4** - Educate the public on the importance and benefit of wetlands areas.

- **Action NR.2.4.1** - Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves where possible while maintaining the integrity of sensitive natural resources.
- **Action NR.2.4.2** – Consider constructing low impact trails interior to preserves, such as elevated board walkways, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.

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**Policy NR.2.5** - The City shall require that drainage improvements that discharge into areas of wetlands to be preserved are, to the maximum extent feasible, designed to mimic the undeveloped surface water flow conditions of the area in terms of seasonality, volume, and flow velocity.

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**GOAL NR.3 - PRESERVE AND MAINTAIN CREEK CORRIDORS AND WETLAND PRESERVES WITH USEABLE BUFFER ZONES THROUGHOUT THE NEW DEVELOPMENT AREAS AS FEASIBLE.**

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**Policy NR.3.1** - Coordinate with property owners and local interest groups, such as the Sacramento Urban Creeks Council, to restore, enhance, and preserve creeks in Rancho Cordova.

**Policy NR.3.2** - In general, the City will encourage the preservation of existing location, topography, and meandering alignment of creeks. Where necessary, and if consistent with other City policies, the creation and realignment of creek corridors shall be constructed to recreate the character of the natural creek corridor. Channelization and the use of concrete within creek corridors shall not be supported.

- **Action NR.3.2.1** – Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.
- **Action NR.3.2.2** – Adopt and implement improvement standards for soft bottom channels.

**Policy NR.3.3** – Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.

- **Action NR 3.3.1** – Work with affected local, state, and federal agencies, including SACOG, the California Department of Water Resources, Delta Keepers, and the U.S. Army Corps of Engineers, to determine when natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.

**Policy NR.3.4** – Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for visibility and, as appropriate, access.

Cross reference:  
OSPT 2.3



## IX NATURAL RESOURCES ELEMENT

- **Action NR.3.4.1** - Establish performance standards for natural resource preserves that accomplish the following:
  - Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.
  - Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.
  - Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.
  - Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.
- **Action NR.3.4.2** – Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.
- **Action NR.3.4.3** – Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.



### **GOAL NR.4 – ENCOURAGE THE PLANTING AND PRESERVATION OF HIGH-QUALITY TREES THROUGHOUT THE CITY.**

**Policy NR.4.1** - Conserve native oak and landmark tree resources for their historic, economic, aesthetic, educational, and environmental value.

- **Action NR.4.1.1** - Implement the City's Tree Preservation and Protection Ordinance (and update as necessary) to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.
- **Action NR.4.1.2** - Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize

# IX NATURAL RESOURCES ELEMENT



impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.

- **Action NR.4.1.3** - Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.

**Policy NR.4.2** - Improve overall landscaping quality and sustainability in all areas visible to the public.

- **Action NR.4.2.1** - Create development guidelines to establish minimum planting standards and require appropriate tree species and planting densities within newly landscaped areas that are visible to or shared by the public. An adopted Tree List should be used as a guideline for all tree plantings within the City.
- **Action NR.4.2.2** - Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.
- **Action NR.4.2.3** - Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.
- **Action NR.4.2.4** - Discourage the use of invasive non-native species.
- **Action NR.4.2.5** - Establish a mistletoe abatement and remediation program.
- **Action NR.4.2.6** - Establish guidelines to require planting of trees to reduce “heat island” effects, in order to reduce the need for air conditioning and thus conserve energy.

**Policy NR.4.3** - Promote trees as economic and environmental resources for the use, education, and enjoyment of current and future generations.

- **Action NR.4.3.1** - Achieve “Tree City USA” status. This will require the City to continue to implement the City’s Tree Preservation and Protection Ordinance (and update as necessary), appoint a board, department or commission to advise the city on tree issues, spend two dollars per capita on community forestry activities, and hold an Arbor Day celebration.

Cross reference:  
UD.2.6.2

Cross reference:  
UD.2.6.2

Cross reference:  
AQ.2.4



## IX NATURAL RESOURCES ELEMENT

- **Action NR.4.3.2** - Designate local funds to educate the public on tree planting and preservation.
- **Action NR.4.3.3** - Coordinate with SMUD to offer programs or other resources to provide property owners with information on proper tree selection, proper location to reduce heat transfer effects, planting and maintenance.
- **Action NR.4.3.4** – Actively participate in the Sacramento Tree Foundation Greenprint Program.

