

Item 11: Update on TMDL Development Efforts in the Laguna de Santa Rosa

December 6, 2012
David Kuszmar



Staff Introductions

- Rebecca Fitzgerald
- David Kuszmar, PE
- Steve Butkus
- Clayton Creager
- Bob Legge & Tom Williams, PG
- Katherine Carter & Alydda Mangelsdorf

Presentation Outline

1. Watershed Overview
2. TMDL Overview
3. Laguna TMDL Project Scope
4. Areas of Progress
5. Project Schedule

Laguna de Santa Rosa Watershed

- Largest tributary of Russian River (254 mi²)
- Metropolitan center of the North Coast Region
- 70 mi² of “Important Farmland” (per CA Dept. of Conservation)
- Largest freshwater wetlands complex on northern CA coast
- “Wetland of International Importance” (per Ramsar)



Laguna de Santa Rosa Watershed

Sub-Basins:

Laguna de Santa Rosa

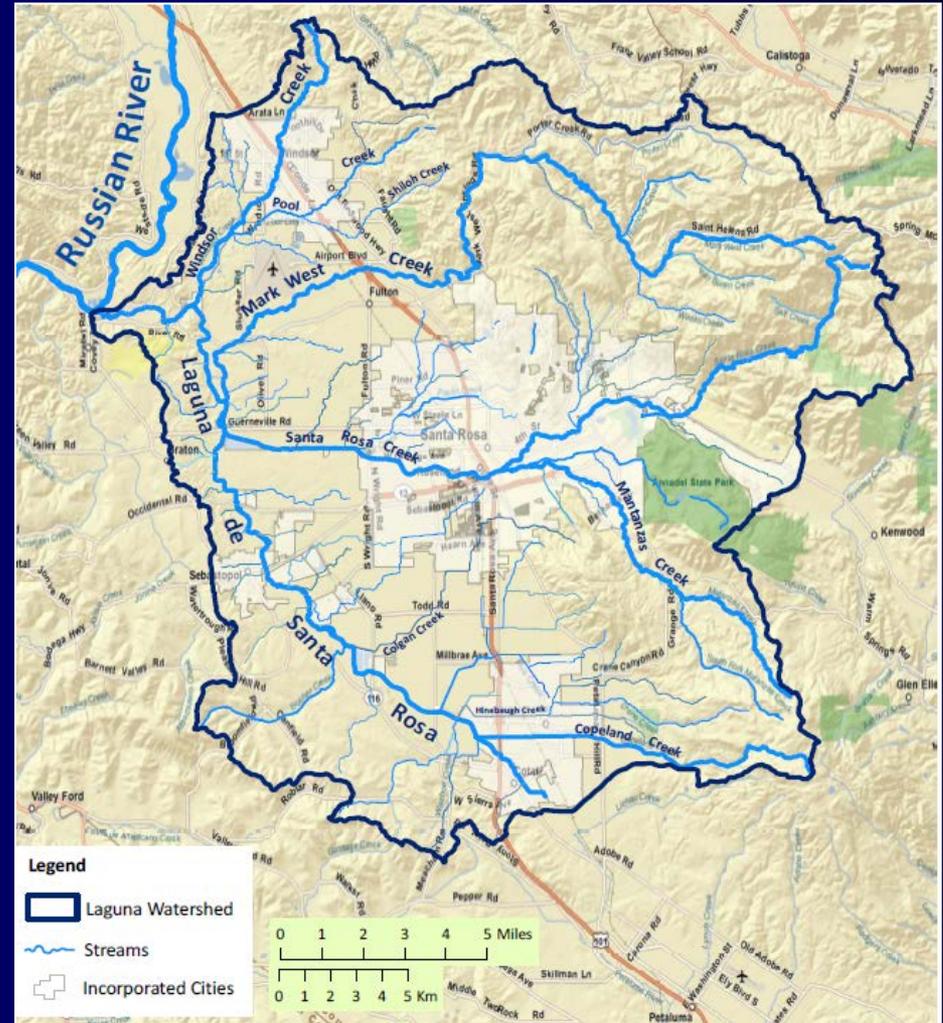
Windsor Creek

Mark West Creek

Santa Rosa Creek

