

California's Surface Water Ambient Monitoring Program

“SWAMP” Update -
2004

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Division of Water Quality

A Framework for Ambient Water Quality Monitoring

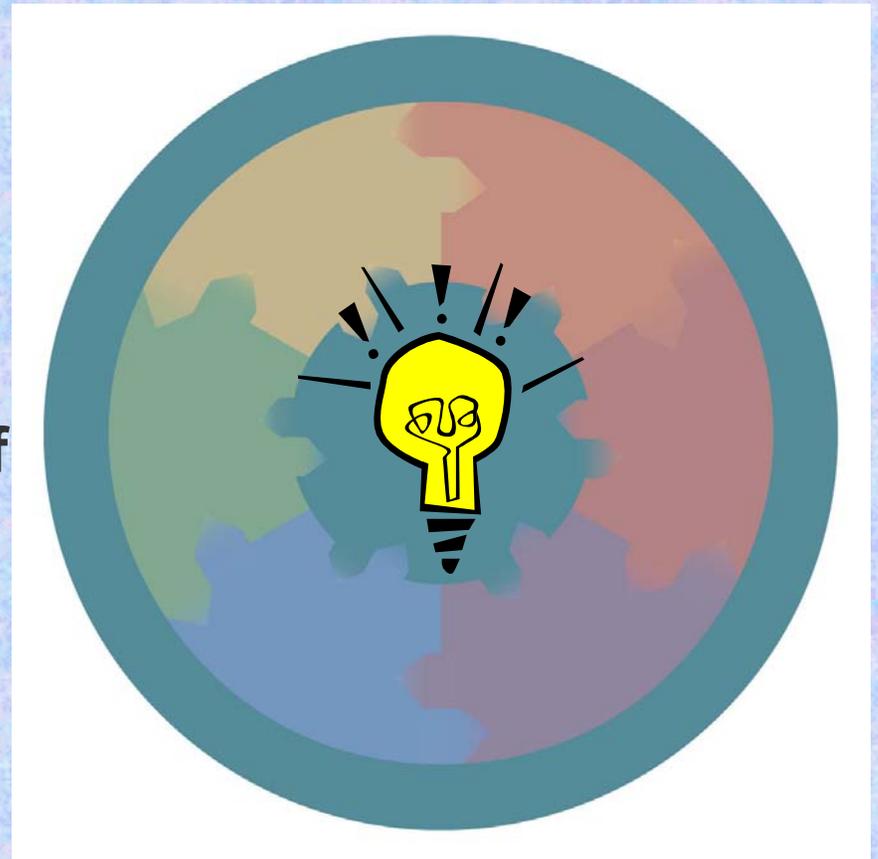
🌿 A Cornerstone goal of SWAMP is to provide a state framework to coordinate consistent and scientifically defensible methods and strategies for improving water quality monitoring, assessment, and reporting.

