



Russian River Pathogen Indicator Bacteria TMDL Development

November 19, 2016



TMDL Development: Key Milestones

- Peer Review – completed in February 2015
- Release of Public Review draft TMDL – August 2015
- Update to Regional Water Board – November 2015
- Staff revisions of draft TMDL – 2016
- Release of revised draft TMDL – Early 2017



What is a TMDL?

A **T**otal **M**aximum **D**aily **L**oad (**TMDL**) is:

- Required by the Clean Water Act where pollutant controls are not sufficient or stringent enough for a waterbody to meet water quality standards
- A numerical calculation of an amount of pollutant that a waterbody can handle and still meet water quality standards



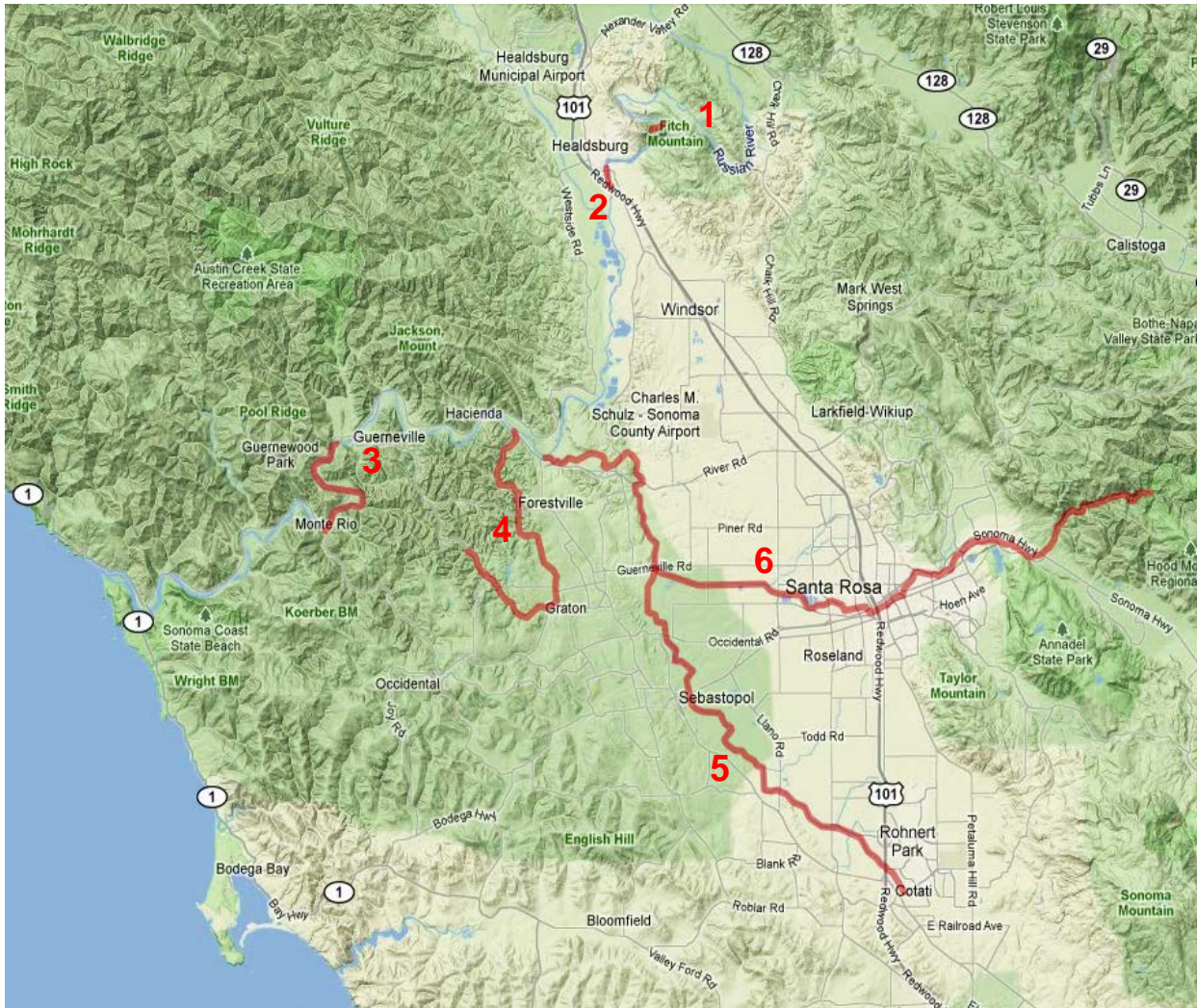
What is a TMDL?

