

West Slope



Important Water Ways

- * South Fork American River
- * North Fork Consumnes
- * Hangtown Creek
- * Weber Creek
- * Carson Creek
- * Deer Creek
- * Additional creeks/tributaries
- * Folsom Lake
- * Sly Park Reservoir
- * Groundwater/springs



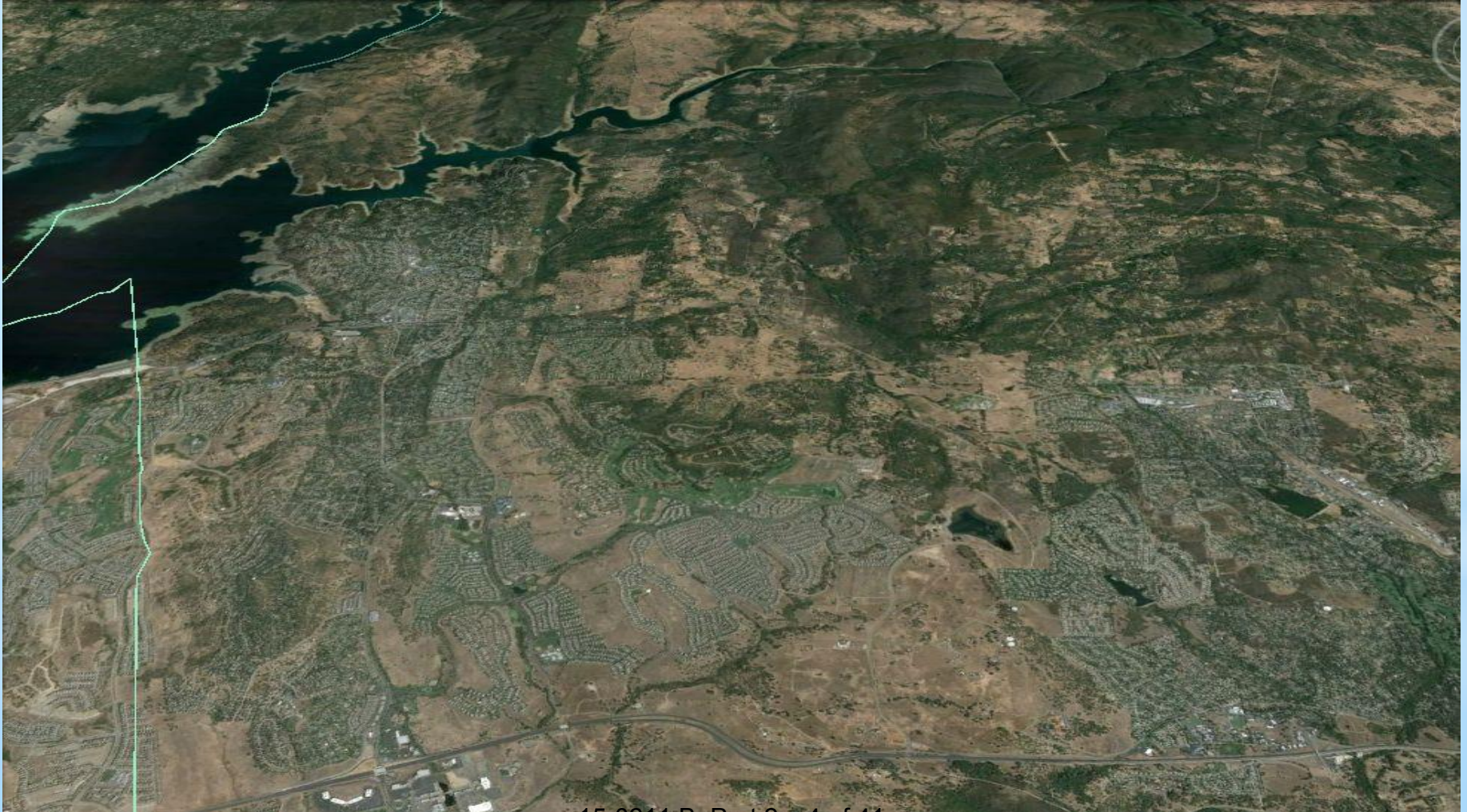
Land Use Changes

El Dorado Hills Residential Development



Land Use Changes

El Dorado Hills Residential Development - 2012



Land Use Changes

El Dorado Hills Business Park



