

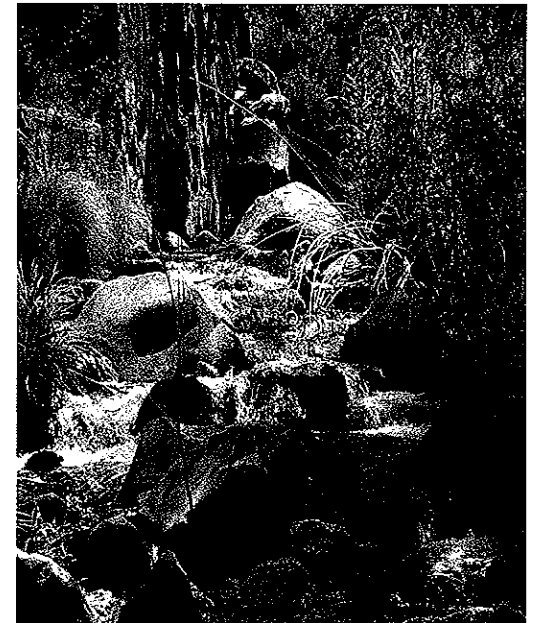


*Ventura Countywide
Stormwater Quality
Management Program*

**Update on Adopted
Ventura County
Municipal Stormwater
Permit**

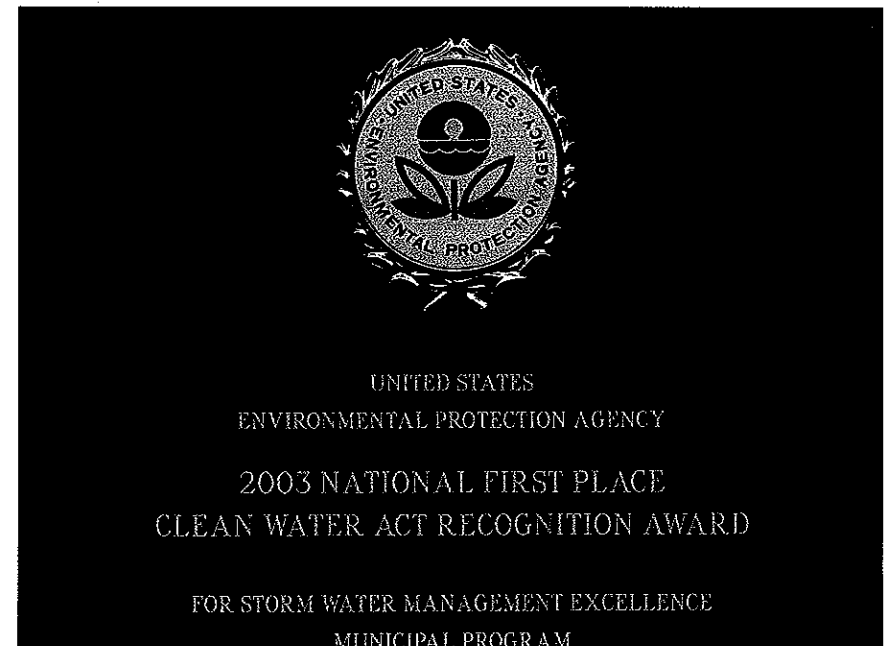
**Gerhardt Hubner
Deputy Director
Watershed Protection District
August 13, 2009**