A **T**otal **M**aximum **D**aily **L**oad (**TMDL**) is a framework for:

- Evaluating and quantifying the factors that contribute to water quality problems in a waterbody or watershed
- Developing a strategy (called an Action Plan or Program of Implementation) to meet the loading capacity and attain water quality standards

Russian River Watershed

2010 Section 303(d) Listed Waters



- 1 Un-named Tributary at Fitch Mountain
- 2 Russian River at Healdsburg Memorial Beach
- 3 Russian River from Guerneville to Monte Rio
- 4 Green Valley Creek
- 5 Laguna de Santa Rosa
- 6 Santa Rosa Creek



TMDL Technical Analysis

- TMDL analysis confirms impairment
- TMDL analysis indicates presence of human and domestic animal waste in surface waters throughout the Russian River Watershed
- Peer review supports technical analysis
- Staff focus has been on revising Program of Implementation



Program of Implementation

- **Waste Discharge Prohibition**

Discharges of waste containing fecal waste material from humans or domestic animals to waters of the state within the Russian River Watershed that cause or contribute to an exceedance of the bacteria water quality objectives not authorized by waste discharge requirements or other order or action of the Regional or State Water Board are prohibited.

- Examples of domestic animals include, but are not limited to, cows, horses, cattle, goats, sheep, dogs, cats, or any other animal(s) in the care of any person(s).
- Exceptions to the prohibition include discharges authorized in accordance with waste discharge requirements



Program of Implementation

- Regulated Dischargers

- Publicly-owned treatment works, dairies, municipalities, other facilities permitted under waste discharge requirements
- Updating of permits to improve control of regulated discharges

- Other Dischargers

- Owners of OWTS, homeless encampments, recreational water users, non-dairy animal facilities
- Cooperative approach with local regulatory agencies and stakeholders to implement management strategies to control discharges to surface waters from these sources



Onsite Wastewater Treatment Systems (OWTS)

