## Executive Summary



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## ES.1 OVERVIEW OF STORM WATER MANAGEMENT PLAN

This Storm Water Management Plan (SWMP) describes a program to reduce the discharge of pollutants associated with the storm water drainage systems that serve Western El Dorado County. It identifies how the County will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) permit proposed by the California State Water Resources Control Board (SWRCB).

This SWMP addresses the primary program elements of all County activities, including:

- How the County manages the planning, design and construction of projects carried out directly by the County and under permits issued by the County; and
- How the County maintains facilities owned and operated by the County and activities carried out by others on properties owned by the County.

This SWMP also addresses its responsibilities for implementing the applicable storm water management practices as well as training, public education & outreach, monitoring, program evaluation, and reporting activities.

## ES.2 PROGRAM MANAGEMENT

Section 2, Program Management, addresses the organization and responsibilities for overall Permit compliance and storm water management program implementation within the County.

This section also identifies how the County will coordinate storm water management with others, including municipalities, the Regional Water Quality Control Board (RWQCB), and the public.

Section 2 also documents that the County has adequate legal authority as required by the federal storm water regulations to manage storm water discharges occurring from County-owned and maintained facilities and roadways. Additionally, the County has adequate legal authority to regulate discharges from private properties and from development and re-development activities being carried out under permits issued by the County.

## ES.3 PROGRAM DEVELOPMENT AND IMPLEMENTATION

The County is required to identify and implement storm water management practices to minimize discharges of pollutants. This section identifies the developmental strategies and the process of implementation of practices as well as the public review process for the storm water program.

## ES.4 PROPOSED STORM WATER MANAGEMENT PROGRAM

Section 4 more specifically describes each element of the storm water management program and the practices used to meet each of the six (6) minimum required control measures of the Permit, which are as follows:

- Section 4.1 Public Education and Outreach
- Section 4.2 Public Involvement and Participation
- Section 4.3 Illicit Discharge Detection and Elimination
- Section 4.4 Construction Site Runoff Control
- Section 4.5 Post Construction Runoff Control
- Section 4.6 Pollution Prevention / Good Housekeeping

### 4.1 Public Education and Outreach

The County will implement a public education program that informs the community of the impacts of storm water and contributions they may make to reduce pollutants in storm water runoff. The County will target public employees, public schools, public libraries, developers, contractors, homeowners, business owners, boaters, and the remaining public as part of this Public Education and Outreach Program.

### 4.2 Public Participation and Involvement

The County will implement a public participation and involvement program that notifies the community of public hearings to consider the impacts of storm water and contributions they may make to reduce pollutants in storm water runoff.

### 4.3 Illicit Discharge Detection and Elimination

This section describes specifically how the County will comply with Permit requirements by incorporating illicit discharge detection and elimination, into the overall storm water management program. The County will achieve compliance by identifying storm drain outfalls, through enforcing County ordinances, implementing a detection and response plan and through public communications, and finally, through program evaluation and analysis.

### 4.4 Construction Site Runoff Control

The County will comply with Permit requirements by incorporating construction site runoff control requirements that apply to both construction proposed to be undertaken directly by the County and construction proposed to be permitted by the County and undertaken by others. This will be achieved through development

and implementation of the County's Development Standards (Grading, Erosion and Sediment Control Ordinance, the Design and Improvement Standards Manual and the Drainage Manual), general construction site practices, minimum construction site practices, inspections and enforcement, County ordinances, an employee training program, and through public communications.

### 4.5 Post Construction Runoff Control

The County will implement a long-term post-construction program that protect water quality and control runoff flow, to be incorporated into development and significant redevelopment projects. The County will comply with permit requirements by incorporating existing County Development Standards to minimize the discharge of pollutants of development and redevelopment projects. Revisions to the County Development Standards shall be developed and implemented as well the development of storm water treatment practices.

### 4.6 Pollution Prevention / Good Housekeeping

While carrying out maintenance operations, the County's maintenance personnel will be instructed to be alert to, and report, all potential illicit connections or illegal discharges. These will be reported to the County's Storm Water Coordinator, who will appropriately pursue, in cooperation with the involved County Departments, removal / cleanup operations. The County will provide education and training to ensure that all of its employees have the knowledge and skills necessary to perform their functions effectively and efficiently. The County provides employee-training programs with curricula and materials tailored to specific topics and personnel levels.

## ES.5 MONITORING, PROGRAM EVALUATION AND REPORTING

The County's Monitoring, Program Evaluation and Reporting Program (Section5) is intended to gather information on problem pollutants, the performance of storm water controls in addressing these pollutants, and periodically report program progress and updates to the Regional Board.

The County's overall strategy for protecting receiving waters involves the use of effective storm water management practices and a process of continuous program improvement and refinement. As part of its storm water management program, the County regularly reviews its activities, inspects its facilities, oversees and guides its personnel and conducts focused studies to obtain information that supports responsible management and allocation of the resources available to implement storm water quality efforts.

The primary mechanism for accomplishing program evaluation and ensuring that front line personnel have adequate assistance to be successful is the program oversight by the County's managers. Such oversight includes observing and evaluating project planning,

design and construction personnel as they implement the requirements of the SWMP on new projects and maintenance personnel as they conduct maintenance activities.

In addition to day-to-day supervision by managers, the County's Storm Water Coordinator will conduct focused follow-up checks, or "self-audits", on a regular basis. The goal of the self-audits is to evaluate the efficiency and effectiveness of the activities outlined in the SWMP; to provide a sound basis for re-directing or refining such activities; to recommend ways to revise or refine the SWMP, as needed; and to assess compliance with Permit and program requirements.

The County's reporting requirements include preparing the Annual Report and reporting instances of noncompliance with the SWMP. Along with addressing the specific Permit reporting requirements, these reports will summarize oversight and self-audit results and the results from any monitoring or research carried out by the County

Instances of noncompliance involve non-permitted non-storm water discharges or discharges that may significantly endanger health or the environment. Such discharges from operations of existing facilities or construction sites are required to be reported to the RWQCB.

## 1.1 OVERVIEW

This Storm Water Management Plan (SWMP) was developed by El Dorado County for the purpose of describing the minimum procedures and practices the County uses to reduce the discharge of pollutants in effluent from storm drainage systems owned or operated by the County. This Small Municipal Separate Storm Sewer System (MS4) General Permit approved April 30, 2003, by the California State Water Resources Control Board (SWRCB) is herein referred to as the Permit. The County will evaluate the need for revision of the SWMP at least annually.

This SWMP addresses storm water pollution control related to project planning, design, construction and maintenance activities throughout the unincorporated area of Western El Dorado County (that portion of El Dorado County within the jurisdiction of the Central Valley Regional Water Quality Control Board, excluding the Tahoe Basin). In addition, this SWMP addresses assignment of responsibilities within the County for implementing storm water management procedures and practices as well as training, public education and outreach, monitoring and research, program evaluation, and reporting activities.

Introductory information contained in this section is outlined as follows:

- Section 1.2 Storm Water Regulations that Apply to the County;
- Section 1.3 Storm Water Quality Issues;
- Section 1.4 Western El Dorado County Facilities and Coverage of SWMP;
- Section 1.5 Relationship between the Permit and this SWMP; and
- Section 1.6 Contents and Organization of this SWMP.

This document is intended to govern the County's storm water management activities within Western El Dorado County, including the Headington Road Maintenance Facility, which here-to-for was covered under the California General Industrial Storm Water Permit. However, the County's Airports and Landfill will continue to be covered under the General Industrial Permit and an individually issued site permit, respectively.

## 1.2 STORM WATER REGULATIONS THAT APPLY TO EL DORADO COUNTY

Federal environmental regulations based on the Clean Water Act (CWA) have evolved to require the control of pollutants from MS4s, construction sites and industrial activities. Discharges from such sources were brought under the NPDES permit process by the 1987 CWA amendments and the subsequent 1990 and 1999 promulgation of storm water regulations by the U.S. Environmental Protection Agency (EPA). In California, the EPA

has delegated administration of the federal NPDES program to the SWRCB and the nine Regional Water Quality Control Boards (RWQCBs). The SWRCB has issued statewide general NPDES storm water permits for designated types of construction and industrial activities, and has adopted a statewide permit applicable to all small municipalities, including Western El Dorado County.

The 1999 Federal Regulations require that NPDES storm water permits be issued for discharges from small MS4s, or municipal separate storm sewer systems. Such systems mean "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains): (i) owned or operated by a state, city, town, borough, county….". The County, as the owner and operator of an MS4, is subject to an NPDES MS4 permit.

Furthermore, Federal Regulations require that all parties discharging storm water associated with construction activity, including clearing, grading and excavation activities, obtain an NPDES Permit. Currently, small construction projects, that is, those that disturb less than 1 acre of total land area and that are not part of a larger common plan of development, are exempted from NPDES Permit requirements.

The Permit and this SWMP provide a framework for consistent, effective and efficient implementation of storm water management practices in all of the unincorporated area of Western El Dorado County.

## 1.3 STORM WATER QUALITY ISSUES

Studies throughout the State have shown that pollutant concentrations in storm water runoff from the facilities similar to those owned by El Dorado County will frequently exceed the applicable water quality standards [numeric water quality objective (WQO) values]. These water quality standards are prescribed in various plans approved by the SWRCB and EPA, including the Ocean Plan, the Basin Plan, and the California Toxics Rule (CTR).

As more data becomes available, both within El Dorado County and elsewhere, the County will be in a better position to assess the actual or threatened impacts that runoff from storm drainage systems owned or operated by the County may have on local receiving water quality. This data will be used for a variety of water quality issues, including determining if County's runoff causes or contributes to exceedances of water quality standards, development of total maximum daily loadings (TMDLs), and watershed planning. This information will also be used to aid the County in refining its program.

## 1.4 WESTERN EL DORADO COUNTY FACILITIES AND COVERAGE OF SWMP

### 1.4.1 Facilities and Coverage

This SWMP describes the procedures and practices used to reduce the discharge

of pollutants from storm water drainage systems owned or operated by the County.

The specific County owned or operated facilities addressed by the SWMP are identified in Appendix A. In various areas of the unincorporated areas of Western El Dorado County, waters of the United States or waters of the State pass through, over or under the County's property and facilities. Those waters may contain pollutants at the point at which they enter the County's property and facilities. In those circumstances; and except as otherwise noted in Section 2.8, Legal Authority; and Section 4.4, Design / Construction Runoff Control; and Section 4.6, Pollution Prevention and Good Housekeeping; the County will be responsible only for pollutants contributed to such waters which are discharged from its point sources and not for the pollutants present in those waters when they entered the County's properties.

### 1.4.2 Emergency Response

Throughout the year conditions may arise that require the County to conduct emergency activities to protect public health, safety and property. Conditions during the emergency activities may result in the County not implementing elements of the SWMP. Such incidents are not considered noncompliance in accordance with the Federal Code of Regulations 40 CFR Section 122.41 (n)(1) through (4) which addresses upsets, such as emergency response for public safety. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations provided certain requirements are met [see 40 CFR Section 122.41(n)(3)].

## 1.5 RELATIONSHIP BETWEEN THE PERMIT AND THE SWMP

An important purpose of the SWMP and the County's Storm Water Management Program is to ensure that those who direct and perform activities that may affect the quality of storm water system discharges are aware of their respective roles and responsibilities.

The goal of the County is to incorporate the practices identified in this and subsequent SWMPs into the day-to-day operations and management carried out by County personnel, and parties under permit to the County.

Many of the practices are described in general terms, thus allowing the County flexibility to make necessary modifications to expand or improve upon the detailed procedures within the framework of the SWMP. The SWMP also encourages the County to use innovative approaches for implementing practices presented in the SWMP and implementing new practices not yet addressed in this SWMP.

## 1.6 ORGANIZATION OF THIS SWMP

The remainder of this document, including the Appendices, describes the essential program elements of the County's storm water program.

- Section 2: PROGRAM MANAGEMENT describes the organization and responsibilities for overall Permit compliance and program implementation within the County. Section 2 also describes coordination with other permittees and agencies and the legal authority of the County.

- Section 3: PROGRAM DEVELOPMENT AND IMPLEMENTATION describes the process of identifying, evaluating and selecting, and implementing the program practices.

- Section 4: PROPOSED STORM WATER MANAGEMENT PROGRAM describes the storm water pollution management practices with each of the six (6) mandated program areas, which are as follows:

    - Section 4.1 Public Education and Outreach

    - Section 4.2 Public Participation and Involvement

    - Section 4.3 Illicit Discharge Detection and Elimination

    - Section 4.4 Construction Site Runoff Control

    - Section 4.5 Post Construction Runoff Control

    - Section 4.6 Pollution Prevention / Good Housekeeping

- Section 5: MONITORING, PROGRAM EVALUATION AND REPORTING describes the Monitoring, Program Evaluation and Reporting Program used to better define the discharges from specific types of the County's facilities and the applied research activities used to develop the information and insight needed to refine the County's storm water management program over time. This Section also describes the methods the County uses to evaluate the overall effectiveness of its storm water management program and provide reports, including noncompliance reporting, to the RWQCB.

- APPENDICES: A-C

- Appendix A provides a description of each of the County's properties, including lease properties, for which coverage is sought with this SWMP, including a list of the County's maintained roads.
- Appendix B describes supplemental guidelines referenced in the SWMP.
- Appendix C provides abbreviations, acronyms and definitions of terms used in the SWMP.

## 2.1 OVERVIEW

The goal of the SWMP is to protect the water quality in the streams, rivers and lakes in Western El Dorado County. The regulatory requirements for this SWMP are set forth in the State of California NPDES General Permits for Storm Water Discharges Associated with Construction Activity and Small Municipal Separate Storm Sewer Systems (MS4s). The County's goal is to ensure that pollutants in discharges from storm drain systems owned or operated by the County are reduced to the maximum extent practicable.

This section describes the organizational structure of the County with regard to storm water program management and the program basics. This section is organized as follows:

- Section 2.2 Intra-Departmental Coordination
- Section 2.3 Coordination with Design and Construction Activities
- Section 2.4 Coordination with Municipal Operations
- Section 2.5 Coordination with other MS4 Permittees
- Section 2.6 Coordination with the RWQCB
- Section 2.7 Coordination with the Public
- Section 2.8 Legal Authority
- Section 2.9 Coordination with County Leaseholders
- Section 2.10 Coordination with Resource Conservation Districts

## 2.2 INTRA-DEPARTMENTAL COORDINATION

The Board of Supervisors is the policy and budget setting authority for the County. Under the Board, the Departments of Transportation, General Services, Agriculture, Planning, Building and Environmental Management each play a key role in implementing the County's storm water management program. The Department Heads for each of these Departments report to the Board of Supervisors. The County's organizational chart is available at http://co.el-dorado.ca.us/org.html.

### 2.2.1 Department Responsibilities

Each of the key Departments has the primary responsibility for day-to-day implementation of the SWMP. Line responsibility for implementation lies with each Department.

The County's lead Department for managing the storm water program is the Department of Transportation. The County's Storm Water Coordinator is appointed by the Department Head from within this Department.

Individual Department and personnel responsibilities for implementation and enforcement are additionally addressed within Sections 4.4 and 4.6, respectively for the County's design/construction and maintenance programs.

#### 2.2.1.1. Department of Transportation

The Department of Transportation (DOT) is responsible for implementing and/or overseeing all improvements and maintenance activities undertaken on County roads. Further, DOT is responsible for administering the County's Grading, Erosion and Sediment Control Ordinance (County Code Chapter 15.14) regulating grading on private property.

#### 2.2.1.2. Planning Department

The Planning Department is responsible for coordinating the review and approval processes for all proposed land development / redevelopment.

#### 2.2.1.3. Department of Environmental Management

Environmental Management is responsible for administering the County's Solid Waste Management Ordinance (County Code Chapter 8.42) and the Asbestos and Dust Protection Ordinance (County Code Chapter 8.44). Additionally, the Department is responsible for conducting restaurant inspections, managing the County's solids-hazardous waste / used tire / waste oil programs, overseeing the County's marina bilge waste management program, managing the County's vector control program, and management of the County's separately permitted waste treatment plants.

#### 2.2.1.4. Building Department

The Building Department is responsible for administering the building permit program, including management of grading associated with the construction of individual, single family homes

#### 2.2.1.5. General Services Department

The General Services Department is responsible for implementing and/or overseeing all improvements and maintenance activities undertaken on County facilities or property other than County roads. Additionally,

General Services is responsible for overseeing all leases of County properties.

#### 2.2.1.6. Agriculture Department

The Department of Agriculture is responsible for implementing the County's pesticide / herbicide management program.

### 2.2.2 Storm Water Advisory Committee (SWAC)

During 2003/2004, the County established a County-wide SWAC to assist the County Storm Water Coordinator. This team meets at least annually and has representatives from each of the key responsible Departments (Planning, Building, Transportation, Environmental Management, Agriculture and General Services). SWAC meetings will be facilitated by the County's Storm Water Coordinator.

### 2.2.3 Storm Water Coordinator Responsibilities

In general, the County's Storm Water Coordinator is responsible for preparing and updating this SWMP, approving storm water treatment practices, maintaining close communication with the RWQCB, overseeing and coordinating implementation of the SWMP, monitoring the program and annually evaluating the program and reporting to the RWQCB. Specific responsibilities include:

1. **Regulatory Coordination**: Coordinates overall storm water management program compliance with the RWQCB. In addition, assists the Departments in coordinating storm water compliance with the RWQCB.

2. **Development and Updating of SWMP**: Coordinates the ongoing development of the SWMP in conformance with the requirements of the Permit. This includes compliance monitoring and identifying area-specific storm water management needs with the County. The Coordinator also updates the SWMP annually required in the Permit.

3. **Evaluation and Approval of the County's Program and Site Specific Permanent, Structural Treatment Practices**: The Coordinator maintains close contact with others within the storm water field and keeps abreast on monitoring and research carried out by parties within the County and elsewhere. The Coordinator evaluates, and after consulting with the County's Storm Water Advisory Committee (as defined in 2.2.2), recommends approval of the County's program of practices. The Coordinator approves site-specific permanent, structural treatment practices.

4. **Water Quality Research and Planning**: The Coordinator oversees County research activities to assess potential practices, investigates water quality issues,

and is the County's lead in participating / coordinating watershed planning processes focused on water quality improvement.

5. **Coordination with Departments and Externals**: In consultation with the various involved Department's, the Coordinator provides general guidance regarding compliance with the Permit. This guidance includes providing information on the Permit requirements, SWMP implementation, storm water practices, compliance schedules, reporting formats, legal authorities, budgeting assistance and other information needed to effectively implement the Permit and the SWMP requirements. In addition, the Coordinator provides feedback to the Departments regarding the status of the County's overall compliance with the Permit.

6. **Monitoring**: The Coordinator oversees monitoring related to storm water quality management to advance the state of knowledge regarding water quality issues and to provide direction for making program improvements.

7. **Program Evaluation**: The Coordinator annually assesses of the overall effectiveness of the County's SWMP.

8. **Reporting**: The Coordinator oversees preparation of the Annual Report.

9. **Training**: The Coordinator monitors the training activities carried out by the various Departments to assure adequacy and accuracy of the training programs.

10. **Database**: The Coordinator maintains a database of all required permanent, structural treatment practices installed as part of all County and non-County construction projects.

## 2.3 COORDINATION WITH DESIGN AND CONSTRUCTION ACTIVITIES

Construction activities within the County are carried out directly by County forces, by contractors and by third parties undertaking utility improvement and as part of land development/re-development activities permitted by the County.

Construction activities are carried out by the County Departments, Building, and General Services and Transportation. In each case, the Department Director has the responsibility for overall direction of the work carried out directly by county forces within their respective Departments, through a hired contractor, or in the case of the Director of Transportation, by third parties under permit to the Department.

Land development / re-development activities which involve grading on private property are subject to being permitted (Grading Permits) by the Director of Transportation, as are land

development / re-development and utility related construction activities within the County rights-of-ways (Encroachment Permits).

Whenever the Director of Transportation determines that any grading on private property constitutes a condition which could adversely affect the water quality of any water body or watercourse, the owner of the property upon which the condition is located, or other person or agent in control of said property, upon receipt of notice in writing from the Director of Transportation shall, within the period specified therein, obtain a grading permit and conform to the conditions of said permit. These permit conditions will include adherence to the County's Grading, Erosion and Sediment Control ordinance; the County's Design and Improvement Standards Manual; and the County's Drainage Manual as applicable, collectively referred to as the "County Development Standards", or other standards adopted by the County.

No person shall perform any grading work within the right-of-way of a public road or street, or within a public easement under the jurisdiction of the County of El Dorado, without prior approval of the Director of Transportation. Said approval (encroachment permit) will be conditioned with adherence to the County Development Standards. The following positions within the County are responsible for implementing the Design and Construction Storm Water Management Program:

**Directors of Transportation, Building and General Services:** The department heads are responsible for the implementation of the policies, procedures, personnel and equipment within their respective Departments. This includes ensuring compliance with all elements of the SWMP and applicable storm water permits. All construction projects are subject to the statutory requirements for environmental and public reviews and environmental permitting.

**Director of Environmental Management Department:** The County's Air Pollution Control Officer (APCO) is within the Environmental Management Department. Under the direction of the Department Manager, the APCO enforces the dust abatement rules within the County.

**Director of the Planning Department:** The Planning Director is responsible for land use planning, establishing general development standards, and reviewing applications for proposed land development projects. These processes are subject to the statutory requirements for environmental and public reviews and environmental permitting.

**County Storm Water Coordinator:** The Coordinator is appointed by the Director of Transportation and will be responsible for maintaining the SWMP; reporting as required to the RWQCB; approving site specific, permanent, storm water structural treatment practices, and generally overseeing and evaluating the design and construction storm water management program.

**Project Manager / Project Engineer:** The PM/PE is the County's representative charged with directly overseeing the planning and design of proposed construction activities, or

overseeing the planning and design of construction activities proposed to be carried out by others in accordance with permit conditions which the PM/PE would establish.

A PM/PE could involve employees of various classifications, depending on the Department and the project.

On County projects subject to SWPPP requirements, the PM/PE is responsible for filing an NOI with the RWQCB.

**Construction Manager / Resident Engineer:** The CM/RE is the County's representative charged with directly overseeing construction activities, administering construction contracts, or overseeing construction activities carried out by others involving grading or encroachment permits. The CM/RE is responsible for ensuring that storm water controls are implemented on construction sites. In the case of permitted or contracted construction activities, the CM/RE may impose sanctions if the permittee or contractor fails to take appropriate actions to correct deficiencies.

A CM/RE could involve employees of various classifications, depending on the Department and the project.

On County projects subject to SWPPP requirements, the CM/RE will ensure that the NOI is appropriately filed with the RWQCB; and the SWPPP is prepared and in the CM's/RE's possession prior to the commencement of soil disturbing activities or other activities with a potential for resulting in non-storm water discharges.

On non-County projects, the CM/RE will ensure that, as applicable, a grading permit has been obtained before the commencement of soil-disturbing activities or other activities with a potential for resulting in non-storm water discharges. The CM/RE will periodically inspect the construction site for proper installation and maintenance of practices in accordance with SWPPP and/or Grading Ordinance requirements.

On County projects subject to SWPPP requirements, the CM/RE will ensure that the County forces (when the construction is by County forces) or the contractor(s) are: practicing self-monitoring; conducting the required inspections; maintaining the required records; and filing the annual certification of compliance. On these projects, the CM/RE is responsible for filing the NOT upon completion of the project.

Additional duties of the CM/RE include: inspecting for, reporting, and, under certain circumstances, directing the cleanup and/or removal of illegally dumped material, spills or discharges through illicit connections within the limits of the construction site; and, forwarding noncompliance reports to the County's Storm Water Coordinator.

**Contractor:** The contractor is responsible for carrying out the contract per the plans and specifications. County contracts require the contractor to develop and implement elements of the construction program subject to the review and approval of the CM/RE.

On County projects subject to SWPPP requirements, the contractor's activities include: preparing, amending and updating the SWPPP; implementing the SWPPP; inspecting and maintaining the construction site practices; completing and filing the annual certification; discharge monitoring as appropriate; and maintaining site records.

**Permittee:** The permittee is responsible for carrying out the County's Grading Permit conditions. The permit requires a permittee to develop and implement elements of the construction site storm water management program subject to the review and approval of the County's CM/RE.

For projects requiring a SWPPP, the permittee's responsibilities include: filing the NOI; preparing, amending and updating the SWPPP; implementing the SWPPP; inspecting and maintaining the construction site temporary practices; completing and filing the annual certification and NOT; discharge monitoring as appropriate; and maintaining site records.

## 2.4 COORDINATION WITH MUNICIPAL OPERATIONS

The County Department of General Services is responsible for the care and upkeep of the County's parks and general government facilities. The County Department of Transportation is responsible for the care and upkeep of County Roads. The County Agriculture Department oversees the chemical vegetation control program for weed abatement and fire zone maintenance purposes carried out by others. The County Environmental Management Department carries out the litter management and debris removal and abatement program.

Maintenance functions performed by all four Departments have the potential for affecting storm water and receiving water quality. Maintenance activities are most regularly preformed directly by County forces or directly managed personnel, however on occasion the Departments will hire a contractor to perform these activities.

The Maintenance Storm Water Management Program describes:

- The program to implement practices as part of the ongoing maintenance activities.
- The program to implement maintenance Practices at highway-related properties and at general government facilities.
- The activities to manage potential storm water pollution from: accidental spills, illicit connections, illegal discharges and illegal dumping activities.

The following positions are responsible for implementing the Maintenance Storm Water Management Program:

**Directors of Transportation, General Services, Agriculture and Environmental Management Departments:** The department heads are responsible for the implementation of

the policies, procedures, personnel and equipment within their respective Departments. This includes ensuring compliance with all elements of the SWMP and applicable storm water permits.

**County Storm Water Coordinator:** The Director of Transportation shall appoint an appropriately qualified coordinator. This person will be responsible for maintaining the SWMP, reporting as required to the RWQCB, and generally overseeing and evaluating the maintenance storm water management program.

**Maintenance Manager (MM):** Within each responsible Department a MM is designated as the County's representative charged with directly overseeing assigned maintenance activities or administering maintenance contracts to carry out these activities. The MM is responsible for ensuring that the maintenance storm water controls are implemented. In the case of contracted maintenance activities, the MM may impose sanctions if the contractor fails to take appropriate actions to correct deficiencies.

Within the Department of Transportation's Maintenance Division, the Highway Superintendent is the MM.

Contractor: The contractor is responsible for carrying out the contract per the specifications. The contract requires a contractor to develop and implement elements of the maintenance program subject to the review and approval of the MM.

## 2.5 COORDINATION WITH OTHER MS4 PERMITTEES

Coordination with other municipalities on storm water management is the responsibility of the County's Storm Water Coordinator. In some instances, discharges from the County's storm water drainage systems flow to storm water drainage systems owned and operated by other municipalities and vice versa. These municipalities and the County are ultimately responsible for the quality of the discharges from their respective storm water drainage systems. To comply with its Permit, the County will ensure that pollutants in discharges from the County's storm drain system into other municipal systems are reduced or controlled in accordance with the applicable permits. Other permitted municipalities are expected to do the same relative to discharges from their facilities into the County's storm drain system.

The County Storm Water Coordinator will facilitate coordination on storm water management activities with other municipalities, special districts, the RWQCB and others as necessary or appropriate. Coordination is accomplished through formal and informal discussions, meetings, agreements and procedures. The coordination takes place at three levels:

**Ongoing Maintenance Activities:** The maintenance staff coordinates with their municipal counterparts as part of their daily activities. Many of these activities include control or removal of materials that could potentially contaminate runoff.

**Construction Projects:** The County's construction site managers communicate with municipal planning staff, the public and others on new projects to resolve storm water control and disposal issues.

**Planning issues:** The County Storm Water Coordinator continually seeks to identify opportunities for regional or shared storm water treatment controls and public education and outreach coordination and cooperation. Additionally, the Coordinator continually seeks opportunities to participate in watershed planning processes focused on improving water quality.

These coordination activities also include attending regional and statewide meetings, participating in special studies and watershed planning efforts, reporting to the RWQCB, etc.

### 2.5.1 General Coordination Meetings

Coordination meetings are conducted on a countywide, regional or watershed basis with other MS4 permittees. In addition, the County participates in the California Stormwater Quality Association (CASQA). The frequency of coordination meetings varies, depending on the participants and local water quality needs. Participation in these meetings provides the County and others an opportunity to share information in the development and implementation of storm water management programs, construction activities, public education, Illegal Connections/Illicit Discharges (IC/IDs) and monitoring. These meetings also provide an opportunity for discussing noncompliance and/or project-specific issues that involve both the County and others.

## 2.6 COORDINATION WITH RWQCB

- The County seeks to work closely with the RWQCB. Coordination with RWQCB is accomplished through several mechanisms, including:
- Annual reporting;
- Notification of noncompliance (notification and follow-up reports for reportable noncompliance as described in the plan for reporting noncompliance);
- Notification of spills and identification of IC/IDs; and
- Both formal and informal meetings.
- The point of contact for the RWQCB is the County's Storm Water Coordinator.

## 2.7 COORDINATION WITH THE PUBLIC

### 2.7.1 Routine Public Coordination

Public interface will occur through three primary mechanisms:

**Public-initiated contact with the County's offices regarding complaints, suggestions and requests:** Each Department has widely publicized phone numbers. All public-initiated calls are screened, logged and routed to the appropriate party within the Department for action, as required. General water quality related calls are directed to the County's Storm Water Coordinator. The Environmental Management Department maintains a storm water web site that enables public contact with the County on water quality issues.

**The Public review opportunity as part of the annual report preparation process:** The proposed tentative SWMP, annual updates thereto and draft annual reports are made available for a public comment period. Workshops on these documents will be noticed and held, as appropriate, by the County. The County responds to comments received as these documents are finalized for submittal annually to the RWQCB.

**Public input on proposed construction projects during the environmental evaluation process:** Typically, one or more public review meetings are held for all significant construction projects.

## 2.8 LEGAL AUTHORITY

The California Government Code, Sections 23000-23027 authorizes the County to own and manage property for public purposes. The California Streets and Highways Code gives the County Board of Supervisors jurisdiction over and responsibility for control and operation of the County Highways.

