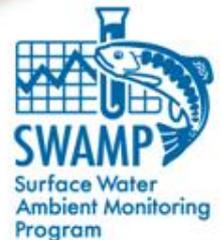


California's Surface Water Ambient Monitoring Program

SWAMP Comparable Program Guidance

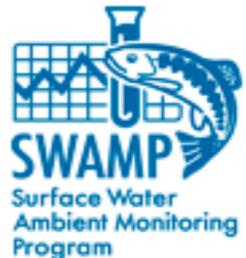


**Karen Larsen, Assistant Director
Office of Information Management and Analysis**



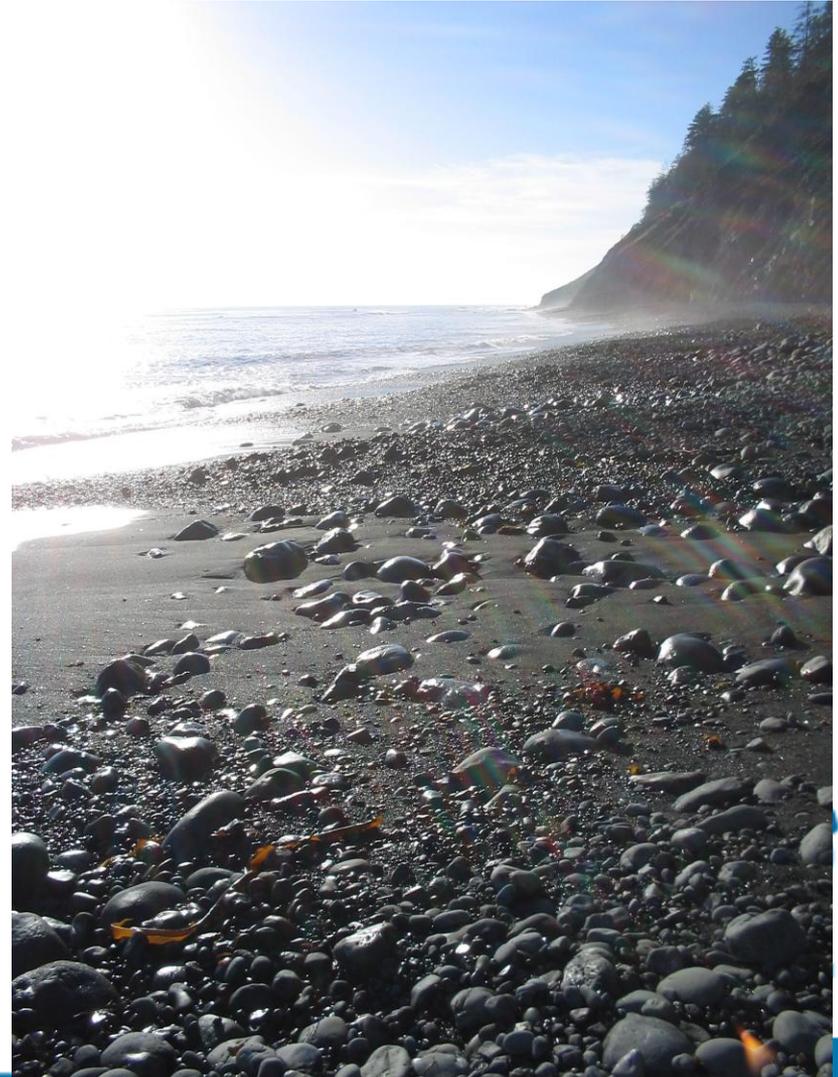
Outline

- The Surface Water Ambient Monitoring Program
- Building Comparability
- Why is Comparability Important?
- The Comparability Challenge
- How Do I Become SWAMP Comparable?
- Conclusions



Main components of SWAMP

- State-wide monitoring projects
- Biological Objectives
- Regional monitoring programs
- State-wide “umbrella”
(Comparability)



Building “Comparability”

- Common Indicators
- Comparable Methods
- Quality Assurance Program
- Database w/ Metadata
- Information Exchange Network
- Tool Box & Training



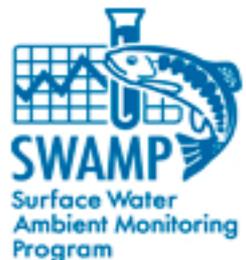
Comparability

- Goal: Monitor, Assess and Report in a consistent way that allows monitoring information to be shared or combined with other monitoring information.