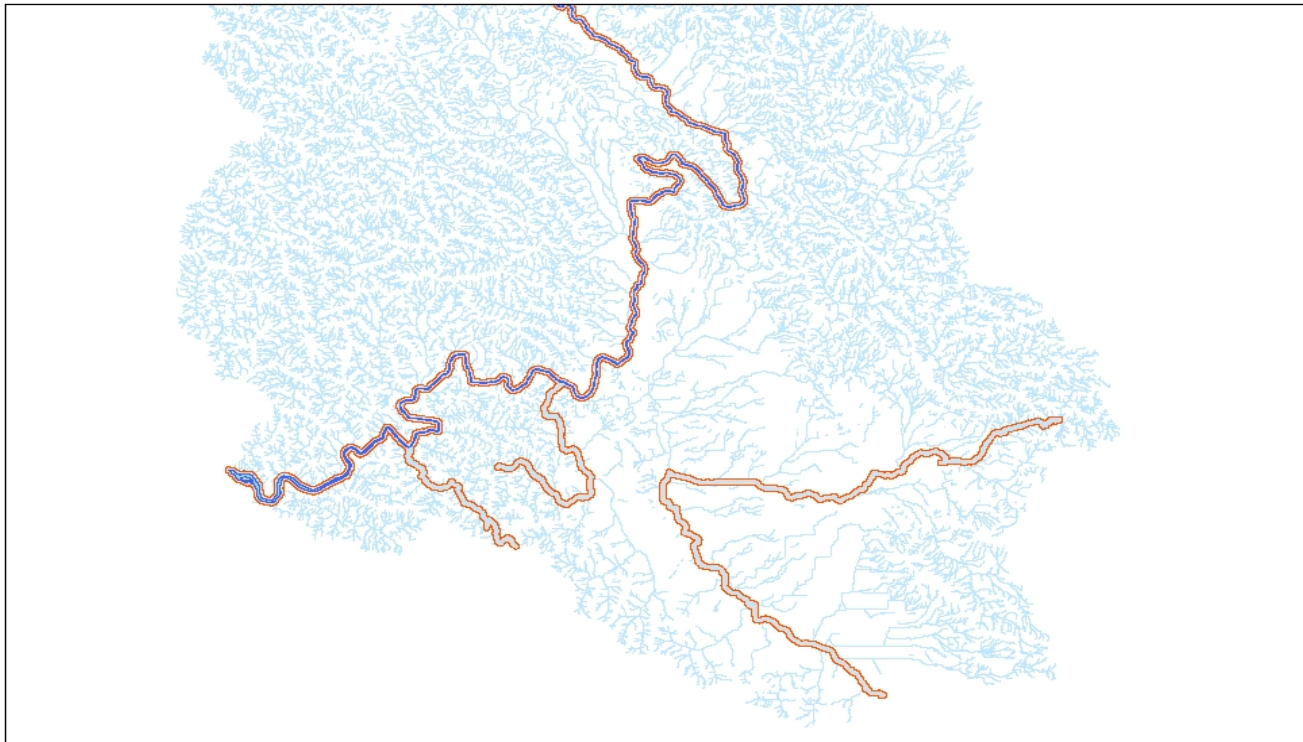
- **AB 885/Statewide OWTS Policy/Basin Plan Amendment**
 - Statewide Policy adopted in 2012
 - Incorporated into Basin Plan in 2015
 - Risk-based, tiered approach for OWTS management
- **(Tier 3) Program for Impaired Areas**
 - Advanced Protection Management Program (APMP) establishes standards for OWTS in Tier 3
 - Options:
 - Default requirements in OWTS Policy
 - Local Agency special provisions
 - Requirements set forth in a TMDL Program of Implementation



Advanced Protection Management Program

- Establishment of APMP Boundary
 - Based on results of TMDL monitoring during TMDL development
 - Proximity to surface waters (600 feet from natural bank of listed mainstem waterbodies)
 - Based on analysis of parcel density

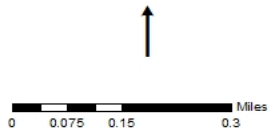
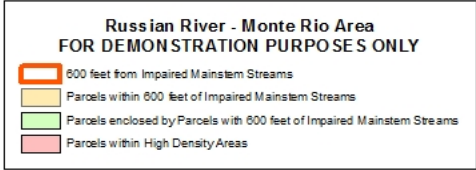
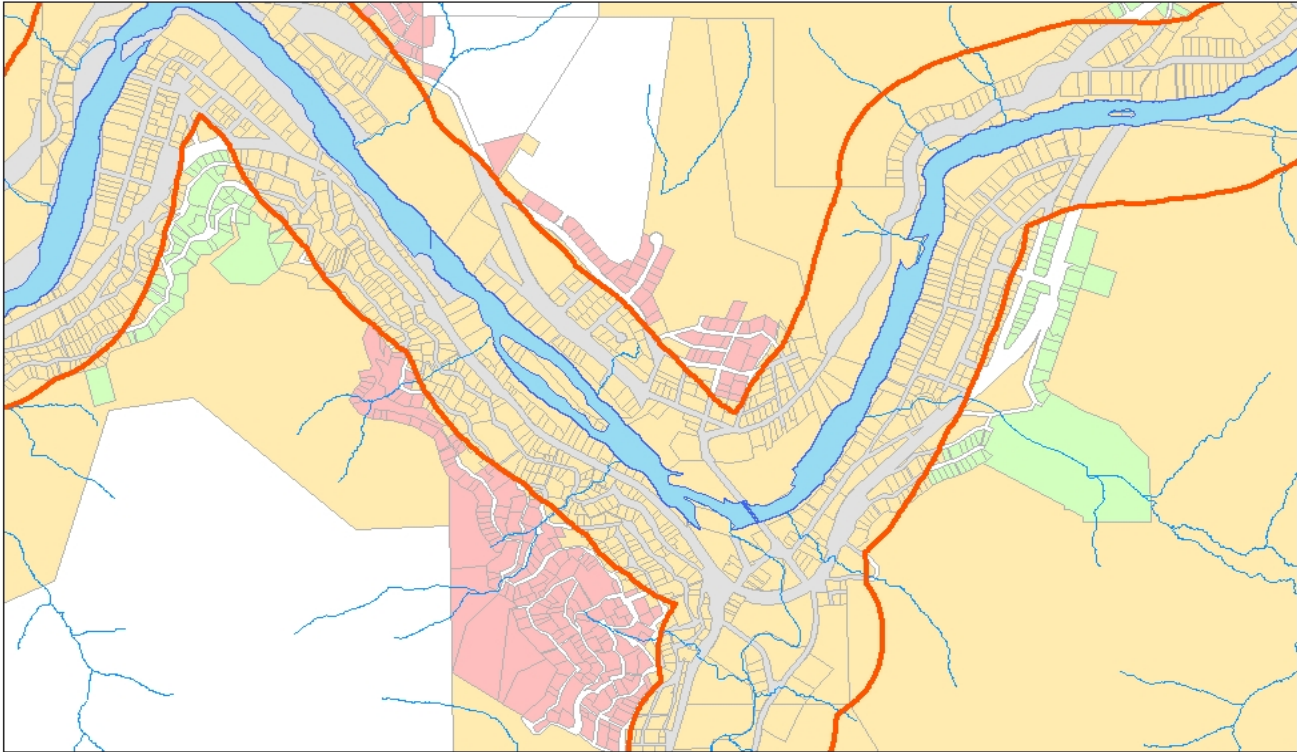
APMP Boundary Determination