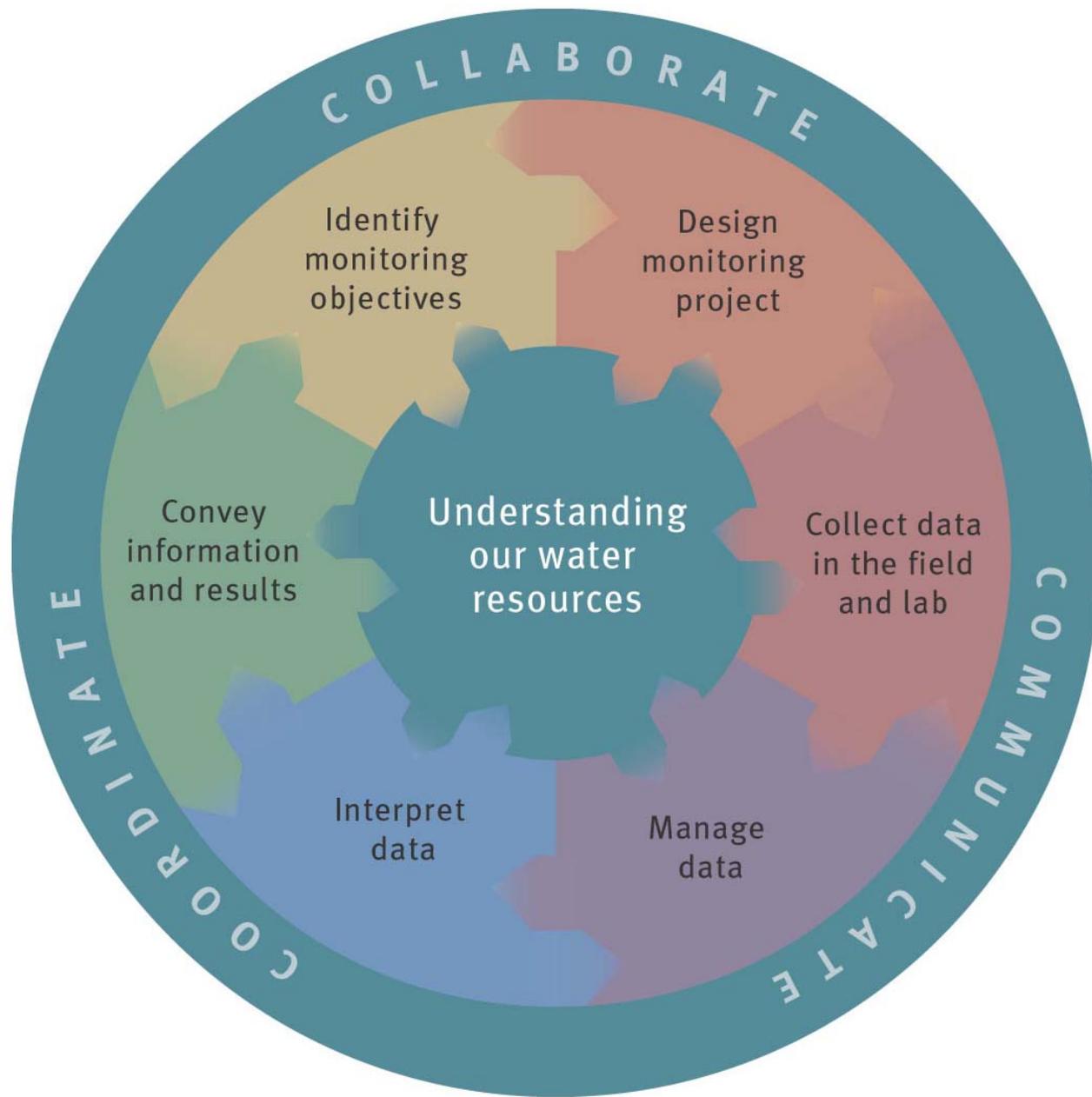
What's a Monitoring Framework?

☞ The process of monitoring and assessment should principally be seen as a *sequence of related activities* that

- **start with the definition of information needs and**
- **end with the use of the information product.**

UN/ECE Task Force on Monitoring and Assessment (2000)





Collaboration and Comparability

- ✿ Each year, government agencies, industry, academic researchers, and private organizations devote enormous amounts of time and money to monitor, protect, manage, and restore water resources and watersheds.

Why Focus on Collaboration & Comparability?

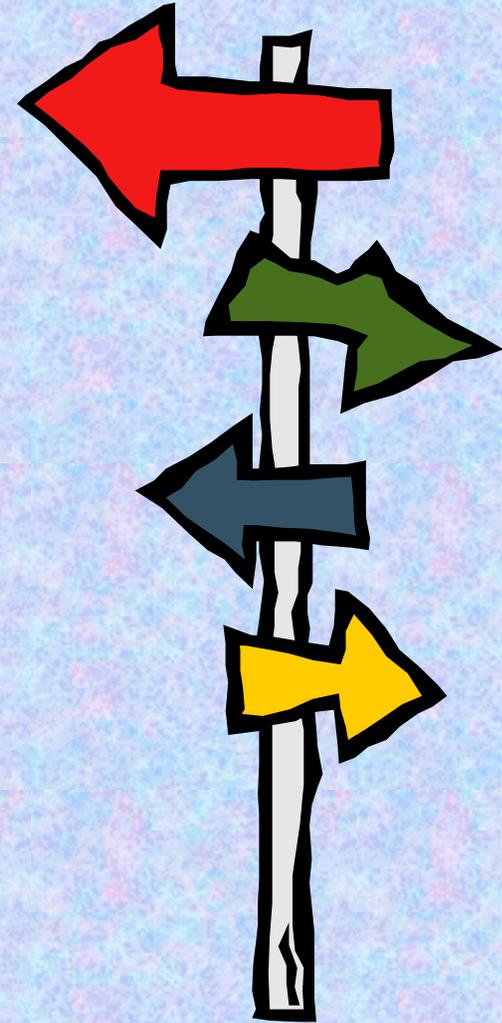
- 🐛 Critical differences in project design, methods, data analysis, and data management make it difficult for monitoring information to be shared by more potential data users.



