Bacteria TMDL for San Pedro Creek & Pacifica State Beach

Public Workshop and CEQA Scoping Meeting

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Regional Water Board's Role: Protect Water Quality

- **Identify and address water quality problems**
- **Basin Plan: Guiding document**
  - **Applies to water bodies in our region**
  - **Identifies "beneficial uses"**
  - **Has water quality objectives to protect beneficial uses**

TMDLs ("Total Maximum Daily Loads")

- **TMDLs: Plans to evaluate and clean up sources of water quality impairment**
- **TMDLs: Use <u>existing regulatory tools</u> to clean up:**
  - **A specific water pollutant…**
  - **Affecting an impaired water body**

Bacteria TMDL For San Pedro Creek And Pacifica State Beach

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Project Elements

- Problem Description
- Numeric Targets: desired future conditions
- Implementation Plan: What needs to be done
- Monitoring & Reevaluation

Beneficial Uses of San Pedro Creek and Pacifica State Beach

Sensitive to elevated bacteria levels:

- Water contact recreation
  (surfing, wading, swimming, etc.)

- Non-contact water recreation
  (boating, sun bathing, picnicking, etc.)

Problem: Beneficial Uses Are Not Fully Protected

Water Quality Standards:

- Based on indicator bacteria (E.coli, Coliform, Enterococcus)
- Indicator bacteria are used to detect real pathogens (viruses, bacteria, protozoa)
- Pathogens can cause disease in recreational users (diarrhea, skin rash, respiratory illness)


Station #6
Station #5
Creek Mouth
Cabrillo Hwy
Coast Hwy
Linda Mar Blvd
Linda Mar Shopping Center
Anza Dr
Balboa Way
Cervantes Way
Arguello Blvd
De Solo Dr
Encanto Way
San Pedro Ave
Halling Way
Danmann Ave
Kent Rd
1

Water Quality Exceedance Rates: San Pedro Creek & Pacifica State Beach (2006-2010)

Water Body	Total Coliform		E.coli		Enterococcus	
	Single Sample	Average	Single Sample	Average	Single Sample	Average
Creek	19.7%	100.0%	57.5%	82.5%	N/A	N/A
Beach #5	2.4%	1.0%	8.0%	3.6%	10.0%	20.4%
Beach #6	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%

Sources of Bacteria in Watershed

- **Sanitary Sewer Systems**
  (overflows, leaks, breakages)
- **Horse Facilities & Trails (horse waste)**
- **Stormwater Runoff & Dry-Weather Flows**
  (trash, pet waste, homeless camps)
- **Background/Natural**
  (Wildlife, vegetation, soil, sediment)

Previous Approach For Developing Bacteria TMDLs In Our Region

- Strictly applied Basin Plan bacteria standards
- Did not distinguish between man-made and background bacteria inputs
- Required controlling bacteria inputs regardless of source
- Greater water quality improvement
- Greater economic cost and environmental impact

Reference System Approach

Accounting for Background Bacteria Contributions

Reference System Approach

- Determines percentage of time standards exceeded in an *undeveloped* watershed
- Allows certain number of exceedances of the standards at the *impaired* water body
- Allowed exceedances attributed to *uncontrollable* background bacteria sources

Exceedance Percentages at Reference and Pacifica State Beach

Water Body	Summer Dry Weather	Winter Dry Weather	Wet Weather
Reference Beach	0%	3%	22%
Pacifica State Beach	2.7%	11.6%	22.1%

Exceedance Percentages in Reference Stream and San Pedro Creek

Water Body	Dry Weather	Wet Weather
Reference Stream	1.6%	19%
San Pedro Creek	42.8%	69.3%

TMDL Targets (goals)

	San Pedro Creek		Pacifica State Beach		
	Dry Weather	Wet Weather	Summer Dry Weather	Winter Dry Weather	Wet Weather
Current Exceedance	14	14	1	1	5
Required Reduction in Exceedance	- 13	- 10	- 1	- 0	- 0
Proposed Allowable Exceedance	1	4	0	1	5

Implementation Plan

- A comprehensive plan of action:
  - Called “Implementation Plan”
  - Addresses all controllable sources
  - Builds on existing efforts & regulations
  - Allows 10-15 years to achieve targets

Implementation Plan

Source	Actions	Responsible Party
Sanitary Sewer Systems	• Comply with Statewide Permit for sanitary sewer systems • (e.g., identify and repair problem areas)	**City of Pacifica,**
	• Comply with Pacifica's private sewer lateral ordinance • (e.g., maintain & repair laterals as needed)	**Private Home & Business Owners**

Implementation Plan (continued)