Copeland Creek

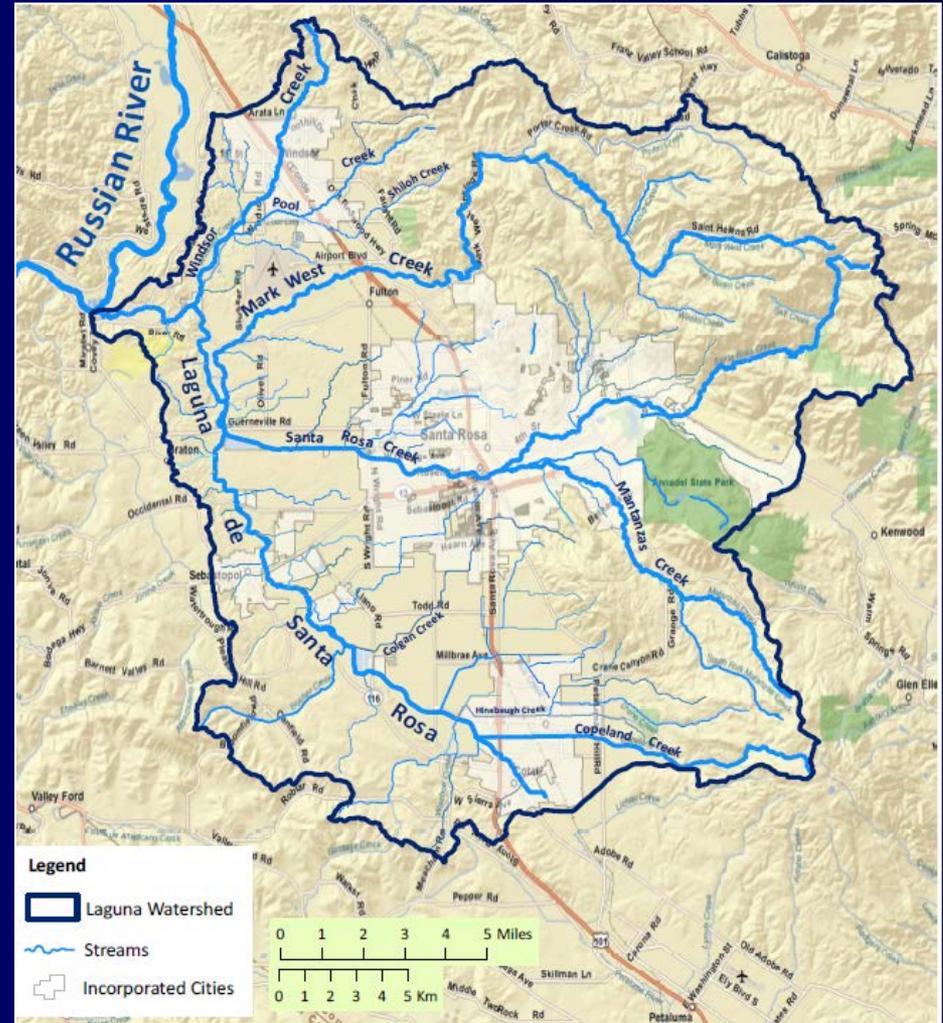
Blucher Creek



Laguna de Santa Rosa Watershed

Impairments:

Nitrogen
Phosphorus
Dissolved Oxygen
Temperature
Sediment
Bacteria
Mercury



What is a Total Maximum Daily Load (TMDL)?

- Pollution Control Plan for an Impaired Water Body
- Quantitative Assessment
 - Water Quality Problems
 - Contributing Sources
 - Load Reductions & Allocations
- Implementation Plan
- Monitoring Plan

Laguna TMDL Project Scope

All Basin Plan Amendments...

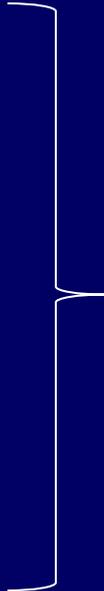
- Technical TMDLs for Listed Impairments
- Implementation Plan
- Monitoring Plan
- Revised WQO for Dissolved Oxygen
- New & Revised BU Designations

Areas of Progress

- Technical TMDL Development
- Stakeholder Outreach
- Early TMDL Implementation
- Support for Water Quality Trading & Other Collaborative Initiatives