Presentation to AWPA



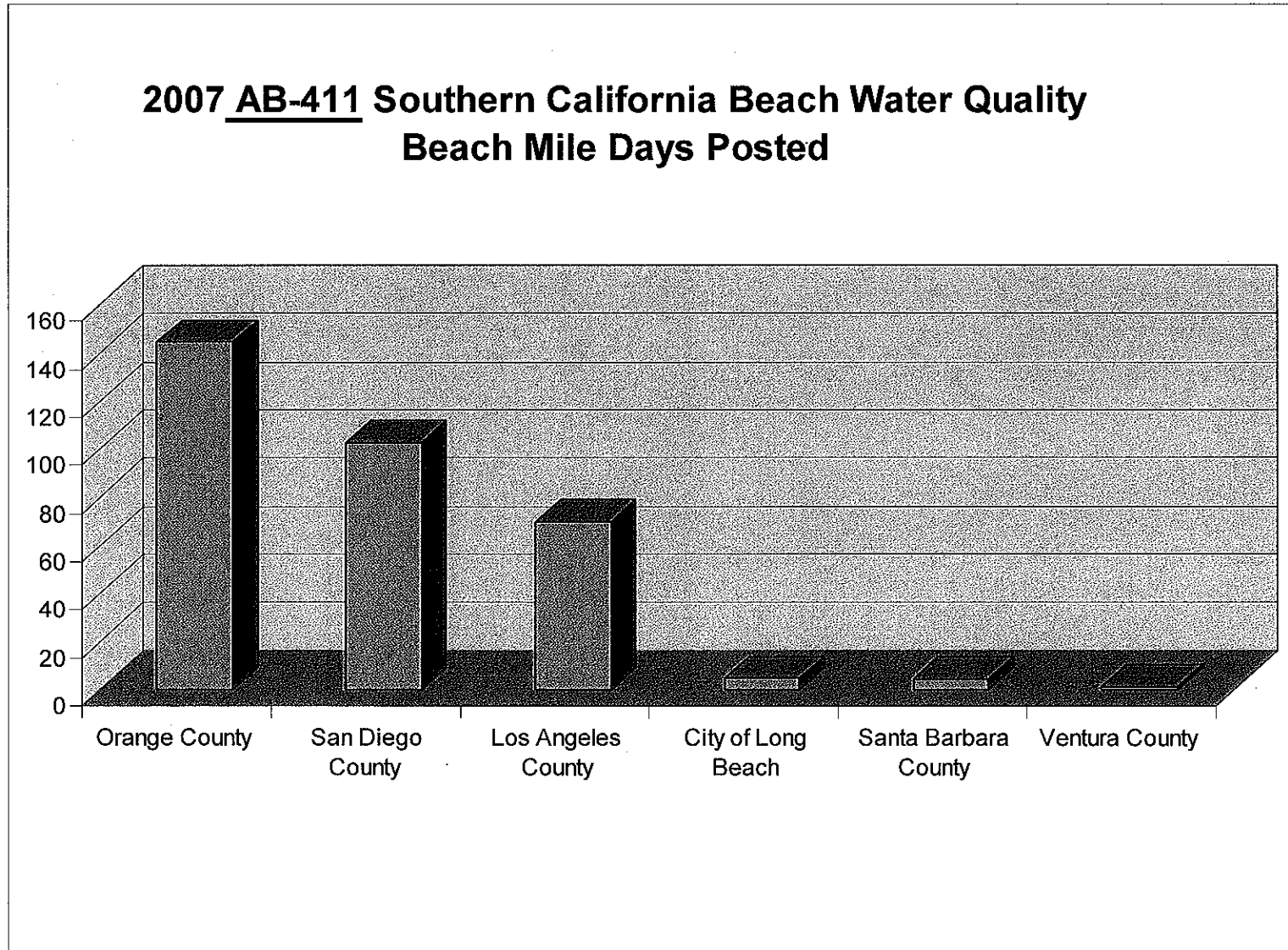
Program History

- Top Priority – Water Quality Improvement
- Best Municipal Program in Nation
- Worked cooperatively toward an effective Ventura County Permit

