Protecting Your Marine Sanctuary by Protecting Your Watersheds

Sanctuary Advisory Council Presentation

August 21, 2013



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Water Quality Protection Program

Monterey Bay National Marine Sanctuary





Presentation Overview



- About the Water Quality Protection Program
 - Water quality efforts in San Mateo
 - Urban
 - Regional Coordination and Monitoring
 - Agriculture
 - Other WQPP activities
 - Desalination
 - Integrated Regional Water Management programs



San Lorenzo River







WQPP Action Plans





Implementing Solutions to Urban Runoff

Regional Monitoring, Data Access, and Interagency Coordination (SAM)





Marinas and Boating

Agriculture and Rural Lands





Beach Closures and Microbial Contamination



WQPP Action Plans





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Beach Closures and Microbial Contamination



First Flush



- Began in 2000
- First major rain of the season
- ~50 storm drain outfalls in 13 cities
- Samples are analyzed in a lab for:
 - Zinc, copper, lead
 - Hardness
 - Nitrate, urea, orthophosphate
 - Total suspended solids
 - E. coli, enterococcus
 - Field measurements





First Flush Sites 2011





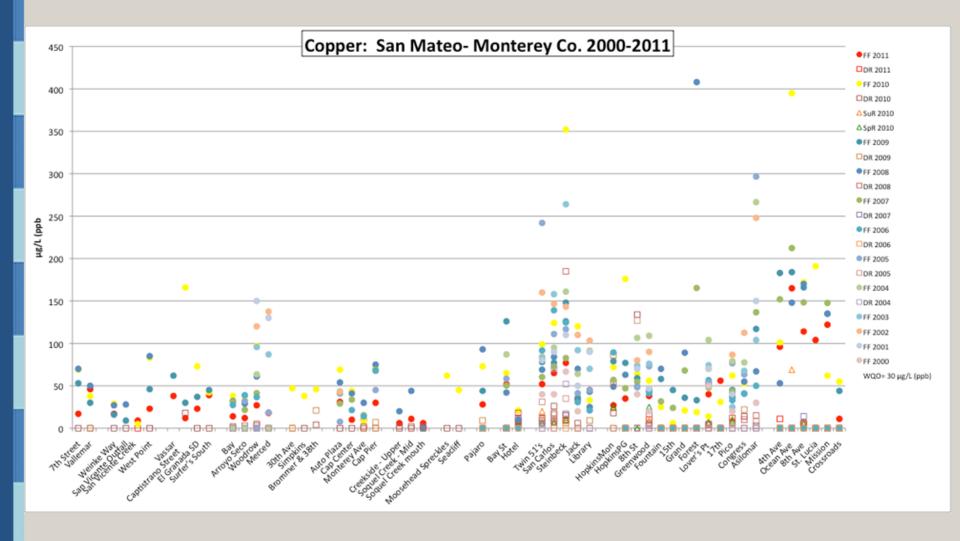






FF Copper Results

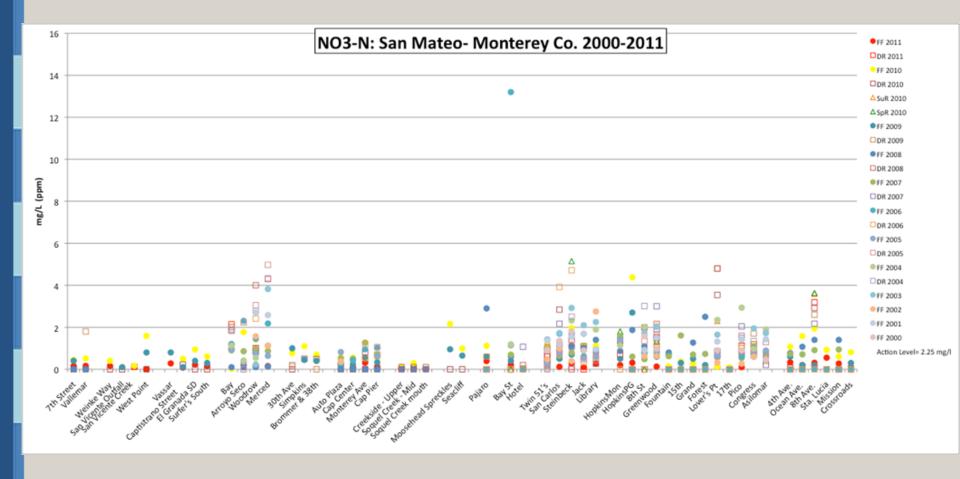






FF Nitrate Results







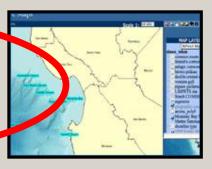
WQPP Action Plans