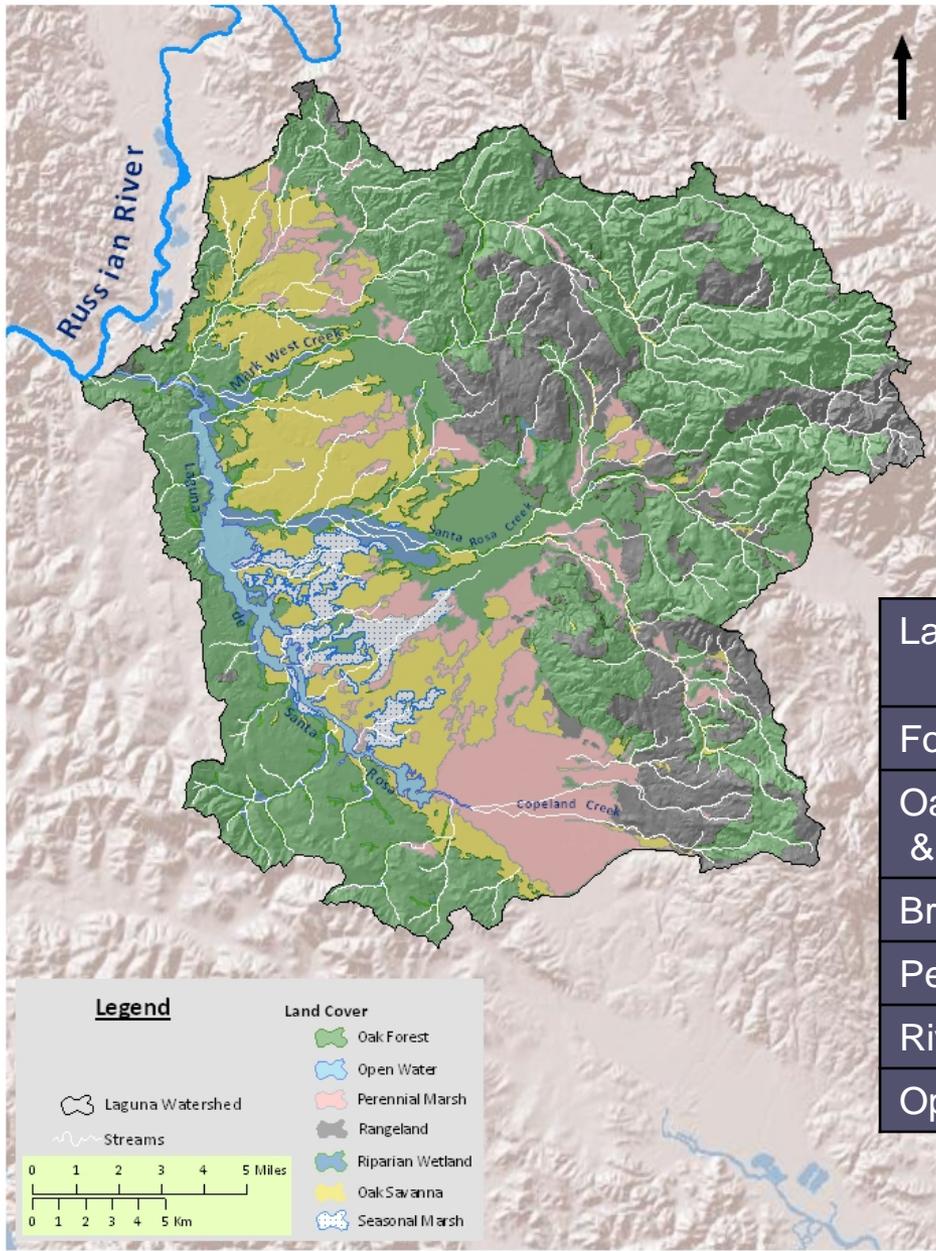
Technical TMDL Elements

- Problem Statement
- Numeric Targets
- Source Analysis
- Loading Capacity
- Load Allocation