Why do we monitor?

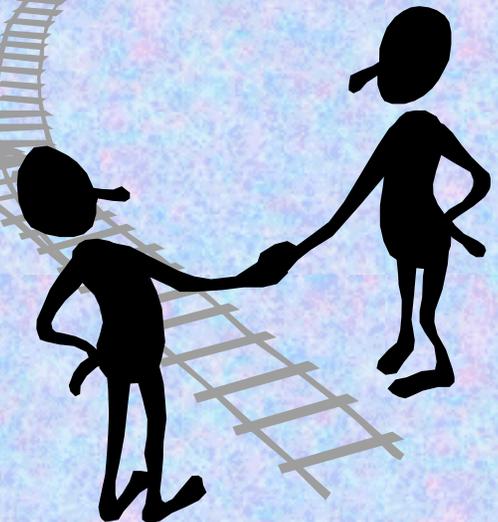
- Describe status and trends
- Describe and rank existing and emerging problems
- Design management and regulatory programs
- Respond to emergencies

*From the Final Report of the
Intergovernmental Task Force on
Monitoring (1995)*

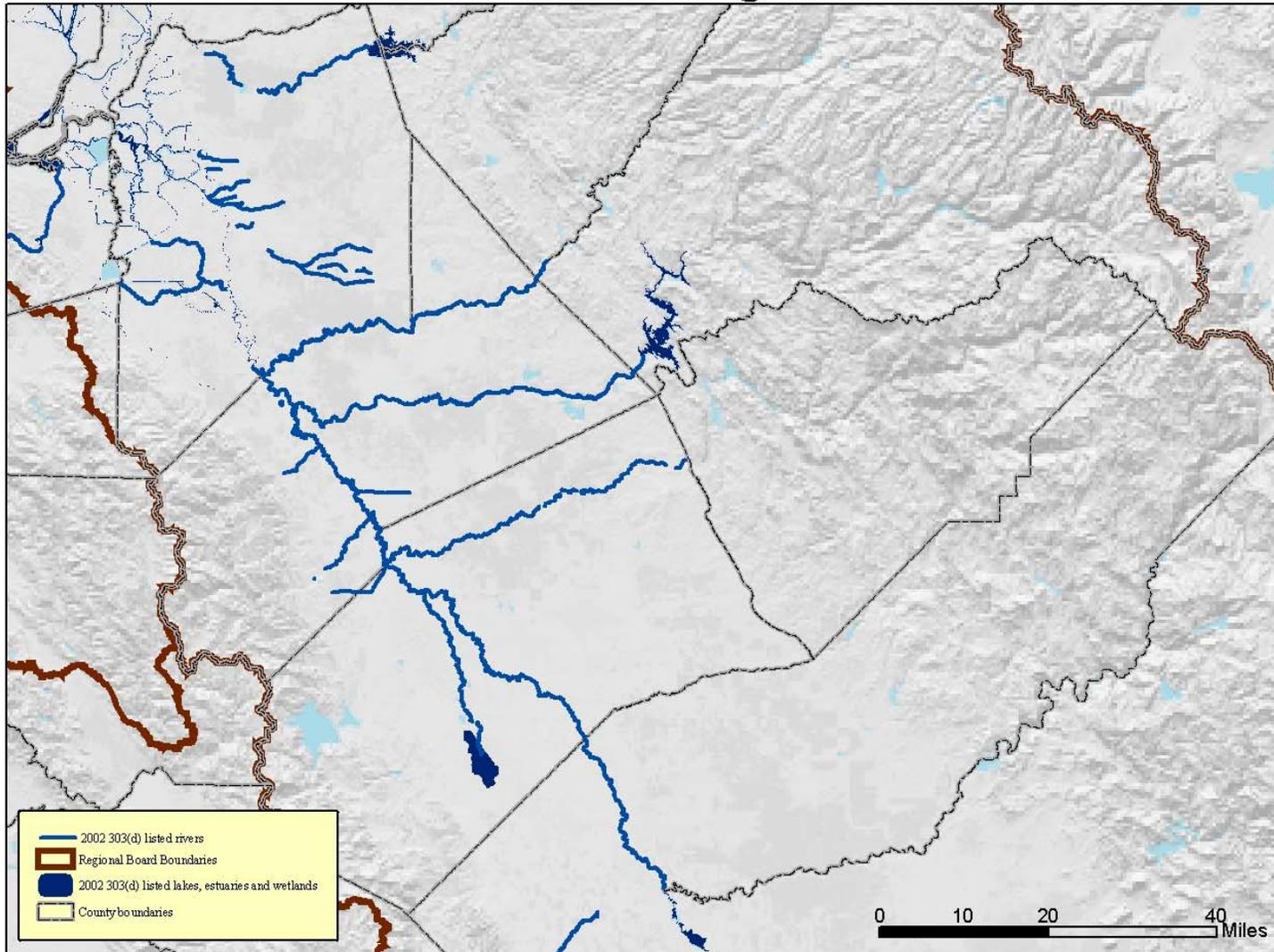


Collaboration and Comparability

- Development of a national and state monitoring strategy requires that we create a framework for *collaboration* and *comparability* among programs