The County possesses adequate legal authority to disconnect or prohibit point source illicit connections to its storm drain systems pursuant to Streets and Highways Code §1450. Thus, illicit connections to the County's storm drainage system are considered encroachments. Streets and Highways Code §1460 prohibits placing, changing or renewing an encroachment without a permit. Any person placing an encroachment without the authority of a permit is guilty of a misdemeanor. Generally, a permit granting an encroachment on a highway constitutes a mere revocable license that may be withdrawn at will (People by and through the Department of Public Works v. DiTomaso, 57 C.A. 2D 741).

Encroachment permits may also be conditioned to require compliance with storm water regulations and the requirements of the County's program.

According to Streets and Highways Code §1460, if any encroachment exists in, under or over any County road or highway, the County may require the removal of such encroachment. Notice shall be given to the owner. The County may immediately remove from any highway any encroachment that is not removed, or the removal of which is not commenced and thereafter diligently prosecuted, before the expiration of ten days from and after the service of the notice.

The County may remove any encroachment on the failure of the owner to comply with a notice or demand of the County and may take action to recover the expense of such removal, costs and expenses of suit and $10 per day (Streets and Highways Code §1480-1496). If the owner denies the existence of the encroachment or refuses to remove the encroachment, the County may commence, in any court of competent jurisdiction, an action to abate the encroachment as a public nuisance. Any person owning, controlling, or placing, or causing or suffering to exist, any encroachment within any County highway after service of notice, in addition to any civil liability therefore, is guilty of a misdemeanor.

Within the Business, Transportation and Housing Agency of California, the CHP is established under the California Vehicle Code §2100 et seq. The CHP has full responsibility and primary jurisdiction for the administration and enforcement of the laws on all County highways. County sheriffs, while engaged primarily in general law enforcement duties, may incidentally enforce state and local traffic laws and ordinances on County highways. The CHP may enforce those provisions relating to the transportation of hazardous waste found in Health and Safety Code Section 25160 et seq., which requires a manifest for the transport of hazardous waste. In addition, the CHP may enforce the provisions of the Hazardous Waste Haulers Act in Health and Safety Code Section 25167.1 et seq., which requires every transporter of hazardous waste to respond and pay for damages for environmental restoration, including restitution for the loss, damage or destruction of natural resources.

The CHP shall serve as the statewide information, assistance and notification coordinator for all hazardous substance spill incidents occurring on highways within the State of California (Vehicle Code §2453).

Sections 23112, 23113, 23114 and 23115 of the Vehicle Code provide legal authority to prevent spills, dumping or disposal of materials on the highways and freeways under the County's jurisdiction.

Section 23112 states:

No person shall throw or deposit, nor shall the registered owner or the driver, if such owner is not then present in the vehicle, aid or abet in the throwing or depositing upon any highway any bottle, can, garbage, glass, nail, offal, paper, wire, any substance likely to injure or damage traffic using the highway, or any noisome, nauseous, or offensive matter of any kind.

No person shall place, deposit, or dump, or cause to be placed, deposited, or dumped, any rocks, refuse, garbage, or dirt in or upon any highway, including any portion of the right-of-way thereof, without the consent of the state or local agency having jurisdiction over the highway.

Section 23113 states:

Any person who drops, dumps, deposits, places or throws, or causes or permits to be dropped, dumped, deposited, placed or thrown, upon any highway or street any material described in Section 23112 or in subdivision (d) of Section 23114 shall immediately remove the material or cause the material to be removed.

If the person fails to comply with subdivision (a), the governmental agency responsible for the maintenance of the street or highway on which the material has been deposited may remove the material and collect, by civil action, if necessary, the actual cost of the removal operation in addition to any other damages authorized by law from the person made responsible under subdivision (a). Section 23114 states (in pertinent part):

No vehicle shall be driven or moved on any highway unless the vehicle is so constructed, covered, or loaded as to prevent any of its contents or load other than clear water or feathers from live birds from dropping, sifting, leaking, blowing, spilling, or otherwise escaping from the vehicle.

Section 23115 of the Vehicle Code states (in pertinent part):

No vehicle loaded with garbage, swill, cans, bottles, waste papers, ashes, refuse, trash, or rubbish, or any other noisome, nauseous, or offensive matter, or anything being transported to a dump site for disposal shall be driven or moved upon any highway unless the load is totally covered in a manner which will prevent the load or any part of the load from spilling or falling from the vehicle.

The County relies on the CHP and the County Sheriff for enforcement of the above Vehicle Code Sections. The CHP and sheriff possess the appropriate legal authority to pursue and take enforcement actions against persons causing, or threatening to cause such illegal discharges. The County possesses the authority to recover the costs associated with the cleanup and other activities resulting from illegal discharges.

The County has authority to directly control the contribution of pollutants in discharges of storm water from activities (including construction) located on County owned property and within County-owned rights-of-way to the waters of the United States.

### Solid Waste Management Ordinance

Pursuant to Government Code Section 25845, the County, by ordinance (County Code Chapter 8.42), has established a procedure for the abatement of a nuisance on private property

when this nuisance constitutes an immediate threat to public health. El Dorado County Ordinance Code Section 8.42.700 authorizes the County Environmental Management Department to take abatement action against littering and illegal dumping on public or private property.

### Hazardous Material Management Ordinance

The County, by ordinance (County Code Chapter 8.38) authorizes the County Department of Environmental Management to manage the handling, storage, transport and use of hazardous material. Additionally, Environmental Management is authorized to inspect for hazardous materials on private property and oversee clean-up activities.

### Dust Abatement Ordinance

The County, by ordinance (County Code Chapter 8.44) authorizes the County Department of Environmental Management to develop and manage the County's dust abatement and protection program.

### Grading, Erosion and Sediment Control Ordinance

The County, by ordinance (County Code Chapter 15.14) authorizes the County Department of Transportation to regulate all grading activities, and requires that such activities be undertaken in such a manner that quantities of sediment or other materials substantially in excess of natural levels are prevented from leaving the site. Additionally, this ordinance authorizes the Director of Transportation to require security deposits, suspend or revoke permits, and for the permittee to warranty all work. Further, the ordinance requires the Director to record with the County Recorder, a Notice of Noncompliance when there is a failure to secure the required permit. Security deposits are held by the Building Department and provide funding of standard inspections, with additional inspections.

### Subdivision Design and Improvement Ordinance

The County, by ordinance (County Code Section 16.12.050) authorizes the Planning Commission, appointed by the Board of Supervisors to determine whether the discharge of waste from the proposed subdivision into an existing community sewer system would result in violation of existing requirements prescribed by a California Regional Water Quality Control Board pursuant to division 7 (commencing with section 13000) of the Water Code. In the event that the Planning Commission finds that the proposed waste discharge would result in or add to violation of requirements of the water quality control board, it may disapprove the tentative map or maps of the subdivision.

### Liquid Waste Management Ordinance

The County, by ordinance (County Code Section 8.06) prohibits any hazardous waste which may be defined by either federal or state statute and regulation, whichever is more stringent;

and any grease or grease trappings from being discharged including potential adverse health and environmental impacts associated with on-site individual sewage disposal systems and or transport of liquid waste.

### Bear Resistant Garbage Can Ordinance

The County, by ordinance (County Code Section 8.76.030) is authorized to require the owners, lessees, residents or any other person exercising physical control of any private property including businesses to install an approved bear-resistant garbage can enclosure. This ordinance only applies to new residential construction within those portions of El Dorado County that lie within the boundaries of the Silver Fork, Tahoe Truckee Unified, and Lake Tahoe Unified School Districts.

### Vehicle Abandonment Ordinance

The County, by ordinance (County Code Section 10.16.070), in addition to and in accordance with the authority granted by the state under section 22660 of the Vehicle Code, may determine to abate and remove abandoned, wrecked, dismantled or non-operative vehicles or parts thereof as public nuisances.

All County ordinances are enforceable per County Code Chapter 1.24, which stipulates fines and/or imprisonment for violators. The District Attorney is responsible for enforcement actions. An annual review of the ordinances, with respect to enforcement, will occur, and as appropriate recommendations to amend or create ordinances will be brought before the County Board of Supervisors.

## 2.9 COORDINATION WITH COUNTY LEASEHOLDERS

The County owns several parcels of property. Many of these properties are leased to third parties. These third parties carryout a variety of activities on these properties. These properties and their leases will be reviewed by the County's responsible Department, General Services, to assure that the terms of the lease allow enforcement of the Permit and SWMP requirements and that the lease holders are carrying out appropriate pollution management practices.

Identification of these leases and review of the lease terms will be accomplished by the end of June 2006.

Where the terms of the leases are not presently sufficient to allow for this enforcement, efforts will be initiated to amend or replace the lease with one that allows the County to enforce the Permit and SWMP. It will be necessary to set individual time schedules for each property to upgrade, as necessary, the terms of the leases. As these leases are reviewed, deficiencies identified, and time schedules set, the results will be reported in the Annual Report.

The County will undertake a general compliance review on all leased properties by the end of June 2006.

If deficiencies in storm water pollution practices are identified, the leaseholder will be so informed, and requested to undertake appropriate practices. For those properties with deficiencies and with lease terms allowing enforcement, the County will undertake to ensure that the leaseholder responds appropriately. However, if there are noted deficiencies and the lease has not yet been amended to allow enforcement, the property will be "flagged" for revisit upon amendment of the lease terms. In this latter situation, if the identified deficiencies are seen as an immediate threat to public health, the County will initiate abatement action per County Ordinance Code Section 8.42.700.

**1.** The Annual Report will summarize the results of these leased property inspections.

## 2.10 COORDINATION WITH RESOURCE CONSERVATION DISTRICTS

### 2.10.1 Watershed Planning

The County participates with the El Dorado County & Georgetown Divide Resource Conservation Districts (RCD) to undertake watershed-planning processes focused on improving water quality in Western El Dorado County. These watershed-planning efforts are expected to include water quality monitoring, modeling and planning efforts that may result in the identification of additional water quality protection measures being identified for implementation by the County and others.

## 3.1 OVERVIEW

The County is required to identify and implement storm water management practices to minimize discharges of pollutants. The section to follow identifies the developmental strategies and the process of implementation of practices as they apply to the storm water program. This section is organized as follows:

- Section 3.2 Development and Adoption of Practices
- Section 3.3 Public Review Process / Adoption Process
- Section 3.4 Program Implementation
  - Public Education and Outreach
  - Public Participation / Involvement
  - Illicit Discharge Detection and Elimination
  - Construction Site Runoff Control
  - Post-Construction Runoff Control
  - Pollution Prevention / Good Housekeeping
- Section 3.5 BMPs

## 3.2 DEVELOPMENT AND ADOPTION OF PRACTICES

### 3.2.1 Overview

The current design and construction program (Section 4.4.3) is identified from within various existing County Ordinances, manuals and guidelines. Principally among these, are included the County's Grading, Erosion and Sediment Control Ordinance; Subdivision Ordinance; Design and Improvement Standards Manual; and Drainage Manual. In preparing the proposed "Standard Storm Water Mitigation Plan" (Section 4.5.3), the County drew heavily from the State Water Resource Control Board's "Final Model Standard Urban Storm Water Mitigation Plan"; the Board's recent municipal storm water NPDES Permit, Revised Tentative Order NPDES Permit No. CAS0029831, and the Board's small municipal permit, Permit No. CA00000X4.

In preparing the proposed municipal operations program (Section 4.6), the County drew heavily from an inventory of existing practices and the California Department of Transportation (Caltrans) Statewide SWMP.

The program identification, evaluation and approval process is on going. The County intends to, annually, revisit and refine the program. The annual review process is as follows:

- Step 1 – Research and/or Watershed Planning;
- Step 2 – Evaluation of Candidate practices (Including Re-Evaluation of Current practices); and
- Step 3 – Approval of practices for implementation, as appropriate.

These steps are described in the following paragraphs.

### 3.2.2 Step 1 – Research and/or Watershed Planning

Potential new practices not currently used by County will be examined on an annual basis. Pilot studies and other research conducted by the County and others will be reviewed and evaluated by the County's Storm Water Coordinator. The Storm Water Coordinator will also review and evaluate the findings from the various watershed-planning processes carried out within the County for applicability to the County's program.

This information, along with specific program recommendations, will be shared by the Coordinator with the SWAC as part of the annual program review process.

### 3.2.3 Step 2 – Evaluation of Candidate Practices (Including Re-Evaluation of Current Practices)

As part of the evaluation of current practices, the County's Storm Water Coordinator and the SWAC will evaluate available research, monitoring program information and feedback, and watershed planning results.

The feedback will include information on the difficulties or inadequacies of the existing practices, as well as improvements to the current practices developed and recommended by field personnel.

Practices that are judged by the SWAC and the County's Storm Water Coordinator to be promising but not ready for implementation will be considered for use on a trial basis. These would include practices for which effectiveness and/or reliability information is lacking or for which design or operational parameters are unavailable. These practices will be tested and considered for an appropriate period before potentially including them within the County's prescribed program.

### 3.2.4 Step 3 – Approval of Practices

As the County's Storm Water Coordinator and SWAC are able to come to conclusions regarding specific practices, these practices will be accordingly addressed within the annual

update to the County's SWMP. Criteria used to accept or reject practices include relative effectiveness, technical feasibility, cost/benefit analysis, and legal or institutional constraints.

## 3.3 PUBLIC REVIEW / ADOPTION PROCESS

The County will annually solicit comments from interested parties and the public during the process of identifying, evaluating and approving practices. The County will announce and make available the draft Annual Report, including the revised SWMP. Final action by the County will be as an agenda item at a regular Board of Supervisor's Meeting

## 3.4 PROGRAM IMPLEMENTATION

This SWMP provides a program that the County's personnel will draw upon when making decisions at the site-specific level for maintenance activities, and for the planning/design/construction activities of County improvement projects and development / re-development projects. Site conditions dictate the type of practice chosen for implementation. The selection of practices for a specific site is the site manager's responsibility as later described in the respective design/construction and maintenance sections of the SWMP.

The County will continue to encourage experimentation and innovation on deploying enhanced practices to minimize pollution. Feedback from the implementation of innovative measures is gathered for analysis and reporting in the Annual Report process. Through feedback stemming from implementation of enhanced practices, the County expects that the practices identified herein will continue to evolve and improve in their effectiveness in managing the quality of storm water discharges from the County's facilities.

A listing of the Departments responsible for implementation of practices identified in this SWMP is as follows:

TABLE 3-1: DESCRIPTION OF PRACTICES AND RESPONSIBLE DEPARTMENTS

| Description | Responsible Implementing Department |
|---|---|
| **Maintenance Practices:** litter pickup, toxics control, street sweeping, etc. | Transportation, General Services, Agriculture, and Environmental Management |
| **Planning & Design Practices:** permanent soil stabilization & treatment systems, etc. | Transportation, Planning, Environmental Management and General Services |
| **Construction Site Practices:** temporary runoff control practices, etc. | Transportation, Building, Environmental Management and General Services |

### 3.4.1 Public Education and Outreach

The County will implement a public education program that informs the community of the impacts of storm water and contributions they may make to reduce pollutants in storm water runoff. The County will target public employees, public schools, public libraries, developers, contractors, homeowners, business owners, boaters, and the remaining general public as part of this Public Education and Outreach Program.

### 3.4.2 Public Participation and Involvement

The County will implement a public participation and involvement program that notifies the community of public hearings to consider the impacts of storm water and contributions they may make to reduce pollutants in storm water runoff.

### 3.4.3 Illicit Discharge Detection and Elimination

#### 3.4.3.1 Construction Sites

##### 3.4.3.1.1 County Improvement Projects

On County construction sites, the County's Construction Manager / Resident Engineer will be alert to, and report, all potential illicit connections or illegal discharges. These will be reported to the County's Storm Water Coordinator, who will appropriately pursue,

in cooperation with the involved County Departments, removal / cleanup operations.

For further details, see Sections 4.4.

#### 3.4.3.1.2 Development / Re-development Projects

On non-County construction sites, the County's Project Manager (construction inspector) will be instructed to be alert to, and report, all potential illicit connections or illegal discharges. These will be reported to the County's Storm Water Coordinator, who will appropriately pursue, in cooperation with the involved County Departments, removal / cleanup operations.

For further details, see Sections 4.4.

### 3.4.3.2 Municipal Operations

While carrying out maintenance operations, the County's maintenance personnel will be instructed to be alert to, and report, all potential illicit connections or illegal discharges. These will be reported to the County's Storm Water Coordinator, who will appropriately pursue, in cooperation with the involved County Departments, removal / cleanup operations. For further details, see Section 4.5.

### 3.4.3.3 Non-County Property

Currently the County regulates illicit discharges through many existing environmental and public health areas currently managed, through the Environmental Management Department, Environmental Health Division and the Solid Waste & Hazardous Materials Division as summarized in Table 3-2 below:

**TABLE 3-2: EXISTING COUNTY PROGRAMS FOR NON-COUNTY PROPERTY ILLICIT DISCHARGE DETECTION AND ELIMINATION**

| Environmental Health: | Hazardous Materials: | Solid Waste : |
|---|---|---|
| • Food Facilities<br>• Liquid Waste<br>• Recreational Health<br>• Small Water Systems<br>• Public Complaints | • Hazardous Waste/CUPA<br>• Household Hazardous Waste<br>• Spills/Emergency Response<br>• Marina Outreach<br>• Medical Waste<br>• Used Oil<br>• Universal Waste | • Collection/Disposal<br>• Recycling<br>• Enforcement<br>• Litter Abatement<br>• Garbage Cans/Bears<br>• Construction Demolition & Debris Recycling<br>• Material Recovery Facility |

For further details, see Section 4.3

### 3.4.4 Construction Site Runoff Control

#### 3.4.4.1 County Improvement Projects

County improvement projects are carried out by the County Transportation Department and the Department of General Services. The Department Directors are responsible for the planning, design and execution of these projects. The projects can be carried out directly by County forces or by a contractor retained by the County.

All proposed projects are subject to a CEQA review process facilitated by the County Planning Department. Frequently, conditions of approval related to environmental protection measures are attached to the project.

The County's designated Project Manager / Project Engineer is responsible to assure that the project's design appropriately incorporates these conditions of approval and the storm water practices as outlined in this SWMP.

The County's designated Construction Manager / Resident Engineer is responsible to assure that the project's construction site appropriately incorporates the storm water temporary construction structural controls and practices as outlined in this SWMP, and implements the permanent

structural controls and practices identified by the County's Project Manager (PM) / Project Engineer (PE).

For further details, refer to Section 4.4.

#### 3.4.4.2 Development / Re-development Projects

Development / re-development projects, and other activities requiring grading, are subject to being permitted by the County. The County Transportation Department is responsible for administering the County's Grading, Erosion and Sediment Control Ordinance. The County Planning Department is responsible for administering the required CEQA review.

All proposed projects and activities are subject to a CEQA review process facilitated by the County Planning Department. Frequently, conditions of approval related to environmental protection measures are attached to the project.

For all projects and activities except individual single family home construction, Department of Transportation designated Project Manager (permit reviewer) is responsible to assure that the project's design appropriately incorporates these environmental conditions of approval and the storm water practices as outlined in this SWMP.

Single-family home construction is similarly reviewed / permitted by the Building Department's designated Project Manager (permit reviewer).

For all projects and activities except individual single-family home construction, Department of Transportation designated Project Manager (construction inspector) is responsible to assure that the project's construction site appropriately incorporates these environmental conditions of approval and the storm water practices as outlined in this SWMP. Single-family home construction is similarly reviewed / permitted by the Building Department's designated Project Manager (construction inspector).

For further details, refer to Section 4.4.

### 3.4.5 Post-Construction Runoff Control

The County will implement a long-term post-construction program that protect water quality and control runoff flow, to be incorporated into development and significant redevelopment projects. The County will comply with permit requirements by incorporating existing County Development Standards to minimize the discharge of pollutants of development and redevelopment projects. Revisions to the County

Development Standards shall be developed and implemented as well the development of storm water treatment practices.

For further details, refer to Section 4.5**.**

### 3.4.6 Pollution Prevention / Good Housekeeping

#### 3.4.6.1 County Property

The County Department of General Services is responsible for the care and upkeep of the County's parks and general government facilities. The County Department of Transportation is responsible for the care and upkeep of the County Roads and associated maintenance yards. Maintenance activities are most regularly preformed directly by County forces, however on occasion the Departments will hire a contractor to perform these activities.

The respective Departments designate a maintenance manager who is in responsible charge of the activity. This manager is responsible for assuring that the applicable pollution prevention / good housekeeping practices as outlined in the SWMP are incorporated within the work.

#### 3.4.6.2 Non-County Property

In those instances where structural treatment control practices are required to be constructed on non-County property as part of a development or re-development project, the project's conditions of approval will stipulate that the property owner will carry the on-going responsibility to maintain these practices in a functioning, full operational condition. Initially, these non-County facilities will be inspected by the County's Storm Water Coordinator within the first year of construction to assure operability and to determine maintenance needs / adequacy. In the long term, inspections will be scheduled periodically, on an as needed basis. At any time if operations or maintenance are found to be inadequate, enforcement actions will be pursued against the responsible party.

For further details, see Section 4.6

## 3.5 BMPS

As used in this document the term BMP refers to the measures set forth in the BMP Program Summary sheets in Section 4.1 - 4.6. These measures are categorized by the six minimum requirements of the permit.

## 4.0 OVERVIEW

Section 4 more specifically describes each element of the storm water management program and the practices used to meet each of the six (6) minimum required control measures of the Permit, which are as follows:

- Section 4.1 Public Education and Outreach
- Section 4.2 Public Participation and Involvement
- Section 4.3 Illicit Discharge Detection and Elimination
- Section 4.4 Construction Site Runoff Control
- Section 4.5 Post Construction Runoff Control
- Section 4.6 Pollution Prevention / Good Housekeeping

## 4.1 PUBLIC EDUCATION AND OUTREACH

The County will implement a public education program that informs the community of the impacts of storm water and contributions they may make to reduce pollutants in storm water runoff. The County will target public employees, public schools, public libraries, developers, contractors, homeowners, business owners, boaters, and the remaining general public as part of this Public Education and Outreach Program.

## 4.2 PUBLIC PARTICIPATION AND INVOLVEMENT

The County will implement a public participation and involvement program that notifies the community of public hearings to consider the impacts of storm water and contributions they may make to reduce pollutants in storm water runoff.

## 4.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

This section describes specifically how the County will comply with Permit requirements by incorporating illicit discharge detection and elimination, into the overall storm water management program. The County will achieve compliance by identifying storm drain outfalls, through enforcing County ordinances, implementing a detection and response plan and through public communications, and finally, through program evaluation and analysis.

## 4.4 CONSTRUCTION RUNOFF CONTROL

The County will comply with Permit requirements by incorporating construction site runoff control requirements that apply to both construction proposed to be undertaken directly by the County and construction proposed to be permitted by the County and undertaken by others. This will be achieved through development and implementation of the County's Development Standards (Grading, Erosion and Sediment Control Ordinance, the Design and Improvement Standards Manual and the Drainage Manual), general construction site practices, minimum construction site practices, inspections and enforcement, County ordinances, an employee training program, and through public communications.

## 4.5 POST CONSTRUCTION RUNOFF CONTROL

The County will implement a long-term post-construction program that protect water quality and control runoff flow, to be incorporated into development and significant redevelopment projects. The County will comply with permit requirements by incorporating existing County Development Standards to minimize the discharge of pollutants of development and redevelopment projects. Revisions to the County Development Standards shall be developed and implemented as well the development of storm water treatment practices.

## 4.6 POLLUTION PREVENTION / GOOD HOUSEKEEPING

While carrying out maintenance operations, the County's maintenance personnel will be instructed to be alert to, and report, all potential illicit connections or illegal discharges. These will be reported to the County's Storm Water Coordinator, who will appropriately pursue, in cooperation with the involved County Departments, removal / cleanup operations. The County will provide education and training to ensure that all of its employees have the knowledge and skills necessary to perform their functions effectively and efficiently. The County provides employee-training programs with curricula and materials tailored to specific topics and personnel levels.

## 4.1.1 OVERVIEW

This section describes how the County will comply with Permit requirements by implementing a public education program that informs the community of the impacts of storm water and contributions they may make to reduce pollutants in storm water runoff. The County will distribute pertinent educational materials regarding storm water quality to and provide outreach through the many modes to members of the community. The County will accomplish compliance by targeting the Public Education and Outreach Program to reach: public employees, public schools, public libraries, developers, contractors, homeowners, business owners, boaters, and the remaining general public. Described herein, is the County's Public Education & Outreach Program, organized as follows:

- Section 4.1.2 Outreach to Private Project Planning and Design Teams and Construction Contractors;
- Section 4.1.3 Public Education and Outreach Program;
- Section 4.1.4 SWMP Public Review Process;
- Section 4.1.5 BMP Program Summary

## 4.1.2 OUTREACH TO PRIVATE PROJECT PLANNING AND DESIGN TEAMS AND CONSTRUCTION CONTRACTORS

The County will work with the local Resource Conservation District and others to provide outreach to private project planners, designers and construction contractors to raise their awareness and understanding of the problems and causes of storm water pollution and to explain their responsibilities. This outreach will be done primarily through informational exchanges between the County and these parties. The informational exchanges cover the following topics:

- The provisions, conditions and requirements of the Permit that apply to their projects;
- The availability of the SWMP and associated training and guidance material prepared by the County; and
- General responsibilities of project site manager regarding implementation of the SWMP, the requirements of a SWPPP.

The County Storm Water Coordinator will work with local organizations to annually host workshops / informational exchanges focused on these topics. The first workshop will be held by the end of June 2005.

#### 4.1.2.1 Informational Exchange Sessions With Contactors

For contract work directly undertaken by the County, three types of informational exchange sessions will be employed to describe storm water pollution prevention concepts and practices and to explain techniques for preparing SWPPPs for construction activities.

- **Informational Exchange #1, Storm Water Permit Compliance Requirements, Pre-Bid Meeting:** Pre-bid meetings may be conducted to discuss a given upcoming construction project. When such meetings are held, and depending on the site's storm water complexities, the site manager may provide general information to construction contractors regarding the requirements in the Permit and the SWMP that apply to the subject project (i.e., the project on which the contractors are considering submitting bids).
- **Informational Exchange #2, Storm Water Permit Compliance Requirements, Pre-Construction Meeting:** The site manager provides project-specific guidance to construction contractors on topics such as SWPPP preparation, selection of practices, and monitoring and inspection. The County will also notify the RWQCB of the pre-construction meeting to allow an RWQCB representative to be at the meeting to review and discuss the water quality issues relating to the construction project.
- **Additional Informational Exchanges:** The site manager will hold informal ad hoc sessions with contractors, as needed, during the course of the construction project.

The topics covered in informational exchanges will be updated as needed to reflect modifications to the County's storm water management program.

### 4.1.3 PUBLIC EDUCATION AND OUTREACH PROGRAM

The County, in cooperation with the local Resource Conservation District, currently utilizes a variety of methods to educate and provide outreach to the public about the importance of managing pollutants that potentially could enter storm water. The existing program includes:

- An annual outreach occurs at Folsom, Ice House, Sly Park, and Union Valley Reservoir, in which free educational and maintenance materials are handed out to boaters;
- Developing and distributing informational sheets for proper hazardous waste use and disposal and storm water information at the County Fair and Earth Day celebrations at local public schools;

- Developing and distributing storm water informational sheets for Environmental Managements food facility inspection and hazardous waste management programs on all permitted businesses;
- Developing and distributing storm water information sheets for Environmental Management collection events that accept used oil and household hazardous waste;
- Maintaining and operating a call in phone number where parties can contact the County with environmental concerns;
- The County Agriculture Department will develop and distribute storm water informational sheets at their public counter as well as to all commercial and private home owners who are currently permitted for herbicide/pesticide application;
- Maintaining a County environmental website which offers educational opportunities and the opportunity for concerned parties to contact the County.

The County will, by the end of June 2005, be supplementing these efforts by:

- Adding to the County's informational sheets, a storm water specific informational sheet;
- Developing storm water informational sheets to the public in following categories: general, planning/design, and construction practices. Information sheets will be distributed to engineering/construction firms, County departments, and the public who obtain grading/construction permits;
- Developing and distributing storm water informational sheets for all five (5) public libraries;
- The County Storm Water Coordinator will serve in a "clearinghouse" function for disseminating storm water educational and awareness materials from other sources to various County Departments that come into contact with the public;

The written materials are designed to appeal to the general public (in easy-to-read formats) while providing technical information on selected storm water activities and pollution management practices.

#### 4.1.3.1 Resource Conservation District – Watershed Planning

Various parties have initiated public education research programs. These programs will be monitored by the County's Storm Water Coordinator, and the County's public education program will be reviewed annually to potentially take advantage of this research, with the goal of maximizing water quality benefits from the County's public education program.

The Resource Conservation District currently has Proposition 204 and CalFed grants for public outreach. Supplemental outreach efforts will be initiated involving various watershed monitoring and planning studies within Western El Dorado County. These efforts will be designed to bring together various interest groups to focus on watershed specific water quality issues.

#### 4.1.3.2 Informational Sheets

The County Storm Water Coordinator will actively pursue acquiring educational sheets prepared by Caltrans, various water quality regulators and others in order to make these materials available within El Dorado County.

#### 4.1.3.3 Web Site

The County's Environmental Management web site has been modified to include a storm water quality specific element. The web site currently shares information regarding air quality, solid waste and hazardous material, vector control and general environmental health. This website will be annually updated and tracked for 'hits' to this web page.

The site address is: http://co.el-dorado.ca.us/emd/

The storm water element will provide information on all storm water outreach activities, including brochures, bulletins and workshops as well as bulletins on related topics, information related to construction and maintenance activities, and links to key related sites.

#### 4.1.3.4 Storm Drain Stenciling

The County is proposing to undertake a stenciling program to apply messages at storm drain inlets located at key locations and in key facilities such as parks and other areas with notable dumping problems with the intent of assisting in educating the public about storm water runoff pollution.

By the end of June 2005, stenciling of storm drain DI's will to be required of developers for new development.

By the end of June 2007, the exact locations to be stenciled will be identified and a standard practice will be in place for initial installation of these messages as new such locations are constructed.

By the end of June 2009, the County will complete its stenciling program for all existing storm drain inlets described above. All new inlets in the areas described above will be stenciled when constructed. The stencils will be maintained by the appropriate responsible County Department.

The County will report the progress of its storm drain system stenciling program in the Annual Report.

#### 4.1.3.5 Technical Workshops

Periodically, the County Storm Water Coordinator will host, or co-host with the Resources Conservation District, public workshops that focus on specific storm water topics. These workshops are for the purpose of discussing storm water topics currently being researched by the County and others and offer the opportunity to share information and facilitate a collective focus on potential solutions to the challenges faced by the County and other watershed stakeholders.