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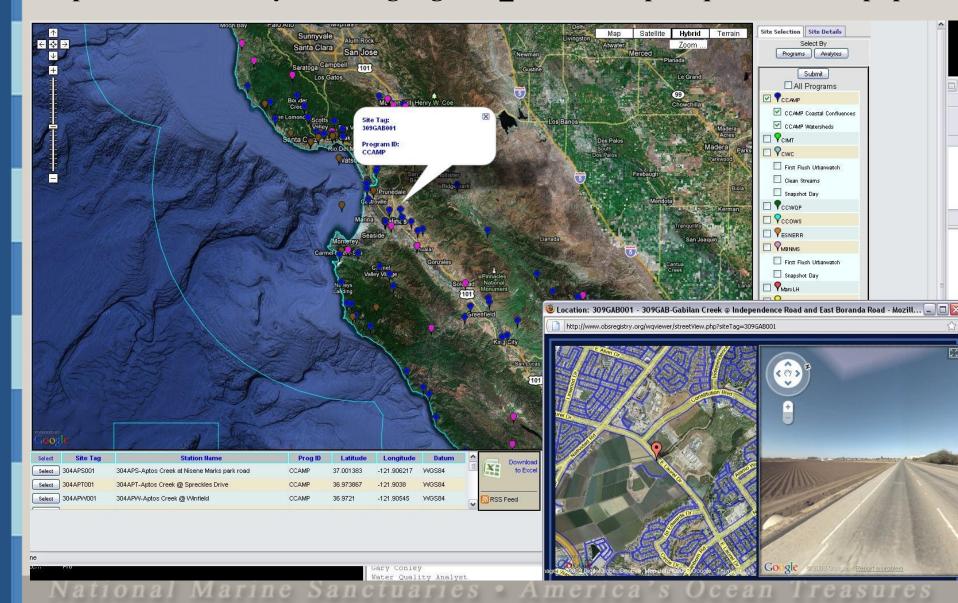
Beach Closures and Microbial Contamination



WQ Viewer



http://www.sanctuarysimon.org/regional_sections/maps/wqviewer/index.php





Central Coast Action Tracker





Welcome to the Conservation Action Tracker for California's Central Coast. The purpose of this website is to assist project managers, conservation organizations, and the general public find and share information about conservation projects on the Central Coast. Click on the buttons below or in the above navigation bar to learn more.







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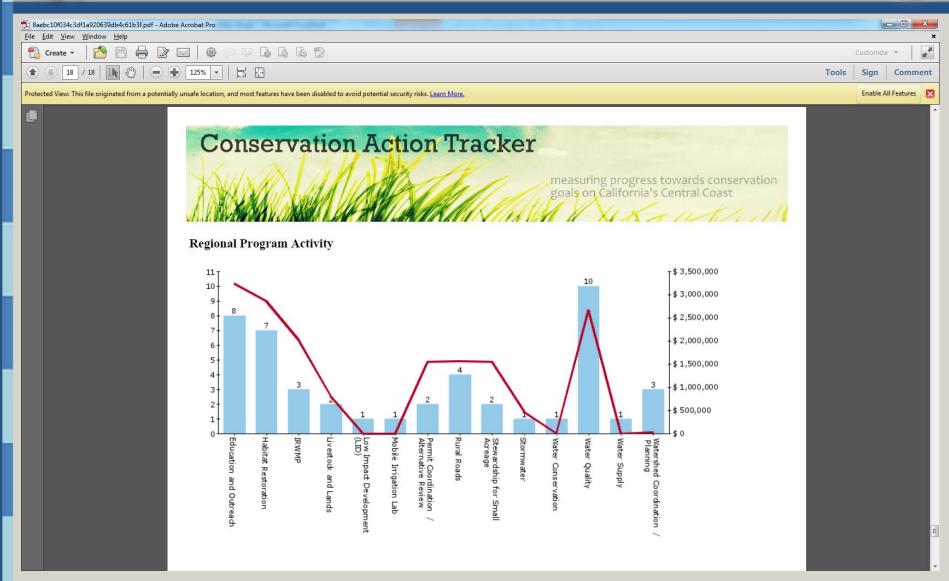




www.ccactiontracker.org









Snapshot Day



- Since 2000
- First Saturday in May
- Monitor over 100 streams
- Parameters
 - H₂0 temperature
 - transparency/turbidity
 - conductivity
 - pH
 - dissolved oxygen
 - nitrate, orthophosphate
 - Eschericia coli





Areas of Special Biological Significance

(ASBS)



Regional Monitoring

- Reference site monitoring (3 events)
- Core Monitoring -18" outfalls (one event)
- Receiving water monitoring (6 events)



Fitzgerald Prop 84 TAC

- San Mateo County PW
- Phase 1 installed variety of BMPs at Moss Beach and Montara (Fall/Winter 2011)
- Phase 2 began this summer
- Swales, filter flumes, drain inserts w/filter cartridges
- 10 monitoring sites
- Saw moderate to highly effective removal of contaminants