Lower Russian River
FOR DEMONSTRATION PURPOSE ONLY
800 feet from Impaired Mainstem Streams



APMP Boundary Determination





Advanced Protection Management Program

- Definition of Substandard OWTS

- OWTS in need of major repair or replacement (e.g., surfacing effluent, wastewater backups into homes, failure to percolate)
- OWTS that do not include a septic tank and an effluent dispersal system that complies with local agency requirements (e.g., cesspools and pit privies)
- OWTS that cause or contribute to a condition of nuisance or pollution
- OWTS whose projected wastewater flow exceeds the treatment and disposal capacity of the OWTS
- OWTS that does not meet the current minimum local agency requirements for setbacks to groundwater, streams, drainageways, or cutbanks



APMP Requirements

- **OWTS Operation and Maintenance Program**
 - OWTS are required to be maintained in good working order and provide adequate treatment and disposal
 - OWTS are required to receive a basic operation inspection every five years
- **OWTS Assessment Program**
 - Initial assessment based on homeowner survey, questionnaire or inspection
 - Regional Water Board and local agency staff will coordinate to review assessment results and to develop individual or community corrective action plans
 - Owners of OWTS determined to be substandard will be notified by the Regional Water Board and may have to be repair or replace the OWTS through the local agency



Financial Assistance

- The Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Prop 1)
 - Allocates \$260M to the Clean Water State Revolving Fund Small Community Grant (SCG) Fund
 - Up to \$500K available as a planning grant for small disadvantaged communities
 - \$85M in Prop 1 Technical Assistance funding for small disadvantaged communities
 - Construction grants and/or low interested loan available
 - Applications for funding must be from public agency, but grants and loans may pass through agency to private entity

Contact Information

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http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/russian_river

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The screenshot shows the homepage of the California Environmental Protection Agency (CalEPA) North Coast Regional Water Quality Control Board. The page features a navigation menu with links for Home, About Us, Public Notices, Board Info, Board Decisions, Water Issues, Publications/Forms, and Press Room. A prominent banner for the North Coast Region is displayed, with the tagline 'Protecting California's Water'. Below the banner, there are several sections: 'Contact Us' with links for various topics like Hot Topics, Basin Plans, TMDLs, and Bacterial Water Quality Sampling; 'ANNOUNCEMENTS' with news items such as the next Board Meeting on July 15, 2010, and a waiver of waste discharge requirements; and 'IMPORTANT INFORMATION' with logos for 'Save Our Water', 'Water Quality', and 'Performance Report'. The footer includes a 'Water Boards' logo and a 'Back to Top' link.

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