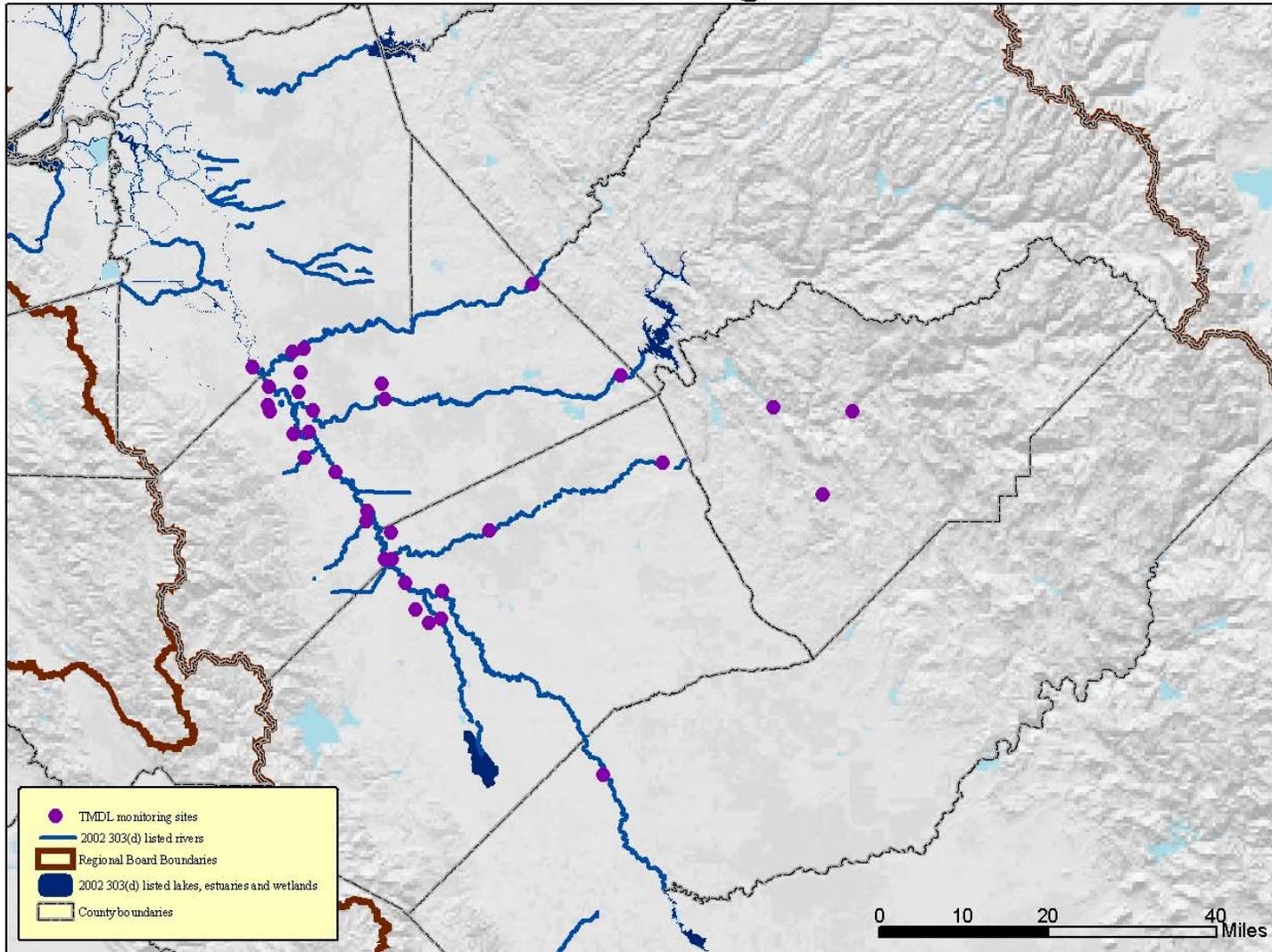


San Joaquin Basin 303(d) listed water bodies and TMDL monitoring sites