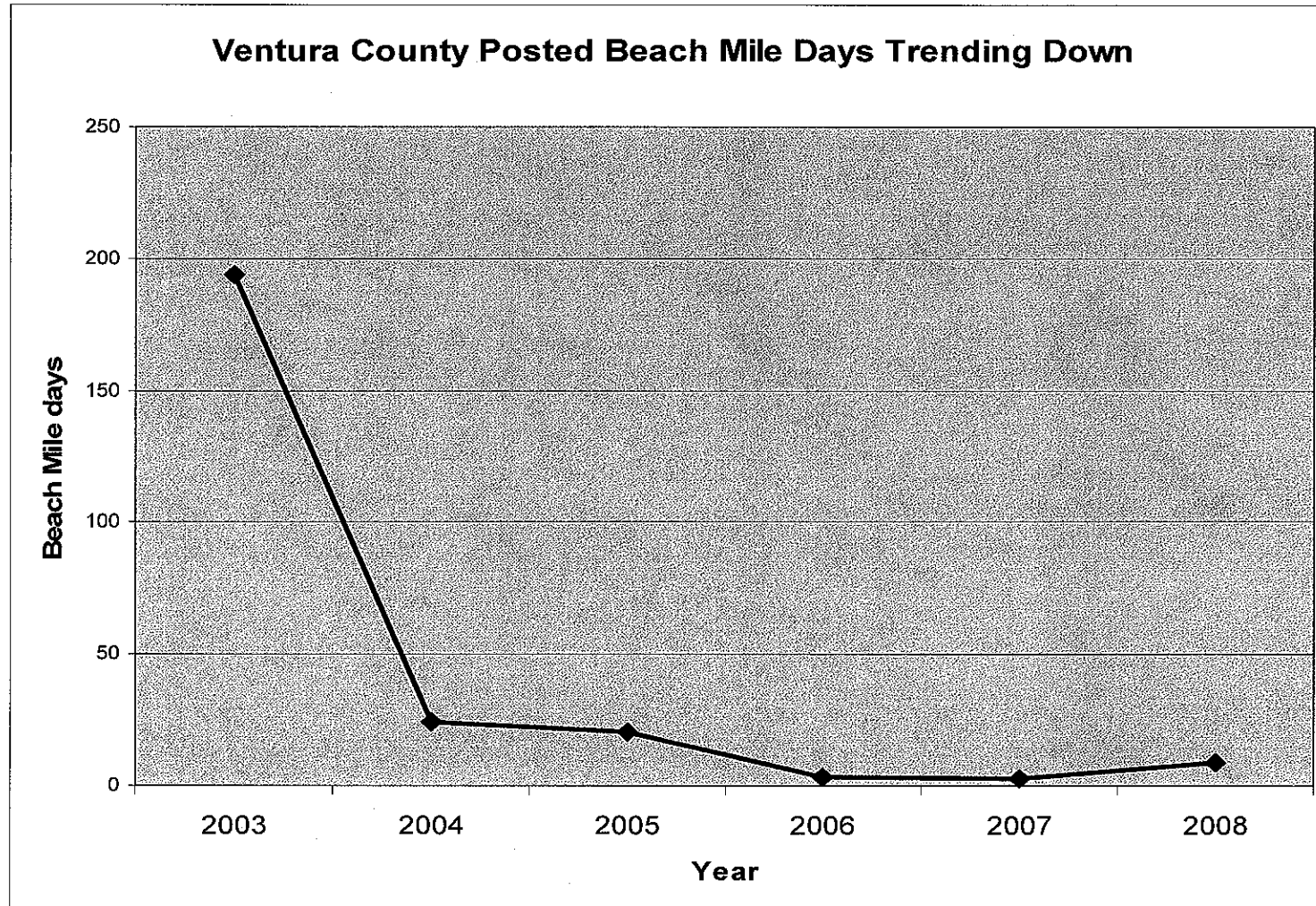




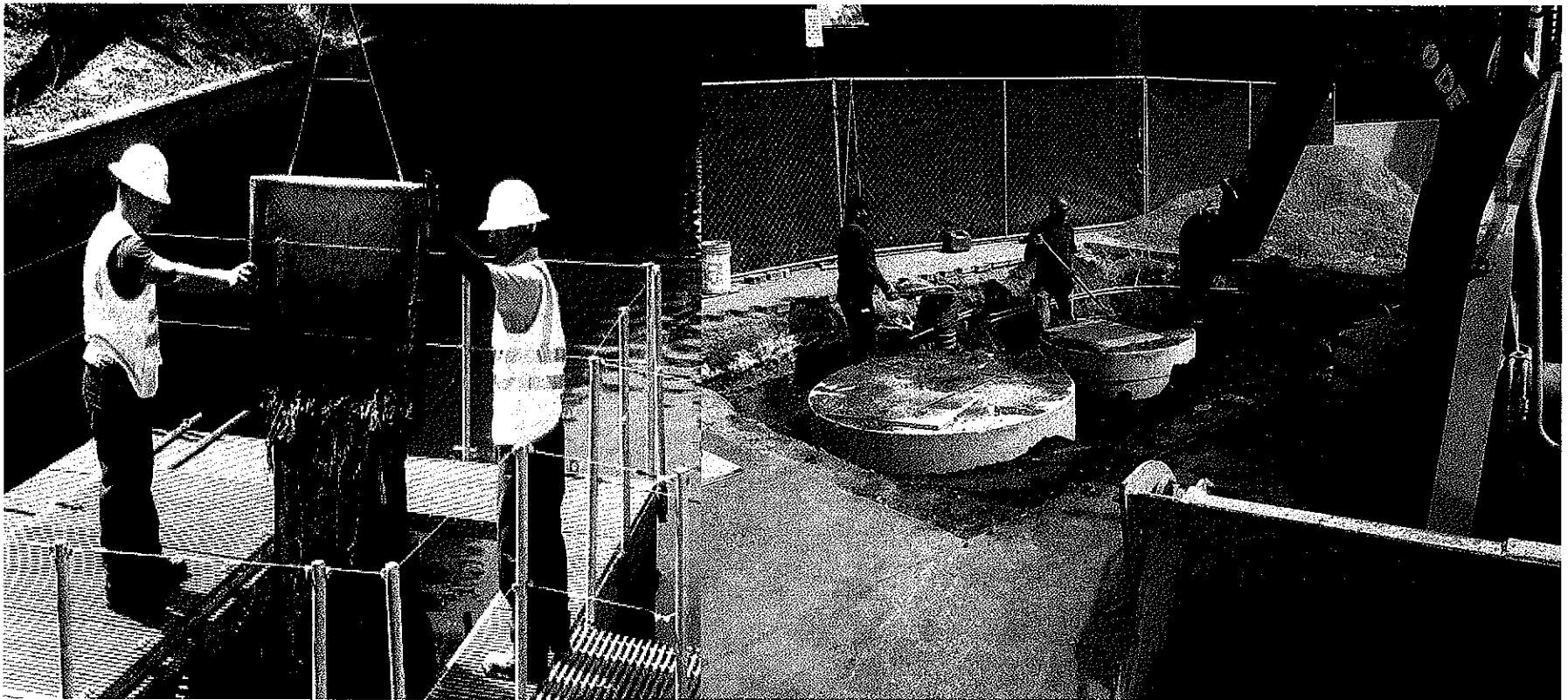
Ventura County and Clean Beaches



Our Beaches are getting cleaner

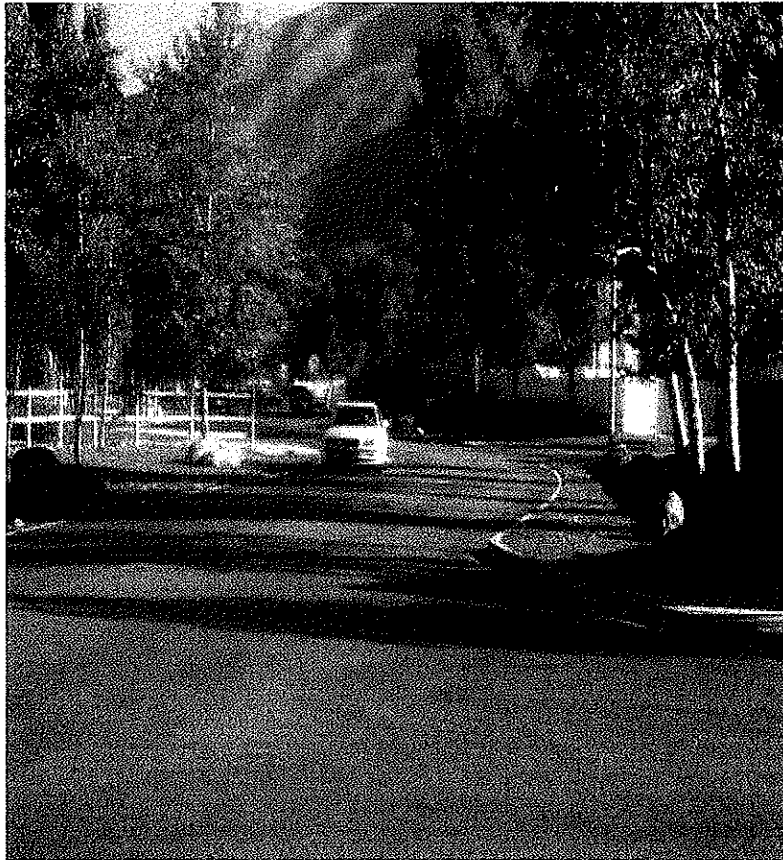


Dry Weather Diversions & Fresh Creek Device



Ventura County Accomplishments

Low Impact Development Projects



NPDES Permit No. CAS004002

Order No. 09-0057

- Adopted May 7, 2009 by Regional Board
- Effective August 5, 2009
- Over 70 New Requirements to complete, many in the first and second year;
- Civil and Criminal Penalties for Non-Compliance

Overarching Themes for Permit Discussions/Negotiations

- WQ Protective & Effective (WQ Bang for the Buck)
- Relevant to Ventura County/Flexibility to Local Conditions
- Technical Feasibility - Alternative Technical Proposals Provided
- Program Integration = Better Program Effectiveness

Permit Process

- Four Draft Permits: 1st Draft, 2nd Draft, Draft Tentative and Tentative Order
- Extensive Written Comments on Each
- Two Workshops
 - April 2007 (Burbank)
 - September 2007 (Ventura)
- Two day meeting in February 2008
- Fall 2008/Winter 2009 Stakeholder Meetings

Adopted Permit - Groundbreaking

- Municipal Action Levels (MALs)- First time ever State or Nationally as an assessment tool (Eliminated in Final Version of Adopted Permit) ;
- Treatment Control BMP Standards
- Comprehensive Integration of Low Impact Development (LID) Strategies
- TMDL Integration
- Expanded Monitoring program

Letter Agreement

Joint Presentation to RWQCB

Ventura County MS4s Permittees
Natural Resources Defense Council
Heal the Bay

Letter Agreement - History

- Ventura County City Managers and NRDC and HTB opened dialogue to better understand policy differences and seek common ground;
- Dialogue has been successful, and reflects different tenor between stakeholders;
- Reached Agreement with NRDC/HTB on four technical areas
- Agreement & Recommendations is a Package, contingent on all being incorporated.