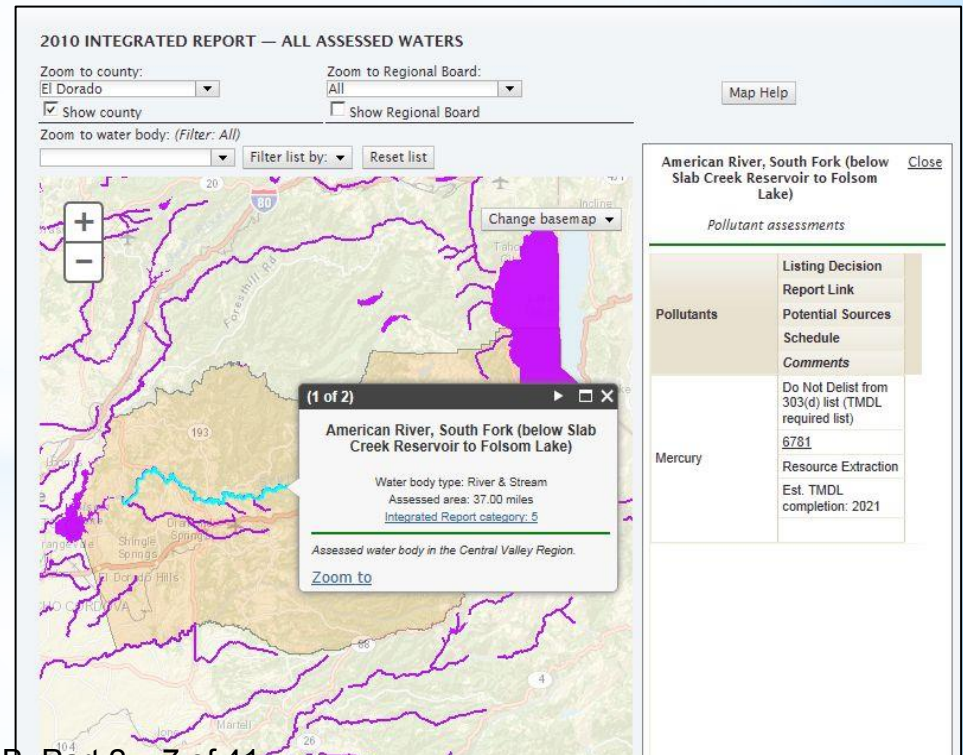
Land Use Changes

El Dorado Hills Business Park - 2012



West Slope - Key Focus Areas

- New/Re-development of Commercial, Industrial & Residential Properties
- New/Re-development in Areas of Significant Historical Use (Mining, Mills)
- Identified Priority Areas - Based on Connectivity
- Construction Site Management
- Roadways
- Legal Authority
- Education & Outreach
- Water Quality Monitoring
- Internal Coordination