**Policy NR.4.4** - Prior to the approval of any public or private development project in areas identified or assumed to contain trees, the City shall require that a determinate survey of trees species and size be performed. If any native oaks or other native trees six inches or more in diameter at breast height (dbh), multitrunk native oaks or native trees of 10 inches or greater dbh, or non-native trees of 18 inches or greater dbh that have been determined by a certified arborist to be in good health are found to occur, such trees shall be avoided if feasible. If such trees cannot be avoided, the project applicant shall do one of the following:

- All such trees shall be replaced at an inch-for-inch ratio. A replacement tree planting plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the City of Rancho Cordova for approval prior to removal of trees; or,
- The project applicant shall submit a mitigation plan that provides for complete mitigation of the removal of such trees in coordination with the City of Rancho Cordova. The mitigation plan shall be subject to the approval of the City.
- If the City of Ranch Cordova adopts a tree preservation ordinance at any time in the future, any future development activities shall be subject to that ordinance instead.

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### **GOAL NR.5 - PROTECT THE QUANTITY AND QUALITY OF THE CITY'S WATER RESOURCES.**

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**Policy NR.5.1** - Promote water conservation within existing and future urban uses.

- **Action NR.5.1.1** - Install water-conserving landscaping and irrigation on City-owned and operated facilities.
- **Action NR.5.1.2** - Require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.

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- **Action NR.5.1.3** - Establish a program that requires per capita water consumption to be reduced by at least 20 percent by 2030 from 2006 baseline conditions consistent with State law. The program shall include the following measures:
  - Restrict water usage through metering or establishing designated watering days for the City’s residences and businesses.
  - Promote water conservation efforts through education.
  - Implement standards that require low-flow appliances and fixtures in all new development.
  - Work with water providers and water conservation agencies to create an incentive program that encourages retrofitting existing development with low-flow water fixtures.
  - Require new development and landscaped public areas to utilize state-of-the-art irrigation systems that reduce water consumption (e.g., gray-water systems).
  - Encourage drought-tolerant and native vegetation.
- **Action NR.5.1.4** – Require water purveyors to include a provision for water supply monitoring and reporting in the franchise agreements.

**Policy NR.5.2** - Encourage the use of treated wastewater to irrigate parks, golf courses, and landscaping.

- **Action NR.5.2.1** – Establish a Large-Scale Recycled Water Program and Citywide Recycled Water Distribution System Ordinance.
- **Action NR.5.2.2** – Coordinate with the City’s water purveyors and the SRCSD to establish a connected “purple pipe” system throughout the City’s new development areas that uses recycled water.

**Policy NR.5.3** - Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.

- **Action NR.5.3.1** - Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.

Cross reference:  
S.5.3



## IX NATURAL RESOURCES ELEMENT

Cross reference:  
S.5.1



- **Action NR.5.3.2** - Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.
- **Action NR.5.3.3** - Install appropriate signage to deter the discharge of hazardous materials into storm drains.
- **Action NR.5.3.4** - Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state, and federal standards. Future land uses that include on-site storage of hazardous materials and waste comply with all applicable local, state and federal regulations, including those regulating the use, storage, handling and disposal of hazardous materials.

**Policy NR.5.4** - Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.

- **Action NR.5.4.1** – Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City’s website and in educational materials and brochures.
- **Action NR.5.4.2** - Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.
- **Action NR.5.4.3** - Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.

**Policy NR.5.5** – Minimize erosion to stream channels resulting from new development in urban areas consistent with State law.

- **Action NR.5.5.1** - Require development projects to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City’s urban runoff management program.
- **Action NR.5.5.2** - Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-

Cross reference:  
5.2.3.1



# IX NATURAL RESOURCES ELEMENT



wide runoff control management effort consistent with standards developed by the Public Works Department.

- **Action NR.5.5.3** - Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.
- **Action NR.5.5.4** - Require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff consistent with current state law.

**Policy NR.5.6** - Incorporate Storm Water, Urban Runoff, and Wetland Mosquito Management Guidelines and Best Management Practices into the design of water retention structures, drainage ditches, swales, and the construction of mitigated wetlands in order to reduce the potential for mosquito-borne disease transmission.

**Policy NR.5.7** - Continue to cooperate and participate with the County, other cities, and the Regional Water Quality Control Board regarding compliance with the joint National Pollutant Discharge Elimination System Permit (NPDES No. CAS082597) or any subsequent permit and support water quality improvement projects in order to maintain compliance with regional, state and federal water quality requirements.



**Policy NR.5.8** - The City shall require groundwater impact evaluations be conducted for the Grant Line West, Westborough, Aerojet, Glenborough, Mather and Jackson Planning Areas to determine whether urbanization of these areas would adversely impact groundwater remediation activities associated with Mather and Aerojet prior to the approval of large-scale development. Should an adverse impact be determined, a mitigation program shall be developed in consultation with applicable local, state, and federal agencies to ensure remediation activities are not impacted. This may include the provision of land areas for groundwater remediation facilities, installation/extension of necessary infrastructure, or other appropriate measures.