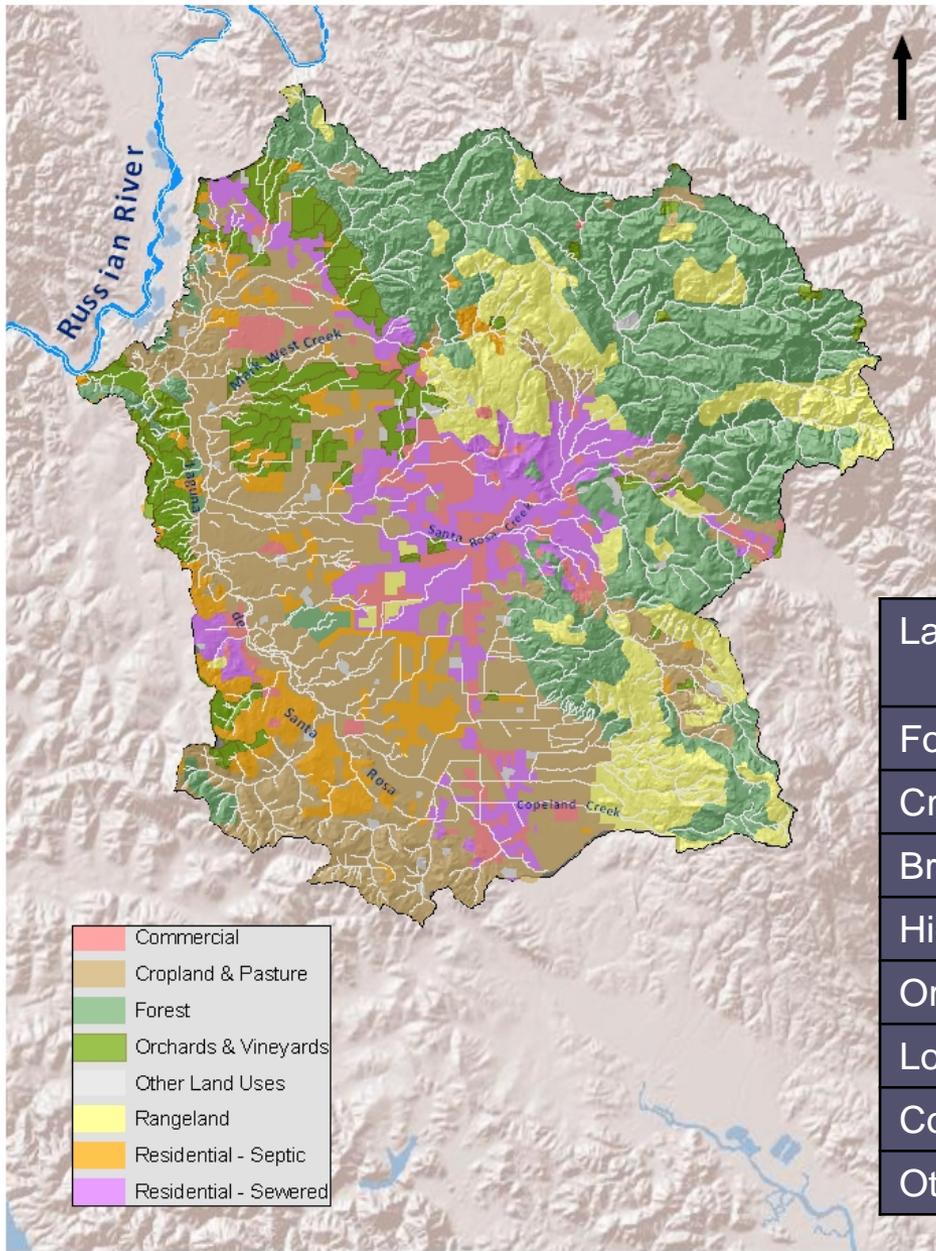
for each
listing

Pre-settlement Land Cover



Land Cover Category	Wet Year Acreage	Percent of Watershed
Forested Lands	84,515	52%
Oak Savanna & Vernal Pools	28,823	18%
Brush & Scrublands	24,292	15%
Perennial Wetlands	16,969	10%
Riverine Wetlands	5,145	3%
Open Water	3,045	2%

Current Land Cover



Land Cover Category	Wet Year Acreage	Percent of Watershed
Forested Lands	48,315	30%
Cropland & Pasture	44,458	28%
Brush & Scrublands	21,767	13%
High Density Residential	15,348	9%
Orchards & Vineyards	12,825	8%
Low Density Residential	9,857	6%
Commercial Areas	8,577	5%
Other Land Covers	1,461	1%

Nutrient Assessment in the Laguna

- Current total phosphorus concentrations exceed US EPA Ecoregion Criteria
- Sources assessed according to land use and season
- Significant reductions in phosphorus are needed

Initial Conclusions

- Reduce Sources
- Increase Assimilative Capacity



Stakeholder Outreach

- Critical for Project Success
- Stakeholder Plan
 - Communicate and inform
 - Gather meaningful input
 - Gain understanding
 - Generate support
- Past, Present & Future Efforts

Early TMDL Implementation

- Existing Programs and Permits:
 - Wastewater Permits
 - Stormwater Permits
 - Dairies & CAFOs
 - Ag Lands Discharge Program
(under development)
 - Nutrient Offset Program (City of SR)

Early TMDL Implementation

- Grants, Watershed Stewardship & Other Initiatives:
 - 319(h) Grants
 - RCD Programs
 - Water Quality Credit Trading

Support for Water Quality Credit Trading

- Driven by Regional Board Decisions
Re: City of Santa Rosa WWTP
- NRCS Conservation Innovation Grant
- Local, Expert Partners
- Promising, Innovative Strategy

Watershed Stewardship & Collaboration Opportunities

- Conservation Projects
- 3rd Party Programs
- Grant Support
- Education & Community Outreach
- Monitoring Coordination



Schedule for Laguna TMDLs

Activity	Timeframe
Stakeholder Outreach	Ongoing
Technical Analysis	Ongoing thru Spring 2013
Implementation Planning	Ongoing thru Summer 2013
Draft Ready for Peer Review	Fall / Winter 2013
Draft Ready for Public Review	Winter / Spring 2014
Regional Board Consideration	Spring / Summer 2014
State Board Consideration	Fall / Winter 2014
EPA Consideration	Spring / Summer 2015

Thank You!
Questions?