These workshops will be held on an as-needed basis, but the expectation is that on average, one per year will be held.

## 4.1.4 SWMP PUBLIC REVIEW PROCESS

As the County annually reviews and updates the SWMP, at least one public workshop will be held offering the public the opportunity to review and comment on the County's storm water management program. Additionally, as the Board of Supervisors annually considers the program updates, this action will take place at a public meeting with an advanced public notice of the meeting's agenda, all in conformance with the Public Resources Code requirements.

## 4.1.5 BMP PROGRAM SUMMARY

The following pages contain a summary of the Public Education and Outreach BMP program set forth in the El Dorado County Storm Water Management Plan. These BMP's will be subject to annual reviews and updates as outlined in Sections 3.2 and 5.6.1.

EPA's NPDES rules state:

> "Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section (the six minimum control measure, evaluation & assessment, record keeping and reporting)…constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable"." (40 CFR 122.34)

This summary notes BMPs applicable to one of the six minimum control measures: Public Education and Outreach. El Dorado County proposes that this program constitutes fulfillment of the minimum General Permit and Federal Regulation requirements. As the public review and the SWMP finalization processes proceed, the program, and the County's assessment of this program, may change.

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## 4.2.1 OVERVIEW

This section describes how the County will comply with Permit requirements by implementing a public participation and involvement program that notifies the community of public hearings to consider the impacts of storm water and contributions they may make to reduce pollutants in storm water runoff. Described herein, is the County's Public Participation and Involvement Program, organized as follows:

- Section 4.2.2 SWMP Public Review Process
- Section 4.2.3 Public Participation and Involvement
- Section 4.2.4 BMP Program Summary

## 4.2.2 SWMP PUBLIC REVIEW PROCESS

### 4.2.2.1 SWMP Approval

As the County reviews the proposed draft SWMP, the Board of Supervisors, will notice this public hearing and it's agenda in accordance with the Public Resources Code.

### 4.2.2.2 SWMP Update

As the County annually reviews and updates the SWMP, at least one public workshop will be held offering the public the opportunity to review and comment on the County's storm water management program. This update is to occur in the form of an annual report, required by and to be submitted to the Regional Board in September of each year.

The County will notice the public workshop and BOS public hearing to consider the annual report in accordance with the Public Resources Code.

## 4.2.3 PUBLIC PARTICIPATION AND INVOLVEMENT

The County, in cooperation with the local Resource Conservation District, currently utilizes a variety of methods to educate and outreach to the public about the importance of managing pollutants that potentially could enter storm water. The existing program includes:

- An annual outreach occurs at Folsom, Ice House, Sly Park, and Union Valley Reservoir, in which free educational and maintenance materials are handed out to boaters;

- Developing informational sheets for proper hazardous waste use, disposal, and storm water information for distribution at the County Fair and Earth Day celebrations at local public schools;
- Developing and distributing storm water informational sheets for Environmental Management's food facility inspection and hazardous waste management programs on all permitted businesses;
- Developing and distributing storm water information sheets for Environmental Management collection events that accept used oil and household hazardous waste;
- Maintaining and operating a call in phone number where parties can contact the County with environmental concerns;
- Developing and distributing informational sheets at the County Agriculture public counter and distributing said sheets to all commercial and private home owners who are currently permitted for herbicide/pesticide application;
- Maintaining a County environmental website which offers educational opportunities and the opportunity for concerned parties to contact the County.
- A citizen's advisory committee appointed by the Board of Supervisors (Planning Commission) acts as the Boards advisor on development and environmental matters, which would also include storm water and non-storm water issues.

#### 4.2.3.1 Resource Conservation District – Watershed Planning

The Resource Conservation District currently has Proposition 204 and CalFed grants for public outreach. Supplemental outreach efforts will be initiated involving various watershed monitoring and planning studies within Western El Dorado County. These efforts will be designed to bring together various interest groups to focus on watershed specific water quality issues.

The District also sponsors a Water Education for Teachers Workshop to promote awareness, appreciation, knowledge, and stewardship of water resources through the development of classroom-ready teaching aids. In addition, a Water Education Summit is held annually in October, in which local high school students are given opportunity and training to learn watershed monitoring techniques. This four day event takes place on three tributaries near Union Valley Reservoir in the El Dorado National Forest and exposes students to natural resource career choices.

#### 4.2.3.2 Informational Sheets

The County Storm Water Coordinator will actively pursue acquiring educational sheets prepared by Caltrans, various water quality regulators and others in order to make these materials available within El Dorado County.

#### 4.2.3.3 Web Site

The County's Environmental Management web site has been modified to include a storm water quality specific element. The web site currently shares information regarding air quality, solid waste and hazardous material, vector control and general environmental health. This website will be annually updated and tracked for 'hits' to this web page.

The site address is: http://co.el-dorado.ca.us/emd/

The storm water element will provide information on all storm water outreach activities, including brochures, bulletins and workshops as well as bulletins on related topics, information related to construction and maintenance activities, and links to key related sites.

The County Storm Water Coordinator will serve in a "clearinghouse" function for disseminating storm water educational and awareness materials from other sources to the various County Departments that come into contact with the public.

By the end of June 2005, the County's Environmental Management and DOT web sites shall be modified to include associated storm water event information as well as links to other organizational web sites that are hosting storm water and non- storm water events. This will better inform the public and encourage increased volunteer participation and involvement in said water quality enhancement activities that are occurring in Western El Dorado County.

#### 4.2.3.4 Storm Drain Stenciling

The County is proposing to undertake a stenciling program to apply messages at storm drain inlets located at key locations and in key facilities such as parks and other areas with notable dumping problems with the intent of assisting in educating the public about storm water runoff pollution.

By the end of June 2005, stenciling of storm drain DI's will to be required of developers for new development.

By the end of June 2007, the exact locations to be stenciled will be identified and a standard practice will be in place for initial installation of these messages as new such locations are constructed.

By the end of June 2009, the County will complete its stenciling program for all existing storm drain inlets described above. All new inlets in the areas described above will be stenciled when constructed. The stencils will be maintained by the appropriate responsible County Department.

The County will report the progress of its storm drain system stenciling program in the Annual Report.

#### 4.2.3.5 Technical Workshops

Periodically, the County Storm Water Coordinator will host, or co-host with the Resources Conservation District, public workshops that focus on specific storm water topics. These workshops are for the purpose of discussing storm water topics currently being researched by the County and others and offer the opportunity to share information and facilitate a collective focus on potential solutions to the challenges faced by the County and other watershed stakeholders.

These workshops will be held on an as-needed basis, but the expectation is that on average, one per year will be held.

#### 4.2.3.6 Coordination with Volunteer Organizations

Volunteer organizations serve a valuable function in the community for a variety of obvious reasons, and this is no exception in El Dorado County. A few of these organizations that deal with issues pertinent to storm water are the Parks Commission, the River Advisory Committee, and the Trails Advisory Committee.

The Parks Commission oversees development & maintenance of recreational opportunities within its borders and works closely with those jurisdictions endeavoring always to retain as much local control & citizen involvement as possible. The River Advisory Committee plays a key role in the update of the County's River Management Plan, which includes improving the management of whitewater recreation in addition to the preservation of the river corridors environmental resources, protecting the area's rural character, reducing conflicts between residents and boaters, and maintaining a quality whitewater boating experience. The Trails Advisory Committee oversees the implementation of the bikeway master plan and hiking and equestrian trails plan in the County.

Storm water informational sheets that are developed by the County will be provided to the Parks Commission, the River Advisory Committee, and the Trail Advisory Committee.

Recently, the Board of Supervisors adopted an 'Adopt-A-Highway' Program for the collection of litter along El Dorado County primary and secondary roadways. The successful partnership of County resources and trained volunteers is intended to provide valuable assistance to the existing litter collection program. The Environmental Management Department and DOT are currently in the process of implementing this program.

El Dorado County will continue to use volunteers in the overall effort to reduce the discharge of pollutants associated with the storm water drainage systems that serve Western El Dorado County.

### 4.2.4 BMP PROGRAM SUMMARY

The following pages contain a summary of the Public Participation and Involvement BMP program set forth in the El Dorado County Storm Water Management Plan. These BMPs will be subject to annual reviews and updates as outlined in Sections 3.2 and 5.6.1.

EPA's NPDES rules state:

> "Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section (the six minimum control measures, evaluation & assessment, record keeping and reporting) … constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable"." (40 CFR 122.34)

This summary notes BMPs applicable to one of the six minimum control measures: Public Participation and Involvement. El Dorado County proposes that this program constitutes fulfillment of the minimum General Permit and Federal Regulation requirements. As the public review and the SWMP finalization processes proceed, the program, and the County's assessment of this program, may change.

## 4.3.1 OVERVIEW

The section to follow describes how the County ensures compliance with applicable state laws, regulation, and County ordinances through many existing programs and measures described herein. This section describes specifically how the County will comply with Permit requirements by incorporating illicit discharge detection and elimination, into the overall storm water management program. The County will achieve compliance by implementing the practices in the subsequent sections:

- Section 4.3.2 Storm Drain Outfall Identification
- Section 4.3.3 County Ordinances
- Section 4.3.4 Detection & Response Plan
- Section 4.3.5 Public Communications
- Section 4.3.6 Program Evaluation
- Section 4.3.7 BMP Program Summary

## 4.3.2 STORM DRAIN OUTFALL IDENTIFICATION

The Permit requires the County to develop a storm sewer system map showing the location of all outfalls and the names and locations of receiving waters. The County will conduct a field inventory of storm drain outfalls for existing development within the County jurisdictional boundary within the timeframe of June 2005 through June 2008. Identification of existing storm drain outfalls within the County's total jurisdictional area will begin no later than the end of June 2005, with a goal of mapping approximately 25% of the County's total jurisdictional area annually following approval of the SWMP until June 2008, or until 100% of the jurisdictional area has been covered. Starting in June 2006 and annually thereafter, the County will begin to update maps to include additional outfalls created from the previous year's new development and or redevelopment. The estimated percent of jurisdictional area mapped annually will be included in the Annual Report.

## 4.3.3 COUNTY ORDINANCES

### 4.3.3.1 Prohibition of Non-Storm Water Discharges

Several County ordinances prohibit non-storm water discharges into the County storm drain system. All County ordinances are enforceable per County Code Chapter 1.24, which stipulates fines and/or imprisonment for violators. The District Attorney is responsible for enforcement actions in instances of reported

violations. Beginning in June 2006, and annually thereafter the Storm Water Coordinator will provide an annual sufficiency review of said ordinances, and will include in this review an analysis of the adequacy of legal authority.

#### 4.3.3.1.1 Grading, Erosion and Sediment Control Ordinance

The County, by ordinance (County Code Chapter 15.14) authorizes the County Department of Transportation to regulate all grading activities, and requires that such activities be undertaken in such a manner that quantities of sediment or other materials substantially in excess of nature levels are prevented from leaving the site. Additionally, this ordinance authorizes the Director of Transportation to require security deposits, suspend or revoke permits, and for the permittee to warranty all work. Further, the ordinance requires the Director to record with the County Recorder, a Notice of Noncompliance when there is a failure to secure the required permit. Security deposits are held by the Building Department and provide funding of standard inspections, with additional inspections.

#### 4.3.3.1.2 Subdivision Design and Improvement Ordinance

The County, by ordinance (County Code Section 16.12.050) authorizes the Planning Commission, appointed by the Board of Supervisors to determine whether the discharge of waste from the proposed subdivision into an existing community sewer system would result in violation of existing requirements prescribed by a California Regional Water Quality Control Board pursuant to division 7 (commencing with section 13000) of the Water Code. In the event that the Planning Commission finds that the proposed waste discharge would result in or add to violation of requirements of the water quality control board, it may disapprove the tentative map or maps of the subdivision.

#### 4.3.3.1.3 Solid Waste Management Ordinance

Pursuant to Government Code Section 25845, the County, by ordinance (County Code Chapter 8.42), has established a procedure for the abatement of a nuisance on private property when this nuisance constitutes an immediate threat to public health. El Dorado County Ordinance Code Section 8.42.700 authorizes the County Environmental Management Department to take abatement action against littering and illegal dumping on public or private property.

#### 4.3.3.1.4 Vehicle Abandonment Ordinance

The County, by ordinance (County Code Section 10.16.070), in addition to and in accordance with the authority granted by the state under section 22660 of the Vehicle Code, may determine to abate and

remove abandoned, wrecked, dismantled or non-operative vehicles or parts thereof as public nuisances.

#### 4.3.3.1.5 Liquid Waste Management Ordinance

The County, by ordinance (County Code Section 8.06) prohibits any hazardous waste which may be defined by either federal or state statute and regulation, whichever is more stringent; and any grease or grease trappings from being discharged including potential adverse health and environmental impacts associated with on-site individual sewage disposal systems and or transport of liquid waste.

#### 4.3.3.1.6 Hazardous Material Management Ordinance

The County, by ordinance (County Code Chapter 8.38) authorizes the County Department of Environmental Management to manage the handling, storage, transport and use of hazardous material. Additionally, Environmental Management is authorized to inspect for hazardous materials on private property and oversee clean-up activities. The County may also require payment to compensate County time and materials necessary for clean up activities.

#### 4.3.3.1.7 Dust Abatement Ordinance

The County, by ordinance (County Code Chapter 8.44) authorizes the County Department of Environmental Management to develop and manage the County's dust abatement and protection program.

#### 4.3.3.1.8 Bear Resistant Garbage Can Ordinance

The County, by ordinance (County Code Section 8.76.030) is authorized to require the owners, lessees, residents or any other person exercising physical control of any private property including businesses to install an approved bear-resistant garbage can enclosure. This ordinance only applies to new residential construction within those portions of El Dorado County that lie within the boundaries of the Silver Fork, Tahoe Truckee Unified, and Lake Tahoe Unified School Districts.

#### 4.3.3.1.9 Construction Demolition & Debris Recycling Ordinance

The County, by ordinance (County Code Section 8.43), is authorized to require individuals or businesses demolishing or constructing projects with structure footprints exceeding 5,000 square feet in area, to recycle at least one-half of the construction and demolition debris created.

## 4.3.4 DETECTION & RESPONSE PLAN

Through permit and inspection processes, as well as public educational programs and compliance practices, the County serves to protect the public health and promote the well-being of all El Dorado County residences, workers, and visitors as well as manage potential and existing illicit discharges and illegal dumping as is required by the Permit. This is accomplished through many existing County Programs outlined in this section.

### 4.3.4.1 Project Construction

#### 4.3.4.1.1 Permitted Exempt and Conditionally Exempt Non-Storm Water Discharges

This section describes the County's program for controlling pollutants from permitted non-storm water discharges stemming from construction sites.

Permitted non-storm water discharges include the following categories:

Discharges Authorized by a Separate NPDES Permit: Since these discharges have a separate permit, they are not addressed by this SWMP.

Exempted Discharges: These discharges are not expected to contain pollutants and can therefore be discharged without direct application of practices. These discharges include:

water line flushing;

landscape irrigation;

diverted stream flows;

rising ground waters;

uncontaminated ground water infiltration (as defined at 40 CRF §35.2005(20)) to separate storm sewers;

uncontaminated pumped ground water;

discharges from potable water sources;

foundation drains;

air conditioning condensation;

irrigation water;

springs;

water from crawl space pumps;

footing drains;

lawn watering;

individual residential car washing;

flows from riparian habitats and wetlands; and

de-chlorinated swimming pool discharges.

Conditionally Exempt Discharges:

The discharges and their associated practices identified in Table 4.3-1 are not expected to contain pollutants.

**TABLE 4.3-1: NON-STORM WATER PRACTICES FOR CONDITIONALLY EXEMPT DISCHARGES**

| Non-Storm Water Discharges | Practice Titles |
|---|---|
| a. Pumped ground or accumulated rain water | Dewatering Operations |
| b. Non-potable irrigation water | Non-potable Water/Irrigation |

The RWQCB has issued a general permit for dewatering, Order No. CAG995001. Qualifying dewatering operations are able to obtain permit coverage under this Order by submitting a Notice of Intent (NOI) to the Regional Board. Allowable discharges must not contain significant quantities of pollutants and be either four months or less in duration, or not exceed 0.25 mgd during dry weather. Under the terms of the permit, monitoring and reporting are required. Copies of this permit are available from the Regional Board or from the County's Storm Water Coordinator.

Non-potable irrigation water, landscape irrigation and lawn or garden watering runoff, though minimized, will occur on a regular basis as a result of excess irrigation water running off vegetated and nearby impervious areas and into storm drains. These discharges are not expected to result in the discharge of appreciable pollutants. If these activities are subsequently found to be resulting in an unacceptable level of pollutant discharges, the County will undertake to develop, or require the responsible discharging party to develop, a pollution management plan.

#### 4.3.4.1.2 Non-Permitted Exempt and Conditionally Exempt Non-Storm Water Discharges

On construction sites, the CM/RE and the Contractor shall be alert to and report the potential presence of illicit connections to the County's storm drain system or illicit discharges.

The Permit prohibits the discharge of non-permitted non-storm water discharges. If a significant unauthorized non-storm water discharge occurs, the CM/RE will report the discharge to the County's Storm

Water Coordinator within 12 hours. The Storm Water Coordinator will coordinate the reporting of prohibited non-storm discharges to the RWQCB in accordance with the procedures in Section 5.7.

If the non-permitted non-storm water discharge occurs because of the construction activity, the CM/RE and the Contractor shall endeavor to immediately halt the discharge and take measures to minimize any potential re-occurrence.

If the non-permitted non-storm water discharge is not due to the construction activity, then the County's Storm Water Coordinator will address remediation of the situation with the responsible authorities.

The County's Storm Water Coordinator will log and track each reported non-permitted non-storm water discharge to conclusion. The on-going log will be included within the Annual Report.

#### 4.3.4.2 Municipal Operations

##### 4.3.4.2.1 Permitted Exempt and Conditionally Exempt Non-Storm Water Discharges

This section describes the County's program for controlling pollutants from permitted non-storm water discharges from municipal operations, including parks and maintenance facilities. Previously described spill prevention, waste management and other practices will be implemented to ensure that these discharges remain uncontaminated. These practices eliminate or reduce permitted non-storm water discharges and reduce water pollution from the County's Maintenance activities and operations.

Permitted non-storm water discharges include the following categories:

Discharges Authorized by a Separate NPDES Permit: Since these discharges have a separate permit, they are not addressed by this SWMP.

Exempted Discharges: These discharges are not expected to contain pollutants and can therefore be discharged without direct application of practices. These discharges include:

water line flushing;

landscape irrigation;

diverted stream flows;

rising ground waters;

uncontaminated ground water infiltration (as defined at 40 CRF §35.2005(20)) to separate storm sewers;

uncontaminated pumped ground water;

discharges from potable water sources;

foundation drains;

air conditioning condensation;

irrigation water;

springs;

water from crawl space pumps;

footing drains;

lawn watering;

individual residential car washing;

flows from riparian habitats and wetlands; and

de-chlorinated swimming pool discharges.

Conditionally Exempt Discharges:

The discharges and their associated practices identified in Table 4.3-2 are not expected to contain pollutants.

**TABLE 4.3-2: NON-STORM WATER PRACTICES FOR CONDITIONALLY EXEMPT DISCHARGES**

| Non-Storm Water Discharges | Practice Titles |
|---|---|
| a. Pumped ground or accumulated rain water | Dewatering Operations |
| b. Non-potable irrigation water | Non-potable Water/Irrigation |

The RWQCB has issued a general permit for dewatering, Order No. CAG995001. Qualifying dewatering operations are able to obtain permit coverage under this Order by submitting a Notice of Intent (NOI) to the Regional Board. Allowable discharges must not contain significant quantities of pollutants and be either four months or less in duration, or not exceed 0.25 mgd during dry weather. Under the terms of the permit, monitoring and reporting are required. Copies of this permit are available from the Regional Board or from the County's Storm Water Coordinator.

Non-potable irrigation water, landscape irrigation and lawn or garden watering runoff, though minimized, will occur on a regular basis as a result of excess irrigation water running off vegetated and nearby impervious areas and into storm drains. These discharges are not expected to result in the discharge of appreciable pollutants. If these activities are subsequently found to be resulting in an unacceptable level of pollutant discharges, the County will undertake to develop, or

require the responsible discharging party to develop, a pollution management plan.

#### 4.3.4.2.2 Non-Permitted Non-Storm Water Discharges

On maintenance sites, the MM shall be alert to and report the potential presence of illicit connections to the County's storm drain system or illicit discharges.

The Permit prohibits the discharge of non-permitted non-storm water discharges. If a significant unauthorized non-storm water discharge occurs, the MM will report the discharge to the County's Storm Water Coordinator within 12 hours. The Storm Water Coordinator will coordinate the reporting of prohibited non-storm discharges to the RWQCB in accordance with the procedures in Section 5.7.

If the non-permitted non-storm water discharge occurs because of the maintenance activity or are within the purview of municipal operations, the MM shall endeavor to immediately halt the discharge and take measures to minimize any potential re-occurrence.

If the non-permitted non-storm water discharge is not as a result of the maintenance activity or within the purview of municipal operations, the County's Storm Water Coordinator will address remediation of the situation with the responsible authorities.

The County's Storm Water Coordinator will log and track each reported non-permitted non-storm water discharge to conclusion. The on-going log will be included within the Annual Report.

#### 4.3.4.2.3 Responsible Parties

The County Department of General Services is responsible for the care and upkeep of the County's parks and general government facilities. The County Department of Transportation is responsible for the care and upkeep of the County Roads and associated maintenance yards. Maintenance activities are most regularly performed directly by County forces, however on occasion the Departments will hire a contractor to perform these activities.

The respective Departments designate a MM who is in responsible charge of the activity. This manager is responsible for assuring that the applicable pollution prevention / good housekeeping practices as outlined in the SWMP are incorporated within the work.

### 4.3.4.3 Non-County Properties

Currently the County regulates illicit discharges through many existing

environmental and public health areas, currently managed, through the Environmental Management Department, Environmental Health Division and the Solid Waste & Hazardous Materials Division as summarized in Table 4.3-3 below and described in the section to follow. The County staff responsible for carrying out these programs will be alert to and report the potential presence of illicit discharges on non-County properties.

The Permit prohibits the discharge of non-permitted non-storm water discharges. If a significant unauthorized non-storm water discharge occurs, this discharge will be reported to the County's Storm Water Coordinator within 12 hours. The Storm Water Coordinator will coordinate the reporting of prohibited non-storm water discharges to the RWQWB in accordance with the procedures in Section 5.7.

The County's Storm Water Coordinator will address remediation of the situation with the responsible authorities.

The County's Storm Water Coordinator will log and track each reported non-permitted non-storm water discharge to conclusion. The on-going log will be included within the Annual Report.

**TABLE 4.3-3: ILLICIT DISCHARGE AND DETECTION ON NON-COUNTY PROPERTIES**

| Environmental Health: | Hazardous Materials: | Solid Waste : |
|---|---|---|
| Food Facilities | Hazardous Waste/CUPA | Collection/Disposal |
| Liquid Waste | Household Hazardous Waste | Recycling |
| Recreational Health | Spills/Emergency Response | Enforcement |
| Small Water Systems | Medical Waste | Litter Abatement |
| Public Complaints | Marina Outreach | Garbage Cans/Bears |
| | Used Oil | Construction Demolition & Debris Recycling |
| | | Material Recovery Facility |

#### 4.3.4.3.1 Food Facilities

Under this program, at least twice per year, food facilities are inspected by the Environmental Management Department. Environmental health specialists will begin an educational program to inform food facilities of best management practices to prevent storm water pollution. An inventory of food establishments will be conducted to identify problem facilities with significant non-storm water discharges, and these facilities will be targeted for remedial efforts.

#### 4.3.4.3.2 Liquid Waste

The program permits liquid waste (septage) haulers and establishes fees and other financial assurance mechanisms to ensure proper transport, treatment and disposal of sewage waste. Adequate and safe construction of new and remodeled sewage disposal systems is also an element of the program. Since 1996, the liquid waste is disposed of and treated within the County at the Union Mine Septage Treatment Facility.

#### 4.3.4.3.3 Recreational Health

The recreational health program ensures the safe and sanitary operation of commercial rafting outfitter's facilities and sewage disposal for operations on the South Fork of the American River. The program includes plan review for compliance with the California Health and Safety Code and routine inspections.

#### 4.3.4.3.4 Small Water Systems

The Small Water System Program is involved with the permitting, inspection, and monitoring of 175 small public water systems. The County is the Local Primacy Agency, under contract with the State Department of Health Services, to perform the program requirements that are specified in State and Federal Regulations. El Dorado County Environmental Management Department oversees the Small Water System program. The objective of the Small Water System program is to ensure that all systems operating in the County comply with the California Safe Drinking Water Act and related regulations. This department issues permits, monitors water quality data, and conducts routine inspections to verify compliance. New applications and changes of ownership are reviewed to verify that the system will be able to meet technical, managerial, and financial capabilities. This program inadvertently protects surface waters from possible illicit discharges containing chlorinated water or other pollutants that may be contained in the water systems.

#### 4.3.4.3.5 Public Complaints

The Environmental Management Department manages the receipt of public complaints. All complainant information is confidential. Through the Environmental Management Department Programs, there is an opportunity to dispense educational pamphlets to the public during events, at the offices and through the County Web Site. This information contains phone numbers for the public to engage a complaint. The public is advised to be as specific as possible, and to leave a telephone number so an

investigating Environmental Health Specialist may contact them. In addition, they may be requested to provide further information such as specific directions to a site, historical data, or other information may be required. The County is prepared to address complaints related to illicit discharges, for example:

- Failing septic systems or a septic system illegally repaired or installed
- A break in a public sewer
- An illegally installed or destroyed well
- A contaminated well
- Rafting company complaints: unsafe food handling, illegal garbage or liquid waste discharge.
- Roadside litter
- Other environmental health or public health issues (vector control, West Nile Virus, tattoo & piercing parlors, mold, and lead poisoning)

#### 4.3.4.3.6 Hazardous Waste

The Department of Environmental Management regulates the storage of hazardous materials and the generation of hazardous waste. Businesses that handle hazardous materials are required to submit a Business plan, which discloses the quantities of hazardous materials and wastes above designated quantities to the County. The County inspects businesses on a routine and/or complaint basis, and businesses must adhere to storage requirements that protect against spills and storm water contamination. Follow up inspections are conducted as needed to gain compliance.

Through a federal program called the United Program [Senate Bill 1082 (1993)], created to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs the Environmental Management Department Hazardous Materials Division is approved by Cal-EPA as the Certified Unified Program Agency (CUPA) for El Dorado County. The Unified Program is implemented at the local government level by the CUPAs to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention (CalARP)

Program

- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control and Countermeasure (SPCC) Plans
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

The County has developed and implemented a **Hazardous Waste Management Plan** (Nov. 5, 1990), and reviews the plan at least annually for sufficiency, with updates to the plan provided on an as needed basis.

#### 4.3.4.3.7 Household Hazardous Waste

The County has been successfully assisting residents with household hazardous waste disposal for over twelve years. Recycling promotion efforts are sustained through grant programs from the CIWMB. The citizen's of El Dorado County including industry, government, agriculture and residential sources are not large generators of hazardous waste. The majority (90+%) of the hazardous waste stream in El Dorado County consists of waste oil, old paint and lead acid car batteries. The following collection events and collection facilities exist to inform residents of the hazards of illegal disposal, discourage illegal dumping and encourage recycling:

- Certified recycling collection facilities accepting automotive fluids, filters and tires, are dispersed in several locations within Western El Dorado County; see the Table 4.3-4 below for a summary of locations and items accepted for these *Community Collection Facilities*. These public waste oil collection sites are now open seven days/week, which the County, in part, has funded.
- For old paint and car batteries as well as for uncommon items such as expired or banned pesticides, herbicides, solvents, paint strippers, etc., the County has implemented periodic *One-Day Collection Events*. The County

570 continues to conduct one-day collection events in the more
571 remote areas including Meek's Bay, Mt. Aukum and the
572 Georgetown-Divide. One-day collection events occur
573 several times throughout the year at various locations. For
574 more information see the Event Calendar on the County
575 Department of Environmental Management Website.

576 • The County in a cooperative arrangement with the El
577 Dorado Hills Fire Department, Lake Valley Fire
578 Department, and Western El Dorado Recovery Systems,
579 Inc. (Diamond Springs) has opened *Permanent Collection*
580 *Facilities* for hazardous waste, as shown in Table 4.3-5.

TABLE 4.3-4: COMMUNITY COLLECTION FACILITIES

| Locations | Items Accepted |
|---|---|
| CAMERON PARK | |
| Big O Tires: 3321 Durrock Road | T |
| (C) Jiffy Lube: 2540 Merrychase Drive | O |
| (C) Jiffy Lube: 3470 Palmer Drive | O |
| (C) Kragen Auto Parts #4020: 3398 Coach Lane | O |
| CAMINO | |
| (C) El Dorado County Fire District: 4040 Carson Road | O |
| DIAMOND SPRINGS | |
| (C) El Dorado Disposal / Materials Recovery Facility: 4100 Throwita Way | A, B, BF, F, O, T |
| EL DORADO HILLS | |
| (C) El Dorado Hills Fire Station: 3670 Bass Lake Road | A, B, F, O |
| GEORGETOWN | |
| (C) 193 Auto Parts: 6490 Highway 193 S | O |
| LOTUS | |
| (C) Ceccardi Feed Store: 7170 Highway 49 | O |
| PLACERVILLE | |
| (C) Kragen Auto Parts #280: 3970-F Missouri Flat Road | O |
| McIntires & Tubes Goodyear Center: 1415 Broadway | T |
| Placerville Firestone Tire, Brake & Alignment: 796 Cary Alley | T |
| POLLOCK PINES | |
| (C) Crystal View Station: 6529 Pony Express Trail | F, O |
| SOMERSET | |
| (C) Pioneer Fire District: 7061 Mt. Aukum Road | O |

Notes: A=Antifreeze, B=Batteries, BF=Brake Fluid, F=Oil Filters, O=Used Oil, P=Oil Pads, T=Tires, and (C) Certified Oil Center. Certified Centers accept lubricating oil at no charge and will offer a recycling incentive payment.