Education & Outreach

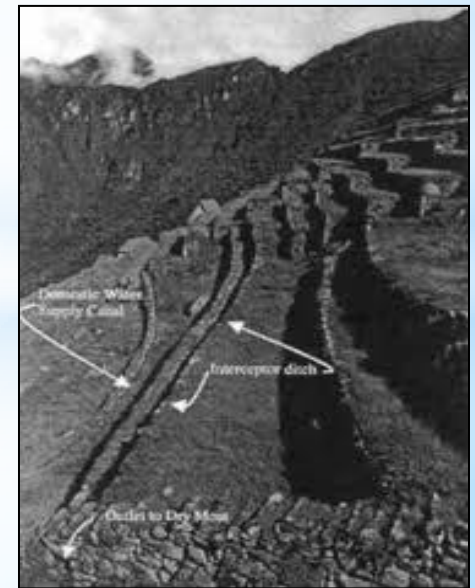


Encourage Involvement

- * Only rain belongs in the drain!
- * Wash your car at a Car Wash.
- * Keep your car well-maintained.
- * Use lawn or garden chemicals sparingly. Low or No Phosphorous.
- * Plant native, low maintenance plants and grasses.
- * Minimize runoff by not over-watering your lawn and garden.
- * Clean up pet waste.
- * Minimize the amount of ice-melt used.
- * Consider minimizing impervious surfaces around your home.
- * Make sure storm drain outfalls are not running in dry weather.
- * Do not drain your pool, spa, or fountain to a storm drain.
- * Walk, bike, or share a ride when possible.
- * Properly maintain your neighborhood stormwater pond / Garden.
- * Dispose of oil and household pollutants properly.
- * Install BMPs, rain barrel or cistern to capture roof runoff.
 - * Consider disconnecting your downspouts.

Low Impact Development (LID)

- * Mimicking Pre-Development Hydrology
- * Post Construction BMPs - Infiltration
- * Disconnecting Impervious Surfaces
- * Important Strategy in CA
- * These are Not New concepts



Post Construction - LID Requirements

- Stream Setbacks and Buffers
- Soil Quality Improvement and Maintenance
- Tree Planting and Preservation
- Porous Pavement
- Green Roofs
- Vegetated Swales
- Rain Barrels and Cisterns



When it's Raining - This is Happening!













Infiltrate Urban Runoff











BMPs



Rain Gardens / Micro basin



~~Draft~~ Amendments to the Statewide Water Quality Control Plans for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California to Control Trash



Trash Amendments

DIVISION OF WATER QUALITY

STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

California Trash Background

- * Storm Water Program requirements increasing due to:
 - * Injuries to wildlife through ingestion and entanglement
 - * Disperses invasive species
 - * Endangers public health
 - * Causes damage to shipping vessels
 - * Concentrates toxic pollutants
 - * Decreases aesthetics
 - * CA spends ~\$500M on trash cleanup (according to the SWRCB)
- * Highly publicized issue in CA
- * Visible pollutant & Public concern
- * The Los Angeles and San Francisco Bay RWQCBs are leading the way although using different approaches

Objective of the Trash Amendments

- * Address the impacts of trash to surface waters in California through development of a statewide plan to control trash
- * Provide statewide consistency for the Water Boards' regulatory approach to protect aquatic life and public health, beneficial uses, and reduce environmental issues
- * “Trash shall not be present in state waters (or in areas adjacent to state waters) in amounts that would either adversely affect beneficial uses, or cause nuisance”

Regulatory Framework

The Water Quality Control Plan for Ocean Waters of California (1972) and the Enclosed Bays and Estuaries Plan (2008) supersede basin plans if conflicts exist.