Areas of Agreement

- Low Impact Development Standard
- Municipal Action Levels (Removal)
- Beach Monitoring (Addition of 10 sites)
- BMP Performance Criteria

Planning and Land Development

- Fundamentally changes land development through use of low impact development (LID) strategies;
- Require Updating our Technical Guidance Manual – May 2010;
- Effective Date – 90 calendar days after RWQCB Executive Officer approval to changes to the Technical Guidance Manual. After that date, all discretionary permit projects not deemed complete for must comply with Section E requirements.

Planning and Land Development

- All New Development Projects must meet an Effective Impervious Area (EIA) of 5% or less;
- All Redevelopment Projects must meet a minimum EIA of 30%, with a goal of 5%. Projects that cannot meet the 5% EIA due to technical infeasibility;
- All Projects shall capture, treat, retain and infiltrate a minimum of a .75 inch storm event, or 85th percentile 24 hour runoff event, or 80% or more volume treatment per Ventura County Technical Guidance Manual

Planning and Land Development – New Development

- All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 sq ft of impervious s/area;
- Industrial park – 10,000 sq ft or more of s/area;
- Commerical strip mall - 10,000 sq ft or more of impervious s/area;
- Retail gasoline outlet - 5,000 sq ft or more of s/area;
- Restaurant – 5,000 sq ft or more of s/area;

Planning and Land Development - New Development

- Parking Lot – 5,000 sq ft or more of impervious s/area, or with 25 or more parking spaces;
- Streets, roads, highways, and freeway construction of 10,000 sq ft of more of impervious surface area - Incorporate USEPA guidance regarding “Managing Wet Weather with Green Infrastructure”;
- Automotive service facilities – 5,000 sq ft or more of s/area;
- Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA);
- Single Family Hillside Homes exempt, unless such projects create, add, or replace 10,000 sq ft of impervious s/area.

Planning and Land Development - Redevelopment Projects

- Land disturbing resulting in the creation or addition or replacement of 5,000 sq feet or more of impervious surface area on an already developed site;
- Where redevelopment results in the alteration to more than 50% of impervious surfaces;
- Where redevelopment results in the alteration less than 50% of impervious surfaces of a previously existing development, and not subject to post development SQUIMP, only the alteration must be mitigated.
- Redevelopment does not include routine maintenance activities that maintain original line and grade, hydraulic capacity....
- Existing single family dwelling and accessory structures are exempt, unless create, add, or replace 10,000 sq ft of impervious surface area.

Exemptions for Public Projects

- Exempts emergency actions or *routine maintenance* that maintains
 - original line, grade and alignment
 - original hydraulic capacity
 - original purpose of the facility

Planning and Land Development - Mitigation Program

Off-Site Mitigation:

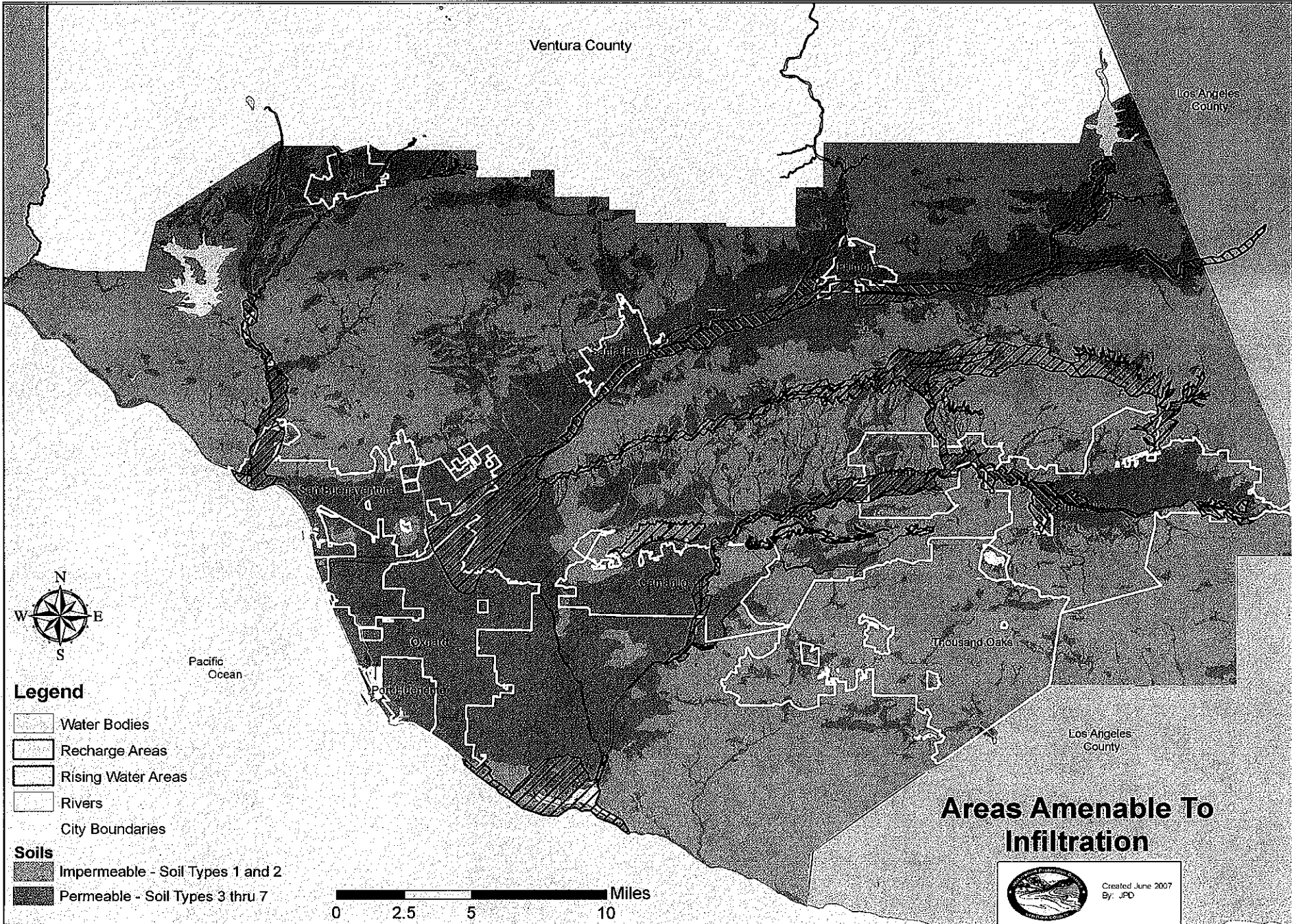
- Projects must be located within same sub-watershed
- A list of eligible public and private off-site mitigation projects available for funding identified by the Permittees