Only surface water!

- SWAMP comparability only applies to surface water data. Ground water data is handled by the GAMA (groundwater ambient monitoring and assessment) Program.
- SWAMP comparability does NOT include effluent data – just receiving water.

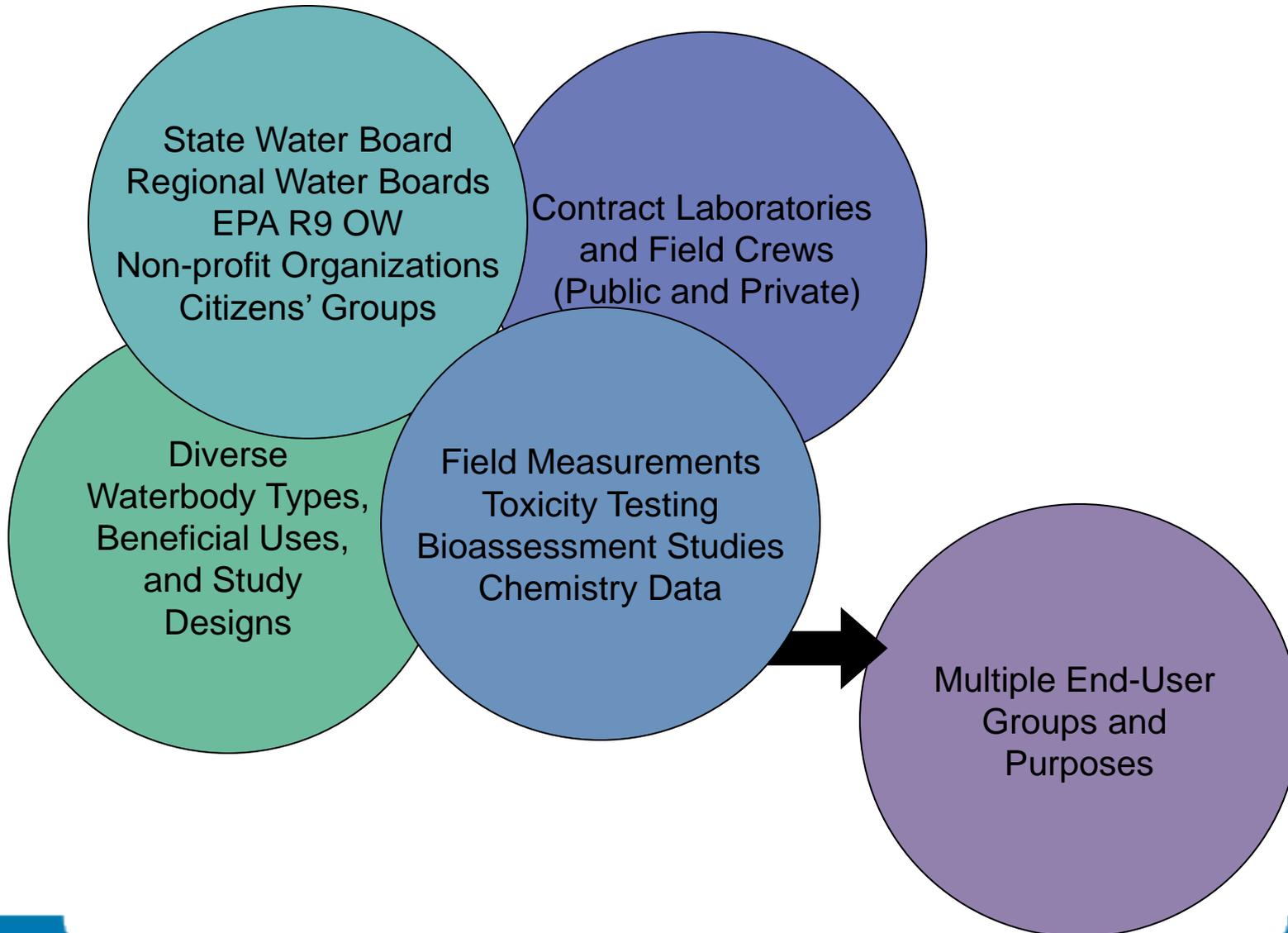


Comparability Benefits Everyone