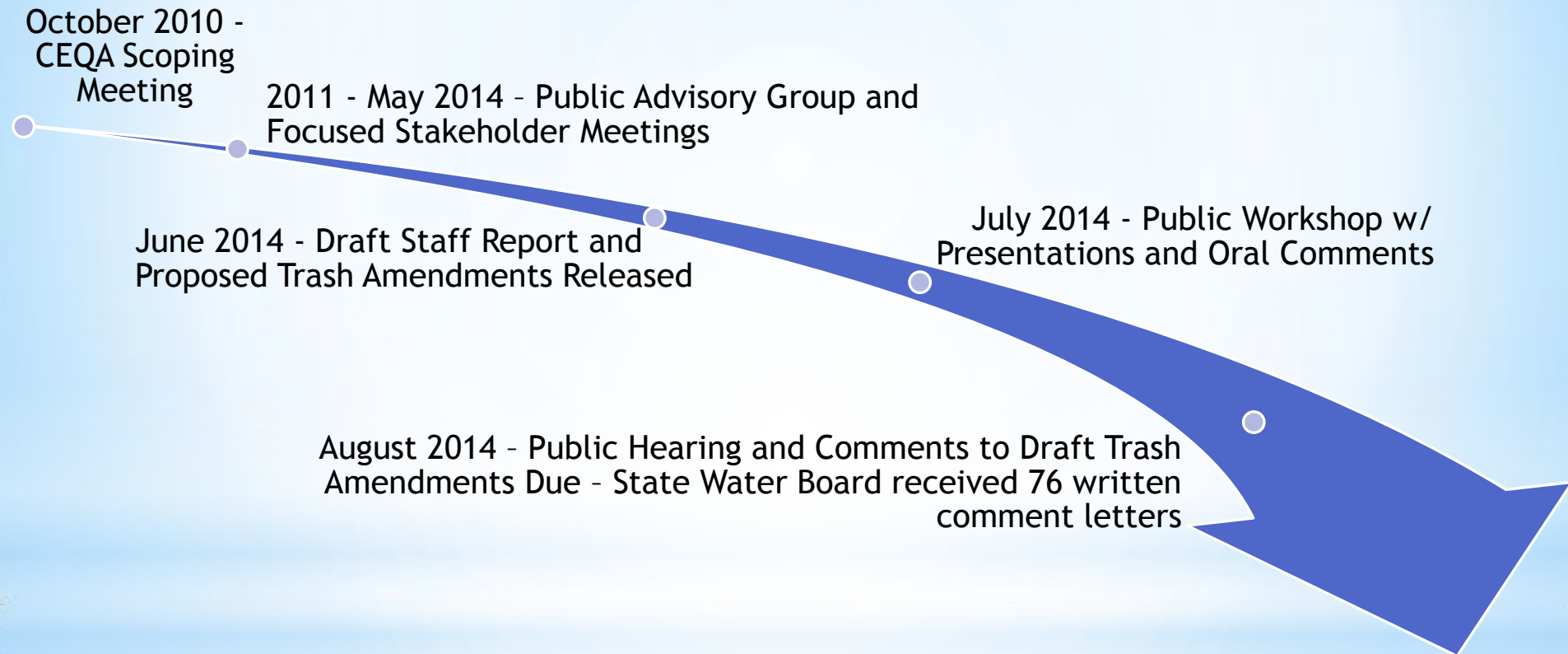


The Clean Water Act and Porter-Cologne direct the Water Boards to regulate the discharge of pollutants into waters of the United States and waters of the State.



Amendments to the above plans considers trash a pollutant and where runoff and storm water transport trash into these waters, it is considered discharge of waste subject to Water Board authority.

Trash Amendments Development



On February 12, 2015 the State Water Board released a Notice of Public Meeting scheduled for April 7, 2015 to consider the adoption of the proposed Final Trash Amendments. The public may provide oral comments but written comments will not be considered.

Applicability - Amendments Focus on Storm Water Transport

- * All Surface Waters - except for jurisdictions in Los Angeles with trash or debris TMDLs

- * NPDES Storm Water Permits - Section 402 of the CWA
 - * Phase I MS4 Permits - Lake Tahoe
 - * Phase II MS4 Permits - West Slope
 - * Construction General Permits (CGP) - Countywide
 - * Industrial General Permits (IGP) - Headington

- * Waste Discharge Requirements (WDR) and Waivers

Priority Land Uses

- * Land uses that are actually developed (not simply zoned) as:
 - * High density residential
 - * Industrial
 - * Commercial
 - * Mixed Urban
 - * Public Transport Stations
- * Alternative land uses that generate trash at rates equal to or greater than one of the priority land uses