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## **GOAL NR.6 - SUPPORT THE ENVIRONMENTALLY SENSITIVE EXTRACTION OF MINERALS AND THE SUBSEQUENT RECLAMATION OF MINED AREAS.**

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**Policy NR.6.1** – Ensure that the environmental effects of mining and reclamation on aquifers, streams, scenic views, and surrounding residential uses are prevented or minimized.



## IX NATURAL RESOURCES ELEMENT

- **Action NR.6.1.1** – Regulate surface mining operations as required by California's Surface Mining and Reclamation Act of 1975 ("SMARA"), Public Resources Code Section 2207 (relating to annual reporting requirements), and State Mining and Geology Board regulations for surface mining and reclamation practice.
- **Action NR.6.1.2** – Coordinate mining operations and urban development to minimize conflicts between residents and mining, particularly where mining is required before urbanization.
- **Action NR.6.1.3** – Require inactive mined lands to be reclaimed to a usable condition that is readily adaptable to the future, anticipated land uses.

**Policy NR.6.2** – Eliminate residual hazards to the public health and safety.

- **Action NR.6.2.1** – Establish and require minimum setbacks of future and reauthorized surface mining from adjoining residential land uses.
- **Action NR.6.2.2** - Prohibit the use of cyanide-leaching systems for gold extraction.

**Policy NR.6.3** - While mining activities are anticipated to be phased out within the City, the City recognizes the right of these uses to continue and will require setbacks, buffers, screening, and other appropriate measures to allow for the continued operation of mining activities.

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### **GOAL NR.7 - REDUCE PER CAPITA ENERGY CONSUMPTION.**

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**Policy NR.7.1** - Increase energy conservation Citywide.

- **Action NR.7.1.1** - Develop educational programs to increase energy conservation at the household and business levels.
- **Action NR.7.1.2** - Develop a comprehensive program to conserve energy resources at City-operated facilities.

**Policy NR.7.2** - Promote the development and use of advanced energy technology and building materials in Rancho Cordova.

Cross reference:  
H.6.1

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Cross reference:  
LU.2.7

**Policy NR.7.3** - Encourage the development of energy efficient buildings and subdivisions.

- **Action NR 7.3.1** - Offer incentives (e.g., reduced fees, expedited entitlement processing, density bonus) for plans/projects that exceed Title 24 energy efficiency requirements by ten percent.

**Policy NR.7.4** - Promote energy rebate programs offered by local energy providers (e.g., SMUD, PG&E) as a way to bring energy efficiency into older neighborhoods and developments.

- **Action NR.7.4.1** - Consider the following items as ways to implement this policy:
  - Fund a program that offers incentives for adding energy efficient systems into existing developments;
  - Work with local utility providers to make the public aware of energy rebate programs; and
  - Work with community organizations, such as SMUD, to encourage the inclusion of energy efficient systems in remodels and retrofits of existing development.



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## **GOAL NR.8 - PROMOTE WASTE REDUCTION, REUSE, RECYCLING, AND COMPOSTING EFFORTS.**

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**Policy NR.8.1** - Support recycling efforts by developing a set of programs to educate residents on recycling and provide recycling services.

- **Action NR.8.1.1** - Continue providing curbside recycling and green waste service to all single-family and duplex residences in Rancho Cordova.
- **Action NR.8.1.2** - Create and facilitate a series of educational workshops for the public and businesses on composting and recycling. Provide at least one program to increase recycling by occupants of multi-family housing.
- **Action NR.8.1.3** - Encourage all office, commercial, and multi-family complexes to provide recycling bins and collection service for paper, plastic, glass, and metal.
- **Action NR.8.1.4** - Provide recycling centers at City facilities (e.g., City Hall, libraries) that are available to the public free-of-charge.



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- **Action NR.8.1.5** - Provide locations for household hazardous wastes to be recycled.
- **Action NR.8.1.6** – Remove impediments to successful recycling.

**Policy NR.8.2** - Encourage all companies that do business in Rancho Cordova to recycle and reuse construction scraps, demolition materials, concrete, industrial waste, and green waste.

- **Action NR.8.2.1** - Encourage the school districts within the Planning Area to support recycling at school sites by placing easily accessible recycling bins, providing educational programs on recycling, and using recycled products.

**Policy NR.8.3** - Promote the use of rubberized asphalt on all public roadways in an effort to recycle old tires and reduce noise impacts. Implementation of this policy will help to preserve aggregate resources.