Timing:

- Mitigation projects must be completed within 4 years of certificate of occupancy for the first project that contributed funds, unless the RWQCB EO grants an extension
- Public offsite mitigation projects shall report a summary of total off-site mitigation funds raised to date and description of projects.
- Funds sufficient to offset the volume must be transferred to the Permittee (public projects) or an escrow account (private projects) within one year of the initiation of construction.

Planning and Land Development - Technical Infeasibility

- Submit site specific hydrologic and/or design analysis conducted by registered engineer, geologist, architect, and/or landscape architect;
- Seasonal high groundwater within 5 feet of surface;
- Locations within 100 feet of a groundwater well used for drinking water;
- Brownfield development sites or other locations where pollutant mobilization is documented;
- Locations with potential geotechnical hazards;
- Smart growth and infill or redevelopment locations where the density and/or nature create significant difficulty;
- Other site constraints identified in VC Technical Manual



Hydromodification Control Criteria

- Purpose - Minimize changes in post development hydrologic storm water runoff discharge rates, velocities, and duration, Prevent accelerated downstream erosion, and Protect stream habitat in natural drainage systems
- Interim Requirements – Implementation of LID strategies sufficient
- Final Criteria – Subject to SCCWRP Final Study
- Exemptions Included

BMP Performance Standards

- Support the concept of performance standards throughout Permit;
- Final Permit established for the first time in California performance standards for treatment control BMPs;
- Idea is to hold development community accountable for their BMP design;
- Median Value from ASCE database.



BMP Performance
Measurement Point

Codes and Ordinances

- CEQA Document Update – No later than November 7, 2009 those additional procedures necessary for considering storm water quality impacts;
- Stormwater Ordinances, Municipal Codes, and Legal Authority – 2 Years;
- Amend General Plan with each Element Update.

Ventura Program's Public Outreach

GARBAGE IN GARBAGE OUT

Storm drains empty straight into
our rivers, lakes and beaches.

Unfiltered. Untreated.

Act responsibly with
your household trash,
pesticides, fertilizers,
grass clippings,
pet waste, and
driveway oil.



The watershed should
only shed water.
cleanwatershed.org

DON'T KILL AN OCEAN JUST TO KEEP PESTS OUT OF YOUR GARDEN.

Overuse of pesticides pollutes
our watershed, which runs directly
to the ocean. This is bad.
Don't do it.



COMMUNITY FOR A
CLEAN WATERSHED



THE WATERSHED SHOULD ONLY SHED WATER, NOT PESTICIDES

www.cleanwatershed.org

Public Outreach

- Youth Outreach Plan – Due August 9th
- Pollutant Specific Outreach (Metals, Bacteria, Fertilizer, Pesticides) - May 2010
- Corporate Outreach – Work with CASQA. Target 80% of RGOs, Home Improvement Centers, Restaurants - 2 Years after adoption
- Business Assistance Program – Ongoing (Fact Sheets, etc.)
- Ethnic Community Outreach
- Behavioral Change Assessment Strategy – Done through Surveys, due May 2010

Landscape, Park and Recreational Facilities Management

- Develop and Implement a jurisdiction-wide IPM program.

Trash Management Program

- Trash is not a significant issue in the water-ways of Ventura County - less than 12 miles of water ways (vs. X total) listed;
- Permit includes:
 - Prioritize all Catch Basin – 1 year
 - Install Trash Excluders and Receptacles in all High Priority catch basins, or enhanced trash management program;
 - Public Events – Temporary screens or clean out catch basins, receptacles and grounds within 24 hrs

Construction Program

- No longer Grading Prohibition from October 1st to April 15th;
- Replaced by Risk based Approach - High Risk Sites – Hillside slopes, ESA and 303d sediment listed waterbodies
- Enhanced BMPs List for addressing runoff from construction sites;
- Inspection once during the wet season (October 1 through April 15)
- New Training Requirements – Certification Program for Qualified SWPPP Developer or Qualified SWPPP Practitioner

Streets and Road Maintenance Program

- Street Sweeping
 - Perform street sweeping of *curbed* streets in *commercial areas* and *areas subject to high trash generation* to control trash and debris at least two times per month.

Inspection Program

- Inspections – Commercial, and Industrial sites previously under SWRCB's General Industrial and Commercial SW Permits;
- Addition of Nurseries;
- Enforcement – Step up involvement and progressive Enforcement procedures.