TABLE 4.3-5: PERMANENT COLLECTION FACILITIES

| Locations | Items Accepted |
|---|---|
| El Dorado Disposal Materials Recovery Facility:<br>4100 Throwita Way<br>Diamond Springs | A, B, C, D, E, F, H, L, M, N, O, P, S, T, V |
| El Dorado Hills Fire Station:<br>3670 Bass Lake Road<br>El Dorado Hills | A, B, V, D, E, F, H, L, M, O, P, S, T, |

Notes: A= Aerosols, B=Batteries, C= Corrosives, D= Antifreeze, E= Fluorescent Lights, F= Filters and Oil, H= Household Chemicals (i.e. Photo, Pool, Cleaners), L= Latex Paint Containers (5 gal ea, 20 gal limit per trip), M= Mercury Containing Devices, N= Needles, P= Pesticides/Herbicides (5gal limit per trip), S=Sealants/Adhesives, T= Thinners/Solvents, and V= Propane Tanks (10 gal maximum size limit).

#### 4.3.4.3.8 Spills

The safe and efficient emergency response to Hazardous Materials events in El Dorado County depends on cooperation between multiple agencies. The Solid Waste and Hazardous Material Division of the Environmental Management Department leads this important team effort with close cooperation with law enforcement, fire and allied health agency officers and staff. Special attention is given to the hazardous materials used and transported frequently in the county by our local businesses.

Training to prepare for possible biological, nuclear, incendiary, chemical and explosive hazards used in criminal or terrorist activities are also provided. Preparedness activities include training of team members to appropriate levels of response capability, multi-agency workshops, tabletop exercises, field training and drills. The Environmental Management Department is responsible for after hours on-call support for all Department Programs including HazMat, Air Pollution, Sewage Spills, Water Pollution, Food Poisonings, and Union Mine Landfill Issues in a typical year, 40 – 50 incidents are responded to including routine spills of vehicle fuels, unknown white powders in the mail, the release of toxic Chlorine gas, as well as, a variety of other hazardous conditions.

The County has developed and implemented a Hazardous Materials Emergency Response Plan (Jan. 1995; Updated Oct. 2003), which establishes the policies, responsibilities, and procedures required to protect the health and safety of El Dorado County's citizens, the environment and public and private property from the effects of hazardous materials incidents. The plan details emergency response

organization for incidents, and defines operational concepts and procedures associated with the created Interagency Hazardous Materials Response Team (HMRT). This is an operational plan as well as a reference document for pre-emergency planning as well as emergency response. The County reviews the plan at least annually, with an update to the plan, as needed. Depending on the circumstances of the spill, this coordination is made directly or through the Office of Emergency Services (OES). All significant spill incidents are reported to the County's Storm Water Coordinator.

#### 4.3.4.3.9 Marina Outreach

The County Environmental Management Department has taken the lead in a comprehensive marina program that is being used to educate boaters using Lake Tahoe, Folsom, Sly Park, and Echo Lakes. This program educates boaters about clean boating practices, and makes them aware of the potential risk to the environment that can be caused by bad habits. Information is provided on the impacts of these practices, which may include: illegal disposal of used oil, operating poorly maintained watercraft, and pumping bilge water over board.

The main effort of the program is to have boat owners use oil absorbent pads and pillows. The oil absorbent pads are used to keep gasoline out the lakes during fueling. The oil absorbent pillows are placed around the engine of the boat to absorb oil and gasoline, which can leak into the bilge water. There are locations of collection and disposal of the pads and pillows at each marina. These oil absorbent pads and pillows are handed out to the public in a boat bucket kit, which also includes a bucket, a floating key chain, towel, and a ski flag. In order to receive a kit the boat owner must fill out a survey. The survey contains question as to whether or not the said person changes their boat motor oil and how he/she disposes of it. Their zip code is also asked so the County can trace what population they are reaching.

#### 4.3.4.3.10 Medical Waste

If not disposed of properly, medical waste poses a very serious threat as a puncture hazard and as a vector to transmit diseases, such as hepatitis, HIV, and tetanus. Improperly disposed medical waste is also a significant ecological threat, as images of medical waste washing up on the shores of beaches all too eloquently illustrate. Within the regulatory framework of the Medical Waste Management Act, the Hazardous Materials Division ensures the proper handling and disposal of medical waste throughout El Dorado County. The public is informed of medical waste transporters who dispose of home generated medical waste and commercially generated medical waste

(both large and small quantity generators. The County regulates and charges fees of commercial medical waste generators (hospitals, clinics, laboratories, and medical, dental, and veterinary facilities). Non-commercial medical waste producers residing in El Dorado County are informed of how to handle their waste and encouraged to use this free service available to them through coordination with the Materials Recovery Facility.

#### 4.3.4.3.11 Used Oil

The Environmental Management Department has launched a used oil/oil filter recycling and re-refined oil promotional program at the Placerville Speedway, sponsoring a sprint car driver and encouraging consumers to buy back re-refined oil.

#### 4.3.4.3.12 Universal Wastes

Universal wastes are common items, which because of their chemical content are considered hazardous wastes, but they pose a relatively low risk to the user when handled in a normal manner. However, if these items are damaged or disposed of into a landfill they can release their hazardous contents and pose a risk to human health and the environment. Items such as fluorescent lights, mercury thermostats, household batteries, consumer electronic devices (CEDs) and computer monitors, also known as cathode ray tubes (CRTs), are all classified as universal wastes. The fluorescent lights, thermostats, and batteries generated by households can be disposed free of charge at the HHW permanent collection centers listed above. The Diamond Springs disposal site will accept CRTs and CEDs for a fee.

#### 4.3.4.3.13 Collection / Disposal

The Union Mine Disposal Site, comprised of 280 acres of public property, is the last remaining and active landfill property in the County. The existing permitted landfill unit is confined to 59.5 acres within the middle of the Union Mine property [a number of permits are required to operate a landfill including those from the State Integrated Waste Management, Regional Water Quality Control and Air Resources Boards].

Sierra Disposal Service is proposing to build a small volume transfer station and recycling facility within the Georgetown/Divide area. Such a facility is imperative to combat illegal dumping and to provide convenient opportunities for disposal and the recycling of materials. Similar small-scale facilities may also be proposed in other portions of the County.

#### 4.3.4.3.13 Recycling

Waste reduction, reuse, and recycling in El Dorado County is encouraged due to a federal mandate requiring the County to divert 50% of their waste from landfills. The program strives to encourage the community to do their part to achieve this goal through distribution of information on recycling locations, reuse opportunities, and ways to reduce waste in the home and business. Non-storm water informational sheets will accompany materials distributed at community events, recycling centers and through the County website.

#### 4.3.4.3.15 Enforcement

The County's Solid Waste Ordinance, which governs the accumulation, storage, collection and disposal of solid waste generated on residential, commercial and industrial properties within the County is enforced by the Department of Environmental Management. Complaints alleging improper solid waste management practices on the West slope of the County can be lodged by calling or by email through either the telephone phone number and link posted on the County website.

#### 4.3.4.3.14 Litter Abatement

El Dorado County operates a roadside litter collection program. Permanent staff and low-risk inmates collect litter from the County Jail. Litter is collected along the County maintained roads and the State Highways. Because there are literally thousands of miles of County maintained roadways within the County, priority is given to the more heavily used roadways and those where significant accumulations of litter exist.

#### 4.3.4.3.15 Garbage Cans/Bears

To enhance public safety and eliminate conditions that attract bears, residents that live within the boundaries of the Silver Fork School District are required to install bear resistant garbage can enclosures, in conjunction with new construction. This ordinance may also reduce the likelihood of garbage/debris being dispersed throughout these neighborhoods due to the bears, and subsequently other animals rummaging through garbage cans.

#### 4.3.4.3.16 Construction Demolition & Debris Recycling

Through the Construction and Demolition Debris Recycling Ordinance (Code 8.43), individuals or businesses demolishing or constructing projects with structure footprints exceeding 5,000 square feet in area, are required to recycle at least one-half of the construction and demolition debris created. Workshops are hosted and information is distributed to inform generators of their requirement to recycle and of strategies they can enlist to meet this requirement.

#### 4.3.4.3.17 Material Recovery Facility

West Slope County residents are served by a Material Recovery Facility located in Diamond Springs. The facility accepts material for disposal, as well as recycling. Household hazardous waste is accepted free of charge.

### 4.3.4.4 Leaseholder Review and Inspections

The County owns several parcels of property. Many of these properties are leased to third parties. These third parties carryout a variety of activities on these properties. These properties and their leases will be reviewed by the County's responsible Department, General Services, to assure that the terms of the lease allow enforcement of the Permit and SWMP requirements and that the lease holders are carrying out appropriate pollution management practices. Identification of these leases and review of the lease terms will be accomplished by the end of June 2006.

Where the terms of the leases are not presently sufficient to allow for this enforcement, efforts will be initiated to amend or replace the lease with one that allows the County to enforce the Permit and SWMP. It will be necessary to set individual time schedules for each property to upgrade, as necessary, the terms of the leases. As these leases are reviewed, deficiencies identified, and time schedules set, the results will be reported in the Annual Report.

The County will undertake a general compliance review on all leased properties by the end of June 2006. If deficiencies in storm water pollution practices are identified, the leaseholder will be so informed, and requested to undertake appropriate practices. For those properties with deficiencies and with lease terms allowing enforcement, the County will undertake to ensure that the leaseholder responds appropriately. However, if there are noted deficiencies and the lease has not yet been amended to allow enforcement, the property will be "flagged" for revisit upon amendment of the lease terms. In this later situation, if the identified deficiencies are seen as an immediate threat to public health, the County will

initiate abatement action per County Ordinance Code Section 8.42.700. The Annual Report will summarize the results of these leased property inspections.

#### 4.3.4.5 Facility Pollution Prevention Plans

It is required that Facility Pollution Prevention Plans for County's highway maintenance facilities include an inventory of facilities and activities for each site, a site map and a compliance status report. As applicable, the MM shall provide a schedule for achieving compliance, and identify improvements needed to enhance pollution minimization activities. By the end of June 2006, Annual Reviews of the FPPPs and of the maintenance facilities will occur with annual reporting of results and actions to the RWQCB.

## 4.3.5 PUBLIC COMMUNICATION

#### 4.3.5.1 Public Outreach

The County currently utilizes a variety of methods to educate and outreach to the public about the importance of managing pollutants that potentially could enter storm water. The existing program includes:

An annual outreach occurs at Folsom, Ice House, Sly Park, and Union Valley Reservoir, in which free educational and maintenance materials are handed out to boaters.

- Developing and distributing informational sheets by Environmental Management for proper hazardous waste use and disposal and storm water information at the County Fair and Earth Day celebrations at local public schools.
- Developing and distributing storm water informational sheets for Environmental Management's food facility inspection program on all permitted businesses.
- Developing and distributing storm water information sheets for Environmental Management collection events that accept used oil and household hazardous waste.
- Maintaining and operating a call-in phone number where parties can contact the County with environmental concerns,
- Developing and distributing storm water informational sheets at the County Agriculture Department public counter as well as to all commercial and private home owners who are currently permitted for herbicide/pesticide application.

- Maintaining a County environmental website which offers educational opportunities and the opportunity for concerned parties to contact the County.

The County will, by the end of June 2006, be supplementing these efforts by:

- Adding to the County's informational sheets, a storm water specific informational sheet.
- Adding a storm water specific component to the County's environmental website.
- Developing storm water informational sheets to the public in following categories: general, planning/design, and construction practices. Information sheets will be distributed to engineering/construction firms, County departments, and the public who obtain grading/construction permits.
- Developing and distributing storm water informational sheets for all five (5) public libraries.

The County Storm Water Coordinator will serve in a "clearinghouse" function for disseminating storm water educational and awareness materials from other sources to various County Departments that encounter the public.

The written materials are designed to appeal to the general public (in easy-to-read formats) while providing technical information on selected storm water activities and pollution management.

#### 4.3.5.2 Informational Exchange with Contractors

For contract work directly undertaken by the County, three types of informational exchange sessions will be employed to describe storm water pollution prevention concepts and practices and to explain techniques for preparing SWPPPs for construction activities.

Informational Exchange #1, Storm Water Permit Compliance Requirements, Pre-Bid Meeting: Pre-bid meetings may be conducted to discuss a given upcoming construction project. When such meetings are held, and depending on the sites storm water complexities, the site manager may provide general information to construction contractors regarding the requirements in the Permit and the SWMP that apply to the subject project (i.e., the project on which the contractors are considering submitting bids).

Informational Exchange #2, Storm Water Permit Compliance Requirements, and Pre-Construction Meeting: The site manager provides

project-specific guidance to construction contractors on topics such as SWPPP preparation, selection of practices, and monitoring and inspection of said practices. The County will also notify the RWQCB of the pre-construction meeting to allow an RWQCB representative to be at the meeting to review and discuss the water quality issues relating to the construction project.

Additional Informational Exchanges: The site manager will hold informal ad hoc sessions with contractors, as needed, during the course of the construction project.

The topics covered in informational exchanges will be updated as needed to reflect modifications to the County's storm water management program.

#### 4.3.5.3 Resource Conservation Districts

The County will work with the local Resource Conservation District and others to provide outreach to private project planners, designers and construction contractors to raise their awareness and understanding of the problems and causes of storm water pollution and to explain their responsibilities. This outreach will be done primarily through informational exchanges between the County and these parties. The informational exchanges cover the following topics:

- The provisions, conditions and requirements of the Permit that apply to their projects;
- The availability of the SWMP and associated training and guidance material prepared by the County; and
- General responsibilities of project site manager regarding implementation of the SWMP, the requirements of a SWPPP.

The County Storm Water Coordinator will work with local organizations to annually host workshops / informational exchanges focused on these topics. The first workshop will be held by the end of June 2005.

## 4.3.6 PROGRAM EVALUATION

#### 4.3.6.1 Self Audit

As a quality control mechanism to help the County to determine how well the activities identified in this SWMP are being implemented. The self-audit is viewed as independent from line management. The information gathered from these self-audits will be shared with, and considered by the County's SWAC and management as part of the process to annually update the SWMP. The results of

the self-audit will be included in the Annual Report.

The goals of the County self-audit program are:

- To evaluate the efficiency and effectiveness of the activities outlined in the SWMP;
- To provide a sound basis for re-directing or refining such activities;
- To recommend ways to revise or refine the SWMP, as needed; and
- To assess compliance with Permit and program requirements.

#### 4.3.6.2 Departmental Review

The Storm Water Coordinator will provide a review of the departments responsible for administering the provisions of the ordinances and, as appropriate measures will be developed and implemented to ensure departments effectively achieve compliance. Each department's program elements with respect to enforcement will be reviewed annually, followed by an annual meeting with department managers to discuss those measures to be developed and implemented.

The primary mechanism for accomplishing program evaluation and ensuring that the County's front line personnel have adequate knowledge and assistance to be successful is the day-to-day supervision by the responsible managers. This supervision includes observing and evaluating design and construction personnel as they implement the requirements of the SWMP on both County and private projects, and maintenance personnel as they conduct their assigned activities. In addition to day-to-day oversight by the responsible managers, the County's Storm Water Coordinator will provide focused follow-up activity reviews on a regular basis. Feedback from this oversight will assists the County in addressing the following types of questions:

- Is the County properly integrating storm water management practices into planning, designing, and constructing both County and private projects?
- Are the County's efforts to incorporate storm water practices into maintenance activities effective and efficient?
- Are the organizational structures and procedures functioning effectively and efficiently for performance of the County's water quality protection measures?
- Are the County's training programs and guidance materials sufficient?
- Are the procedures for incorporating practical practices into daily activities functioning properly?

#### 4.3.6.3 Storm Water Advisory Committee

The County's Storm Water Coordinator will host quarterly meetings of the County's Storm Water Quality Advisory Committee (SWAC) to review progress in SWMP implementation. These meetings will serve to identify the key issues and recommendations for improvement within the County's program and to ensure communication/cooperation between Departments and functions.

## 4.3.7 BMP PROGRAM SUMMARY

The following pages contain a summary of the Illicit Discharge Detection and Elimination BMP program set forth in the El Dorado County Storm Water Management Plan. These BMPs will be subject to annual reviews and updates as outlined in Sections 3.2 and 5.6.1.

EPA's NPDES rules state:

> "Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section (the six minimum control measures, evaluation & assessment, record keeping and reporting) … constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable"." (40 CFR 122.34)

This summary notes BMPS applicable to one of the six minimum control measures: Illicit Discharge Detection and Elimination. El Dorado County proposes that this program constitutes fulfillment of the minimum General Permit and Federal Regulation requirements. As the public review and the SWMP finalization processes proceed, the program, and the County's assessment of this program, may change.

## 4.4.1 OVERVIEW

The County complies with State Water Resources Control Board's storm water discharge permit requirements by incorporating storm water management into the County's process to design and construct County facilities and the County's process to oversee the execution of design and construction proposed to be carried out by third parties subject to permitting by the County. These storm water permit requirements are as set forth in the Board's statewide construction general permit and the small municipal separate storm sewer systems general permit.

The State Board has defined construction as:

> "… clearing, grading, disturbances to the ground such as stockpiling, or excavation that results in soil disturbances …". "Construction activity does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility, nor does it include emergency construction activities required to protect public health and safety."

Regulated construction sites subject to this Design/Construction Storm Management Program involve at least one acre of construction as defined above, or less if the site is part of a larger common plan of development that encompasses more than one acre of construction.

El Dorado County specifically exempts from this Design/Construction Storm Water Management Program, the following:

- Individual single family homes not a part of a master planned (production home development) owned by a single owner which disturb less than 1 acre of soil,
- Agricultural operations not involving the construction of buildings, and
- Fire suppression / prevention activities.

The State Board requires that the property owner proposing to undertake a construction project seek coverage under the Board's statewide construction general permit by filing a Notice of Intent (NOI) and filing fees with the local Regional Water Quality Control Board prior to commencement of construction; and upon completion of construction, similarly file a Notice of Termination (NOT). Further, the property owner is required to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the construction site, which specifies the specific practices that will be implemented on the site.

The County will comply with Permit requirements by incorporating construction site

runoff controls into the overall storm water management program. These requirements apply to both construction (as defined above) proposed to be undertaken directly by the County and construction proposed to be permitted by the County and undertaken by others.

Compliance will be achieved through development and implementation of practices in the following sections:

- Section 4.4.2 General Program
- Section 4.4.3 County Development Standards
    - Grading, Erosion and Sediment Control Ordinance
    - Design and Improvement Standards Manual
    - Drainage Manual
- Section 4.4.4 General Construction Site Practices
- Section 4.4.5 Minimum Construction Site Practices
- Section 4.4.6 Inspections and Enforcement
- Section 4.4.7 County Ordinances
- Section 4.4.8 Public Communications
- Section 4.4.9 BMP Program Summary

## 4.4.2 GENERAL PROGRAM

The County currently has in place extensive policies and procedures for regulating design and construction activities to protect the Region's water resources, as described in Section 4.4.3, which defines the elements of the County's Development Standards. Additionally, the County is proposing a specific set of General and Minimum Requirements for Construction Site Storm Water Practices as explained in Sections 4.4.4 and 4.4.5 respectively.

The design and construction site practices selected and implemented by the responsible party for a given site are expected to be sufficient to achieve compliance with the State of California NPDES General Permits for Storm Water Discharges Associated with Construction Activity and Small Municipal Separate Storm Sewer Systems.

A site's program is required to adhere to the minimum prescribed practice requirements

as set forth within the SWMP; and the site manager is required to select additional practices from the referenced guidance materials, as may be necessary, to achieve the permit requirements. If there arise any questions about the selection of practices, the responsible party is to contact the County's Storm Water Coordinator. Inspection and Enforcement Procedures (Section 4.4.6) as well as County Ordinances (4.4.7) will allow monitoring of construction activities and assure compliance with the required practices set forth herein. Public communications will occur through the web, and via County offices, and County workshops, as described in Section 4.4.8. BMPs applicable to the minimum control measures are summarized in Section 4.49.

## 4.4.3 COUNTY DEVELOPMENT STANDARDS

The County's Development Standards, which include the Grading, Erosion and Sediment Control ordinance; the County's Design and Improvement Standards Manual; and the County's Drainage Manual contain measures and practices required upon all parties undertaking construction to minimize the discharge of pollutants from the construction sites.

In addition, the County will provide a sufficiency review with respect to the enforcement of the County Development Standards, and as appropriate, recommend to the County Board of Supervisors the adoption of more effective ordinances and standards. Said revisions will be reflected in the SWMP Annual Report.

### 4.4.3.1 Grading, Erosion and Sediment Control Ordinance

The Grading, Erosion and Sediment Control Ordinance requires that permittees be responsible to:

- prevent discharge of sediment from the site in quantities greater than before the grading occurred, to any watercourse, drainage system or adjacent property; and

- protect watercourses and adjacent properties from damage by erosion, flooding, or depositation, which may result from the permitted grading.

Additionally, the Ordinance authorizes the Director of Transportation to:

- require security deposit to assure faithful performance,

- suspend or revoke the permit and abate a hazardous public nuisance condition, and

- require a one-year warranty on all work.

This Ordinance requires of the permittee the following:

- The slope of cut and fill slopes shall not be steeper than two horizontal to one vertical, exclusive of terraces and slope roundings, except when supported by bedrock and/or in accordance with a geotechnical or geological report. Further, the Director of Transportation may require fill slopes to be flatter for stability purposes.

- Drainage shall be effected in such a manner that it will not cause erosion or endanger the stability of any cut or fill slopes.

- Grading plans shall be designed with long-term erosion and sediment control as a primary consideration.

- Grading operations during the rainy season (from October 15th to May 1st, inclusively) shall provide erosion and sediment control measures except upon a clear demonstration to the satisfaction of the Director of Transportation that at no stage of the work will there be any substantial risk of increased sediment discharge from the site.

- Should grading be permitted during the rainy season, the smallest practicable area of erosive land shall be exposed at any one time during grading operations and the time of exposure shall be minimized.

- Wherever possible, natural features, including vegetation, oak trees, terrain, watercourses, wetlands and similar resources shall be preserved. Limits of grading shall be clearly defined and marked to prevent damage by construction equipment. Wetlands and oak trees so marked, shall be protected from construction activity.

- Permanent drought-resistant vegetation and structures for erosion and sediment control shall be installed as soon as possible.

- Adequate provision shall be made for long-term maintenance of permanent erosion and sediment control structures and vegetation.

- No topsoil shall be removed from the site unless otherwise directed or approved by the Director of Transportation. Topsoil overburden shall be stockpiled and redistributed within the graded area after rough grading to provide a suitable base for seeding and planting. Runoff from the stockpiled area shall be controlled to prevent erosion and resultant sedimentation of receiving water.

- Runoff shall not be discharged from the site in quantities or at velocities substantially above those, which occurred before the grading except into

drainage facilities, whose design has been specifically approved by the Director of Transportation.

- Permittee shall take reasonable precautions (i.e. stabilized construction entrances/exits and/or wash racks) to ensure that vehicles do not track or spill earth materials into public streets and shall immediately remove such materials if this occurs.

- Erosion and Sediment Control Plans shall include an effective revegetation program to stabilize all disturbed areas that will not be otherwise protected.

- Erosion and Sediment Control Plans shall be designed to prevent increased discharge of sediment at all stages of grading and development from initial disturbance of the ground to project completion. Every feasible effort shall be made to ensure that site stabilization is permanent. Plans shall indicate the implementation period and the stage of construction where applicable.

- Erosion and Sediment Control Plans shall provide for inspection and repair of all erosion and sediment control facilities at the close of each working day during the rainy season and for specific sediment cleanout and vegetation maintenance criteria.

#### 4.4.3.2 Design and Improvement Standards Manual

Among the key provisions of the County's Design and Improvement Standards Manual administered by the County Planning Department are minimum lot sizes and general development standards for varying slope conditions. These standards are set to minimize the environmental effects of construction.

#### 4.4.3.3 Drainage Manual

The Department of Transportation's Drainage Manual prescribes planning and design criteria for drainage facilities within the County. Among the key provisions of the County's Drainage Manual include:

- The planning and design of drainage systems within El Dorado County shall take into consideration any potential downstream impacts including those to property, flow regimes, water quality or riparian and wetland areas. Provisions mitigating potential impacts shall be included as a part of the drainage analysis for the proposed project.

- Increases in storm runoff from upstream properties resulting from improvements is discouraged.

- Improvements that propose to increase storm water runoff shall be evaluated to show, among other things, that land of downstream properties is not lost due to increased flood plain limits, there is no increase in erosion, and there is no net loss of storage available to attenuate peak flows. When downstream properties are unable to adequately accommodate increases in storm water runoff, appropriate mitigation measures shall be implemented into the analysis and design. These mitigation measures may include storm water storage facilities (detention or retention structures) designed to hold storm water and then releasing it at a rate that will not cause damage downstream.

- The County has approved the use of two types of detention basins, dry and wet basins. However, due to the added long-term maintenance requirements and vector concerns associated with wet basins, their use requires site-specific approval by the County.

- The County has approved the use of retention (infiltration) basins. However, due to varying site-specific infiltration concerns and added long-term maintenance requirements their use requires site-specific approval by the County. While the implementation of detention or retention facilities on-site to attenuate peak runoff to a level which does not impact downstream facilities is acceptable, the County sees facilities designed as a component of a watershed planning process (classified as regional or downstream storage facilities) as potentially being more economical and effective. Coordinated regional detention/retention facilities that take into account the entire watershed area are preferred. When a regional drainage study has been conducted and regional basins are designed, the regional basin will always take precedence over local basin design.

- The use of natural channels for the collection and conveyance of storm water runoff is preferred. Natural channels shall be capable of conveying runoff without increased erosion, widening and meandering of the channel alignment due to increased runoff from development.

- Grass lined channels are viable only for channels with relatively flat slopes. Successful grass lined channels require maintenance both for the establishment of the root network and to control the length of the grass.

- Where appropriate, floodplain and open space criteria shall comply with FEMA standards and the 100-year flood plain shall be designated.

- In order to determine the proper type of channel stabilization and flood & water quality protection measures, the following issues should be

considered during the planning and design of drainage improvements:

- The effect that any changes in the runoff hydrograph may have upon the floodplain limits.
- The effect that potential growth of vegetation in the channel or floodplain has upon the long-term flood protection of adjacent development.
- The effect that channelization of an existing stream has upon the natural floodplain storage volume.
- The effect that increases of either peak flow or velocity may have on channel erosion or deposition.
- The effect that the proposed development project will have on both short-term and long-term sediment production. This includes measures to control erosion during construction.
- For projects, which propose the creation or expansion of permanent water bodies, the effect that, a change in water temperature will have upon fish and wildlife.
- The role that drainage improvements will play in managing pollutant in storm water runoff.
- The effect that the proposed drainage improvement has upon the existing aesthetic quality of the area.

All of the above are not applicable to all drainage design projects. However, multidisciplinary involvements is encouraged in both the planning and design of major drainage projects to the extent that it results in preservation of natural systems and reliable flood protection.

## 4.4.4 GENERAL CONSTRUCTION SITE PRACTICES

In addition to the County's current storm water pollution control program described, in Section 4.4.3, the responsible party for each construction site is to identify, consider, and deploy storm water practices sufficient to achieve compliance with the State of California NPDES General Permits for Storm Water Discharges Associated with Construction Activity and the County's Grading Ordinance.

Table 4.4-1 is a matrix of typical construction site practices that the on site responsible party would typically implement or require be implemented on a construction site. Two reliable sources of information are readily available for details of specific construction

practices:

**Detailed references:**

1. **California Stormwater Quality Association (CASQA) "Construction Handbook", January 2003. Available online at:**

   **http://www.cabmphandbooks.com/**

2. **Caltrans "Statewide Storm Water Quality Practice Guidelines", May 2003. (CTSW-RT-02-009) Available online at:**

   **http://www.dot.ca.gov/hq/env/stormwater/special/newsetup/**

Section 4.4.5 outlines minimum storm water practices required for all construction sites. If there might arise a conflict between the typical practices noted on Table 4.4-1, the various practices fact sheets in the CASQA's Handbook, the Caltrans Guidelines, and the deployment of the minimum practice expectations in Section 4.4.5 shall control. However, the on-site responsible manager is expected to deploy practices sufficient to achieve compliance with the State of California NPDES General Permits for Storm Water Discharges Associated with Construction Activity and the County's Grading Ordinance.