WQPP Action Plans





Implementing Solutions to Urban Runoff

Regional Monitoring, Data Access, and Interagency Coordination (SAM)





Marinas and Boating

Agriculture and Rural Lands





Beach Closures and Microbial Contamination



Magriculture & Rural Lands Action Plan



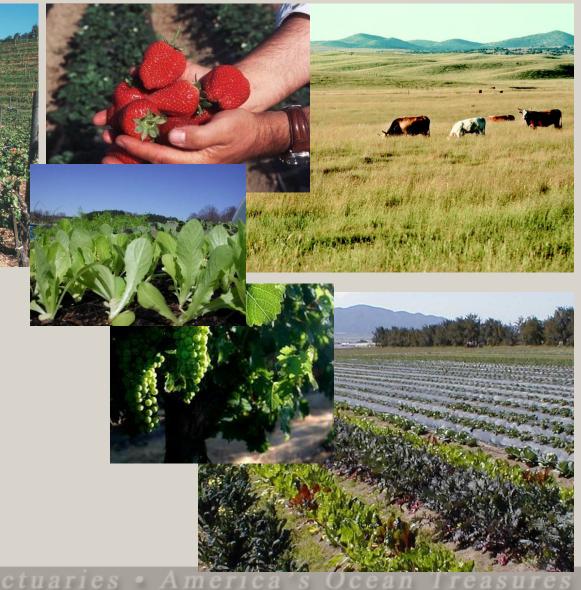


Agricultural Diversity

Education and Outreach

Management and Implementation

Monitoring & Research



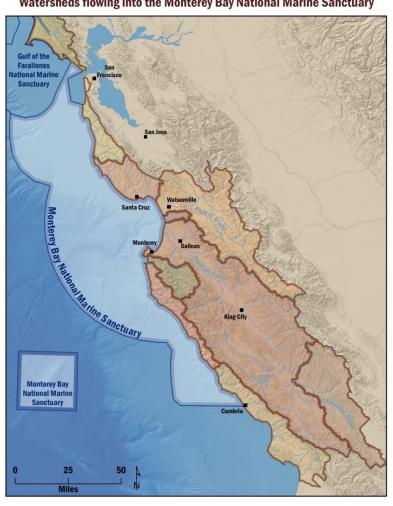


A History of Conservation through

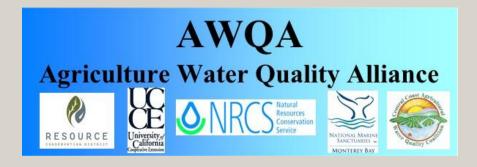


Collaboration

Watersheds flowing into the Monterey Bay National Marine Sanctuary









Management Practices to Improve Water Quality



Keep it on the field: Irrigation efficiency, Erosion control

Minimize usage: Integrated Pest Management

Vegetative Treatments: Holds soil, removes nutrients





AWQA Strategy (2013)



- Goal 1: Trusted convener for problem solving
- Goal 2: Able to quantify effectiveness of improved water quality
- Goal 3: Improve communications and public relations (External, w/ partners)
- Goal 4: Sufficient technical capacity to meet grower needs
- Goal 5: Establish Sustainable Funding for AWQA
- Goal 6: Partner actions are informed by AWQA strategic planning



Irrigation Nutrient Mgmt Program



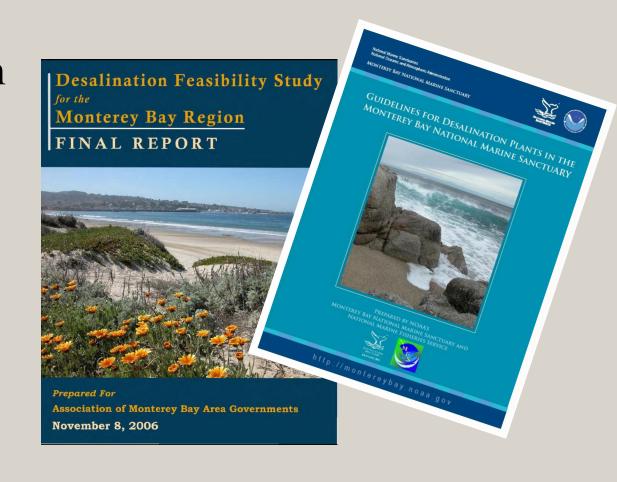
- \$1.25M awarded March 1st
 - Irrigation/nutrient assessments and implementation of practices
- Western SARE grant for \$39,000 awarded for enhancing training for technical service providers
 - Includes 8 RCDs, Coalition and UCCE



Desalination



- Tracking 4 projects within Monterey Bay
- Coordinating regulatory review
- May be federal NEPA lead





Other WQPP Activities



- Integrated Regional Water Management programs
 - Planning and Implementation grants
- Regional Water Quality Monitoring
- Beach WQ research and monitoring
- Volunteer programs



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