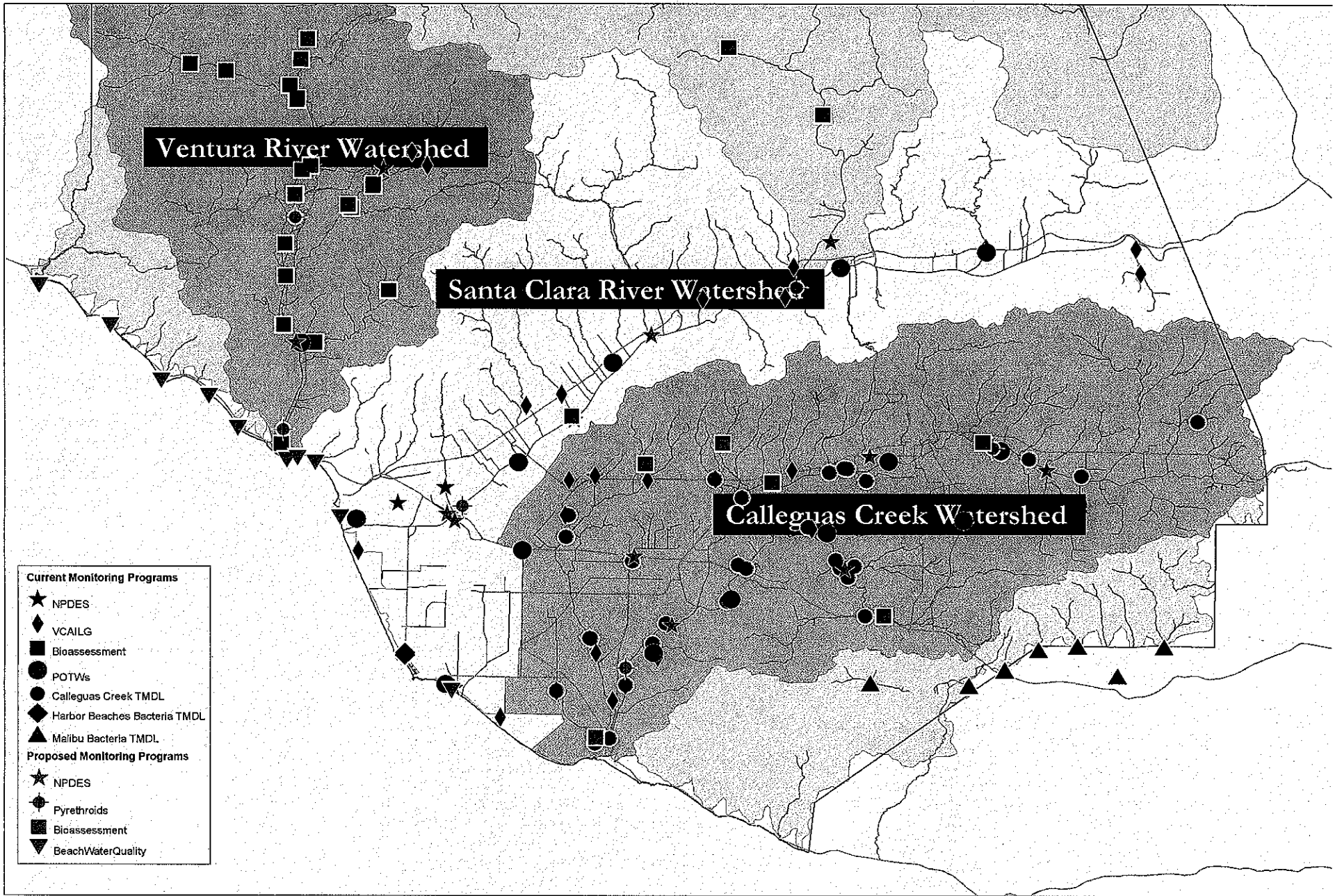
TMDLs

- First Time - Incorporates wasteload allocations (WLAs) for effective TMDLs as permit limits;
- Correctly included "consistent with the assumptions and requirements of available WLAs" as receiving water limits; and "iterative process" consistent with USEPA's Guidance;
- However, Final Permit version did not correctly capture/ incorporate entire TMDL Basin Plan language.