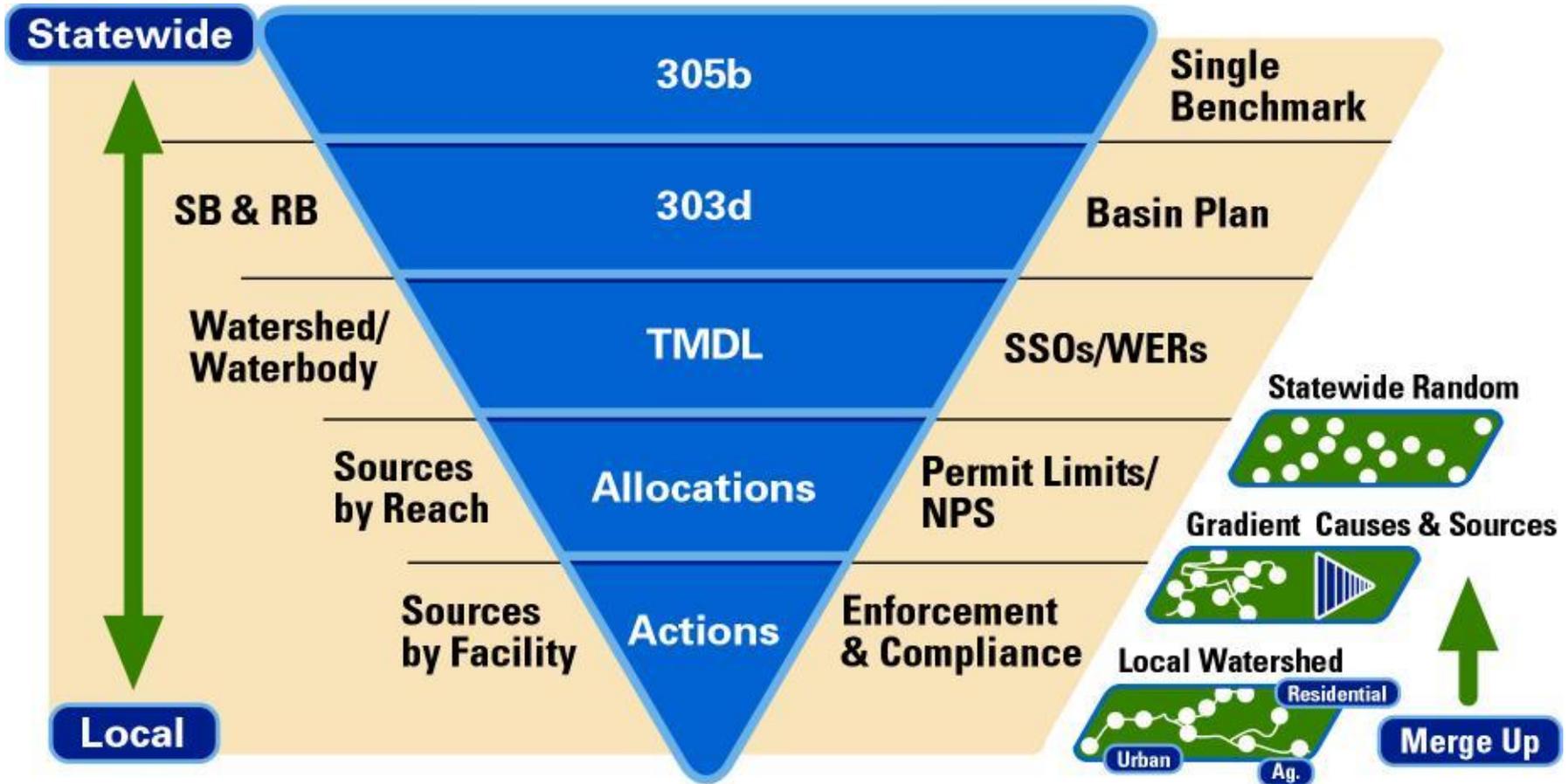
- Leveraging data
 - Better informed decisions
 - Historical data
 - Data from a broader geographical area
- Utilizing established systems
 - Saves time and money
 - Access to outside expertise
 - Access to cutting-edge science
- Known confidence in the data