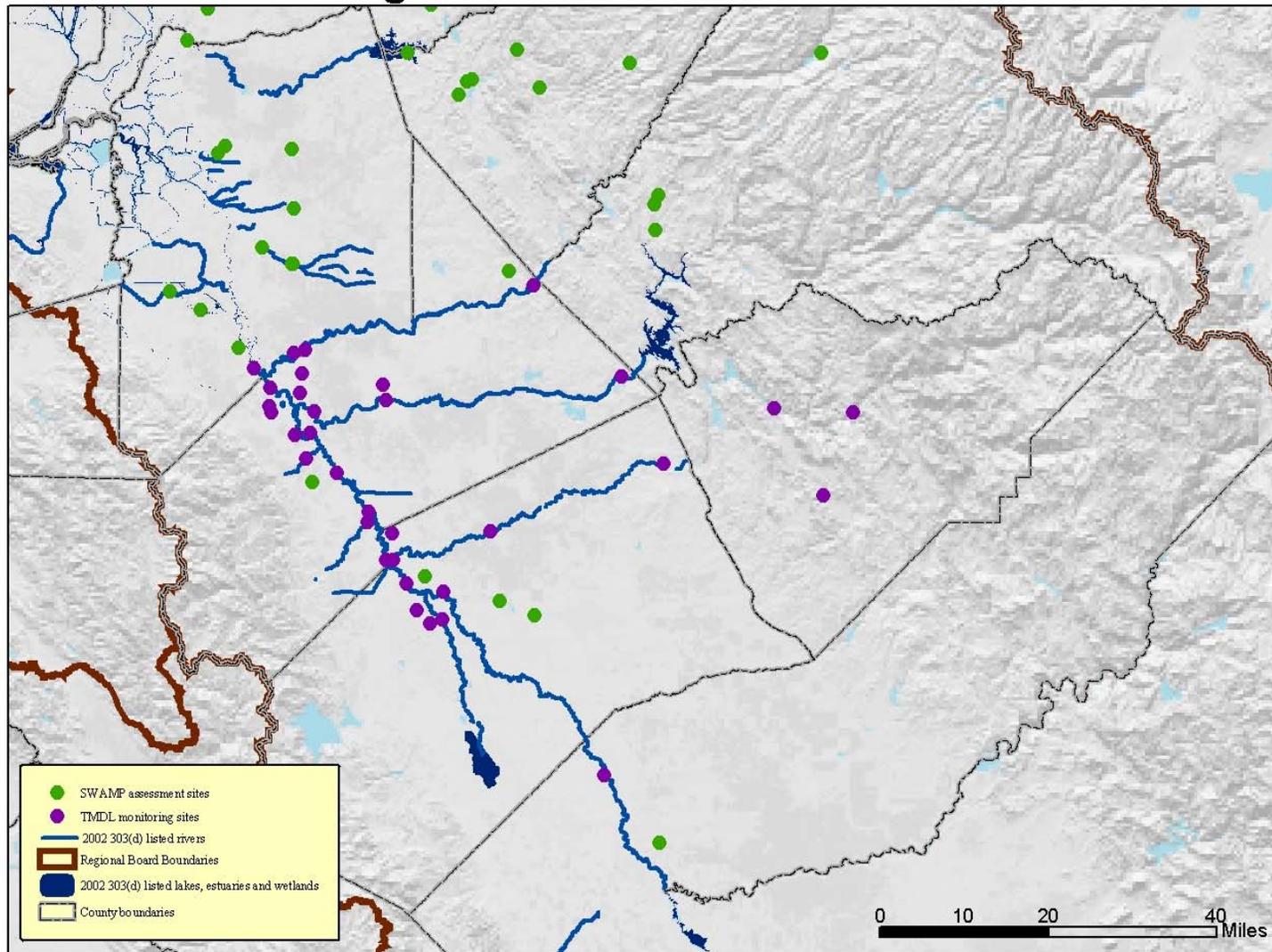
October 2003, Division of Water Quality, State Water Resources Control Board