**Policy NR.8.4** - Encourage the use of recycled materials and source reduction (also known as waste prevention) by governmental agencies and local businesses.

- **Action NR.8.4.1** - Ensure that at least 50 percent of the City's office supply purchases are comprised of recycled or reusable products.

**Policy NR.8.5** - Meet state mandates for solid waste reduction and recycling. Increase recycling efforts beyond those required by state law through supporting businesses that buy and sell re-used materials, such as materials exchange centers.

- **Action NR.8.5.1** - Implement the State's source reduction and recycling element (required by the California Integrated Waste Management Act) and the household hazardous waste element (required by PRC 41500-41510).

**Policy NR.8.6** - Encourage the use of recycled-content products and construction materials.

**Policy NR.8.7** - Maintain contact with Sacramento County and Allied Waste (or its successor) regarding the capacity projections of Kiefer Landfill and Lockwood Landfill to ensure an adequate capacity in their disposal facilities for the long-term disposal needs of Rancho Cordova.

Cross reference:  
N.1.5

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**TABLE NR-1  
SPECIAL STATUS SPECIES OCCURRING WITHIN THE  
RANCHO CORDOVA PLANNING AREA**

| Scientific Name                    | Common Name             | State Listing Status | Federal Listing Status | Other Status                          |
|------------------------------------|-------------------------|----------------------|------------------------|---------------------------------------|
| <b>Plant Species</b>               |                         |                      |                        |                                       |
| Downingia pusilla                  | Dwarf downingia         | None                 | None                   | CNPS:2<br>R-E-D: 1-2-1                |
| Gratiola heterosepala              | Boggs Lake hedge-hyssop | Endangered           | None                   | CNPS: 1B<br>R-E-D: 1-2-2<br>USFWS: SC |
| Juncus leiospermus                 | Ahart's dwarf rush      | None                 | None                   | CNPS: 1B<br>R-E-D: 3-2-3<br>USFWS: SC |
| Legenere limosa                    | Legenere                | None                 | None                   | CNPS: 1B<br>R-E-D: 2-3-3<br>USFWS: SC |
| Narvarretia myersii<br>ssp. myersi | Pincushion narvarretia  | None                 | None                   | CNPS: 1B<br>R-E-D: 3-3-3<br>USFWS: SC |
| Orcuttia tenuis                    | Slender orcutt grass    | Endangered           | Threatened             | CNPS: 1B<br>R-E-D: 2-3-3              |
| Orcuttia viscida                   | Sacramento orcutt grass | Endangered           | Endangered             | CNPS: 1B<br>R-E-D: 3-3-3              |
| Sagittaria sanfordii               | Sanford's arrowhead     | None                 | None                   | CNPS: 1B<br>R-E-D: 2-2-3<br>USFWS: SC |
| <b>Amphibian Species</b>           |                         |                      |                        |                                       |
| Spea (Scaphiopus) hammondii        | Western spadefoot       | None                 | None                   | CDFG: CSC<br>USFWS: SC                |
| <b>Bird Species</b>                |                         |                      |                        |                                       |
| Accipiter cooperii                 | Cooper's hawk           | None                 | None                   | CDFG: CSC                             |



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| Scientific Name                          | Common Name                           | State Listing Status | Federal Listing Status | Other Status           |
|--|---------------------------------------|----------------------|------------------------|------------------------|
| <i>Agelaius tricolor</i>                 | Tricolored blackbird                  | None                 | None                   | CDFG: CSC<br>USFWS: SC |
| <i>Ardea alba</i>                        | Great egret                           | None                 | None                   |                        |
| <i>Ardea herodias</i>                    | Great blue heron                      | None                 | None                   |                        |
| <i>Asio flammeus</i> (nesting)           | Short-eared Owl                       | None                 | None                   | CDFG: CSC              |
| <i>Athene cunicularia</i> (burrow sites) | Burrowing owl                         | None                 | None                   | CDFG: CSC<br>USFWS: SC |
| <i>Buteo swainsoni</i>                   | Swainson's hawk                       | Threatened           | None                   |                        |
| <i>Circus cyaneus</i> (nesting)          | Northern harrier                      | None                 | None                   | CDFG: CSC              |
| <i>Elanus leucurus</i>                   | White-tailed kite                     | None                 | None                   | CDFG: fully protected  |
| <i>Eremophila alpestris actia</i>        | California horned lark                | None                 | None                   | CDFG: CSC              |
| <i>Icteria virens</i> (nesting)          | Yellow-breasted chat                  | None                 | None                   | CDFG: CSC              |
| <i>Lanius ludovicianus</i> (nesting)     | Loggerhead shrike                     | None                 | None                   | CDFG: CSC<br>USFWS: SC |
| <i>Plegadis chihi</i> (rookery site)     | White-faced ibis                      | None                 | None                   | CDFG: CSC<br>USFWS: SC |
| <i>Riparia riparia</i>                   | Bank swallow                          | Threatened           | None                   |                        |
| <b>Invertebrate Species</b>              |                                       |                      |                        |                        |
| <i>Branchinecta lynchi</i>               | Vernal pool fairy shrimp              | None                 | Threatened             |                        |
| <i>Branchinecta mesovallensis</i>        | Midvalley fairy shrimp                | None                 | None                   | USFWS: SC              |
| <i>Desmocerus californicus dimorphus</i> | Valley elderberry longhorn beetle     | None                 | Threatened             |                        |
| <i>Lepidurus packardi</i>                | Vernal pool tadpole shrimp            | None                 | Endangered             |                        |
| <i>Linderiella occidentalis</i>          | California linderiella (fairy shrimp) | None                 | Endangered             | USFWS: SC              |
| <b>Mammal Species</b>                    |                                       |                      |                        |                        |