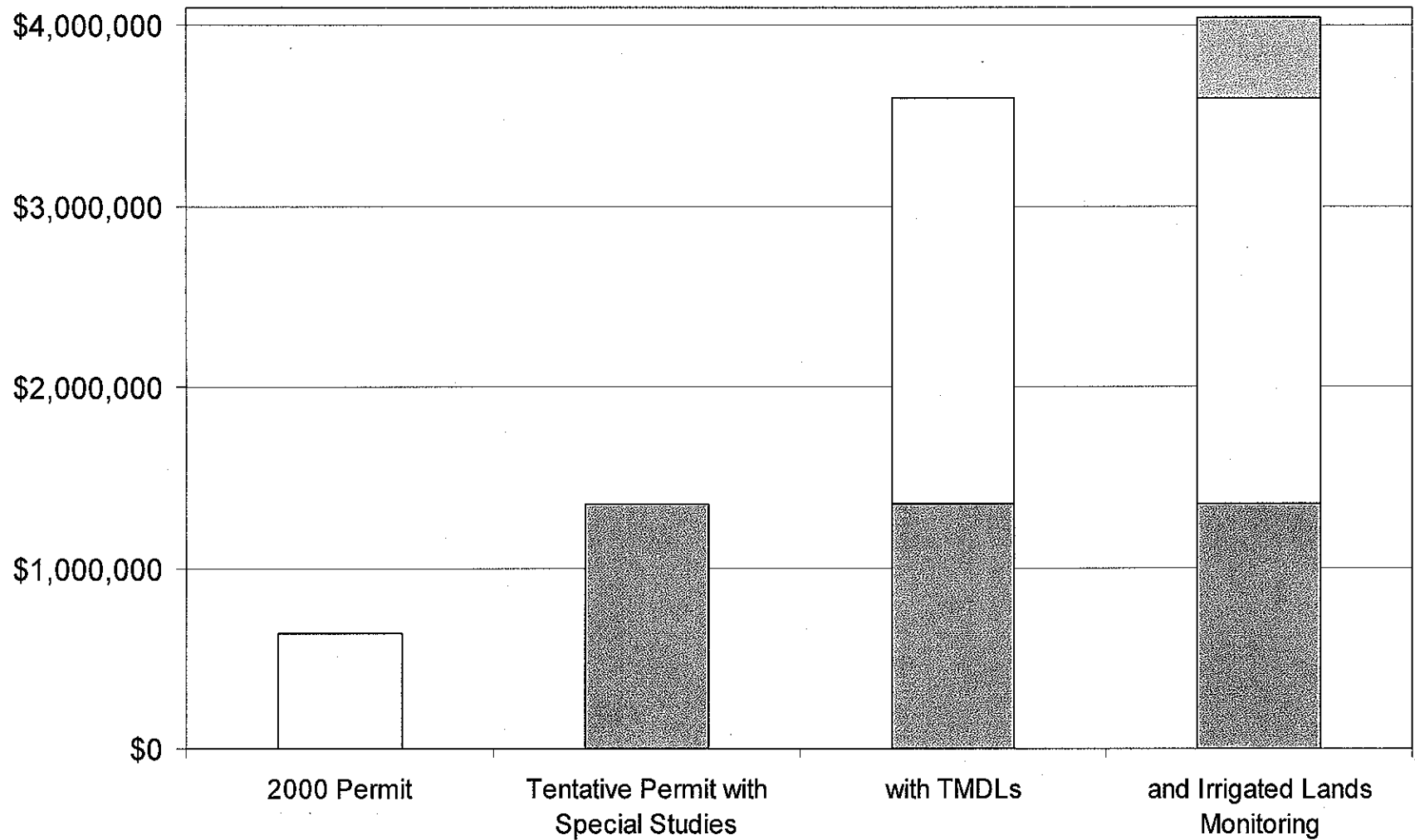
Monitoring Program

- The Ventura Program currently has an exemplary monitoring program - State-of-the-art data management system;
- Our Goal – Enhanced Program to support and measure program effectiveness;
- New monitoring program will greatly expand upon this effort – while still retaining our current Receiving Water Stations.





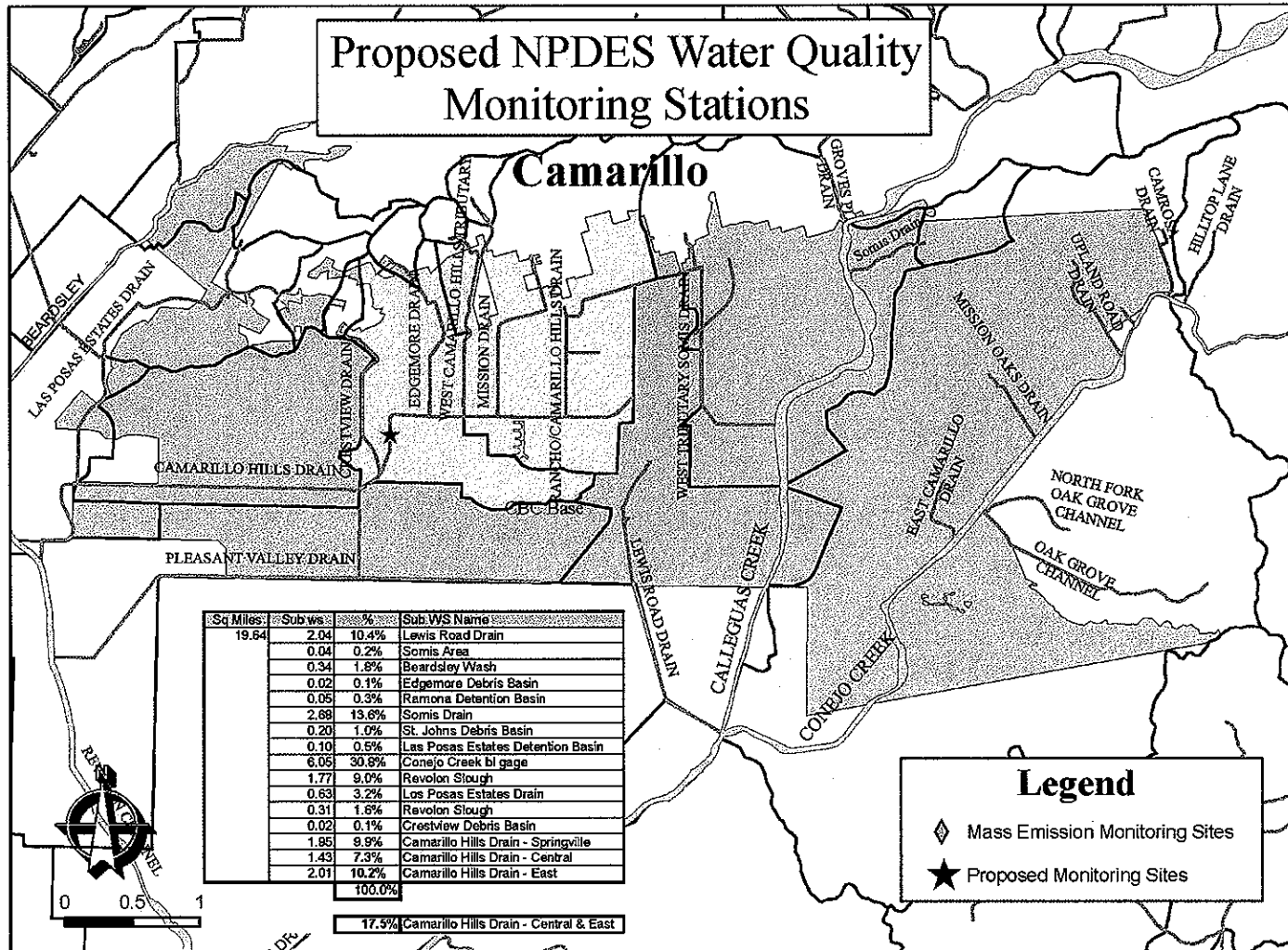
Ventura County Stormwater Related Monitoring Costs are Over 4 Million Dollars a Year





