	Track 1	Track 2
NPDES Storm Water Permit	MS4 Phase I and II IGP/CGP*	MS4 Phase I and II Caltrans IGP/CGP*
Plan of Implementation	Install, operate and maintain full capture systems in storm drains that capture runoff from one or more of the priority land uses/facility/site.	Implement a plan with a combination of full capture systems, <u>multi-benefit projects, institutional controls, and/or other treatment controls to achieve full capture system equivalency.</u> institutional controls, and/or multi benefit projects with same performance results of Track 1 with the MS4 jurisdiction/significant trash-generating areas/facility/site.
Time Schedule	10 years from first implementing permit but no later than 15 years from the effective date of the proposed Trash Amendments.**	10 years from first implementing permit but no later than 15 years from the effective date of the proposed Trash Amendments.**
Monitoring and Reporting	Demonstrate installation, operation, and maintenance <u>of full capture systems and provide mapped location and drainage area served by</u> of full capture systems.***	Develop and implement set of monitoring objectives that demonstrate mandated performance results, effectiveness of the selected combination of treatment and institutional controls, and compliance with <u>full capture system equivalency</u> the equivalency to Track 1. ***

Recommend Track 2 for El Dorado County

* IGP/CGP permittees would first demonstrate inability to comply with the outright prohibition of discharge of trash.

** Any new development within the MS4 permittee's jurisdiction must be built to immediately comply with Track 1 or Track 2. MS4 permittees designated after the effective date of the implementing permit would be in full compliance ten years after the date of designation. Where a permitting authority makes a determination that a specific land use or location generates a substantial amount of trash, the permitting authority has the discretion to determine a time schedule with a maximum of ten years. IGP/CGP permittees would demonstrate full compliance with deadlines contained in the first implementing permit.

*** No trash monitoring requirements for IGP/CGP, however, IGP/CGP permittees would be required to report trash controls.

Track 1 Examples

- * Full Capture Systems - A single device or a series of devices that trap all particles that are 5 mm or greater (1 year / 1 hour storm capacity or appropriately sized / designed to carry at least the same flows as the corresponding storm drain).



Track 2 Examples

Implement a combination of controls that would achieve the same performance as Track 1 (Determine equivalency using a Trash Capture Rate Approach or Reference Approach). Minimum reporting requirements apply to demonstrate the effectiveness of the selected controls. Monitoring reports and a GIS map submitted annually.

- * Full capture devices where feasible
- * Partial capture devices
- * Multi-benefit projects
- * Institutional Controls:
 - * Low Impact Development(LID)/Catch Basins
 - * Street Sweeping
 - * Public Outreach/Countywide Campaigns/Programs
 - * Enforcement/Local Ordinances/Product Bans
 - * Improved Waste Management/Trash Receptacles
 - * Land/Water Shoreline Cleanups

Time Schedule

MS4 Permittees have 10 years from the effective date of the implementing permit to demonstrate full compliance. New development within a permittee's jurisdiction must be built to immediately comply with the selected Track.

- * West Slope - Current Permit expires 2018, anticipate a full compliance date by 2028.
- * Tahoe Basin - Current Permit expires 2016, anticipate a full compliance date by 2026.
- * Both - An Implementation Plan stating how the County will meet these requirements shall be submitted to the Water Board for approval within 18 months of effective date of final Trash Amendment.

Table 1. Summary of Estimated Compliance Costs of the Proposed Final Trash Amendments for NPDES Storm Water Permits

Estimated Costs for Trash Amendments

NPDES Storm Water Permit	Number of Entities Accessed	Population /Size	Baseline of Current Trash Control Costs: Total and Per Capita Per Year	Estimated Incremental Cost for Track 1: Total and Per Capita Per Year	Estimated Incremental Cost for Track 2: Total and Per Capita Per Year (at Year 10)
MS4 Phase I (Based on per capita estimate approach)	193 communities	16,498,558	\$180 M Total (\$9.7 per capita)	Highest Annual Incremental Cost ^a :	\$67,481,061
				\$65 M (total)	\$4.09 per capita
				\$3.95 (per capita)	
				Total Capital Cost ^b :	
				\$123M (total)	
			\$22 M for Full Capture System costs (\$1.38 per capita)	\$7.47 (per capita)	
			\$138 M Institutional Controls (\$8.34 per capita)	Operation & Maintenance:	
				\$52.8 M per year	
				\$3.20 (per capita)	
MS4 Phase II (Based on per capita estimate approach)	148 communities	4,310,345	\$49 M Total (\$11.53 per capita)	Highest Annual Incremental Cost ^a :	\$32,922,053
				\$12.4 M (total)	\$7.77 per capita
				\$2.93 (per capita)	
				Total Capital Cost ^b : \$23.4M	
			\$6.8 M for Full Capture System (\$1.62 per capita)	\$5.54 (per capita)	
			\$42 M Institutional Controls (\$9.91 per capita)	Operation & Maintenance:	
				\$10 M per year	
				\$2.37 (per capita)	

