Trinidad’s Integrated Coastal Watershed Management Plan Succeeds in Water Quality Improvements

Rebecca Crow | Project Manager
**Trinidad** located in rural Northern California
Trinidad Bay Area of Special Biological Significance
Essential components for project implementation

Chi Wei Lin
Former Mayor City of Trinidad
Plan it

Integrated Coastal Watershed Management Plan
ICWMP Key management issues

- Water quality
- Water supply
- Stormwater management
- Watershed management
- Groundwater management
- Ecosystems and habitat
ICWMP involved multiple stakeholders and participants.
ICWMP management actions taken

- Water Quality Monitoring: On-going
- On-Site Wastewater System Management: Policies put in place
- Road-Related Sediment Reduction Projects: Partially completed
- Public Outreach Projects: On-going
- Water Conservation Projects: On-going
- Stormwater Management Projects: Partially complete
- Collaborative Watershed Planning: On-going
- General Plan Updates: Complete
Do it
ASBS Stormwater Improvement Project
**ASBS** Stormwater project design

**Overall objectives**
- Improve stormwater discharge from City area to Trinidad Bay
- Protect water quality of the Trinidad Bay ASBS

**Considerations**
- Small City with few resources
- Existing septic leach fields interaction with proposed stormwater infiltration
- Existing bluff stability
- Street parking important to residents
- Cultural resources present
Geotechnical evaluation overview
Electrical resistivity results

[Diagram showing electrical resistivity results with interpreted fracture, seastack, and possible fracture.]
Isometric view of bedrock surface
**Existing** storm drainage system
Design of storm drain improvements
Storm drainage system concept

Urban runoff → Rain garden or bio-swale → Storm drain → Package sedimentation/treatment chamber → Infiltration gallery
Infiltration basins construction
Infiltration basins main street

BEFORE

DURING

AFTER
Bio-swales design
Bio-swales construction
Luffenholtz Creek source water protection project
Luffenholtz Creek source water protection

Objectives

• Reduce sediments inputs to Luffenholtz Creek
• Improve Water Quality in ASBS
• Reduce treatment needed at City Water Treatment Plant

Considerations

• Project conducted on private property
• Permits and Environmental Quality Act Compliance completed by Private Green Diamond Resource Company
• City responsible for 20-years of project maintenance
• Project rock blasted from on-site Quarry
Luffenholtz SWP construction
Luffenholtz SWP construction
Luffenholtz SWP construction
Follow it
Project Results and Next Steps
Trinidad’s Integrated Coastal Watershed Management Plan Succeeds in Water Quality Improvements

- Implementation projects completed, monitoring showed reduced pollutant loadings to Trinidad Bay
- City still has a project champion planning for implementation of the next part of the stormwater improvement project
- Trinidad Watershed Council still active in informing the public about stormwater best management practices and the state of the watershed
from ideas to outcomes

THANK YOU

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