The Comparability Challenge

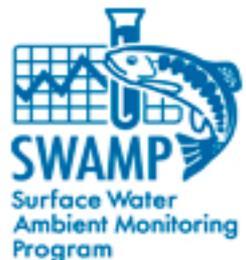


Data Comparability: The challenge w program integration



The SWAMP Answer

- Integrate objectives of multiple end-user groups
- Test systems on small scales, refine, and implement at program scale
- Assess and refine annually
- Ensure the DQO and DQA processes are used in planning and data reporting

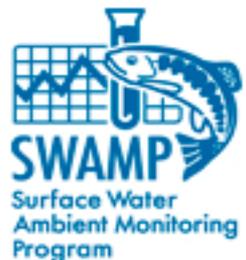


SWAMP QA and IM Comparability

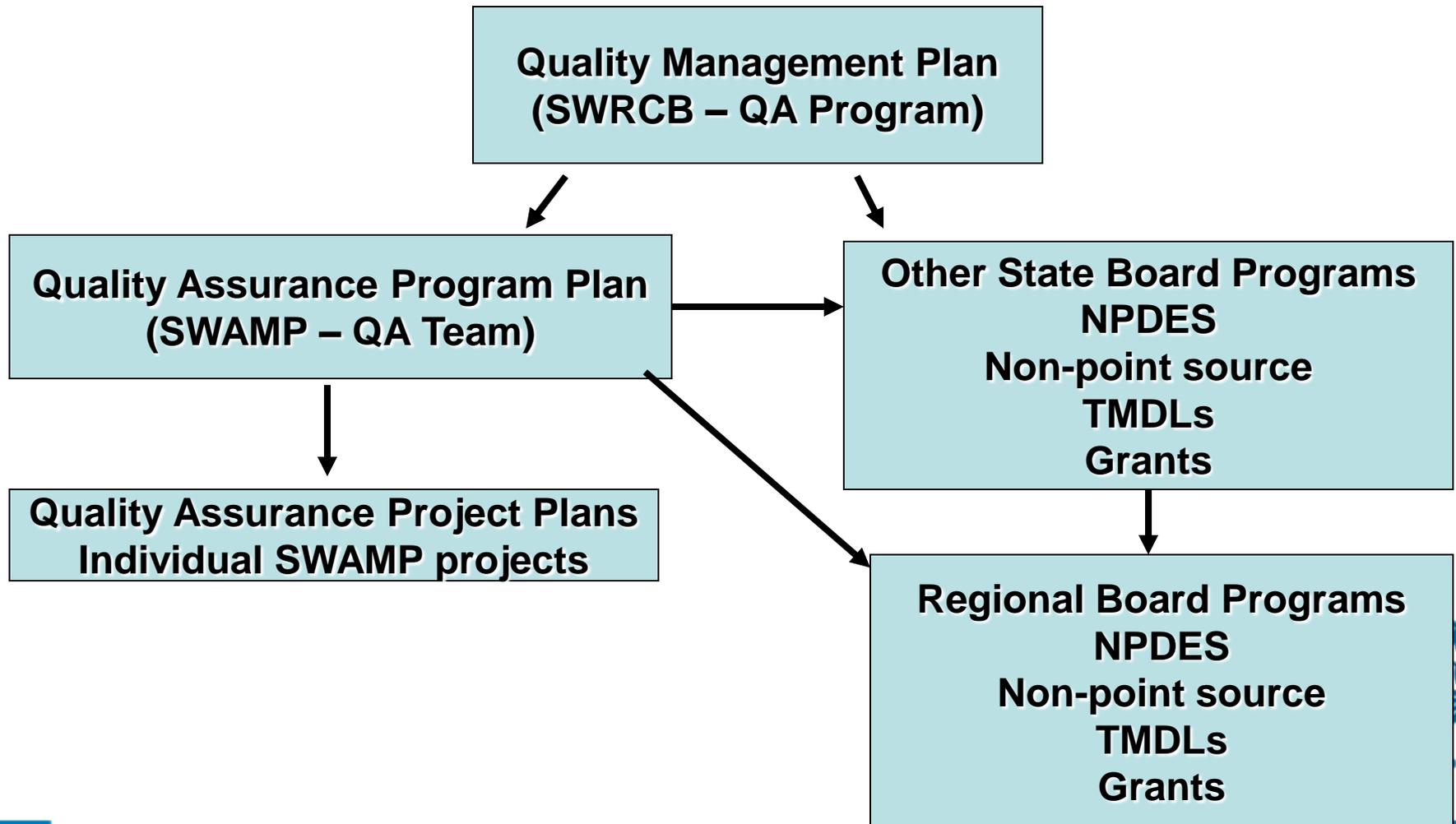
- Project Measurement Quality Objectives (MQOs) are equivalent to or better than SWAMP MQOs

and

- Project data is formatted to match database requirements of the SWAMP Information Management System (IMS)