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| Scientific Name  | Common Name                           | State Listing Status | Federal Listing Status | Other Status           |
|--|---------------------------------------|----------------------|------------------------|------------------------|
| <i>Antrozous pallidus</i>  | Pallid bat                            | None                 | None                   | CDFG: CSC              |
| <i>Bassariscus astutus</i>   | Ringtail                              | None                 | None                   | CDFG: CFP              |
| <i>Myotis ciliolabrum</i>  | Western small-footed myotis           | None                 | None                   | USFWS: SC              |
| <i>Myotis evotis</i>   | Long-eared myotis                     | None                 | None                   | USFWS: SC              |
| <i>Myotis thysanodes</i>   | Fringed myotis                        | None                 | None                   | USFWS: SC              |
| <i>Myotis volans</i>   | Long-legged myotis                    | None                 | None                   | USFWS: SC              |
| <i>Myotis yumaensis</i>  | Yuma myotis                           | None                 | None                   | USFWS: SC              |
| <i>Taxidea taxus</i>   | American badger                       | None                 | None                   | CDFG: CSC              |
| <b>Reptile Species</b>   |                                       |                      |                        |                        |
| <i>Emys (=Clemmys) marmorata marmorata</i>   | North-western pond turtle             | None                 | None                   | CDFG: CSC<br>USFWS: SC |
| <b>Key to Ranks and Lists</b>  |                                       |                      |                        |                        |
| CDFG: CSC  | California Species of Special Concern |                      |                        |                        |
| CDFG: CFP  | California Fully Protected            |                      |                        |                        |
| USFWS: SC  | USFWS Species of Concern              |                      |                        |                        |
| <b>CNPS Lists:</b>   |                                       |                      |                        |                        |
| List 1A: Plants Presumed Extinct in California   |                                       |                      |                        |                        |
| List 1B: Plants Rare, Threatened or Endangered in California or Elsewhere              |                                       |                      |                        |                        |
| List 2: Plants Rare, Threatened or Endangered in California, But More Common Elsewhere |                                       |                      |                        |                        |
| List 3: Plants About Which We Need More Information – A Review List                    |                                       |                      |                        |                        |
| List 4: Plants of Limited Distribution – A Watch List                                  |                                       |                      |                        |                        |



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| Scientific Name   | Common Name | State Listing Status | Federal Listing Status | Other Status |
|---|-------------|----------------------|------------------------|--------------|
| <b>CNPS R-E-D Codes:</b>  |             |                      |                        |              |
| <b>R</b> Rarity   |             |                      |                        |              |
| 1 Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time |             |                      |                        |              |
| 2 Distributed in a limited number of occurrences, occasionally more if each occurrence is small                             |             |                      |                        |              |
| 3 Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported  |             |                      |                        |              |
| <b>E</b> Endangerment   |             |                      |                        |              |
| 1 Not Endangered  |             |                      |                        |              |
| 2 Endangered in a portion of its range  |             |                      |                        |              |
| 3 Endangered throughout its range   |             |                      |                        |              |
| <b>D</b> Distribution   |             |                      |                        |              |
| 1 More or less widespread outside California  |             |                      |                        |              |
| 2 Rare outside California   |             |                      |                        |              |
| 3 Endemic to California   |             |                      |                        |              |

*Source: Ecosystem Sciences, March 2005 and California Department of Fish and Game (CDFG). 2006. California Natural Diversity Database. Wildlife & Habitat Data Analysis Branch, Department of Fish and Game (Version: 09 December 2005)*