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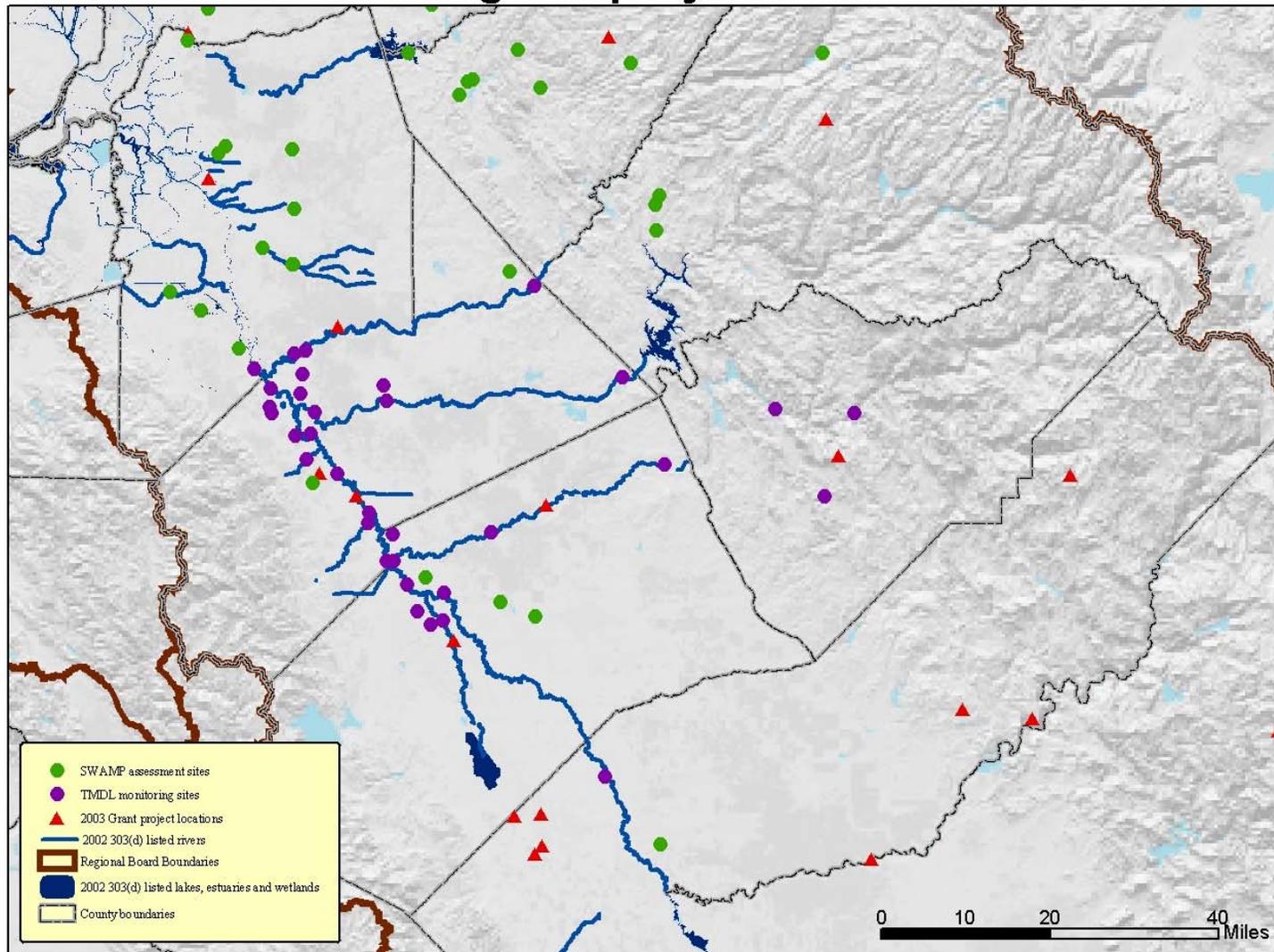
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San Joaquin Basin 303(d) listed water bodies, TMDL monitoring sites and SWAMP assessment sites.



October 2003, Division of Water Quality, State Water Resources Control Board

San Joaquin Basin 303(d) listed water bodies, TMDL monitoring sites, SWAMP assessment sites and 2003 grant project locations.



Why monitor?

- To provide the necessary information for effective watershed (water quality) management.

- What is the necessary information?

Why SWAMP?