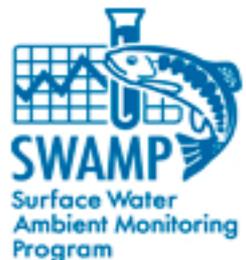


Framework for Ensuring Comparability



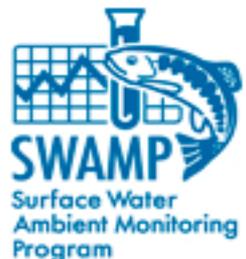
Method Selection

- Several method options for many analytes
 - NEMI
 - EPA
 - ASTM
 - Standard Methods
- Standardized methods based on consensus
 - Field methods
 - Bioassessment methods
- Alternate Methods - Performance Based System
 - Analytical chemistry analyses
- All selected methods support SWAMP MQOs



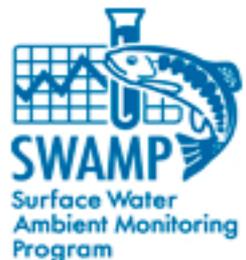
Quality Assurance Program

- Build comparability through QA/QC Tools and Systems
- Select tools based on scope of project
- SWAMP Tools
 - QAPP Template and Checklist
 - Standard Operating Procedures
 - Verification/Validation Procedures
- Encourage programs to use SWAMP MQOs
 - Developed through expert focus panels
 - Ground tested through SWAMP



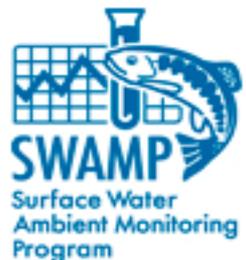
Quality Assurance Project Plans

- The SWAMP QAPrP serves as the umbrella QAPP
- Project-specific QAPPs
 - Must be approved prior to sampling initiation
 - Can refer to the QAPrP highlighting differences between Program and Project MQOs



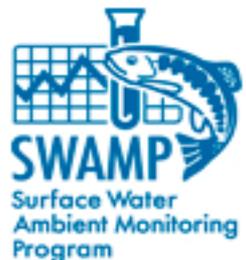
QA Expert System – SWAMP Advisor

- Produces a SWAMP-Comparable QAPP
- Leads users through complex decision making--provides expert advice
- User learns **why** information is needed
- User learns **how** to implement



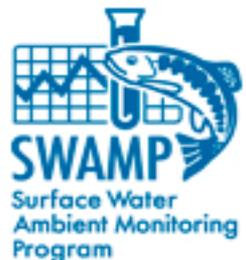
SWAMP Data Comparability

- Standard formats
 - Field datasheets
 - Laboratory submissions
- Centralized Database
 - Business rules
 - Look-up lists
- Documentation & Training
 - Manuals
 - Regular trainings



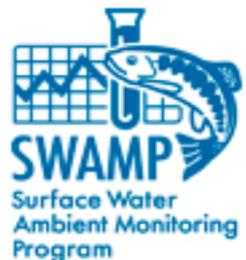
Data Integration & Accessibility

- Integrated data management
- Public access
- Shared information, costs and applications
- Water Quality Data Exchange



Conclusions

- Comparability is our most powerful tool for improving water quality
- The SWAMP program has an established infrastructure with multiple tools that are available to the public
- Leveraging saves time and money
- SWAMP Comparable Monitoring:
 - Contributes to the bigger picture
 - Helps others make better-informed decisions



Questions?

- Karen Larsen
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(916) 319-9769
- SWAMP Website
http://www.waterboards.ca.gov/water_issues/programs/swamp/
- SWAMP Comparability Information
http://www.waterboards.ca.gov/water_issues/programs/swamp/compare_info.shtml