Urban Outfall Site Selection Criteria

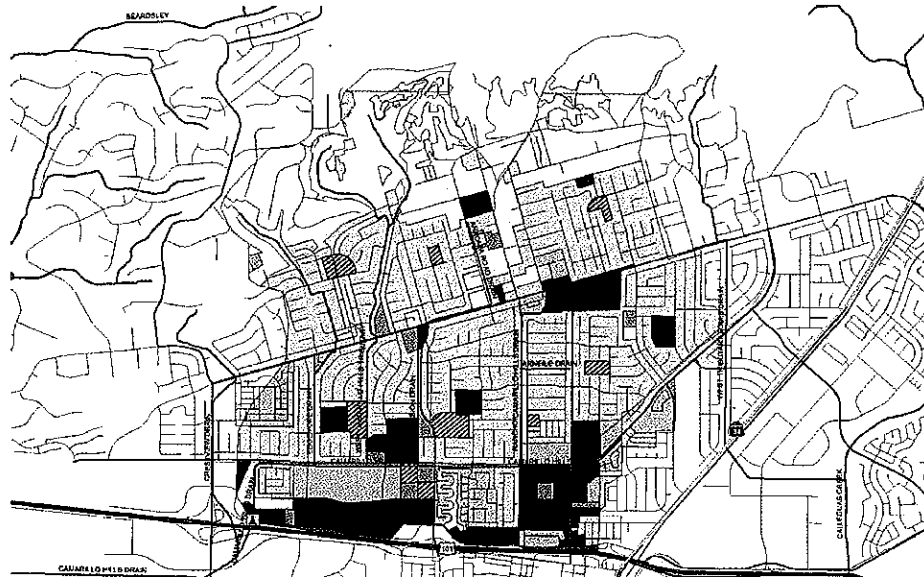
- Large area of the Permittees' MS4 preferred;
- Maximize urban runoff contribution and avoid contributions from outside permittee's jurisdiction (agriculture and open space);
- Drainage area should contain representative land uses found in the permittees' jurisdiction;
- Ability to accurately measure flow;
- Safety of monitoring personnel.

City of Camarillo's Proposed Urban Monitoring Station



Compare City of Camarillo's Land Use to Drainage Area

-  Agriculture
-  Cemeteries
-  Com_Indus. Mix
-  Commercial
-  Resource Extraction
-  Facility
-  Industrial Light
-  Industrial Medium
-  Industrial High
-  Military Light
-  Military Heavy
-  No Photo Coverage
-  Recreation
-  Recreation_Preserve
-  Residential Level 1
-  Residential Level 2
-  Residential Level 3
-  Residential Level 4
-  Residential Level 5
-  Schools
-  Transportation
-  Under Construction
-  Utilities
-  Water
-  Vacant Undifferentiated
-  No Info Given: 293 of 15640.



Entire City

Land Use	Acres	% of Total Watershed
Agriculture	1585.8	12.6%
Com_Indus. Mix	12.5	0.1%
Commer.	657.2	5.2%
Extraction	58.4	0.5%
Facility	129.5	1.0%
Industrial_1	32.2	0.2%
Industrial_3	622.6	4.9%
Military_2	5.7	0.1%
No Info Given	202.2	1.6%
Recreation	489.4	3.9%
Res.1	1305.9	10.4%
Res.2	443.4	3.5%
Res.3	3253.5	25.9%
Res.4	525.0	4.2%
Schools	325.0	2.6%
Transportation	954.2	7.6%
Under Construction	294.8	2.3%
Utilities	255.8	2.0%
Vacant Undifferentiated	1423.4	11.4%
Totals	12576.4	100.0%

Selected Subwatershed

Land Use	Acres	% of Total Watershed
Agriculture	6.1	0.2%
Commercial	213.5	7.7%
Facility	48.5	1.7%
No Info Given	57.4	2.1%
Res.1	453.4	16.3%
Res.2	235.0	8.5%
Res.3	1365.5	49.1%
Res.4	15.2	0.5%
Schools	80.6	2.9%
Transportation	11.7	0.4%
Under Construction	2.6	0.1%
Utilities	2.3	0.1%
Vacant Undifferentiated	287.4	10.3%
Totals	2779.1	100.0%

Field Verify Sites for Flow Measurement, Access and Safety

Waterbody: Camarillo Hills Drain (tributary to Revolon Slough)
Location: Daily Rd. overcrossing (34°13'10.00"N, 119° 3'58.06"W)
Pros: Likely well-defined rating table
Cons: Moderate potential for vandalism
Outstanding Site Selection Tasks: None
Other Potential Sites: None
Dry Season Flow Potential: Likely intermittent year-round flow due to urban runoff



Monitoring – Special Studies

- *Hydromodification Control Study* and *Low Impact Development* - Regional partnerships (Southern California Monitoring Coalition and Southern California Coastal Watershed Research Project (SCCWRP))
- Greatly expanded bioassessment study through SCCWRP includes
 - Water chemistry
 - Toxicity
 - Periphyton algae
- New Pyrethroid study will examine sediment in local watersheds

Estimated Adopted Permit Costs:

Program	Annual Cost \$/Household			
	Current Effort	Enhanced Baseline	MALs (now no longer applicable)	
Statewide Study				
Range				
Mean	\$18-46	--	--	
	\$29	--	--	
Ventura County				
Range				
Mean	\$18-44	--	--	
	\$35	\$68 -\$100	\$600	

Summary

- Ventura County remains a national award-winning commitment to Clean Water
- The Adopted Stormwater Permit
 - Continue our progress, resulting in safe, clean and healthy waters;
 - Reflects major compromise and a spirit of collaboration by all parties;
 - Challenging to implement, particularly at a time when our communities, like the rest of the nation, are dealing with a serious economic downturn.

Next Steps

- Implementation – Over 70 New Requirements to complete, many in the first and second year;
- Installation of 1st Set of New Monitoring Stations this Fall;
- Funding – Subcommittee of City Manager's looking at various options (example – Property related fees, utility fees, support legislation);
- New Ventura Countywide Implementation Agreement;
- Update Technical Guidance Manual – Critical to implementing LID requirements. Training/Outreach on New Planning and Land Development Requirements.

VC Stormwater Program Information

- Ventura Countywide Stormwater Management Program: <http://www.vcstormwater.org/>
- Frequently Asked Questions for the Planning & Land Development Section – Soon to be released and posted