Source	Actions	Responsible Party
Horse Facilities	• Comply with local & regional requirements for keeping animals • (e.g., restrict animal access to creeks, manage animal waste, separate clean from polluted runoff, manage polluted runoff)	**Owners or Operators of Existing or Future Facilities**

Implementation Plan (continued)

Source	Actions	Responsible Party
Horse Trails	• Implement measures to control bacterial inputs from horse trails (e.g., restrict animal access to waterways, evaluate creek crossings, locate trails away from creeks, education and outreach)	**Owners/ Operators of Parklands:** • **National Park Service** • **CA Parks & Recreation** • **County Parks**

Implementation Plan (continued)

Source	Actions	Responsible Party
Stormwater Runoff & Dry-Weather Flows	• Implement stormwater management plan • Additional measures as needed (e.g., education & outreach for residents; additional storm drain cleaning, construction of facilities to detain, divert, infiltrate, or treat runoff)	**Pacifica &** **San Mateo County**

Monitoring & Reevaluation

To measure progress and make adjustments

Water Quality Monitoring

- Where are the specific sources of bacteria?
- Is water quality improving?
- Are implementation actions effective?

Compliance Reporting & Evaluation

- Are implementation actions being implemented?

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Questions?

http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/pacificabacteriatmdl.shtml

CEQA Scoping Meeting

San Pedro Creek & Pacifica State Beach Bacteria TMDL

May 23, 2012

Sandi Potter, PG, CEG
San Francisco Bay
Regional Water Quality Control Board

Today's Meeting

- Requirement for environmental evaluation of the Total Maximum Daily Load (TMDL) Basin Plan Amendment
- Scope of the Environmental Analysis
- Project Schedule and opportunities for public comment

Environmental Review Process

- Under California Environmental Quality Act (CEQA) Basin Plan programs are an approved certified program and are exempt from preparing an EIR, Negative Declaration, or Initial Study

- Water Board prepares an Environmental Checklist and includes this review with the Basin Plan Amendment approval packet (staff report)

CEQA Requirements

- Identify potential adverse environmental impacts that could result from actions taken in response to the Bacteria TMDL
- Discuss alternatives to the proposed TMDL Basin Plan Amendment
- Identify mitigation measures to reduce the severity of potential impacts
- Provide full public disclosure of documents and decision-making process

Effects To Be Considered

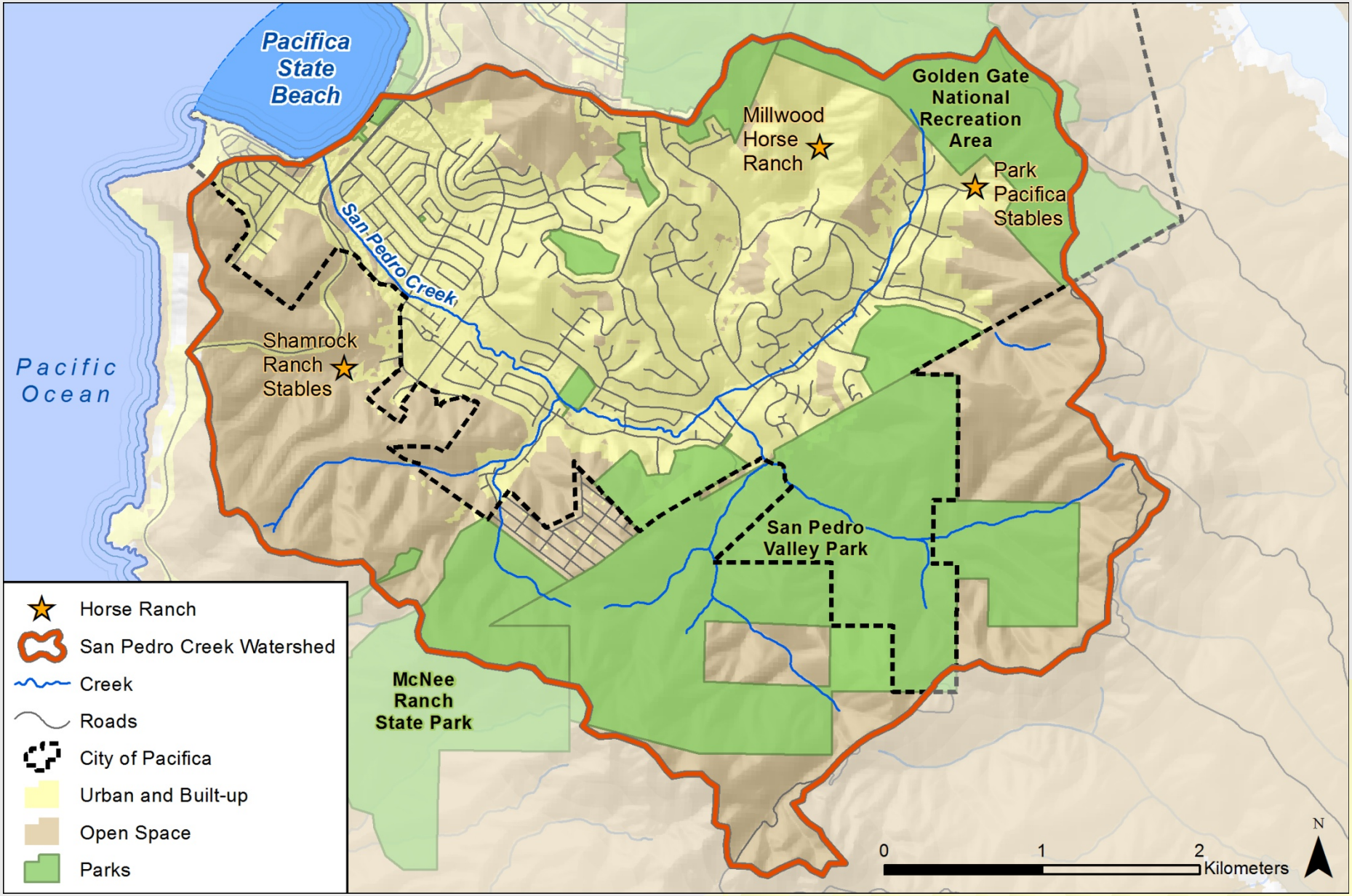
Will Consider:

- Direct physical changes in the environment
  - Impacts from excavation & grading
  - Noise and Air Quality impacts from minor construction
- Short-term and long-term impacts

Will not consider:

- Speculative changes
- Changes that would occur regardless of the TMDL

San Pedro Creek Watershed



TMDL Implementation Actions

Sources	Implementation Actions	Environmental Effects
Sanitary Sewer	Repair and replace existing pipes	Minor grading and excavation in existing roadways
	Control tree roots	Possible removal of mature trees
Horse Facilities	Measures to restrict animals form creeks	Installation of fences near riparian corridors
	Measures to divert clean runoff from manure areas and to manage manure	Minor grading and construction to install roofs, gutters and berms. Manure stock piles and management measures
Horse Trails	Locate trails away from creeks and limit access to waterways	Minor grading and construction in and near riparian areas to construct bridges and realign trails
Stormwater/ Dry weather flow	Install pet waste receptacles and signage	Installation of small structures and signage
	Construct facilities to detain, infiltrate and treat stromwater	Grading, earthmoving, and possible revegetation to construct facilities

Environmental Considerations

- The purpose of the Bacteria TMDL is to improve water quality
- Sometimes actions design to improve one aspect of the environment may have adverse affects on other aspects of the environment
- The environmental evaluation will consider potential adverse impacts of actions taken to comply with the TMDL

Checklist Environmental Topics

- Aesthetics
- Agricultural resources
- Air quality
- Biological resources
- Cultural resources
- Geology/soils
- Greenhouse gas emissions
- Hazards & hazardous materials
- Water quality and hydrology
- Land use/planning
- Mineral resources
- Noise
- Population/housing
- Public services
- Recreation
- Transportation/traffic
- Utilities/service delivery systems

Examples of Possible Impacts

- Installing fences to restrict animal access to streams may have adverse impacts on wildlife migration corridors
  - Include mitigation measure so fences are designed to restrict livestock but allow wildlife access
- Construction of stormwater detention/ treatment facilities could cause construction-related noise
  - Construction would be limited in time and intensity to meet local noise ordinance requirements
- Can you think of others?

Likely Level of Impact

- Agricultural Resources Impacts:
  - Likely to be “no impacts” because the watershed does not support significant commercial agriculture
- Construction-related Air Quality Impacts:
  - Minor, temporary air quality emissions from local repairs and construction would result in short term “less than significant impacts”
- Using example above, livestock exclusion fencing may cause Biological Resource impacts:
  - “Less than significant impact with mitigation incorporated”
- Not anticipating significant adverse impacts

Project Schedule

- Please submit your comments on the scoping of the CEQA evaluation within 30 days
- Finalized Proposed TMDL, Basin Plan Amendment, and Environmental checklist (Summer 2012)
- Public Review & Comment 45 day public comment period (Summer 2012)
- Water Board Hearings (Fall-Winter 2012)

Submit CEQA Scoping Comments

By June 25, 2012

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