ITEM 8 LATE ADDITION

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MEETING OF JULY 10, 2019
BISHOP

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<td>SURFACE WATER AMBIENT MONITORING PROGRAM (SWAMP) CORE PROGRAM REVIEW</td>
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ENCLOSURE 2
Item No. 8

Surface Water Ambient Monitoring Program (SWAMP) Core Program Review

Lahontan Water Board Meeting
Bishop, CA

July 10, 2019

Kelly Huck
Environmental Scientist

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SWAMP Core Program Review

1. History of SWAMP
2. Regional SWAMP (2000-2020)
3. Regional SWAMP in Transition
4. Program Revisions
History of SWAMP

• Created in 2000

• State Water Board SWAMP Coordinates
  – Statewide monitoring programs
  – Data management
  – Tool development

• Regions focus on monitoring priorities unique to each region

Regional SWAMP (2000-2020)

Water Quality/Chemistry Monitoring

• Evaluating compliance with water quality objectives

• Targeted monitoring at 20-30 sites quarterly

• Primary source of data for the Integrated Report
Regional SWAMP (2000-2020)

Bioassessment Monitoring

• Tools and methodologies development

• Biological surveys, habitat monitoring, algae collections, and water quality data

Bioaccumulation Monitoring

• Mercury and PCBs

• Supports development of OEHHA fish consumption advisories

• Advisories posted at Donner Lake, Silverwood Lake, Little Rock Reservoir, and Lake Gregory
Regional SWAMP (2000-2020)

Toxicity Monitoring

- Stream Pollution Trends Monitoring Program (SPoT)
  - Evaluates trends in sediment toxicity and relates them to watershed land uses
  - Show no toxicity in the Lahontan Region, but pyrethroid pesticides have been detected in 9 of 10 sites screened

Special Studies

- Lake Tahoe Tributary Study (2013-2014)
- Bacteria Study (2012-2014)
- Microbial Source Tracking at Bacteria-Impaired Waters of the Lahontan Region
- Susan River Toxicity Project 2016
Regional SWAMP (2000-2020)

Data Management

• SWAMP Quality Assurance Program Plan (QAPrP)

• California Environmental Data Exchange Network (CEDEN)

• SWAMP data is used in statewide assessments and models to develop indices and assess water quality

Regional SWAMP in Transition

New Challenges

• Freshwater Harmful Algae Blooms (FHAB)

• Instream Flows

• Contaminants of Emerging Concern (CEC)

• Climate Change

• Data Management

• Safe Drinking Water
Program Revisions

New Management Questions

• Are the Region’s surface waters and watersheds healthy (i.e., support beneficial uses)?

• Is Climate Change impacting the Region’s waterbodies? If so, how?

• What are the water quality trends?

To determine trends (i.e. Is the water quality getting worse, better, or the same?) we will evaluate and report out on all data:

– 20 years of data plus future SWAMP data

– Water quality trends

– Biological health trends
Program Revisions

• Efficiencies – Increased Coordination with:
  – Water Board Regulatory and Enforcement Programs and TMDL and Basin Planning Programs
  – Regional partners
    • Eagle Lake Special Study
    • Tahoe Keys Property Owners Association

• New Tools and Technology
  • Assess Data More Frequently
Program Revisions

• Integrate Water Board Priorities
  – Protect Human Health and Aquatic Life
  – Support Disadvantaged Communities
  – Respond to Climate Change

Recommendation Summary

• Re-evaluate monitoring to improve the program and address new challenges
• Identify opportunities to improve program efficiency
• Maximize data access and use of analytical tools through new technology
• Integrate WB priorities in SWAMP more effectively