## TABLE 4.4-1: TYPICAL CONSTRUCTION SITE PRACTICES FOR CONSTRUCTION ACTIVITIES

| | **Typical Construction Activities** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Demolish Pavement/Structures | Clear and Grub | Construct Access Roads | Grading (inc. cut and fill slopes) | Channel Excavation | Channel Paving | Trenching/ Underground Drainage | Underground Drainage Facility Installation | Drainage Inlet Modification | Utility Trenching | Utility Installation | Subgrade Preparation | Base Paving | AC Paving | Concrete Paving | Saw Cutting | Joint Sealing | Grind/Groove | Structure Excavation | Erect Falsework | Bridge/Structure Construction | Remove Falsework | Striping | Miscellaneous Concrete Work | Sound Walls/Retaining Walls | Planting and Irrigation | Contractor Activities | Treatment Practices Construction |
| **Best Management Practices** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ***Temporary Sediment Control*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silt Fence | X | X | X | X | X | | X | | | X | | X | | | | | | | X | | X | | | | | X | | X | |
| Sandbag Barrier | X | X | X | X | X | | X | | | X | | X | | | | | | | X | | X | | | | | X | | X | |
| Straw Bale Barrier | X | X | X | X | X | | X | | | X | | X | | | | | | | X | | X | | | | | X | | X | |
| Fiber Rolls | X | X | X | X | X | | X | | | X | | | | | | | | | | | X | | | | | X | | X | |
| Gravel Bag Berm | X | X | X | X | X | | X | | | X | | | | | | | | | | | X | | | | | X | | X | |
| Check Dam | X | X | | X | X | | X | | | | | | | | | | | | | | | | | | | | | X | |
| Desilting Basin | X | X | X | X | X | | | | | | | | | | | | | | | | X | | | | | X | | X | |
| Sediment Trap | X | X | X | X | X | | X | | | X | | X | | | | | | | X | | X | | | | | X | | X | |
| Sediment Basin | | X | | X | X | | | | | | | | | | | | | | | | X | | | | | X | | X | |
| ***Temporary Soil Stabilization*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydraulic Mulch | X | X | | X | X | | | | | | | | | | | | | | | | X | | | | | X | | X | |
| Hydroseeding | X | X | | X | X | | | | | | | | | | | | | | | | X | | | | | X | | X | |
| Soil Binders | X | X | | X | X | | | | | | | | | | | | | | X | | X | | | | | X | | X | |
| Straw Mulch | X | X | X | X | X | | X | X | | X | | X | | | | | | | X | | X | | | | | X | | X | |
| Geotextiles, Mats/Plastic Covers and Erosion Control Blankets | X | X | X | X | X | | X | X | | X | | X | | | | | | | X | | X | | | | | X | | X | |
| ***Scheduling*** | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | | X | | X | X | X | X | X | X | |
| ***Preservation of Existing Vegetation*** | | X | X | X | | | X | X | | X | | | | | | | | | X | X | | X | | | X | | | | |
| ***Temporary Concentrated Flow Conveyance Controls*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Earth Dikes/Drainage Swales & Lined Ditches | | X | X | X | | | | | | | | | | | | | | | | | X | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

### TABLE 4.4-1: TYPICAL CONSTRUCTION SITE PRACTICES FOR CONSTRUCTION ACTIVITIES

| | **Typical Construction Activities** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Demolish Pavement/Structures | Clear and Grub | Construct Access Roads | Grading (inc. cut and fill slopes) | Channel Excavation | Channel Paving | Trenching/ Underground Drainage | Underground Drainage Facility Installation | Drainage Inlet Modification | Utility Trenching | Utility Installation | Subgrade Preparation | Base Paving | AC Paving | Concrete Paving | Saw Cutting | Joint Sealing | Grind/Groove | Structure Excavation | Erect Falsework | Bridge/Structure Construction | Remove Falsework | Striping | Miscellaneous Concrete Work | Sound Walls/Retaining Walls | Planting and Irrigation | Contractor Activities | Treatment Practices Construction |
| **Best Management Practices (cont.)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Outlet Protection/Velocity Dissipation Devices | | X | X | X | | | | | | | | | | | | | | | | | X | | | | | | | |
| Slope Drains | | | | X | | | | | | | | | | | | | | | | | X | | | | | | | |
| ***Temporary Stream Crossing*** | | | X | | | | X | X | | X | X | | | | | | | | | X | X | X | | X | | | | |
| ***Clear Water Diversion*** | X | | X | | X | X | | | | | | | | | | | | | | X | X | X | | | X | | | X |
| ***Wind Erosion Control*** | | X | X | X | X | | X | | | X | | X | X | X | X | | | | | | | | | | | X | | X |
| ***Sediment Tracking Control*** | X | X | X | X | X | | X | X | | X | X | X | X | X | X | X | | X | X | | X | | | | X | X | X | X |
| Street Sweeping and Vacuuming | X | X | X | X | X | | X | X | | X | X | X | X | X | X | X | | X | X | | X | | | | X | X | X | X |
| Stabilized Construction Roadway | | X | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Entrance/Outlet Tire Wash | | X | X | X | | | | | | | | | | | | | | | | | | | | | | X | X | |
| ***Waste Management*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spill Prevention and Control | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Solid Waste Management | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Hazardous Waste Management | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Contaminated Soil Management | X | X | | X | | | X | X | | X | X | | | | | | | | | X | | | | | | | | |
| Concrete Waste Management | X | | X | | | X | | X | | | X | | X | | X | X | | X | X | | X | | | X | X | X | X | X |
| Sanitary/Septic Waste Management | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Liquid Waste Management | | | | | | | | | | | | | | X | | X | X | | X | | X | | X | | | | X | X |
| ***Materials Handling*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Material Delivery, and Storage | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Material Use | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

### TABLE 4.4-1: TYPICAL CONSTRUCTION SITE PRACTICES FOR CONSTRUCTION ACTIVITIES

| | **Typical Construction Activities** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Demolish Pavement/Structures | Clear and Grub | Construct Access Roads | Grading (inc. cut and fill slopes) | Channel Excavation | Channel Paving | Trenching/ Underground Drainage | Underground Drainage Facility Installation | Drainage Inlet Modification | Utility Trenching | Utility Installation | Subgrade Preparation | Base Paving | AC Paving | Concrete Paving | Saw Cutting | Joint Sealing | Grind/Groove | Structure Excavation | Erect Falsework | Bridge/Structure Construction | Remove Falsework | Striping | Miscellaneous Concrete Work | Sound Walls/Retaining Walls | Planting and Irrigation | Contractor Activities | Treatment Practices Construction |
| **Best Management Practices (cont'd)** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ***Vehicle and Equipment Operations*** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vehicle and Equipment Cleaning | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Vehicle and Equipment Fueling | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Vehicle and Equipment Maintenance | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| ***Paving Operations*** | | | X | | | X | | | X | | | | X | X | X | X | X | X | | | X | | | | | | | |
| ***Stockpile Management*** | X | | X | | | | | X | | X | X | | X | X | X | | | X | | | | | | | | | | |
| ***Water Conservation Practices*** | X | X | X | X | X | X | X | X | X | X | | X | | | | X | X | X | X | | X | | | X | | X | X | X |
| ***Stabilized Construction Entrance/Exit*** | | X | X | X | | | | | | | | | | | | | | | | | | | | | | X | | X |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ***Dewatering Operations*** | X | | | X | X | X | X | X | X | X | X | | | | | | | | X | | X | | | X | X | X | | X |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**X Practice may be applicable to activity**

The individual practice designated by an "X" in Table 4.4-1, as being applicable to a particular typical construction activity, will not necessarily be appropriate for all projects involving the noted activity. For example, not all projects will have on-site vehicle fueling and maintenance operations; however, those that do will be required to conduct those operations in a manner consistent with the intent of the practice, as described in the referenced guidelines.

## 4.4.5 MINIMUM CONSTRUCTION SITE PRACTICES

Storm water pollution control requirements are intended to be implemented on a year-round basis at an appropriate level. The practices described below are the minimum, required water quality protection measures. This listing does not include the various inspection, record keeping, training and reporting requirements. Additionally, there will be instances where project and site conditions require supplementing or deviating from these minimum protection requirements. The contractor is expected to deploy measures sufficient to achieve compliance with the County's Grading Ordinance, and, as applicable (projects which involve one acre or more of disturbed soil, or are part of a larger common plan of development that encompasses one acre or more of disturbed soil), the State Water Resources Control Board's (SWRCB) NPDES General Permit for Storm Water Discharges Associated with Construction Activity within 12 months of SWMP approval.

### 4.4.5.1 Scheduling

Construction scheduling shall consider the amount and duration of soil exposed to erosion by wind, rainfall, runoff and vehicle tracking and shall be scheduled to minimize construction activities in watercourses and the amount of active disturbed soil areas, during the rainy season. A schedule shall be prepared that shows the sequencing of construction activities with the installation of erosion and sediment control practices.

Construction shall be scheduled to minimize construction activities in "high-risk areas" and the amount of active disturbed soil areas, during the rainy season (Oct. 15th to May 1st). "High-risk areas" include those areas within 50 feet of USGS watercourses, 100-year flood plains, regulated wetlands, and where slopes exceed 16%.

Unless specifically authorized by the County's on-site representative, during the rainy season the contractor shall not schedule constriction activities in "high risk areas" or schedule to have more than 5 acres of active disturbed soil area. As an alternative to these restrictions, the contractor may elect to assure that these areas are fully protected by "Sediment Basins" or "Treatment", in addition to the

normally required "effective combination" of soil stabilization, sediment barriers and basins / traps.

Where permanent storm water treatment devices are to be constructed, these devices should, whenever feasible, be constructed as an early work item.

#### 4.4.5.2 Preservation of Existing Vegetation

Preserving existing vegetation to the maximum extent possible and for as long as possible on a construction site reduces or eliminates erosion in those areas. To facilitate this practice, on a year-round basis, temporary fencing shall be provided prior to commencement of clearing and grubbing operations or other soil disturbing activities to protect those areas where no construction activity is planned ore where construction will occur at a later date. Prior to the commencement of soil disturbing activities, areas of existing vegetation that are to remain and environmentally sensitive areas (i.e. wetlands, protected habitats, etc) shall be fenced for protection. In general, site designs shall preserve existing vegetation to the maximum extent possible; and during construction, existing vegetation shall be preserved (and protected by fencing) for as long as possible to minimize erosion.

#### 4.4.5.3 Storm Water Run-On and Concentrated Flows

The diversion of storm water run-on and conveyance of concentrated flows must be considered in determining the appropriateness of the practices chosen. Practices to divert or manage concentrated flows in a non-erosive fashion may be required on a project-by-project basis to divert off-site drainage through or around the construction site or to properly manage construction site storm water runoff. Existing watercourses shall be protected; and if diverted, handled in a non-eroding fashion. To the extent feasible, all concentrated water flows shall be channeled away from disturbed soil areas / stockpiles. Concentrated water flows shall be conveyed in a non-eroding fashion; and they shall, to the maximum extent practicable, be channeled away from all disturbed soil areas. See the reference Handbook and Guidelines for details on practices.

#### 4.4.5.4 Stockpile Management

Stockpile management is required year round. Minimum soil stabilization and sediment control requirements are outlined in Appendix B.

In addition, the County will require the following:

- <u>Soil stockpiles:</u>

  Rainy season (Oct. 15th to May 1st):

- Covered, or protected with soil stabilization measures & perimeter sediment barriers.

Non-rainy season:

- Covered or protected with perimeter sediment barriers.

- Concrete/asphalt rubble, rock and aggregate base/sub-base:
  - Covered or protected with perimeter sediment barriers.
- "Cold mix" asphalt:
  - Covered.

#### 4.4.5.5. Sediment Tracking Control

Appropriate measures shall be deployed to minimize the tracking of sediment off-site by vehicles and/or equipment. These measures include stabilized construction entrances/exits and roadways, and tire washing. Where tracking occurs, streets shall be swept or vacuumed.

Sediment tracking control practices are required year round. These measures include:

- Street sweeping and use of pickup sweeper with water supply
- Stabilization of construction roadways
- Entrance / Outlet tire washing

These measures might also include stabilized construction entrance/exit controls, however frequently this control is not effective and does not suffice as a substitute for tire washing.

#### 4.4.5.6 Wind Erosion Control

Wind erosion control measures are required year round to minimize dust generated by the construction activities. These measures include applying water or other dust palliatives to minimize dust.

#### 4.4.5.7 Non-Storm Water Management

Non-storm water discharges shall be minimized to the extent feasible. Sediment-laden non-storm water is required to be filtered (or equivalent treatment) prior to discharging. Measures required to manage non-storm water discharges include:

water conservation practices, dust control, material storage practices, vehicle/equipment operation and maintenance requirements, waste management practices, and spill prevention/control measures. Measures to control non-storm water discharges are required year round.

These measures include, but are not limited to:

- Water conservation practices,
- Vehicle and equipment operational practices,
- Dewatering operational practices,
- Waste (including hazardous and septic / sanitary) waste management practices,
- Spill prevention and control practices,
- Material handling practices, and
- Practices for paving, pavement grinding, pile driving, demolition, temporary batch plant and irrigation operations.

On construction sites, the CM/RE and the Contractor shall be alert to and report the potential presence of illicit connections to the County's storm drain system or illicit discharges.

The Permit prohibits the discharge of non-permitted non-storm water discharges. If a significant unauthorized non-storm water discharge occurs, the CM/RE will report the discharge to the County's Storm Water Coordinator within 12 hours. The Storm Water Coordinator will coordinate the reporting of prohibited non-storm discharges to the RWQCB in accordance with the procedures in Section 5.7.

If the non-permitted non-storm water discharge occurs as a result of the construction activity, the CM/RE and the Contractor shall endeavor to immediately halt the discharge and take measures to minimize any potential re-occurrence.

If the non-permitted non-storm water discharge is not as a result of the construction activity, then the County's Storm Water Coordinator will address remediation of the situation with the responsible authorities.

The County's Storm Water Coordinator will log and track each reported non-permitted non-storm water discharge to conclusion. The on-going log will be

included within the Annual Report.

#### 4.4.5.8 Disturbed Soil Area Management

Minimum disturbed soil area management requirements shown in Table 4.4.2 and 4.4.3 are based on typical rainfall patterns (time frames, intensities, and amounts), general soil types, the seasons, slope inclinations, and slope lengths. These same factors must be considered for each site when developing the appropriate levels of soil stabilization and sediment control for a specific site. Disturbed soil areas (DSA) shall be protected with an effective combination of measures including soil stabilization, sediment barriers and basins / traps.

##### 4.4.5.8.1 Definitions

**Disturbed Soil Area**

Disturbed soil areas (DSAs) are areas of exposed, erosive soil that are within the construction limits and that result from construction activities. The following are not considered DSAs:

- Areas where soil stabilization, erosion control, highway planting, or slope protection are applied and associated drainage facilities are in place and functional.

- Roadways, construction roads, access roads or contractor's yards that have been stabilized by the placement of compacted sub-base or base material or paved surfacing.

- Areas where construction has been completed in conformance with the contract plans and permanent erosion control is in place and functional.

    - Erosion control is considered functional when a uniform vegetative cover equivalent to 70 percent of the native background vegetation coverage has been established or equivalent stabilization measures have been employed.

**Active and Non-Active Areas**

Active areas are construction areas where soil-disturbing activities have already occurred and continue to occur or will occur during the ensuing 21 calendar days.

Non-active areas are construction areas (formerly active areas) that will be idle for at least 21 calendar days.

The contractor will conduct a review of the existing active areas on a regular basis to determine if a non-active status should be applied to some DSAs.

**Slope Length and Terraces**

Slope length is measured or calculated along a continuous inclined surface. Each discrete slope is between one of the following: top to toe, top to terrace, terrace to terrace, and terrace to toe.

Terraces are drainage facilities that intercept surface flow and convey the resulting concentrated flow away from a slope.

**Rainy Season**

The rainy season for El Dorado County is defined as October 15th through May 1st.

**Sediment Basin**

A basin with a capacity equivalent to at least 3600 cubic feet of storage (as measured from the bottom of the basin to the principal outlet) per acre draining into the basin. The length of the basin shall be more than twice the basin's width (length is determined by measuring the distance between the inlet and the outlet). The depth of the basin must not be less than three feet nor greater than five feet.

**Treatment**

A combination of basin and treatment engineered to capture and treat (to remove 0.01 mm sized particles and larger) the 10-year, 6-hour rain event using Q=CxIxA where C=0.5 and I ranges from 0.286 (El Dorado Hills) to 0.500 (Sly Park).

#### 4.4.5.8.2 DSA Protection by Soil Stabilization, Sediment Barriers and Basins/Traps

To account for rainfall patterns (time frames, intensities, and amounts) and to a lesser extent general soil type differences, the County is divided into "high" and "low" elevation areas at the 3000 foot elevation.

The specific minimum erosion and sediment control practices for DSA protection in each area are determined from Tables 4.4-2 and 4.4-3. Based on consultation with experts, the slope length and slope inclination are seen as the most important criteria for soil stabilization and sediment control requirements, as these factors have the largest potential impact on the erosion rate. As indicated on these tables, the

temporary erosion and sediment controls at a construction site will increase with increasing slope inclination and length.

DSAs shall be protected as follows:

- Temporary control practices (as required in Table 4.4-2) shall be performed on non-active DSAs within 14 days from the cessation of soil-disturbing activities or one day prior to the predicted (40% or more chance) onset of significant precipitation, whichever occurs first.

- Temporary control practices for active DSAs (as required in Table 4.4-3) shall be performed prior to the predicted (40% or more chance) onset of significant precipitation and throughout each day for which precipitation is forecasted.

- For permanent construction and non-active DSAs, at least 8 foot wide, properly drained terraces shall be provided at intervals not more than every 25 feet in height for all slopes exceeding 30 feet in height.

- Where non-active DSAs are deemed substantially complete, permanent erosion controls shall be provided. Where permanent erosion controls involve seeding, this seeding shall be applied during the defined seeding window. When permanent seeding is delayed to adjust to this window, the temporary measures noted in Table 4.4 -2 are required during the intervening period.

**TABLE 4.4-2: MINIMUM COMBINATION OF TEMPORARY SOIL STABILIZATION, SEDIMENT BARRIERS AND BASINS/TRAPS FOR NONACTIVE DISTURBED SOIL AREAS**

| SEASON | RAINFALL AREA(S) | TEMPORARY PRACTICE | SLOPE (V:H) [1] | | | |
|---|---|---|---|---|---|---|
| | | | ≤ 1:20 | > 1:20 ≤ 1:4 | > 1:4 ≤ 1:2 | > 1:2 |
| RAINY | High Elevation | SOIL STABILIZATION [4] | X | X | X | X |
| | | SEDIMENT BARRIER [4] | X | X | X | X |
| | | BASIN/TRAP [2] | | X | X | X |
| | Low Elevation | SOIL STABILIZATION [4] | X | X | X | X |
| | | SEDIMENT BARRIER | | X | X | X |
| | | BASIN/TRAP | | | | |
| NON-RAINY | High Elevation | SOIL STABILIZATION [4] | X [3] | X [3] | X | X |
| | | SEDIMENT BARRIER | | X [3] | X | X |
| | | BASIN/TRAP | | | | |
| | Low Elevation | SOIL STABILIZATION | | | | |
| | | SEDIMENT BARRIER | | | | X |
| | | BASIN/TRAP | | | | |

1. Unless otherwise noted, the temporary practice is required for the slope inclinations indicated on slope lengths greater than 10 feet.
2. Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such as available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.
3. Implementation of controls required at least 24 hours prior to all predicted rain events.
4. The indicated temporary practice is required on all slope lengths.

**TABLE 4.4-3: MINIMUM COMBINATION OF TEMPORARY SOIL STABILIZATION, SEDIMENT BARRIERS AND BASINS/TRAPS FOR ACTIVE DISTURBED SOIL AREAS [3]**

| SEASON | RAINFALL AREA (S) | TEMPORARY PRACTICE | SLOPE (V: H) [1] | | |
|---|---|---|---|---|---|
| | | | ≤ 1:20 | > 1:20 ≤ 1:2 | > 1:2 |
| RAINY | High Elevations | SOIL STABILIZATION | | X | X |
| | | SEDIMENT BARRIER [4] | X | X | X |
| | | BASIN/TRAP [2] | | X | X |
| | Low Elevations | SOIL STABILIZATION | | | X [5] |
| | | SEDIMENT BARRIER | | X | X [5] |
| | | BASIN/TRAP [2] | | | X [5] |
| NON-RAINY | High Elevations | SOIL STABILIZATION | | | |
| | | SEDIMENT BARRIER | | X | X |
| | | BASIN/TRAP [2] | | | X [5] |
| | Low Elevations | SOIL STABILIZATION | | | |
| | | SEDIMENT BARRIER | | | |
| | | BASIN/TRAP | | | |

1. Unless otherwise noted, the temporary practice is required for the slope inclinations indicated on slope lengths greater than 10 feet.
2. Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such as available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.
3. Implementation of controls required at least 24 hours prior to all predicted rain events.
4. The indicated temporary practice is required on all slope lengths.
5. The indicated temporary practice is required on slope lengths greater than 50 feet.

## 4.4.6 INSPECTION PROCEDURES

The County will employ the following sliding scale project site rating system:

| | |
|---|---|
| Substantial compliance | 1 |
| Minor deficiencies | 2 |
| Major deficiencies | 3 |
| Critical deficiencies | 4 |

- The County's Storm Water Coordinator will be informed of all sites found to be with major and critical deficiencies within 2 working days. Efforts will be made to immediately inform the County's Storm Water Coordinator and the RWQCB will be informed of all sites found to be with critical deficiencies.

- When sites are found to have critical deficiencies, the sites will be re-inspected at least weekly until the rating is reduced from a 4 to a 3 or better. If the rating remains a 4 on the second re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water Coordinator and the RWQCB will be informed.

- When sites are found to have major deficiencies, the sites will be re-inspected at least every other week until the rating is reduced from a 3 to a 2 or better. If the rating remains a 3 on the second re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water Coordinator and the RWQCB will be informed.

- When sites are found to have minor deficiencies, the sites will be re-inspected at least monthly until the rating is reduced from a 2 to a 1. If the rating remains a 2 on the third re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water Coordinator and the RWQCB will be informed.

### 4.4.6.1 Construction Site Inspection Procedures

Annual rainy season readiness reviews will be conducted to assure each site achieves compliance with rainy season expectations prior to October 15th. For County projects, this may involve directing the contractor to undertake preparations. For non-County projects, this may involve the contractor for County projects and the permittee for private party projects, are responsible for implementing appropriate construction site storm water practices. For County projects, oversight inspections of practices are conducted daily when significant, on-site activities are underway. For non-County projects, the County's oversight

inspections of practices are generally on an as needed basis, with an emphasis in the late summer / early fall to prepare for the rainy season.

The County is setting the following construction site oversight inspection of practices goals by the end of June.

i. Annual rainy season readiness reviews will be conducted to assure each site achieves compliance with rainy season expectations prior to October 15th. For County projects, this may involve directing the contractor to undertake preparations. For non-County projects, this may involve formal communications and ordinance enforcement.

ii. On receipt of a complaint or concern from the public regarding a construction site, within 5 working days, a site oversight inspection will be conducted.

iii. All sites will be reviewed within a week following start of the on-site, soil disturbing construction.

iv. All sites will be reviewed prior to construction close / grading permit release / NOT filing.

v. Minimum non-rainy season inspection review frequency:

    1. Sites 5 acres or more in size, every other month.

    2. Sites less than 5 acres in size, every third month.

vi. Minimum rainy season inspection review frequency:

    1. Sites 5 acres or more in size, every month.

    2. Sites less than 5 acres in size, every other month.

vii. Pre-storm inspection review frequency:

    1. Approximately 10% of the construction sites involving 5 acres or more of disturbed soil with the greatest risk for storm water pollution will be inspected prior to major predicted storms.

viii. Post-storm inspection review frequency:

1. Approximately 15% of the construction sites involving 5 acres or more of disturbed soil with the greatest risk for storm water pollution will be inspected following a major storm.

2. Approximately 5% of the construction sites involving less than 5 acres of disturbed soil with the greatest risk for storm water pollution will be inspected following a major storm.

ix. The County will employ the following sliding scale project site rating system:

| | |
|---|---|
| Substantial compliance | 1 |
| Minor deficiencies | 2 |
| Major deficiencies | 3 |
| Critical deficiencies | 4 |

- The County's Storm Water Coordinator and the RWQCB will be informed of all sites found to be with major and critical deficiencies within 2 working days. Efforts will be made to immediately inform the County's Storm Water Coordinator of all sites found to be with critical deficiencies.

- When sites are found to have critical deficiencies, the sites will be re-inspected at least weekly until the rating is reduced from a 4 to a 3 or better. If the rating remains a 4 on the second re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water Coordinator and the RWQCB will be informed.

- When sites are found to have major deficiencies, the sites will be re-inspected at least every other week until the rating is reduced from a 3 to a 2 or better. If the rating remains a 3 on the second re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water Coordinator and the RWQCB will be informed.

- When sites are found to have minor deficiencies, the sites will be re-inspected at least monthly until the rating is reduced from a 2 to a 1. If the rating remains a 2 on the third re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water

Coordinator and the RWQCB will be informed.

#### 4.4.6.2 Responsible Parties

For all projects and activities except individual single-family home construction, Department of Transportation designated Project Manager (construction inspector) is responsible to assure that the project's construction site appropriately incorporates the storm water practices as outlined in this SWMP. Single-family home construction is similarly reviewed / permitted by the Building Department's designated Project Manager (construction inspector).

As outlined in Section 2, the contractor for County projects and the permittee for Non-County (private party) projects, are responsible for implementing appropriate construction site storm water practices and non-storm water practices.

##### 4.4.6.2.2 County Improvement Projects

For County projects, oversight inspections of practices are conducted daily when significant, on-site activities are underway. The County's designated Construction Manager / Resident Engineer is responsible to assure that the project's construction site appropriately incorporates the storm water temporary construction structural controls and practices as outlined in this SWMP, and implements the permanent structural controls and practices identified by the County's Project Manager (PM) / Project Engineer (PE).

##### 4.4.6.2.3 Development/Re-development Projects

For non-County projects, the County's oversight inspections of practices are generally on an as needed basis, with an emphasis in the late summer / early fall to prepare for the rainy season. Development / re-development projects, and other activities requiring grading, are subject to being permitted by the County.

### 4.4.6.3 Permitted Exempt and Conditionally Exempt Non-Storm Water Discharges

This section describes the County's program for controlling pollutants from permitted non-storm water discharges stemming from construction sites.

Permitted non-storm water discharges include the following categories:

- **Discharges Authorized by a Separate NPDES Permit:** Since these discharges have a separate permit, they are not addressed by this SWMP.
- **Exempted Discharges:** These discharges are not expected to contain pollutants and can therefore be discharged without direct application of practices. These discharges include:
    - water line flushing;
    - landscape irrigation;
    - diverted stream flows;
    - rising ground waters;
    - uncontaminated ground water infiltration (as defined at 40 CRF §35.2005(20)) to separate storm sewers;
    - uncontaminated pumped ground water;
    - discharges from potable water sources;
    - foundation drains;
    - air conditioning condensation;
    - irrigation water;
    - springs;
    - water from crawl space pumps;
    - footing drains;
    - lawn watering;
    - individual residential car washing;
    - flows from riparian habitats and wetlands; and
    - de-chlorinated swimming pool discharges.

- **Conditionally exempt discharges:**

    The discharges and their associated practices identified in Table 4.4-4 are not expected to contain pollutants.

**TABLE 4.4-4: NON-STORM WATER PRACTICES FOR CONDITIONALLY EXEMPT DISCHARGES**

| Non-Storm Water Discharges | Practice Titles |
|---|---|
| a. Pumped ground or accumulated rain water | Dewatering Operations |
| b. Non-potable irrigation water | Non-potable Water/Irrigation |

The RWQCB has issued a general permit for dewatering, Order No. CAG995001. Qualifying dewatering operations are able to obtain permit coverage under this Order by submitting a Notice of Intent (NOI) to the Regional Board. Allowable discharges must not contain significant quantities of pollutants and be either four months or less in duration, or not exceed 0.25 mgd during dry weather. Under the terms of the permit, monitoring and reporting are required. Copies of this permit are available from the Regional Board or from the County's Storm Water Coordinator.

Non-potable irrigation water, landscape irrigation and lawn or garden watering runoff, though minimized, will occur on a regular basis as a result of excess irrigation water running off vegetated and nearby impervious areas and into storm drains. These discharges are not expected to result in the discharge of appreciable pollutants. If these activities are subsequently found to be resulting in an unacceptable level of pollutant discharges, the County will undertake to develop, or require the responsible discharging party to develop, a pollution management plan.

## 4.4.7 County Ordinances

Several ordinances are in effect and include enforcement measures to require erosion and sediment controls. An annual review of the ordinances, with respect to enforcement, will occur and the County will perform an analysis of the adequacy of legal authority of these ordinances with respect to enforcement, and as appropriate, recommendations to amend, or create, ordinances will be brought before the County Board of Supervisors. The County will include, as a part of the Annual Report, specific problems and actions encountered while implementing the storm water program, such as; problems that may develop as a result of legal constraints, or additional resulting ordinances and actions to improve the ordinances.

All County ordinances are enforceable per County Code Chapter 1.24, which stipulates fines and/or imprisonment for violators. The District Attorney is responsible for enforcement actions. The following ordinances require erosion and sediment controls within the El Dorado County jurisdictional boundary:

#### 4.4.7.1 DUST ABATEMENT ORDINANCE

The County, by ordinance (County Code Chapter 8.44) authorizes the County Department of Environmental Management to develop and manage the County's dust abatement and protection program.

#### 4.4.7.2 GRADING, EROSION AND SEDIMENT CONTROL ORDINANCE

The County, by ordinance (County Code Chapter 15.14) authorizes the County Department of Transportation to regulate all grading activities, and requires that such activities be undertaken in such a manner that quantities of sediment or other materials substantially in excess of natural levels are prevented from leaving the site. Additionally, this ordinance authorizes the Director of Transportation to require security deposits, suspend or revoke permits, and for the permittee to warranty all work. Further, the ordinance requires the Director to record with the County Recorder, a Notice of Noncompliance when there is a failure to secure the required permit.

#### 4.4.7.3 SUBDIVISION DESIGN AND IMPROVEMENT ORDINANCE

The County, by ordinance (County Code Section 16.12.050) authorizes the Planning Commission, appointed by the Board of Supervisors to determine whether the discharge of waste from the proposed subdivision into an existing community sewer system would result in violation of existing requirements prescribed by a California Regional Water Quality Control Board pursuant to division 7 (commencing with section 13000) of the Water Code. In the event that the Planning Commission finds that the proposed waste discharge would result in or add to violation of requirements of the water quality control board, it may disapprove the tentative map or maps of the subdivision.

## 4.4.8 PUBLIC COMMUNICATIONS

### 4.4.8.1 Public Review

The County will annually solicit comments from interested parties and the public during the process of identifying, evaluating and approving practices. The County will announce and make available the draft Annual Report, including the revised SWMP.

Public interface will occur through three primary mechanisms:

- **Public-initiated contact with the County's offices regarding complaints, suggestions and requests:** Each Department has widely publicized phone numbers. All public-initiated calls are screened, logged

and routed to the appropriate party within the Department for action, as required. General water quality related calls are directed to the County's Storm Water Coordinator. The Environmental Management Department maintains a storm water web site that enables public contact with the County on water quality issues.

- **The Public review opportunity as part of the annual report preparation process:** The proposed tentative SWMP, annual updates thereto and draft annual reports are made available for a public comment period. Workshops on these documents will be noticed and held, as appropriate, by the County. The County responds to comments received as these documents are finalized for submittal annually to the RWQCB.

- **Public input on proposed construction projects during the environmental evaluation process:** Typically, one or more public review meetings are held for all significant construction projects.

#### 4.4.8.2 Web Site

The County's Environmental Management web site has been modified to include a storm water quality specific element. The web site currently shares information regarding air quality, solid waste and hazardous material, vector control and general environmental health. This website will be annually updated and tracked for 'hits' to this web page.

The site address is: http://co.el-dorado.ca.us/emd/

The storm water element will provide information on all storm water outreach activities, including brochures, bulletins and workshops as well as bulletins on related topics, information related to construction and maintenance activities, and links to key related sites.

#### 4.4.8.3 Informational Exchange with Contractors

For contract work directly undertaken by the County, three types of informational exchange sessions will be employed to describe storm water pollution prevention concepts and practices and to explain techniques for preparing SWPPPs for construction activities.

- **Informational Exchange #1, Storm Water Permit Compliance Requirements, Pre-Bid Meeting:** Pre-bid meetings may be conducted to discuss a given upcoming construction project. When such meetings are held, and depending on the sites storm water complexities, the site manager may provide general information to construction contractors regarding the requirements

in the Permit and the SWMP that apply to the subject project (i.e., the project on which the contractors are considering submitting bids).