- ☞ Comprehensive, unbiased assessment of all waters
- ☞ Trend analysis
- ☞ ID specific water quality problems
- ☞ Gather information to design pollution prevention or remediation programs
- ☞ Determine whether program goals are being met
 - **Compliance with regulations**
 - **Implementation of control actions (NPS MM)**

SWAMP:

- ☞ Required by AB 982 (WC sec.13191)
- ☞ Comprehensive state program (surface water)
- ☞ Coordinate all Board ambient water quality monitoring Programs/projects
- ☞ High Quality Data
- ☞ Comparable data
- ☞ Accessible

Advisory Groups

🌿 AB 982 Public Advisory Group

- 12 “regulated” community
- 12 “environmental” groups

🌿 SWAMP RT (State and Fed. Agencies)

🌿 Scientific Planning and Review Committee (SPARC)

SWAMP November 2000

☞ Proposed a cost efficient monitoring program to meet all CWA needs for all water types and pollutant sources

☞ Requested

- \$59 to \$115 million (\$4,900,000)
- 87 to 132 PYs (10 PYs)
- WDPF

2003-04 Reality Check

- ☞ Existing goals don't match the fiscal reality or current program
- ☞ Need realistic short-term objectives
- ☞ Need longer-term implementation strategy
- ☞ Need to pursue collaborative alternatives to data generation

Implementation Strategy - due June 2004

- ☛ Monitoring Program Strategy
- ☛ Monitoring Objectives
- ☛ Monitoring Design
- ☛ Core Indicators of Water Quality
- ☛ Quality Assurance
- ☛ Data Management
- ☛ Data Analysis/Assessment (CALM)
- ☛ Reporting
- ☛ Programmatic Evaluation
- ☛ General Support and Infrastructure

SWAMP Goals--2004

Status

- Consistent and objective sampling, analysis and assessment methods:
 - Sampling: standard field protocols;
 - Training Module (CD) - 2004
 - Analysis: performance based;
 - Assessment: 303(d) Policy - May 2004

SWAMP Goals--2004

Status

☞ Consistent data quality assurance:

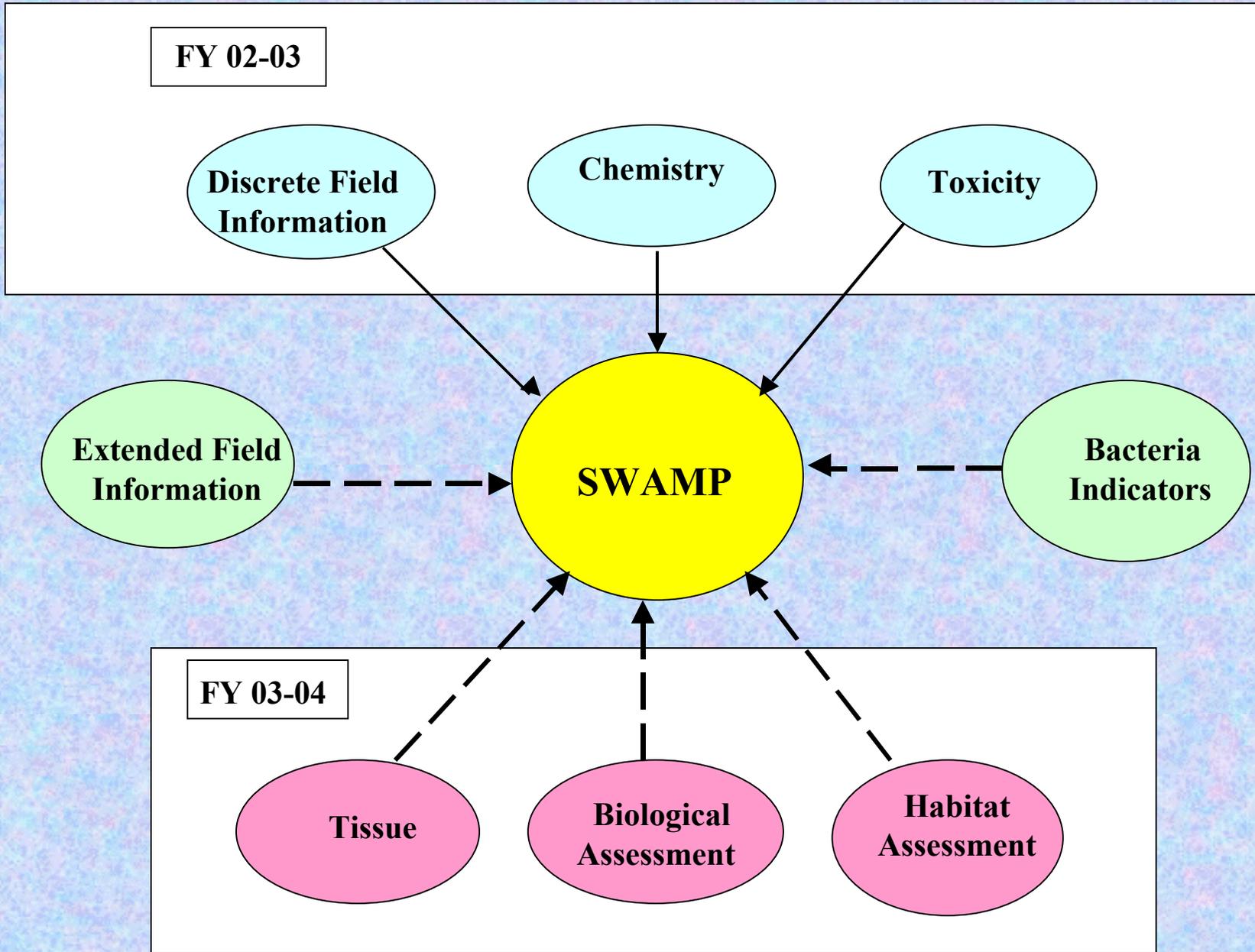
- Statewide QMP, 1st Ed.