Tahoe Basin

West Slope

Industrial General Permit	9,251 facilities	N/A	Unknown	\$33.9 M ^c	
				\$3,671 per facility	
Construction General Permit	6,121 facilities	N/A	Unknown	No expected increase	No expected increase
Caltrans	N/A	55,000 miles 50,000 lane miles (15,000 centerline miles)	\$62 \$80 M per year	Total Capital Cost: \$47 \$34.5M	N/A
				Operation & Maintenance: \$46 \$14.7 M per year	

^a Annual cost at Year 10 (highest cost year) is assumed to be 10% of the total capital cost plus the total operation and maintenance cost for treatment controls.

^b Total capital costs are incremental total costs to achieve full compliance with the proposed final Trash Amendments.

^c Operation and maintenance costs are annual costs after full installation of all required treatment controls.

^d Since the current baseline costs are unknown, all trash control costs are conservatively assumed to be incremental.

Costs for Non-Compliance

§ 13385 (a) (California Water Code)

For NPDES permit program violations or discharges to surface water: Up to \$10,000 per day of violation plus an additional liability of \$10 per gallon for each gallon over 1,000 gallons where there is a discharge that is not cleaned up. A “discharge” as used in this section is defined as any discharge from a point source to navigable waters of the United States, any introduction of pollutants into a POTW, or any use or disposal of sewage sludge.

County Concerns

- * Cost of Implementation - Proposition 218 limitations
- * Staffing Requirements
- * Flooding/Hydroplaning - Public Safety
- * Maintenance Staff Safety
- * Retractable Screens
- * County topography
- * Sacrifices current Water Quality Priorities
- * Doesn't focus on source control, puts the burden on the MS4
- * No relief for homeless encampments, dumping, or wind

Legal Authority - Ordinance

“By June 30, 2015 the Permittee shall revise relevant ordinances or other regulatory mechanisms, or adopt any new ordinances or other regulatory mechanisms, to obtain adequate legal authority, to the extent allowable under state or local law, to control pollutant discharges into and from, as applicable, its MS4, and to meet the requirements of this Order”

Current El Dorado County Legal Authority:

- * Drainage Manual
- * Design and Improvement Standards Manual (DISM)
- * Grading, Erosion, and Sediment Control Ordinance
- * Storm Water Management Plan (SWMP)
- * Effective July 1, 2014 California 2013 Green Building Standards Code (Title 24, Part 11)
- * **Storm Water Quality Ordinance - 8.79 (Applicable to Lake Tahoe only)***

El Dorado County Updates in Progress:

- * Landscape Standard - Will comply with the Water Conservation in Landscaping Act: Model Water Efficient Landscape Ordinance (Gov. Code 65591-65599)
- * TGPA-ZOU
- * **Proposing to Amend**

Additional Information

State Water Resources Control Board Website:

http://www.waterboards.ca.gov/water_issues/programs/trash_control/documentation.shtml

El Dorado County Storm Water Program Website:

http://www.edcgov.us/Government/EMD/HazardousMaterials/Storm_Water_Pollution_Prevention.aspx

For questions or comments about the Storm Water Management Program contact:

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2850 Fairlane Court
Placerville, CA 95667
(530) 573-7906 / stormwater@edcgov.us

Facebook Page: <http://www.facebook.com/EDCStormwater>

An aerial photograph of a lush green valley. A river winds through the center, surrounded by dense evergreen forests. In the background, snow-capped mountains rise against a clear blue sky. The word "Thanks!" is overlaid in large, bold, black letters in the upper-middle part of the image.

Thanks!