- **Informational Exchange #2, Storm Water Permit Compliance Requirements, Pre-Construction Meeting:** The site manager provides project-specific guidance to construction contractors on topics such as SWPPP preparation, selection of practices, and monitoring and inspection of said practices. The County will also notify the RWQCB of the pre-construction meeting to allow an RWQCB representative to be at the meeting to review and discuss the water quality issues relating to the construction project.

- **Additional Informational Exchanges:** The site manager will hold informal sessions with contractors, as needed, during the course of the construction project.

The topics covered in informational exchanges will be updated as needed to reflect modifications to the County's storm water management program.

## 4.4.9 BMP PROGRAM SUMMARY

The following pages contain a summary of the Construction Site Runoff Control BMP program set forth in the El Dorado County Storm Water Management Plan. These BMPs will be subject to annual reviews and updates as outlined in Sections 3.2 and 5.6.1.

EPA's NPDES rules state:

"Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section (the six minimum control measures, evaluation & assessment, record keeping and reporting) … constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable"." (40 CFR 122.34)

This summary notes BMPs applicable to one of the six minimum control measures: Construction Site Runoff Control. El Dorado County proposes that this program constitutes fulfillment of the minimum General Permit and Federal Regulation requirements. As the public review and the SWMP finalization processes proceed, the program, and the County's assessment of this program, may change.

## 4.5.1 OVERVIEW

The section to follow describes how the County will comply with State Water Resources Control Board's storm water discharge permit requirements for long-term post-construction practices that protect water quality and control runoff flow, to be incorporated into development and significant redevelopment projects. The County will comply with permit requirements by incorporating existing County Development Standards to minimize the discharge of pollutants of development and redevelopment projects. Revisions to the County Development Standards shall be developed and implemented as well the development of storm water treatment practices, all of which are outlined in the following sections:

- Section 4.5.2 Current Program
- Section 4.5.3 Standard Storm Water Mitigation Plan
- Section 4.4.4 BMP Program Summary

The County currently has in place extensive policies and procedures for regulating design and construction activities to protect the Region's water resources, described in Section 4.5.2. Additionally, the County is proposing to incorporate two supplemental elements into these policies and procedures: a "Standard Storm Water Mitigation Plan" as part of future project planning and design processes (Section 4.5.3), and a specific set of construction site storm water practices (Sections 4.4.4, and 4.4.5).

The design and construction site practices selected and implemented by the responsible party for a given site are expected to be sufficient to achieve compliance with the State of California NPDES General Permits for Storm Water Discharges Associated with Construction Activity and Small Municipal Separate Storm Sewer Systems.

All proposed permanent storm water treatment practices that are not noted within this SWMP must be pre-approved by the County's Storm Water Coordinator.

## 4.5.2 CURRENT PROGRAM

The County's Development Standards, which include the Grading, Erosion and Sediment Control Ordinance; the County's Design and Improvement Standards Manual; and the County's Drainage Manual contain measures and practices required of all parties undertaking construction to minimize the discharge of pollutants from the construction sites.

#### 4.5.2.1 Grading, Erosion and Sediment Control Ordinance

The Grading, Erosion and Sediment Control Ordinance requires that permittees be responsible to:

- Prevent discharge of sediment from the site in quantities greater than before the grading occurred, to any watercourse, drainage system or adjacent property; and

- Protect watercourses and adjacent properties from damage by erosion, flooding, or depositation that may result from the permitted grading.

Additionally, the Ordinance authorizes the Director of Transportation to:

- Require security deposit to assure faithful performance,

- Suspend or revoke the permit and abate a hazardous public nuisance condition, and

- Require a one-year warranty on all work.

This Ordinance requires of the permittee the following:

- The slope of cut and fill slopes shall not be steeper than two horizontal to one vertical, exclusive of terraces and slope roundings, except when supported by bedrock and/or in accordance with a geotechnical or geological report. Further, the Director of Transportation may require fill slopes to be flatter for stability purposes.

- Drainage shall be affected in such a manner that it will not cause erosion or endanger the stability of any cut or fill slopes.

- Grading plans shall be designed with long-term erosion and sediment control as a primary consideration.

- Grading operations during the rainy season (from October 15$^{th}$ to May 1$^{st}$, inclusively) shall provide erosion and sediment control measures except upon a clear demonstration to the satisfaction of the Director of Transportation that at no stage of the work will there be any substantial risk of increased sediment discharge from the site.

- Should grading be permitted during the rainy season, the smallest practicable area of erosive prone land shall be exposed at any one time during grading operations and the time of exposure shall be minimized.

- Wherever possible, natural features, including vegetation, oak trees, terrain, watercourses, wetlands and similar resources shall be preserved. Limits of grading shall be clearly defined and marked to prevent damage by construction equipment. Wetlands and oak trees so marked shall be protected from construction activity.

- Permanent drought-resistant vegetation and structures for erosion and sediment control shall be installed as soon as possible.

- Adequate provision shall be made for long-term maintenance of permanent erosion and sediment control structures and vegetation.

- No topsoil shall be removed from the site unless otherwise directed or approved by the Director of Transportation. Topsoil overburden shall be stockpiled and redistributed within the graded area after rough grading to provide a suitable base for seeding and planting. Runoff from the stockpiled area shall be controlled to prevent erosion and resultant sedimentation of receiving water.

- Runoff shall not be discharged from the site in quantities or at velocities substantially above those that occurred before the grading except into drainage facilities whose design has been specifically approved by the Director of Transportation.

- Permittee shall take reasonable precautions (i.e. stabilized construction entrances/exits and/or wash racks) to ensure that vehicles do not track or spill earth materials into public streets and shall immediately remove such materials if this occurs.

- Erosion and sediment control plans shall include an effective revegetation program to stabilize all disturbed areas that will not be otherwise protected.

- Erosion and sediment control plans shall be designed to prevent increased discharge of sediment at all stages of grading and development from initial disturbance of the ground to project completion. Every feasible effort shall be made to ensure that site stabilization is permanent. Plans shall indicate the implementation period and the stage of construction where applicable.

- Erosion and sediment control plans shall provide for inspection and repair of all erosion and sediment control facilities at the close of each working day during the rainy season and for specific sediment cleanout and vegetation maintenance criteria.

#### 4.5.2.2 Design and Improvement Standards Manual

Among the key provisions of the County's Design and Improvement Standards Manual administered by the County Planning Department are minimum lot sizes and general development standards for varying slope conditions. These standards are set to minimize the environmental effects of construction.

#### 4.5.2.3 Drainage Manual

The Department of Transportation's Drainage Manual prescribes planning and design criteria for drainage facilities within the County. Among the key provisions of the County's Drainage Manual include:

- The planning and design of drainage systems within El Dorado County shall take into consideration any potential downstream impacts including those to property, flow regimes, water quality or riparian and wetland areas. Provisions mitigating potential impacts shall be included as a part of the drainage analysis for the proposed project.

- Increases in storm runoff from upstream properties resulting from improvements is discouraged.

- Improvements that propose to increase storm water runoff shall be evaluated to show, among other things, that land of downstream properties is not lost due to increased flood plain limits, there is no increase in erosion, and there is no net loss of storage available to attenuate peak flows. When downstream properties are unable to adequately accommodate increases in storm water runoff, appropriate mitigation measures shall be implemented into the analysis and design. These mitigation measures may include storm water storage facilities (detention or retention structures) designed to hold storm water and then release it at a rate that will not cause damage downstream.

- The County has approved the use of two types of detention basins, dry and wet basins. However, due to the added long-term maintenance requirements and vector concerns associated with wet basins, their use requires site-specific approval by the County.

- The County has approved the use of retention (infiltration) basins. However, due to varying site-specific infiltration concerns and added long-term maintenance requirements their use requires site-specific approval by the County. While the implementation of detention or retention facilities on-site to attenuate peak runoff to a level which does not impact downstream facilities is acceptable, the County sees facilities designed as a component of a watershed planning process (classified as

regional or downstream storage facilities) as potentially being more economical and effective. Coordinated regional detention/retention facilities that take into account the entire watershed area are preferred. When a regional drainage study has been conducted and regional basins are designed, the regional basin will always take precedence over local basin design.

- The use of natural channels for the collection and conveyance of storm water runoff is preferred. Natural channels shall be capable of conveying runoff without increased erosion, widening and meandering of the channel alignment due to increased runoff from development.

- Grass lined channels are viable only for channels with relatively flat slopes. Successful grass lined channels require maintenance both for the establishment of the root network and to control the length of the grass.

- Where appropriate, floodplain and open space criteria shall comply with FEMA standards and the 100-year flood plain shall be designated.

- In order to determine the proper type of channel stabilization, flood and water quality protection measures, the following issues should be considered during the planning and design of drainage improvements:

    - The effect that any changes in the runoff hydrograph may have upon the floodplain limits.

    - The effect that potential growth of vegetation in the channel or floodplain has upon the long-term flood protection of adjacent development.

    - The effect that channelization of an existing stream has upon the natural floodplain storage volume.

    - The effect that increases of either peak flow or velocity may have on channel erosion or deposition.

    - The effect that the proposed development project will have on both short-term and long-term sediment production. This includes measures to control erosion during construction.

    - For projects which propose the creation or expansion of permanent water bodies, the effect that a change in water temperature will have upon fish and wildlife.

    - The role those drainage improvements will play in managing

pollutant in storm water runoff.

- The effect that the proposed drainage improvement has upon the existing aesthetic quality of the area.

All of the above are not applicable to all drainage design projects. However, multidisciplinary involvement is encouraged in both the planning and designs of major drainage projects to the extent that it results in preservation of natural systems and reliable flood protection.

## 4.5.3 STANDARD STORM WATER MITIGATION PLAN

The Standard Storm Water Mitigation Plan, a supplemental element to the policies and procedures described in Section 4.5.2, shall comprise of the following components to address future project planning and design processes:

1. An initial augmentation of the County Development Standards as it pertains to new development and redevelopment projects that disturb greater than or equal to one acre shall be accompanied by the end of June 2005 (5.4.1, and 5.4.2).

2. A sufficiency review with respect to the enforcement of the County Development Standards, and as appropriate, a recommendation to the County Board of Supervisors to adopt more effective ordinances and standards. Said revisions will be reflected in the SWMP Annual Report.

3. Training of County employees on the augmented County Development Standards will occur by the end of June 2006.

4. By the end of June 2005, an amendment of the County's Drainage Manual will occur, as necessary, to incorporate the following tentative procedures and policies which are intended to be equivalent to WQO 2003-005-DWQ, Attachment 4. The process to formally update the Manual will be an open process involving users of the Manual, the Regional Board, and other interested parties.

5. At the planning/design stage of a proposed construction project involving one or more acres of disturbed soil a site specific Storm Water Mitigation Report (SWMR) documenting the permanent site specific storm water quality mitigation measures proposed to be deployed shall be developed for approval by the County's PM/PE.

6. The SWMR shall document that the project was designed to minimize impervious surfaces and maximize vegetation-covered soil areas. In addition to reducing the volume of runoff, these vegetated areas can function as storm water treatment devices, bio-filtration strips (overland flow areas) and bio-filtration swales

(vegetated ditches).

The SWMR shall document the following:

- Incorporation within the site's plan or design, land use planning measures to minimize water quality impacts, including stream buffers and restoration activities.

- Reduction of the site's imperviousness, conserving natural resources and areas, maintaining and using natural drainage courses in the storm water conveyance system and minimizing clearing and grading.

- When landscaping is required or proposed, provision of runoff storage measures dispersed uniformly throughout the site's landscape with the use of a variety of detention, retention, and runoff practices.

- Implementation of on-site hydrologically functioning landscape design and management practices.

The SWMR shall adhere to the following design principles:

- Strive to maintain pre-development rainfall runoff characteristics.
    - Minimize project's impervious footprint and conserve natural areas.
    - Minimize directly connected impervious areas.
    - Where landscaping is proposed in or adjacent to parking areas, to the extent feasible, incorporate landscaped areas into a site drainage design that minimizes runoff.

- Maximize the protection of slopes and channels, including in hillside areas, through the use of deep-rooted, drought tolerant plant species.

The SWMR shall adhere to the following design standards:

- Provide storm drain system stenciling and signage at inlets in areas where curb, gutter and sidewalks are provided.

- Design outdoor material storage areas to reduce pollution introduction into storm drain systems.

- Design hazardous material storage areas so as to prevent contact with runoff or spillage to storm water conveyance systems.
- Design trash storage areas to reduce pollutant introduction.
- Use water efficient irrigation systems and landscape design.
- To the extent feasible, drain street runoff to vegetated swales (bio-filters) or gravel shoulder (infiltration) areas.
- Encourage the covering of loading / unloading dock areas to preclude storm water run-on/off.
- Prohibit direct connections to storm drains from depressed loading docks (truck wells).
- Vehicle / equipment maintenance and wash areas shall be covered or designed to preclude storm water run-on/off.
- Drainage systems serving areas with vehicle / equipment maintenance and wash areas shall be designed to capture all wash water, leaks and spills so as to facilitate proper disposal of all non-permitted, non-storm water discharges.
- Outdoor processing areas that pose a significant threat to water quality shall be isolated from storm drain systems and runoff.
- Fuel dispensing areas shall contain the following:
    - Have an appropriate slope to prevent ponding, and be hydraulically separated from the rest of the site by a grade break that prevents run-on.
    - Overhanging roof structure or canopy. The cover's minimum dimensions must be equal to or greater than the area within the grade break. The cover must not drain onto the fuel dispensing area and the downspouts must be routed to prevent drainage across the fueling area.
    - Pavement of Portland cement concrete or equivalent. Asphalt concrete shall not be used.
    - At a minimum, the concrete fuel dispensing area must extend 6.5 feet from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot, whichever is greater.

- For the following sites:
  - Residential projects with 10 or more housing units;
  - Commercial sites involving auto repair shops, retail gasoline outlets, restaurants, or more than 2 acres total;
  - Commercial sites involving parking lots 5,000 square feet or more or with 25 or more parking spaces exposed to storm water runoff;
  - Industrial sites involving auto repair shops, retail gasoline outlets, restaurants, or more than 5 acres total; or
  - Industrial sites involving parking lots 5,000 square feet or more or with 25 or more parking spaces exposed to storm water runoff

  o Storm water treatment retention (infiltration) and/or detention basins, or equivalent, shall be provided and designed to infiltrate or treat, on site, runoff from the site prior to its discharge to a storm drain system or surface receiving water, unless a waiver is granted by the PM/PE based on a determination that to do so would be infeasible. First priority shall be to, where feasible and appropriate, provide for infiltration of the site's runoff. Where infiltration is not feasible or appropriate, detention shall be considered.

- Storm water treatment retention and detention basin siting practices and designs shall be in accordance with the Caltrans "Statewide Storm Water Quality Practice Guidelines", April 2002, Section 5.4, "Descriptions of Treatment BMPs".

- The "design storm" used for storm water structural treatment devices shall be in accordance with the following:

  "Design Storm" is the particular event that generates runoff rates or volumes that the drainage-related facilities are designed to handle. For water quality treatment purposes, the volume of water that must be treated is termed the Water Quality Volume (WQV), and the flow rate to be treated is the Water Quality Flow (WQF). Methods for determining the WQV are generally tied to an analysis of rainfall depths generated over 24-hour periods.

  The WQV of treatment BMPs will be based on using one of the following methods:

  1. The maximized detention volume determined by the 85$^{th}$ percentile runoff capture ratio. A Web-based design tool, which uses data from more than 300 California rainfall stations, has been created for use. It is available at http://stormwater.water-programs.com.

2. The volume of annual runoff based on unit basin storage WQV to achieve 80 percent or more volume of treatment. A Web-based design tool has been created for use. It is available at http://stormwater.water-programs.com.

3. The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" that achieves approximately the same reduction in pollutant loads achieved by the 85 percentile, 24 –hour runoff event.

The WQV is subject to the review and approval of the County Storm Water Coordinator when the site area is limited and cannot accommodate a treatment BMP sized according to the methods described above.

The WQF is the primary design criteria to be used for filtering types of treatment control devices. The following listed values of rainfall intensity would be used in the Rational Formula (Q=CiA) to generate runoff from areas, which would flow to the filtering treatment device:

- 0.16 in./hr. for all areas below 1,000 feet in elevation.
- 0.20 in./hr. for elevations between 1,000 and 4,000 feet.
- 0.24 in./hr. for all elevations above 4,000 feet.

The resulting runoff rate would be the design WQF to be used at any specific site.

Also, where there are special circumstances or conditions, the designer and the County Storm Water Coordinator should discuss the potential need for modification of the WQF criteria on a case-by-case basis.

- Infiltration devices shall be designed to have a vertical distance from the base of any device to the seasonal high groundwater mark of at least 10 feet.

- Infiltration devices shall not be used within drainage systems for runoff from industrial areas, roadways with traffic volumes over 25,000 ADT, or other areas that potentially pose a high threat to ground water quality.

- For the following sites:
  - Commercial sites involving restaurants with "drive through" service, or
  - Other commercial sites involving 100,000 sq ft or more of building space,

  And where:
  - The use of detention or retention basins are not feasible, and
  - Vegetation within the drainage area will not be generating significant amounts of vegetative debris.

  - Gross solids removal devices (e.g. linear radial or inclined bar rack as set forth in Caltrans "Statewide Storm Water Quality Practice Guidelines", April 2002, Section 5.4, "Descriptions of Treatment BMPs"), or equivalent, shall be provided and designed to treat runoff prior to its discharge to a storm drain system or any surface receiving water, unless a waiver is granted by the PM/PE based on a determination that to do so would be infeasible.

- The SWMR shall recognize that there are situations where the placement of structural treatment devices is infeasible due to: (i) extreme limitations of space for treatment on a redevelopment project, (ii) unfavorable or unstable soil conditions at a site to attempt infiltration, and (iii) risk of ground water contamination because a known unconfined aquifer lies beneath the land surface or an existing or potential underground source of drinking water is less than 10 feet from the soil surface. Any other justification for infeasibility must be separately petitioned to the RWQCB for consideration.

- The SWMR shall recognize that the County may, as a result of on-going watershed planning processes, establish impact fee program(s) as an alternative to on-site storm water structural treatment devices.

- The SWMR shall document that there is a mechanism in place that will ensure ongoing long-term maintenance of all storm water structural treatment devices.

## 4.5.4 BMP PROGRAM SUMMARY

The following page contains a summary of the Post Construction Runoff Control BMP program set forth in the El Dorado County Storm Water Management Plan. These BMPs will be subject to annual reviews and updates as outlined in Sections 3.2 and 5.6.1.

EPA's NPDES rules state:

> "Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section (the six minimum control measures, evaluation & assessment, record keeping and reporting) … constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable "." (40 CFR 122.34)

This summary notes BMPs applicable to one of the six minimum control measure: Post Construction Runoff Control. El Dorado County proposes that this program constitutes fulfillment of the minimum General Permit and Federal Regulation requirements. As the public review and the SWMP finalization processes proceed, the program, and the County's assessment of this program, may change.

## 4.6.1 OVERVIEW

This section describes how the County will comply with Permit requirements by incorporating pollution prevention and good housekeeping storm water quality management into County municipal operations. The County will achieve compliance by implementing the Maintenance Storm Water Management Program described herein:

- Section 4.6.2 Maintenance Practices
- Section 4.6.3 Materials Handling
- Section 4.6.4 Vehicle and Equipment Operations
- Section 4.6.5 Paving Operations Procedures
- Section 4.6.6 Water Conservation Practices
- Section 4.6.7 Water / Irrigation Practices
- Section 4.6.8 Safer Alternative Product Use
- Section 4.6.9 Drainage Facilities
- Section 4.6.10 Illicit Connection Detection, Reporting and Removal
- Section 4.6.11 Illegal Discharge Control
- Section 4.6.12 Litter and Debris Removal
- Section 4.6.13 Chemical Vegetation Control
- Section 4.6.14 Vegetated Slope Inspection
- Section 4.6.15 Snow Removal and De-Icing Agents
- Section 4.6.16 Storm Water De-Watering Operations (Temporary Pumping Operations)
- Section 4.6.17 Sweeping
- Section 4.6.18 Maintenance Facility Housekeeping Practices
- Section 4.6.19 Non-Storm Water Discharges
- Section 4.6.20 Maintenance of Treatment Devices

- Section 4.6.21 Facility Pollution Prevention Plans
- Section 4.6.22 Employee Training Program
- Section 4.6.23 BMP Program Summary

Section 1.4.2 of the SWMP defines emergency conditions under which the protection of public health, safety and property takes precedence over the storm water practices in the SWMP. Maintenance personnel are frequently tasked with responding to emergency situations where some elements of the storm water practices cannot be applied for the duration of the emergency. Under these conditions, Maintenance Managers (MMs) and the County's Storm Water Coordinator will work directly with the RWQCB to facilitate accurate, cooperative communication.

## 4.6.2 MAINTENANCE PRACTICES

### 4.6.2.1 Maintenance Work Areas and BMP Identification

The County will finalize storm water municipal operations practices for the municipal operations and maintenance program on County roadways and County facilities by the end of June 2005 and implement said practices by the end of June 2006.

Table 4.6-1 identifies the approved maintenance practices, or category of practices, that are applicable to the various maintenance activities carried out by the responsible departments.

TABLE 4.6-1: MAINTENANCE PRACTICES

| |
|---|
| Scheduling and Planning |
| Sediment Control |
| Waste Management |
| Spill Prevention and Control |
| Solid Waste Management |
| Hazardous Waste Management |
| Contaminated Soil Management |
| Sanitary/Septic Waste Management |
| Liquid Waste Management |
| Concrete Waste Management |
| Materials Handling |
| Material Delivery and Storage |
| Material Use |
| Vehicle and Equipment Operations |
| Vehicle and Equipment Fueling |
| Vehicle and Equipment Maintenance |
| Paving Operations Procedures |
| Water Conservation Practices |
| Water/Irrigation |

TABLE 4.6-1: MAINTENANCE PRACTICES

| |
|---|
| Safer Alternative Products |
| Drainage Facilities |
| Illicit Connection Detection, Reporting, and Removal |
| Illegal Discharge Control |
| Litter and Debris |
| Litter and Debris |
| Anti-Litter Signs |
| Chemical Vegetation Control |
| Vegetated Slope Inspection |
| Snow Removal and De-Icing Agents |
| Storm Water Dewatering Operations (temporary pumping operations) |
| Sweeping |
| Maintenance Facility Housekeeping Practices |

The objective of implementing maintenance practices is to provide preventative measures to ensure that maintenance activities are conducted in a manner that reduces the amount of pollutants discharged to surface waters via the County's storm water drainage systems. The County's maintenance activities involve the use of a variety of products. Under normal, intended conditions of use, these materials are not considered "pollutants of concern." However, if these products are used, stored, spilled or disposed of in a way that may cause them to contact storm water or enter storm water drainage systems, they may become a concern for water quality. Potential pollutants of concern for the County's maintenance activities include petroleum products, sediments, trash and debris, metals, acidic/basic materials, nutrients, solvents, waste paint, herbicides, pesticides, and others. Many of these potential pollutants can be prevented from being discharged via storm water drainage systems by selecting and implementing practices appropriate for the activity being conducted.

The majority of maintenance activities are performed in dry weather to minimize impacts to water quality; however, conditions may exist which require some activities be conducted during wet weather.

For some activities, maintenance personnel may select from a variety of practices for storm water pollution prevention. For example, during cleanup or repair of minor slides and slip outs, several sediment controls are available that may assist in containing sediment. Personnel will need to select one or a combination of the available control methods to address the sediment they encounter at the site.

#### 4.6.2.2 Pavement and Bridge Maintenance Work Activities

The general objectives of pavement and bridge maintenance activities are to provide public safety, protect personal property, preserve the County's capital

investment, and to maintain a riding quality satisfactory to the traveling public. Road surface maintenance typically involves the use of concrete, asphalt and other materials to repair existing road surfaces. The typical practices for these operations are similar to those for a construction site, and the MM will, in addition to the maintenance practices described in this section, draw from the construction site practices when directing pavement and bridge maintenance activities.

#### 4.6.2.3 Slopes/Drainage/Vegetation Work Activities

The maintenance activities related to slopes, drainage and vegetation typically include repair, replacement and clearing of channels, ditches, culverts, under-drains, horizontal drains and other elements of storm water drainage systems. As with pavement maintenance, the typical practices for these operations are similar to those for a construction site, and the MM will, in addition to the maintenance practices described in this section, draw from the construction site practices when directing slope/drainage/vegetation maintenance activities.

#### 4.6.2.4 Storm Water Drainage Facilities Inspection and Cleaning Program

Maintenance personnel routinely inspect storm water drainage systems and assess the need for cleaning or clearing. Drain systems will be cleaned when accumulated material impairs the system's function. Ditches will routinely be inspected, and as necessary, cleaned to maintain the hydraulic capacity of the ditch. Ditches and gutters will be sealed or repaired when structural integrity is endangered. Down-drains will be routinely inspected and cleaned or repaired as necessary. Solid and liquid wastes generated by the cleaning of storm water drainage system facilities are disposed of in accordance with federal and state liquid and solid waste disposal regulations.

#### 4.6.2.5 Illicit Connection / Illegal Discharge (IC/ID)

When IC/IDs are discovered, they will be referred to the MM for initial investigation. Illegal dumping on County right-of-way or property that may impact storm water quality will be removed. The MM will report all significant illicit connections, illegal dumping and cleanup activities to the County's Storm Water Coordinator.

#### 4.6.2.6 Litter and Debris Cleanup

Litter and debris can accumulate along County roadways and on County properties. The County Environmental Management Department conducts periodic litter cleanup operations to maintain neat and clean appearance and undertakes abatement actions against illegal dumping. In addition, the

Department of Transportation periodically provides litter and debris removal activities to maintain safe highway conditions.

#### 4.6.2.7 Landscape Maintenance

The County maintains vegetation on roadsides that is compatible with the surrounding environment, safe highway use, aesthetics, and erosion and dust control. However, some vegetation must be controlled to reduce the risk of roadside fires, to maintain sight distances to provide safe highway operating conditions and to discourage noxious weeds.

The vegetation management program includes chemical weed control, mechanical weed control, tree and shrub pruning and tree and shrub removal. Along roads, removal of vegetation is generally restricted to a narrow band adjacent to shoulder edges, which is necessary to provide sight distance and protect highway appurtenances, such as guardrails and signs. Vegetation management practices are designed to control vegetation while minimizing soil erosion.

The County's vegetation control program include the following elements:

- Enhance the use of appropriate native and adapted vegetation for the purpose of preventing erosion and removing pollutants in storm water runoff.
- Apply herbicides in a manner that minimizes or eliminates the discharge of herbicides to receiving waters, including consideration of the timing of applications in relation to expected precipitation events, restricting use in proximity to water bodies, and careful consideration of the combinations of chemicals used.
- Restrict the application of nutrients to rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water.
- Assuring that chemical control activities are performed in compliance with federal, state and local regulations.

The County also periodically inspects roadside vegetated slopes to determine the need for remedial measures. If roadsides are found to be experiencing significant erosion, measures will be pursued for site-specific remedial measures to maintain soil stability.

#### 4.6.2.8 Maintenance of Treatment Devices

Treatment devices capture and remove pollutants from storm water before the runoff is discharged to receiving wastes. After construction, and if arrangements are not made with third parties to undertake on-going maintenance of these

devices, the County will assume responsibility to assure their on-going functionality. In the case of the County's Government Center or parks, these maintenance responsibilities will be carried out by the Department of General Services. For facilities within the County's maintained road rights-of-way, these responsibilities will be carried out by the Department of Transportation.

These maintenance activities will include regular inspections and maintenance to allow the systems to continue to function as designed, and to facilitate periodic removal and proper disposal of accumulated trash, litter, debris, sediments and other pollutants. If in the MM's opinion, routine maintenance will not sufficiently maintain functionality of the treatment device; this will be brought to the attention of the Storm Water Coordinator.

#### 4.6.2.9 Snow and Ice Control

Snow removal and ice control include snow removal operations and opening of drainage inlets that get covered or blocked by snow and ice. Because salt, deicing chemicals and abrasives may pollute storm water runoff, the County uses no more than the minimum amount of these materials necessary for effective snow and ice control.

#### 4.6.2.10 Management and Support

The activities include:

- Storage, repair, and maintenance of vehicles, equipment and related support materials;
- Fueling and washing of vehicles and equipment;
- Maintenance of buildings, storm water drainage systems and landscaping;
- Storage of sand, salt, asphalt, rock and pesticides;
- Storage of self-generated wastes; and
- Bulk storage of sediment, litter and debris collected by road maintenance activities.

The County implements practices to reduce the potential for storm water pollution by minimizing contact between storm water and the various activities conducted at the site and substances used and stored at the maintenance facilities.

#### 4.6.2.11 Scheduling and Planning

Description:

These practices involve scheduling and planning of all activities (at maintenance facilities or maintenance activity sites) in a manner that considers the use of practices. Planning is needed to reduce the exposure of potential pollutants to wind, rain, runoff and vehicle tracking. Planning is important when working in the vicinity of a drainage system or water body. These practices also include the scheduling of maintenance activities and control practices to minimize potential water quality impacts during rainfall events.

Appropriate Applications:

Except for emergency conditions, the following activities shall not be performed during rain events:

1. asphalt cement crack and joint grinding/sealing;
2. asphalt paving;
3. structural pavement failure (dig outs);
4. pavement grinding and paving;
5. sealing operations;
6. concrete slab repair (concrete spall repair is allowed);
7. Portland cement crack and joint sealing;
8. mudjacking and drilling;
9. shoulder grading (should not be performed if runoff is visible);
10. non-landscaped chemical vegetation control;
11. curb and sidewalk repair;
12. chemical vegetation control;
13. painting;
14. thermoplastic striping and marking;
15. paint striping and marking; raised/recessed pavement marker

application and removal; and

16. outdoor vehicle and equipment maintenance.

Maintenance activities should be scheduled to minimize land disturbance during the rainy season.

Implementation:

- During the rainy season, to the extent feasible, avoid scheduling maintenance activities that could adversely affect storm water quality.
- Establish the appropriate planting time when introducing vegetation. If it is necessary to vegetate disturbed soil at other times of the year, then perform more frequent inspections and maintenance.

Maintenance:

- Verify that work is progressing in accordance with the schedule. If the schedule changes, revise practices as necessary.
- Inspect vegetation and perform maintenance to ensure it is established.

#### 4.6.2.12 Sediment Control

Sediment control practices for maintenance activities are essentially the same as those deployed for construction activities. Therefore, details of these practices are not duplicated here, but rather are as outlined the Section 4.4.

#### 4.6.2.13 Waste Management

Waste management consists of implementing procedural and structural practices for handling, storing and disposing of wastes generated by a maintenance activity to prevent the release of waste materials into storm water discharges. Waste management includes the following practices:

1. Spill Prevention and Control;
2. Solid Waste Management;
3. Hazardous Waste Management;
4. Contaminated Soil Management;

5. Sanitary/Septic Waste Management;

6. Liquid Waste Management; and

7. Concrete Waste Management.

These controls shall be implemented for all applicable activities, material usage and site conditions.

#### 4.6.2.14 Spill Prevention and Control

Description:

Spill prevention and control procedures and practices are implemented to prevent and control spills in a manner that minimizes or prevents discharge to storm water drainage systems or watercourses at maintenance activity sites and maintenance facilities (see Material Use for additional materials handling procedures).

Appropriate Applications:

- These controls apply at maintenance activity sites and at maintenance facilities.

- Spill prevention and control procedures are implemented wherever non-hazardous chemicals and/or hazardous substances are stored or used. Substances may include, but are not limited to, soil stabilizers, dust palliatives, pesticides, growth inhibitors, fertilizers, paints, de-icing chemicals, fuels, lubricants and other petroleum distillates.

- To the extent that the clean up work can be accomplished safely, wastes shall be contained and cleaned up immediately.

Implementation:

- If a spill or leak occurs in the containment area, accumulated rainwater shall be evaluated to determine appropriate disposal method.

  - o If accumulated rainwater is hazardous, dispose of in accordance with the Hazardous Waste Management practices.

  - o If accumulated rainwater is chemically contaminated, but non-hazardous, dispose of in accordance with the Liquid Waste Management practices.

- To the extent that cleanup activities and safety are not compromised,

spills shall be covered and protected from storm water run-on during rainfall.

- Dry cleanup methods should be used when possible.
- Used cleanup materials, contaminated materials and recovered spill material that is no longer suitable for its intended purpose shall be disposed in accordance with the Hazardous Waste Management practices or Solid Waste Management, practices depending on waste characteristics.
- Contaminated water used for cleaning and decontamination shall not be allowed to enter storm water drainage systems or watercourses.
- Waste storage areas shall be kept clean, well organized and equipped with cleanup supplies that are appropriate for the materials being stored.
- Perimeter controls, containment structures, covers and liners shall be repaired or replaced as needed to maintain proper function.
- Tarps and similar control measures should be used to prevent spills or material drift from being deposited into watercourses (e.g., during bridge maintenance).

Maintenance:

- Verify that spill control cleanup materials are located near material storage, unloading and use areas.
- Update spill prevention and control plans and stock appropriate cleanup materials whenever changes occur in the types of chemicals stored on site.

#### 4.6.2.15 Solid Waste Management

Description:

Solid waste management procedures and practices are designed to minimize or eliminate the discharge of pollutants to drainage systems or watercourses associated with the stockpiling or removal of maintenance activity wastes.

Appropriate Applications:

Solid waste management practices are implemented during maintenance activities that generate solid wastes. These solid wastes include, but are not limited to:

- Maintenance wastes, including brick, mortar, asphalt concrete, Portland cement, concrete, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, Styrofoam, grindings, sandblast grit and other materials used to transport and package maintenance materials;

- Highway planting wastes, including vegetative material, plant containers and packaging materials; and

- Litter and debris, including food containers, beverage cans, coffee cups, paper bags and plastic wrappers.

Implementation:

- Use dry cleanup techniques (e.g., vacuuming, sweeping, dry rags) to remove solid waste from the maintenance activity site when practicable.

- Recycle, reuse or properly dispose of solid waste.

- Storm water run-on shall be prevented from contacting stored solid waste through the use of appropriately stabilized ditches, berms, dikes and swales.

- Solid waste storage areas at maintenance facilities should be located away from drainage facilities and watercourses and shall not be located in areas prone to flooding or ponding.

- Asphalt chunks and grindings may be placed in embankments when these materials are placed where they will not enter streams, lakes and rivers. In addition, they may be used as road shoulder backing when placed in accordance with standard construction specifications.

Maintenance:

- Periodically inspect the solid waste storage areas and review the disposal procedures.

- Repair or replace damaged or missing ditches, berms, dikes and swales.

### 4.6.2.16 Hazardous Waste Management

Description:

Hazardous waste management procedures and practices are designed to minimize or eliminate the discharge of pollutants at maintenance activity sites and maintenance facilities to storm water drainage systems or watercourses.

Appropriate Applications:

Hazardous waste management practices are implemented during maintenance activities and at maintenance facilities that generate or store hazardous waste from the use of petroleum products, asphalt products, concrete curing compounds, pesticides, acids, paints, solvents, wood preservatives, stains, roofing tar and any other materials considered a hazardous waste.

Implementation:

- Hazardous waste shall be stored in sealed containers constructed of a compatible material and shall be properly labeled.
- All hazardous waste shall be stored, transported and disposed in accordance with federal, state and local regulations.
- Containers shall not be overfilled.
- Paintbrushes and equipment for water- and oil-based paints shall be cleaned within a contained area and associated waste shall not be allowed to contaminate site soils, watercourses or storm water drainage systems.

Maintenance:

Periodically inspect the maintenance facility storage site to ensure all requirements are met and to review the disposal procedures.

### 4.6.2.17 Contaminated Soil Management

Description:

These are procedures and practices to minimize or eliminate the discharges of pollutants from contaminated soil/sediment to storm water drainage systems or watercourses.

Appropriate Applications:

Contaminated soil/sediment generated during emergency response or other maintenance activities should be collected and managed for treatment or disposal.

Implementation:

- Work with the local regulatory agencies to develop options for treatment, reuse and/or disposal of contaminated soil. Disposal of contaminated soil shall be in accordance with the Solid Waste Management practices or Hazardous Waste Management practices, depending on soil characteristics.
- Avoid stockpiling contaminated soils or hazardous material.
- Do not stockpile in or near storm water drainage systems or watercourses.

#### 4.6.2.18 Sanitary/Septic Waste Management

Description:

Sanitary/septic waste management procedures and practices are designed to minimize or eliminate the discharge of sanitary/septic waste materials to storm drain systems or watercourses.

Appropriate Applications:

Sanitary/septic waste management practices are implemented for all maintenance activities that use portable sanitary/septic waste systems.

Implementation:

- Sanitary facilities shall be located away from drainage facilities and watercourses. When subjected to risk of high winds, sanitary facilities shall be secured to prevent overturning.
- Wastewater shall not be discharged (unless the discharge is to a permitted leach field or pond) or buried within the highway right-of-way.

Maintenance:

- Sanitary/septic waste should be discharged to a sanitary sewer or managed by a licensed hauler.

- Sanitary/septic waste storage and the disposal procedures should be managed to prevent non-storm water discharge.

#### 4.6.2.19 Liquid Waste Management

Description:

Liquid waste management procedures and practices are designed to prevent the discharge of pollutants to storm water drainage systems or watercourses as a result of the creation, collection or disposal of non-hazardous liquid and un-permitted non-storm water discharges.

Appropriate Applications:

- Liquid waste management is applicable to maintenance activities that generate non-hazardous byproducts, residuals or wastes, including drilling slurries and drilling fluids; grease-free and oil-free wastewater and rinse water; dredging; and other non–storm water liquid discharges.

- Un-permitted non-storm water discharges are prohibited, and if and where such are discovered to be occurring, the MM will notify the Storm Water Coordinator who will report to the RWQCB in accordance with Section 9. The Storm Water Coordinator will work with the responsible site manager to facilitate identifying a schedule for achieving permit compliance.

Implementation:

- Non-storm water discharges to drainage paths, drain systems, and watercourses are prohibited.

- Drilling and saw cutting fluids:
  - Stick-down berms may be used to improve containment.
  - Fluids may be collected by vacuum or other methods.
  - Collected fluids shall be contained and recycled, evaporated or discharged to the sanitary sewer system with approval from the publicly owned treatment works (POTW).
  - Fluids shall not be discharged to storm water drainage systems or watercourses.

- Vactor™ liquid wastes:

- A visual inspection of water drainage facilities shall be preformed prior to cleaning. If chemical contamination is suspected, the MM will follow appropriate Hazardous Materials Spills.

- Liquid waste collected in the Vactor™ trucks may be evaporated or discharged to an approved temporary decanting location.

Maintenance:

- At the completion of the task, remove deposited solids from containment areas and capturing devices.

- Check containment areas and capturing devices for damage and repair.

#### 4.6.2.20 Concrete Waste Management

Description:

Concrete waste management procedures and practices are designed to ensure that concrete wastes are properly handled and eliminate the discharge of concrete waste to storm water drainage systems or watercourses.

Appropriate Applications:

Concrete waste can be generated in various maintenance activities including Curb and Sidewalk Repair, Mud jacking and Drilling, Drain and Culvert Maintenance, Drainage Ditch and Channel Maintenance, Public Facilities, Saw cutting for Loop Installation, Sign Repair and Maintenance, Median Barrier and Guard Rail Repair, and Building and Grounds Maintenance.

Implementation:

- Contracts for concrete providers require contractors to appropriately manage any concrete waste and prohibit non-storm water discharges generated at the job site.

- Portland cement concrete waste shall not be allowed to enter storm water drainage or watercourses.

- Concrete waste from grout pumping operations shall be contained.

- Concrete residue should be collected by vacuum or shovel for proper disposal. Concrete debris may be disposed of through on-site burial.

- Liquid waste can be contained in a bucket or drum with a tight-fitting lid for transport and approved off-site disposal. Plastic bags may be used if nothing else is available. Avoid breaking the bags by double bagging and filling the bags to about one-fifth of their capacity. Allow solids to settle and recycle or dispose of in accordance with the Solid Waste Management practices. The liquid waste may be evaporated. Decanted liquid waste shall be discharged to sanitary sewer only with the POTW's approval. Decanted liquid waste may also be removed for disposal as hazardous waste. Refer to the Hazardous Waste Management practices.

- A temporary concrete washout facility may be constructed at the maintenance activity area. Below-grade concrete washout facilities are preferred. Above-grade facilities are used if excavation is not practical. Designated washout areas should be located at least 15 meters (50 feet) away from drainage facilities.

- Below-grade facilities consist of a pit excavated away from watercourses. Above-grade washout facilities should be bermed using sandbags or straw bales.

Maintenance:

The MM shall monitor the concrete working tasks, such as saw cutting, coring, grinding and grooving to ensure that concrete waste is collected and disposed of properly.

## 4.6.3 MATERIALS HANDLING

Materials handling consists of implementing procedural and structural practices for handling, storing and using maintenance materials in a manner that prevents the release of those materials into storm water.

### 4.6.3.1 Materials Delivery and Storage

Description:

Material delivery and storage procedures and practices are designed for the proper handling and storage of materials at the maintenance facility. These procedures and practices minimize or eliminate the discharge of these materials to storm water drainage systems or watercourses.

Appropriate Applications:

- These procedures are implemented at maintenance facilities involved in the delivery and storage of aggregate, pesticides, fertilizers, detergents,

plaster, petroleum products, asphalt and concrete components, hazardous chemicals, concrete compounds or other materials that may be detrimental if released to storm water drainage systems or watercourses.

- Refer to Material Use for procedures that apply to any materials that are assembled for use at a maintenance activity site.

Implementation:

- Containment facilities shall provide for an effective spill containment volume equal to 110% of the largest container in the facility.
- Containment facilities shall be impervious to the materials stored there.
- Rainwater in containment facilities should be inspected prior to discharge. Drain valves should remain closed except to release clean rainwater.
- Personnel at maintenance facilities shall be trained to ensure that materials are properly handled and stored.
- Separation should be provided between stored containers to allow for spill cleanup and emergency response cleanup.
- To provide protection from rain, bagged and boxed materials stored outdoors shall be stored on pallets throughout the rainy season.
- To provide protection from rain, bagged and boxed materials shall be covered prior to rain events.
- Storage areas shall be kept clean, well organized and equipped with cleanup supplies for the materials being stored. Perimeter controls, containment structures, covers and liners shall be repaired or replaced as needed.
- Liquids stored outside shall be clearly labeled.
- Tank and delivery vehicles shall be parked so that spills can be isolated and quickly contained.

Maintenance:

- Check to ensure that designated storage areas are kept clean and well organized.
- Repair and/or replace perimeter controls, containment structures and

covers as needed to keep them functioning properly.

#### 4.6.3.2 Material Use

Description:

Material use procedures and practices are used at maintenance facilities and maintenance activity sites to minimize or eliminate the discharge of materials to storm water drainage systems or watercourses.

Appropriate Applications:

These procedures are implemented at maintenance facilities and at maintenance activity sites where pesticides, fertilizers, detergents, plaster, petroleum products, asphalt and concrete components, hazardous chemicals, concrete compounds and other material that may be detrimental if released to the environment are used or prepared.

Implementation:

- Contract agreements with haulers who supply materials to maintenance activity sites should require them to supply materials in accordance with the requirements of these practices.

- Latex paint and paint cans, used brushes, rags, absorbent materials and drop cloths shall be disposed of in accordance with federal, state and local requirements.

- Do not remove the original product label from a container as it contains important spill cleanup and disposal information. Make copies of the label information or material safety data sheet if needed. Use the entire product before disposing of the container. Appropriately label all secondary containers.

- Mix paint indoors or in a containment area. Do not clean paintbrushes or rinse paint containers into a street, gutter, storm water drainage systems or watercourses. Rinsate from latex paint cleaning may be recycled or discharged to the sanitary sewer. Empty paint cans shall be dry prior to disposal as solid waste. See Liquid Waste Management and Hazardous Waste Management practices.

- Paint should be loaded into spray equipment at a maintenance facility. Nearby drain inlets should be protected at maintenance facilities and at maintenance activity site.

- Use materials only where and when needed to complete the maintenance activity. Consider the use of safer alternative materials when possible. Reduce or eliminate use of hazardous materials on site when possible.

- Keep a supply of spill cleanup material near material use areas. Train employees in spill cleanup procedures.

- Secure loads and cover loose materials in open-bed trucks during hauling to activity sites.

- Truck beds should be inspected after the completion of material delivery to avoid depositing materials on the roadway.

- Use proper loading and unloading techniques to prevent spills.

## 4.6.4 VEHICLE AND EQUIPMENT OPERATIONS

Vehicle and equipment operations, procedures and practices are designed to minimize or eliminate the discharge of pollutants from vehicle and equipment fueling and maintenance operations to storm water drainage systems or watercourses.

### 4.6.4.1 Vehicle and Equipment Fueling

Description:

Vehicle and equipment fueling procedures and practices are designed to minimize or eliminate the discharge of fuel spills and leaks into storm water drainage systems or watercourses during equipment fueling and the bulk delivery of fuel.

Appropriate Applications:

These procedures apply at all maintenance sites where vehicle and equipment fueling occurs.

Implementation:

- Bulk Fuel Delivery
  - All aboveground and underground storage tanks shall be equipped with automatic overfill shutoff valves.
  - Implement Spill Prevention and Control practices to prevent spillage.
- Fueling Areas

- Existing fueling areas are covered, paved with Portland cement concrete, and incorporate vapor recovery nozzles.

- Newly constructed or significantly reconstructed fueling areas will incorporate latest, applicable gasoline outlet practices.

- Fueling Area Maintenance

  - Absorbent spill cleanup materials or drip pans shall be stored in fueling and maintenance areas and used materials shall be disposed in accordance with the Hazardous Waste Management practices.

  - Immediately clean up leaks and drips.

  - Hosing off the fueling area is prohibited. Dry shop clean up practices should be used.

  - Manage wastes to reduce adverse impacts on storm water quality (see Solid Waste Management and Hazardous Waste Management). Fueling areas should be kept free of litter and debris that might become contaminated with petroleum products.

  - Maintain and implement a current spill response plan for fueling operations.

- Refueling Practices

  - Nozzles used at dedicated fueling areas shall be equipped with an automatic shutoff.

  - Warnings against "topping off" fuel tanks should be posted at fuel dispensers.

  - Fueling operations shall not be left unattended.

  - Fueling in the field shall not be performed near unprotected drainage facilities or watercourses. See Spill Prevention and Control practices for pollution prevention and response requirements.

Maintenance:

- Inspect fueling facilities daily and correct deficiencies.

- Keep a supply of spill cleanup materials on site.

### 4.6.4.2 Vehicle and Equipment Maintenance

Description:

Vehicle and equipment maintenance procedures and practices are designed to minimize or eliminate the discharge of pollutants to storm water drainage systems or watercourses from vehicle and equipment maintenance.

Appropriate Applications:

- These procedures are applied where equipment and vehicles are stored or repaired.
- These procedures should be implemented to avoid prohibited discharges to the storm water drainage system of fuel, oil, hydraulic fluid, brake fluid, antifreeze and wiper fluid.

Implementation:

- Indoor Maintenance
  - Maintenance should be performed in covered or indoor maintenance areas where potential pollutants cannot be introduced into storm water drainage systems.
- Field or Outdoor Maintenance
  - Drip pans or absorbent materials shall be used during vehicle and equipment maintenance work that involves fluids.
  - See Spill Prevention and Control practices for pollution prevention and response measures.
  - The Contaminated Soil Management practices should be used to address any contaminated soil resulting from vehicle or equipment repair.
  - Use dry methods (e.g., dry rags, vacuuming or sweeping) for cleaning associated with maintenance in outdoor areas.
- General Maintenance (in the field or in the yard)
  - Vehicles and equipment shall be inspected for leaks on a regular basis. Significant leaks should be repaired; problematic vehicles or equipment should be removed from the maintenance activity

site.

- All parts washing should be performed in designated areas. Do not wash parts where wash waste cannot be captured. Use self-contained sinks or tanks when working with solvents.

- Non-storm water discharges into storm water drainage systems or watercourses are prohibited.

- Wastes should be collected and reused, recycled, removed or disposed of in accordance with the Hazardous Waste Management practices.

- Vehicle and equipment washing is conducted in designated areas only.

Maintenance:

- Inspect areas following field maintenance areas to ensure there is no residual contamination that might impact storm water quality. Clean areas as needed using dry methods, (e.g., sweeping or vacuuming).

- Maintain waste fluid containers in leak-proof condition.

    - Inspect equipment for damaged hoses and leaky gaskets. Repair or replace as necessary.

### 4.6.5 PAVING OPERATIONS PROCEDURES

Paving operations practices for maintenance activities are essentially the same as those deployed for similar construction activities. Therefore, details of these practices are not duplicated here, but rather are as outlined the Section 4.4.

### 4.6.6 WATER CONSERVATION PRACTICES

Description:

Water conservation practices minimize water use during a maintenance activity to avoid causing erosion and/or the transport of pollutants into the drainage system and watercourses. Non-storm water discharges to storm water drainage systems and watercourses are prohibited unless the discharge is authorized by a separate National Pollutant Discharge Elimination System (NPDES) permit, exempted or conditionally exempt as provided in the Permit.

Appropriate Applications:

- All maintenance activities should practice water conservation.
- Un-permitted non-storm water discharges are prohibited.

Implementation:

- Keep water application equipment in good working condition.
- Avoid using water to clean maintenance areas. Use dry cleanup methods where practical. Sweep paved areas.
- Use the minimum amount of water needed to complete each maintenance activity.

Maintenance:

Repair water supply and distribution equipment to minimize the loss of water.

### 4.6.7 WATER / IRRIGATION

Description:

Some non-storm water discharges are conditionally exempt by the Permit. The conditionally exempt non-storm water discharges include irrigation water, potable water sources and water from line and hydrant flushing. This practice is intended to reduce the possibility for the discharge of potential pollutants associated with conditionally exempt discharges from irrigation systems, planned and unplanned discharges from potable water sources and water line or hydrant flushing.

Appropriate Applications:

This practice should be implemented on a site-specific basis whenever the above activities or discharges occur.

Implementation:

- When possible, flushed water should be applied for landscaping purposes.
- Shut off the water source to isolate a broken line, sprinkler or valve as soon as possible to minimize the loss of water.
- Repair broken water lines as soon as possible.
- Protect downstream storm water drainage systems and watercourses from water pumped or bailed from trenches excavated to repair water lines.
- Manage irrigation systems to ensure the appropriate amount of water is used and

runoff is minimized.

### 4.6.8 SAFER ALTERNATIVE PRODUCTS

Description:

A variety of products that may be harmful to the environment if they come into contact with surface waters are used in maintenance facilities and activities. In some cases, a less harmful product that serves the same purpose can replace a harmful product. The less harmful product is referred to as a safer alternative product. The primary purpose of using safer alternative products is to reduce the potential for the discharge of toxic products to drainage paths, storm water drainage systems or watercourses.

Appropriate Applications:

Safer alternative products should be considered for all maintenance activities. For example, when safer alternative products exist for cleaning products, paints, herbicides, automotive products and fertilizers, they should be used where practical and effective. Alternative products may not be available, effective or cost effective in every situation.

Implementation:

- Create awareness among employees regarding the benefits of safer alternative products.

- The use of a safer alternative product may still result in the discharge of harmful materials to drainage paths, storm water drainage systems or watercourses. Use safer alternative products in accordance with manufacturers' recommendations.

### 4.6.9 DRAINAGE FACILITIES

Description:

Culverts, ditches, gutters, underdrains, horizontal drains and downdrains require inspection and cleaning to prevent flooding and to provide for sufficient hydraulic capacity.

Appropriate Applications:

These procedures are applicable to maintenance personnel who conduct storm water drainage system facilities inspection and cleaning. Practices implementation will depend on traffic, weather, available resources, safety conditions and access to storm water drainage systems.

Implementation:

- Inspect culverts, ditches, gutters, underdrains, horizontal drains, downdrains and outlets periodically to determine if cleaning is required or if damage has occurred.

- Clean culverts to maintain sufficient hydraulic capacity of the culvert.

- Inspect ditches and gutters to maintain sufficient hydraulic capacity. Schedule routine ditch-cleaning activities designed to maintain sufficient hydraulic capacity of ditches prior to the rainy season.

- When cleaning drainage ditches below cut slopes or steep slopes, avoid cutting the toe of the slope. This can also prevent damage to the ditch.

- Where waterways are affected, coordinate maintenance activities with the appropriate regulatory agency.

## 4.6.10 ILLICIT CONNECTION DETECTION, REPORTING AND REMOVAL

Description:

- This procedure directs maintenance staff to detect and report illicit connections and illegal discharges into County storm water drainage systems. Illicit connections are connections to County drainage systems that have not been approved by the County.

- This management practice is directed at continuous or recurring discharges through direct connections to storm water drainage systems or as run-on from adjacent properties.

Appropriate Applications:

Detecting and reporting illicit connections applies to all field activities performed by maintenance staff. If an illicit connection is discovered, it shall be reported.

Implementation:

- Maintenance personnel, as part of their routine inspections and maintenance work, shall report all observed suspected illicit connections to the Storm Water Coordinator who will appropriately pursue, in cooperation with the involved County Departments, removal / cleanup operations.

- All public-initiated calls should be should be logged, routed to the Storm Water Coordinator, and as appropriate, responded to.

## 4.6.11 ILLEGAL DISCHARGE CONTROL

Description:

- This procedure calls for maintenance field staff who detects significant illegal dumping, discharges and spills of pollutants on County properties and facilities to report said incident to the MM.

- This practice is directed at incidents involving dumping, discharges or spills that affect storm water.

Appropriate Applications:

Any spills or dumped materials that are observed by maintenance personnel shall be reported.

Implementation:

- Maintenance personnel shall report to the MM any observed illegal dumping or discharges as part of their routine inspections and maintenance work.

- MM will report any significant observed illegal dumping to the County's Storm Water Coordinator who will appropriately pursue, in cooperation with the involved County Departments, removal / cleanup operations.

- Spill cleanup will be handled in accordance with the legal authority presented in Section 2.8 of the SWMP.

## 4.6.12 LITTER AND DEBRIS REMOVAL

Litter and debris removal consists of removing and properly disposing of litter and implementing procedures to discourage littering to reduce the discharge of potential pollutants.

### 4.6.12.1 Litter and Debris

Description:

These measures are intended to reduce the discharge of litter to storm water drainage systems or watercourses.

Appropriate Applications:

This practices should be implemented on a site-specific basis whenever litter and debris removal activities are performed. The frequency of removal is dependent on the availability of resources, safety

considerations and rate of accumulation.

Implementation:

- Remove litter and debris from drainage grates, trash racks and ditch lines to maintain sufficient hydraulic capacity.
    - Secure or cover transported materials, equipment and supplies to and from maintenance activity sites to prevent spillage to the roadway.
    - Place litter containers at convenient locations in parks and other public places where litter might be generated.

#### 4.6.12.2 Anti-Litter Signs

Description:

The County conducts a signage program that warns against dumping and littering (e.g., "No Dumping" and "$1,000 Fine for Littering"). These signs are placed along highways and other locations where littering violations are frequent. The purpose of this program is to discourage littering by educating the public.

Appropriate Applications:

Anti-litter signs may be placed in parks and other locations that receive an unsightly amount of litter.

Implementation:

Maintenance personnel routinely visit County properties in their assigned areas to observe overall conditions and assess the need for litter removal and installation of anti-litter signs. Anti-litter signs can be requested when litter removal becomes a concern.

## 4.6.13 CHEMICAL VEGETATION CONTROL

Description:

This practice is intended to reduce the potential for the discharge of pollutants generated during chemical vegetation control. This method of vegetation control uses herbicides to eliminate and prevent weed growth. The purpose is to control weed growth that may threaten the growth and health of preferred vegetation that may become a fire hazard or raise other safety concerns.

Appropriate Applications:

The practices should be implemented on a site-specific basis whenever chemical vegetation control activities are performed.

Implementation:

- The County follows an approved list of chemicals.
- To achieve effective vegetation control through chemical application and to minimize chemical usage, maintenance personnel consider the following: (1) use of the correct herbicide, (2) seasonal timing of applications, (3) timing in relation to expected precipitation events, (4) proximity to water bodies, (5) speed of travel when applying herbicides and (6) proper agitation of the spray tank.
- Apply herbicides in compliance with federal, state and local pesticide use regulations.
- Apply herbicides only as specified on the label.
- Activities are monitored by licensed Agricultural Pest Control Advisers.
- Minimize the use of herbicides in or near storm water drainage systems or watercourses.
- Calibrate the spray rig to ensure accurate application of herbicides.
- Avoid using overhead irrigation for as long as the chemical manufacturer recommends after applying herbicides.

## 4.6.14 VEGETATED SLOPE INSPECTION

Description:

The County routinely reviews vegetated slopes and concentrated flow areas to identify problematic slopes and drainage courses for repair to reduce erosion.

Appropriate Application:

Slope and unpaved areas are regularly inspected.

Implementation:

The following general steps are taken to re-establish vegetation:

- Slopes and concentrated flow areas with erosion problems that are

within the abilities of the maintenance personnel are repaired as resources allow.

- Problem slopes and areas of concentrated flow with erosion concerns that cannot be repaired by the maintenance personnel are reported to the County's Storm Water Coordinator to be considered for inclusion within the County's Capital Improvement Program.

## 4.6.15 SNOW REMOVAL AND DE-ICING AGENTS

Description:

This practice is intended to minimize the discharge of potential pollutants generated during ice control activities. Ice control activities include:

- The mechanical spreading of abrasives and de-icing agents;
- The mechanical removal of snow from the travel way;
- Opening of drains covered by snow and ice; and
- Appropriate Applications:
    - This practice provides guidance to maintenance personnel who are involved in snow and ice removal activities. The use or nonuse of de-icing agents is based on driver safety, traffic delay, geographic location, weather and total cost.

Implementation:

- Calibrate spreader to avoid the over-application of de-icing agents or abrasives. Use no more than is necessary for snow and ice control.
- Store de-icing agents (e.g., salt) in appropriate areas, bunkers or storage buildings. Do not store de-icing agents where they will come into contact with storm water runoff.
- Minimize blowing, pushing or dumping snow into the watercourse.

## 4.6.16 STORM WATER DEWATERING OPERATIONS (TEMPORARY PUMPING OPERATIONS)

Description:

The RWQCB has issued a general permit for dewatering, Order No. CAG995001. Qualifying dewatering operations are able to obtain permit coverage under this Order by submitting a Notice of Intent (NOI) to the Regional Board. Allowable discharges must not contain significant quantities of pollutants and be either four months or less in duration, or not exceed 0.25 mgd during dry weather. Under the terms of the permit, monitoring and reporting are required. Copies of this permit are available from the Regional Board or from the County's Storm Water Coordinator.

These practices are implemented where accumulated storm water is pumped. This practices addresses discharge from portable pumps used by maintenance personnel during normal maintenance operations.

Appropriate Applications:

These practices are implemented where significant amounts of accumulated storm water are pumped as part of a routine (non-emergency) maintenance activity.

Implementation:

- Consult with the County's Storm Water Coordinator.
- Ensure that dewatering discharges do not cause erosion at the discharge point.
- Pumping systems should be equipped with screens on the intake.
- Intakes should be located to reduce the pumping of sediment. Pumping areas near the water surface often contain less sediment than areas near the bottom.
- Sediment control practices may be installed at intake or outlet locations to trap excessive sediment.

## 4.6.17 SWEEPING

Description:

Sweeping is performed to remove litter, debris and de-icing abrasives from paved roads and shoulders. Sweeping to reduce track-out generally involves manual

sweeping or use of small equipment, but does not exclude the use of sweepers should the need arise (e.g., for slides and slip-outs).

Appropriate Applications:

- Sweeping operations may be used to assist in removing material from small slides, litter and debris from roadways and other paved areas.
- Sweeping may be implemented anywhere sediment is tracked from off-road maintenance activity sites onto public or private paved roads typically at the points of egress.

Implementation:

Highway Sweeping:

- Do not sweep up any unknown substance that may be potentially hazardous.
- Adjust brooms to maximize the efficiency of sweeping operations.
- Do not load hoppers beyond their capacity.
- Dispose of waste in accordance with local regulations and Solid Waste Management practices. Clean materials may be incorporated into the maintenance activity area.

Tracking Control:

- Substantially visible sediment shall be swept from the maintenance activity site.
- If not mixed with debris or trash, consider incorporating the removed sediment back into the maintenance activity site.
- Washing and rinsing of equipment shall be performed in designated areas and the resulting runoff shall not be discharged to the storm drain system.

## 4.6.18 MAINTENANCE FACILITY HOUSEKEEPING PRACTICES

Description:

Daily activities occurring at maintenance facilities often involve the use of materials and products that are potentially harmful to the environment. Good housekeeping practices are intended to eliminate the potential for discharge of

pollutants to drainage paths, storm water drainage systems or watercourses by promoting efficient and safe storage, use and cleanup of potentially harmful materials.

Appropriate Applications:

Proper housekeeping practices apply to all maintenance personnel who participate in activities that have a potential to generate pollutants that could discharge to storm water drainage systems or watercourses.

Implementation:

- Maintain clean, orderly material and equipment storage areas. Provide covers for materials as needed.
- All solid wastes shall be managed per the requirements of the Solid Waste Management practices.
- Seek to maintain equipment and buildings to avoid peeling paint, rust and degradation.
- Sweep or vacuum maintenance facility floors and pavement. If mopping is used to clean floors or pavement, contain the mop water and dispose of it to the sanitary sewer system not into the parking lot, street, gutter or drain inlet.
- Secure and close lids on waste receptacles and bins when not in use.
- Clean up spills promptly. See Spill Prevention and Control practices.
- Use drip pans or absorbent material under vehicles and equipment with significant leaks to capture fluids.
- If it is necessary to use a hose for cleaning, wash water shall not be discharged to watercourses.
- Minimize the possibility of storm water pollution from outdoor waste receptacles by doing at least one of the following:
    - Use only watertight waste receptacle(s) and keep the lid(s) closed;
    - Grade and pave the waste receptacle area to prevent run-on of storm water;
    - Install a roof over the waste receptacle area; or
- Install a low containment berm around the waste receptacle area.

## 4.6.19 NON-STORM WATER DISCHARGES

### 4.6.19.1 County Maintenance Non-Storm Water Discharges

The Permit prohibits the discharge of non-permitted non-storm water discharges. Maintenance personnel shall:

- Determine where the flow of a leak, spill or other runoff will travel;
- Identify drain inlets and watercourses, both upstream and downstream of the work site;
- Ensure that vehicles and equipment are clean and in good operating condition by conducting pre-operational inspections of vehicles and equipment;
- Set up work areas to minimize the tracking of material by vehicles and equipment in and out of the work area;
- Collect and properly dispose of wastes, materials removed as a result of equipment and system maintenance, and litter and debris;
- Secure lids on containers of liquids when not in use;
- Control spills promptly and transport collected materials back to a maintenance facility or approved storage site; and
- Have appropriate spill cleanup material on site and protect drainage systems and watercourses from spilled material.

On maintenance sites, the MM shall be alert to and report the potential presence of illicit connections to the County's storm drain system or illicit discharges.

The Permit prohibits the discharge of non-permitted non-storm water discharges. If a significant unauthorized non-storm water discharge occurs, the MM will report the discharge to the County's Storm Water Coordinator within 12 hours. The Storm Water Coordinator will coordinate the reporting of prohibited non-storm discharges to the RWQCB in accordance with the procedures in Section 5.7.

If the non-permitted non-storm water discharge occurs as a result of the maintenance activity or are within the purview of municipal operations, the MM shall endeavor to immediatel halt the discharge and take measures to minimize any potential re-occurrence.

If the non-permitted non-storm water discharge is not as a result of the maintenance activity or within the purview of municipal operations, the County's Storm Water Coordinator will address remediation of the situation with the responsible authorities.

The County's Storm Water Coordinator will log and track each reported non-permitted non-storm water discharge to conclusion. The on-going log will be included within the Annual Report.

Storm water quality practices to control or prevent non-storm water discharges that may result from the routine County maintenance activities are described in the above practices.

The County will finalize non-storm water maintenance practices for municipal operations program on County roadways and County facilities by the end of June 2005 and implement said practices by the end of June 2006.

#### 4.6.19.2 Spills

The safe and efficient emergency response to Hazardous Materials events in El Dorado County depends on joint cooperation between multiple agencies. The Solid Waste and Hazardous Material Division of the Environmental Management Department leads this important team effort with close cooperation with law enforcement, fire and allied health agency officers and staff. Special attention is given to the hazardous materials used and transported frequently in the county by our local businesses.

Training to prepare for possible biological, nuclear, incendiary, chemical and explosive hazards used in criminal or terrorist activities are also provided. Preparedness activities include training of team members to appropriate levels of response capability, multi-agency workshops, tabletop exercises, field training and drills. The Environmental Management Department is responsible for after hours on-call support for all Department Programs including HazMat, Air Pollution, Sewage Spills, Water Pollution, Food Poisonings, and Union Mine Landfill Issues in a typical year, 40 – 50 incidents are responded to including routine spills of vehicle fuels, unknown white powders in the mail, the release of toxic Chlorine gas, as well as, a variety of other hazardous conditions.

The County has developed and implemented a Hazardous Materials Emergency Response Plan (Jan. 1995; Updated Oct. 2003), which establishes the policies, responsibilities, and procedures required to protect the health and safety of El Dorado County's citizens, the environment and public and private property from the effects of hazardous materials incidents. The plan details emergency response organization for incidents, and defines operational concepts and

procedures associated with the created Interagency Hazardous Materials Response Team (HMRT). This is an operational plan as well as a reference document for pre-emergency planning as well as emergency response. The County reviews the plan at least annually, with an update to the plan, as needed.

Depending on the circumstances of the spill, this coordination is made directly or through the OES. All significant spill incidents are reported to the County's Storm Water Coordinator.

#### 4.6.19.3 Exempt and Conditionally Exempt Non-Storm Water Discharges

This section describes the County's program for controlling pollutants from permitted non-storm water discharges from maintenance facilities or activities. Previously described spill prevention, waste management and other practices will be implemented to ensure that these discharges remain uncontaminated. These practices eliminate or reduce permitted non-storm water discharges and reduce water pollution from the County's maintenance activities and operations.

Permitted non-storm water discharges through the County's storm water drainage systems are divided into three categories:

- o Discharges authorized by a separate NPDES permit: Since these discharges have a separate permit, they are not addressed by this SWMP.

- o Exempted discharges: These discharges have not been found to contain significant pollutant loads and can therefore be discharged without direct application of storm water practices.

- These discharges include:

    - water line flushing;
    - landscape irrigation;
    - diverted stream flows;
    - rising ground waters;
    - uncontaminated ground water infiltration (as defined at 40 CRF §35.2005(20)) to separate storm sewers;
    - uncontaminated pumped ground water;
    - discharges from potable water sources;

- fountain drains;
- air conditioning condensation;
- irrigation water;
- springs;
- water from crawl space pumps;
- footing drains;
- lawn watering;
- individual residential car washing
- flows from riparian habitats and wetlands; and
- de-chlorinated swimming pool discharges.

o Conditionally exempt discharges: The conditionally exempt discharges associated with maintenance activities and their associated practices are identified in Table 4.6-2

TABLE 4.6-2: NON-STORM WATER PRACTICES FOR CONDITIONALLY EXEMPT DISCHARGES

| Non-Storm Water Discharges | Practice Titles |
|---|---|
| a. Pumped ground or accumulated rain water | Dewatering Operations |
| b. Non-potable irrigation water | Non-potable Water/Irrigation |

The RWQCB has issued a general permit for dewatering, Order No. CAG995001. Qualifying dewatering operations are able to obtain permit coverage under this Order by submitting a Notice of Intent (NOI) to the Regional Board. Allowable discharges must not contain significant quantities of pollutants and be either four months or less in duration, or not exceed 0.25 mgd during dry weather. Under the terms of the permit, monitoring and reporting are required. Copies of this permit are available from the Regional Board or from the County's Storm Water Coordinator.

Non-potable irrigation water, landscape irrigation and lawn or garden watering runoff, though minimized, will occur on a regular basis as a result of excess irrigation water running off vegetated and nearby impervious areas and into storm drains. While these discharges are not expected to result in the discharge of appreciable pollutants, the County on an on-going basis will monitor these discharges. If these activities are subsequently found to be resulting in an unacceptable level of pollutant discharges, the County will undertake to develop, or require the responsible discharging party to develop, a pollution management plan.

#### 4.6.19.4 Non-permitted Non-Storm Water Discharges

The MM will report all instances of non-permitted non-storm water discharges to the County's Storm Water Coordinator.

## 4.6.20 MAINTENANCE OF TREATMENT DEVICES

Treatment devices capture and remove pollutants from storm water before the runoff is discharged to receiving wastes. After construction, and if arrangements are not made with third parties to undertake on-going maintenance of these devices, the County will assume responsibility to assure their on-going functionality. In the case of the County's Government Center or parks, these maintenance responsibilities will be carried out by the Department of General Services. For facilities within the County's maintained road

rights-of-way, these responsibilities will be carried out by the Department of Transportation.

Guidelines for maintaining these devices is yet in the formative stage, but until more definitive guidance is available the maintenance activities will focus on assuring that these devices continue to operate as designed and intended. The County will finalize development of storm water treatment BMP guidelines to capture and remove pollutants from storm water prior to discharging to receiving waters by the end of June 2006.

These maintenance activities will include regular inspections and maintenance to allow the systems to continue to function as designed, and to facilitate periodic removal and proper disposal of accumulated trash, litter, debris, sediments and other pollutants. If in the maintenance manager's opinion, routine maintenance will not sufficiently maintain functionality of the treatment device, this will be brought to the attention of the County Storm Water Coordinator. Sufficiency inspections of storm water treatment facilities that capture and remove pollutants from storm water prior to discharging to receiving waters will commence by the end of June 2007.

## 4.6.21 FACILITY POLLUTION PREVENTION PLANS

Facility Pollution Prevention Plans (FPPP) will be developed for each County highway maintenance facility owned or operated by the County by the end of June 2005. The FPPPs will describe the activities conducted at the facility and the practices to be implemented to reduce the discharge of pollutants in storm water runoff from these facilities.

Site MMs inspect their maintenance facilities regularly to monitor the implementation and adequacy of the practices. Any observed instances of non-compliance will be reported to the County's Storm Water Coordinator, and a schedule will be established to achieve compliance.

MMs will be responsible for ensuring that the FPPPs are developed and maintained for each maintenance facility.

In addition to regular facility inspections conducted by the facility supervisor, the County's Storm Water Coordinator will review each facility, each year. These reviews will monitor each facility's FPPP and include a thorough yard inspection. Any observed instances of noncompliance will be reported in accordance with the procedures provided in Section 9.

## 4.6.22 EMPLOYEE TRAINING PROGRAM

The County's practice is to provide education and training to ensure that all of its

employees have the knowledge and skills necessary to perform their functions effectively and efficiently.

The County provides employee-training programs with curricula and materials tailored to specific topics and personnel levels. These programs are evaluated and refined periodically to ensure the educational messages are both timely and effective.

The purpose of the Employee Storm Water Training Program is to teach appropriate employees about the following:

- Storm water characteristics and water quality issues;
- The roles and responsibilities of the various County Departments and individuals within these Departments regarding implementation of the SWMP to achieve Permit compliance;
- Activities and practices conducted by County employees that are or could be sources of storm water pollution and non-storm water discharges;
- practices to be implemented in conjunction with various activities; and
- How to use the SWMP and available guidance materials to select and implement practices.

The County's strategy for training current and new employees consists of two parts, as follows:

- Developing and presenting focused training that is targeted to specific topics, specific groups within the County, or specific levels of personnel summarized in Table 4.6-3.
- Developing storm water training components that will be incorporated into routine training programs. This strategy is considered to have the highest long-term effectiveness because the County's employees learn to incorporate storm water quality thinking and pollution prevention practices into all aspects of their work.

The County's employees are classified into several functional groups. Table 4.6-3 identifies the functional groups that have storm water quality management responsibilities.

TABLE 4.6-3: THE COUNTY'S FUNCTIONAL GROUPS

| Functional Group | Area of Responsibility |
|---|---|
| Planning and Design | Responsible for overseeing the development and implementation of practices through the project planning and design phase for construction projects. |
| Construction | Responsible for overseeing the development and implementation of practices relating to the construction stage of projects. |
| Maintenance | Responsible for development and implementation of practices relating to the maintenance of County facilities. |

As part of the Annual Report, the County's Storm Water Coordinator will evaluate the training provided to the County's' employees and assess its effectiveness.

#### 4.6.22.1 Storm Water Training

Storm water training materials will be developed by the County's Storm Water Coordinator in conjunction with the County's SWAC. These materials will provide a comprehensive review of storm water pollution prevention concepts and practices contained in this SWMP, however they will additionally draw from training and guidance materials available from Caltrans, EPA, the State and Regional Boards, and the California Storm Water Quality Association. The materials will focus on storm water pollution prevention measures and practices involved in routine activities carried out by the various functional groups. In addition, these training opportunities will provide an opportunity for staff to discuss issues with the County's SWAC members and Storm Water Coordinator. Topics and training materials will be updated, as needed, to reflect annual modifications the County's storm water management program.

Training materials will focus on revisions to the various County programs that are and will be developed for each of the functional activities identified below.

- **General Storm Water Management**: Materials will cover all aspects of the Permit and the SWMP to support the overall implementation of the storm water management program.
- **Storm Water Management for Planning and Design of Construction Projects:** Materials will cover how construction projects are to be planned and designed.
- **Storm Water Management Related to Construction Sites:** Materials will cover construction site operations. This will include an explanation of the sources of pollutants at construction sites, a

review of the practices that are typically deployed at construction sites and a review of the site manager's role and responsibilities to implement the Construction Storm Water Management Program. Site managers will be informed of contractor obligations and responsibilities in development and implementation of SWPPPs.

- **Storm Water Management for Maintenance Activities:** Materials will provide an explanation of the specific sources of pollutants associated with maintenance activities, describe the practices to address those sources and a review of the Maintenance Managers responsibilities to implement the Maintenance Storm Water Management Program.

Table 4.6-4 defines which County employees are targeted for each storm water management training package.

TABLE 4.6-4: STORM WATER MANAGEMENT TRAINING

| Package Focus | Target Employees |
|---|---|
| General Storm Water Management | SWAC Members and Maintenance Managers, Construction Site Managers, Project Managers, Project Engineers, Construction Managers and Resident Engineers (see Sections 2, 4.4 and 4.6) |
| Storm Water Management for Planning and Design | Project Managers and Project Engineers from Design (see Section 4.4) |
| Storm Water Management Related to Construction Sites | Construction Managers and Resident Engineers (see Section 4.4) |
| Storm Water Management for Maintenance Activities | Maintenance Managers (see Section 4.6) |

#### 4.6.22.2 Training Frequency

The initial materials will be covered with targeted employees by the end of June 2006. Materials will be shared with new targeted employees as part of their job introduction. Updated SWMP practices will be shared with the targeted employees on an annual basis. The County will monitor the potential need for overall refresher material distributions. If the need becomes apparent, the County's Storm Water Coordinator will so arrange.

The County's Storm Water Coordinator will establish an e-mail network with the targeted employees to share, on an as needed basis, updates and news which might enhance pollution control activities. Information shared in this fashion

might include feedback from field implementation of practices that would potentially be of benefit to share with other front line employees.

#### 4.6.22.3 On-the-Job Training

To support implementation of the SWMP, the County's Storm Water Coordinator will be available on an on-call basis to provide on-the-job training to project planning/design personnel, construction employees and maintenance managers.

Also, meetings will be regularly held by the SWAC to discuss storm water issues, management concepts and new or revised procedures and practices. And the SWAC team members will bring this information back to their respective Departments and groups.

The County's Grading Ordinance, DOT's Design and Improvement Standards and Drainage Manual, collectively referred to as the "County Development Standards", provides storm water practices for new development and redevelopment projects that disturb greater than or equal to one acre. Training of County employees to implement the augmented County Development Standards will commence by the end of June 2006.

Training will be provided to maintenance managers for proper inspection of maintenance facilities of the Facility Pollution Prevention Plans (FPPPs) for each of the County's highway owned or operated maintenance facilities and will commence by the end of June 2006.

The County will outreach with the community in hosting a storm water/non storm water workshop to raise the awareness and understanding of storm water/non storm water pollution problems. Local engineering/construction firms, other local private and governmental organizations, and the general public will target to attend this training. Training shall be provided from Federal/State/Local agencies, who shall positively facilitate compliance and minimize instances of noncompliance and developed storm water/non storm water information sheets and other educational and awareness material shall be provided by the end of June 20, 2005.

#### 4.6.22.4 Educational Reminders

The County's Storm Water Coordinator will monitor, and as appropriate share storm water bulletins from the Caltrans Storm Water Program and other sources with the targeted employee groups.

## 4.6.23 BMP PROGRAM SUMMARY

The following page contains a summary of the Pollution Prevention / Good Housekeeping BMP program set forth in the El Dorado County Storm Water Management Plan. These BMPs will be subject to annual reviews and updates as outlined in Sections 3.2 and 5.6.1.

EPA's NPDES rules state:

"Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section (the six minimum control measures, evaluation & assessment, record keeping and reporting) … constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable"." (40 CFR 122.34)

This summary notes BMPs applicable to one of the six minimum control measures: Pollution Prevention/ Good Housekeeping. El Dorado County proposes that this program constitutes fulfillment of the minimum General Permit and Federal Regulation requirements. As the public review and the SWMP finalization processes proceed, the program, and the County's assessment of this program, may change.

## 5.1 OVERVIEW

This section describes how the County will monitor and evaluate the proposed storm water management program and report to the RWQCB. The overall strategy of the County for reducing pollutants to the Maximum Extent Practicable (MEP) and protecting receiving waters involves the use of effective storm water management practices and a process of continuous program improvement and refinement. As part of the County's storm water management program, the County regularly reviews its activities, inspects its facilities, oversees and guides its personnel and conducts focused studies to obtain information that supports responsible management and allocation of the resources available to implement storm water quality efforts. The remaining sections describe further how the County will accomplish monitoring, evaluating the program and reporting, and are organized as follows:

- Section 5.2 Monitoring and Research
- Section 5.3 Program Evaluation, Oversight and Assistance
- Section 5.4 Performance Monitoring
- Section 5.5 Self-Audit
- Section 5.6 Annual Report
- Section 5.7 Non-Compliance Reporting

## 5.2 MONITORING AND RESEARCH

The County's monitoring and research efforts will, initially be focused on qualitative examination of the storm water practices, as they may affect the quality of the water being discharged into the local receiving waters.

As the program progresses, the anticipation is that more focused watershed studies will be undertaken. These efforts will involve collecting information on the characterization of discharges from the County's storm drain system, identifying other sources of pollutants, characterizing the receiving waters, identifying greater details regarding the County and private operations within these watersheds, inventorying the storm drain systems, developing greater focus on the priority pollutants of concern, and identifying the performance of existing and potential enhanced storm water pollution control measures. This information will be used to assess the effectiveness of the SWMP and to develop proposed program refinements, including new or improved practices for application within the watersheds.

The anticipated watershed planning efforts will involve working cooperatively with RWQCB staff during the development of these studies and evaluation of the results of these studies. The RWQCB will provide input on monitoring site selection and sampling

and analysis plans. Results and recommendations of these studies will be reviewed with the RWQCB to help establish the appropriate practice enhancements. As part of the anticipated watershed studies, the focus will be on potentially innovative practices that address the specific storm water constituents expected to cause or contribute to exceedances of the applicable water quality standards.

The County will continue to seek innovation of storm water practices and technologies. In addition to conducting County research into the effectiveness of various alternative practices, the County's Storm Water Coordinator will monitor research conducted by others. Information from efforts by the County and others will provide insight into how the County's program may need to evolve. These efforts will be designed to evaluate the effectiveness of selected practices in reducing constituents of concern, constituent removal efficiency, technical feasibility, and the cost of retrofitting existing facilities.

## 5.3 PROGRAM EVALUATION, OVERSIGHT, AND ASSISTANCE

The primary mechanism for accomplishing program evaluation and ensuring that the County's front line personnel have adequate knowledge and assistance to be successful is the day-to-day supervision by the responsible managers. This supervision includes observing and evaluating design and construction personnel as they implement the requirements of the SWMP on both County and private projects, and maintenance personnel as they conduct their assigned activities.

These responsibilities are outlined in detail in Section 2: Program Management.

In addition to day-to-day oversight by the responsible managers, the County's Storm Water Coordinator will provide focused follow-up activity reviews on a regular basis. Feedback from this oversight will assist the County in addressing the following types of questions:

- Is the County properly integrating storm water management practices into planning, designing, and constructing both County and private projects?
- Are the County's efforts to incorporate storm water practices into maintenance activities effective and efficient?
- Are the organizational structures and procedures functioning effectively and efficiently for performance of the County's water quality protection measures?
- Are the County's training programs and guidance materials sufficient?
- Are the procedures for incorporating storm water management practices into daily activities functioning properly?

The County's Storm Water Coordinator will host quarterly meetings of the County's Storm Water Quality Advisory Committee (SWAC) to review progress in SWMP implementation. These meetings will serve to identify the key issues and

recommendations for improvement within the County's program and to ensure communication/cooperation between Departments and functions.

The County's Storm Water Coordinator will facilitate at least quarterly meetings between the County's SWAC with staff of the RWQCB. The purpose of these meetings will be to discuss specific issues and requirements that arise from implementing the Permit and the County's SWMP.

## 5.4 PERFORMANCE MONITORING

### 5.4.1 General

El Dorado County is a rapidly growing area. Many land development / redevelopment projects and transportation improvement projects are currently being planned, designed and constructed. Achieving compliance with the storm water expectations for the program is one of the County's top priorities.

The County's current ordinances and programs implement many of the anticipated project planning, design and construction practices. Even before the SWMP is formally approved, the County will be moving to re-enforce efforts to protect water quality within these existing ordinances / programs.

After the SWMP is formally approved, educational efforts will be undertaken. However, education alone will not achieve the program's expectations. At least initially, considerable oversight / enforcement efforts will be necessary. The expectation is that over time, the project sponsors will routinely plan for, budget and deploy adequate storm water pollution control measures.

There are notable challenges to achieving this goal. For example, construction projects, involving public and private investments alike, are several years in development. In El Dorado County, there are many of these projects in varying stages of planning, design and construction. It is not unusual for these projects to not have included within their project budgets sufficient resources for at least some of the storm water pollution control measures set forth in this SWMP. As these budgets are frequently set at the early stages of the project, it is sometimes difficult for the project sponsors to incorporate these added measures at the latter stages of the project delivery process. For some projects, there is very limited funding flexibility to accommodate additional expectations. It's reasonable that there be a transitionary period within which to incorporate the SWMP's storm water pollution control measures within these on-going projects.

While all project sponsors will be requested to immediately and fully comply with the storm water pollution control measures outlined in the SWMP, the following schedule is the County's general performance expectations:

- Within 12 months, following approval of the final SWMP, all Construction Activities will be expected to comply with the temporary construction site practices outlined in Sections 4.4.4 and 4.4.5.

- Within 18 months, following approval of the final SWMP, all newly initiated (for which funds are proposed to be programmed) County projects will, as applicable, be expected to incorporate the Post Construction Practices outlined in Section 4.5.

- By the end of June 2005, the County's Drainage Manual will be amended, as necessary, to incorporate the Standard Storm Water Mitigation Plan measures outlined in Section 4.5; and these measures will be incorporated within all subsequent project design approvals of private projects, as applicable.

In addition to a transitionary period for project programming and budgetary purposes, the County has initiated a review of how it goes about administering the project planning, design and construction storm water pollution control measures.

### 5.4.2 Project Planning and Design

During the year following the approval of the SWMP, on-going County design projects (projects for which funds have been programming but where the designs are not yet completed) will be reviewed. Project specific goals within the framework of the general performance expectations as outlined in Section 5.4.1 will be set. Follow up progress reviews will also be set to assure that the project goals are achieved.

Similar reviews will be undertaken on all County design projects for which funds are programmed, and designs initiated, subsequent to these initial reviews, but prior to date wherein the Standard Storm Water Mitigation Plan measures become applicable per Section 4.5.3.

In addition, the County Stormwater Coordinator will implement an annual sufficiency review of the County ordinances and County Development Standards, with respect to augmenting enforcement procedures, and as appropriate, request adoption of more effective ordinances and standards. Said revisions will be reflected in the SWMP Annual Report.

### 5.4.3 Project Construction

As outlined in Section 2, Section 4.4.4 and Section 4.4.5, the contractor for County projects and the permittee for private party projects, are responsible for implementing appropriate construction site storm water practices. For County projects, oversight inspections of practices are conducted daily when significant,

on-site activities are underway. For non-County projects, the County's oversight inspections of practices are generally on an as needed basis, with an emphasis in the late summer / early fall to prepare for the rainy season.

The County is setting the following goals for construction site oversight inspection and enforcement of control measures to be developed by the end of June, 2005 and implemented by the end of June 2006.

- Annual rainy season readiness reviews will be conducted to assure each site achieves compliance with rainy season expectations before October 15th. For County projects, this may involve directing the contractor to undertake preparations. For non-County projects, this may involve formal communications and ordinance enforcement.

- On receipt of a complaint or concern from the public regarding a construction site, within 5 working days, a site oversight inspection will be conducted.

- All sites will be reviewed within a week following start of the on-site, soil disturbing construction.

- All sites will be reviewed before construction close / grading permit release / NOT filing.

- Minimum non-rainy season inspection review frequency:

    - Sites 5 acres or more in size, every other month.

    - Sites less than 5 acres in size, every third month.

- Minimum rainy season inspection review frequency:
    - Sites 5 acres or more in size, every month.
    - Sites less than 5 acres in size, every other month.
- Pre-storm inspection review frequency:
    - Approximately 10% of the construction sites involving 5 acres or more of disturbed soil with the greatest risk for storm water pollution, will be inspected before major predicted storms.
- Post-storm inspection review frequency:
    - Approximately 15% of the construction sites involving 5 acres or more of disturbed soil with the greatest risk for storm water pollution, will be inspected following a major storm.
    - Approximately 5% of the construction sites involving less than 5 acres of disturbed soil with the greatest risk for storm water pollution, will be inspected following a major storm.

The County will employ the following sliding scale project site rating system.

- Substantial compliance 1
- Minor deficiencies 2
- Major deficiencies 3
- Critical deficiencies 4

- The County's Storm Water Coordinator and the RWQCB will be informed of all sites found to be with major and critical deficiencies within 2 working days. Efforts will be made to immediately inform the County's Storm Water Coordinator of all sites found to be with critical deficiencies.
- When sites are found to have critical deficiencies, the sites will be re-inspected at least weekly until the rating is reduced from a 4 to a 3 or better. If the rating remains a 4 on the second re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water Coordinator and the RWQCB will be informed.
- When sites are found to have major deficiencies, the sites will be re-inspected at least every other week until the rating is reduced from a 3 to a

2 or better. If the rating remains a 3 on the second re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water Coordinator and the RWQCB will be informed.

- When sites are found to have minor deficiencies, the sites will be re-inspected at least monthly until the rating is reduced from a 2 to a 1. If the rating remains a 2 on the third re-inspection, enforcement / contractor sanctions will be initiated, and the County's Storm Water Coordinator and the RWQCB will be informed.

## 5.5 SELF-AUDIT

The goals of the County self-audit program are:

- To evaluate the efficiency and effectiveness of the activities outlined in the SWMP;
- To provide a sound basis for re-directing or refining such activities;
- To recommend ways to revise or refine the SWMP, as needed; and
- To assess compliance with Permit and program requirements.

The County's self-audit serves as a quality control mechanism to help the County to determine how well the activities identified in this SWMP are being implemented. The self-audit is viewed as independent from line management. The County's Storm Water Coordinator will execute this review by the end of June 2006. The results of the self-audit will be included in the Annual Report.

Projects or activities identified as having major or critical deficiencies will be reported to the RWQCB immediately by the County's Storm Water Coordinator.

The information gathered from these self-audits will be shared with, and considered by the County's SWAC and management as part of the process to annually update the SWMP.

A summary of the self-audit will be provided in the Annual Report.

## 5.6 ANNUAL REPORT

The information and reports from the monitoring and research program and the program evaluation efforts will be incorporated into the Annual Report, along with other Permit reporting requirements. These include:

- Status of compliance with permit conditions,
- An assessment of the appropriateness and effectiveness of the identified practices,
- Status of the identified measurable goals (deliverables),
- Monitoring and research findings, if any, during the reporting period,
- A summary of specific storm water program activities (aside from general implementation of the SWMP) that the County intends to undertake during the next reporting cycle,
- Any proposed changes to the SWMP,
- Any change in storm water assignments or key contact personnel, and
- Any outfalls not identified in the inventory per Section 4.3.2.

### 5.6.1 Revised SWMP

The SWMP will be reviewed annually and revised as necessary to maintain an effective program. The revised SWMP is to be submitted as part of the Annual Report. The Annual Report will contain documentation that describe and justify the proposed SWMP changes.

The draft SWMP update will be made available for public review before being finalized and transmitted to the RWQCB.

### 5.6.2 Analysis of the Adequacy of Legal Authority

The County will annually, as part of the Annual Report, perform an analysis of the adequacy of legal authority as described in Section 2 (Program Management) of this SWMP. As appropriate, this Section will be updated as part of the annual SWMP update process. Specific problems encountered while implementing the storm water program as described in the SWMP that develop as a result of legal constraints will be documented in the Annual Report.

### 5.6.3 Report on the Storm Sewer System Mapping

The Permit requires the County to complete a storm sewer system map showing the location of all outfalls and the names and locations of all waters of the U.S. that receive discharges from these outfalls. This inventory will be completed by the end of June 2008. Field inventory and mapping of existing known outfalls in one quarter of the County jurisdictional boundary will occur at least annually by the end of June 2005. An annual update of the maps, to start by the end of June

2006, will include any additional outfalls created from the previous year's new development or re-development activities. Progress in gathering this inventory will be reported to the RWQCB as part of the Annual Report.

## 5.7 NON-COMPLIANCE REPORTING

The Permit requires the County to implement a noncompliance reporting procedure. The County's Storm Water Coordinator will make noncompliance reports to the RWQCB.

Instances of noncompliance resulting in emergencies (i.e. that endanger human health or the environment) will be reported orally to the RWQCB within 24 hours from the time the County becomes aware of the circumstance, and in writing to the RWCB within 24 hours from the time the County becomes aware of the circumstance. In all other instances of noncompliance, the RWQCB will be notified in writing within 30 days.

The written notifications will identify the noncompliance event, an initial assessment of any impact caused by the event, describe the actions necessary to achieve compliance, and include a time schedule indicating when compliance will be achieved.