☞ Tools:

- Training Course (March 2004)
- Template, Models, “Boilerplate”

SWAMP Goals--2004 Status- Data Management

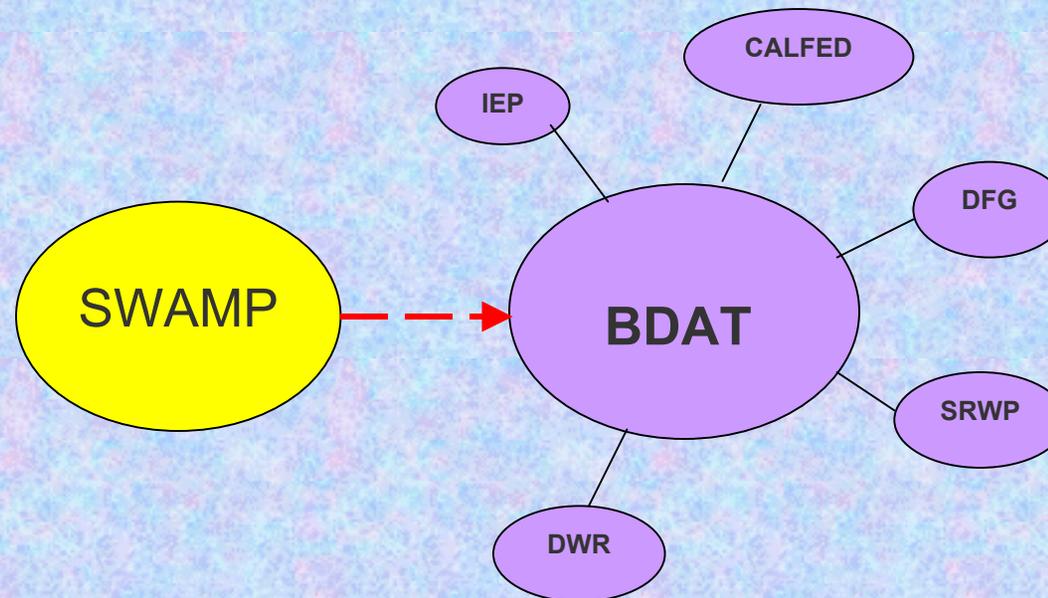
- Inclusive of all types of water quality monitoring -
 - **chemical, toxicity and field data**
 - **tissue, bacteria indicators, biological, habitat characteristics**
- Training
 - **On-site**
 - **User's guide**



SWAMP Goals--2004 Status- Data Management

- ☞ Integrated data management-
 - **SWAMP--->BDAT**
 - **BDAT link to STORET**
 - **SWAMP link to SCCRWP and SFEI**
 - **SWAMP-->CA Water Quality Information System (CWQIS)**
- ☞ Public Access

Database Integration



SWAMP = Surface Water Ambient Monitoring Program
BDAT = Bay-Delta and Tributaries Database
IEP = Interagency Ecological Program
DFG = Department of Fish & Game
SRWP = Sacramento River Watershed Program
DWR = Department of Water Resources
CALFED = State and Federal Interagency Group

SWAMP:

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Status Program Coordination

☞ FY 02-03:

- TMDL Program
- Grant Projects

☞ FY 03-04

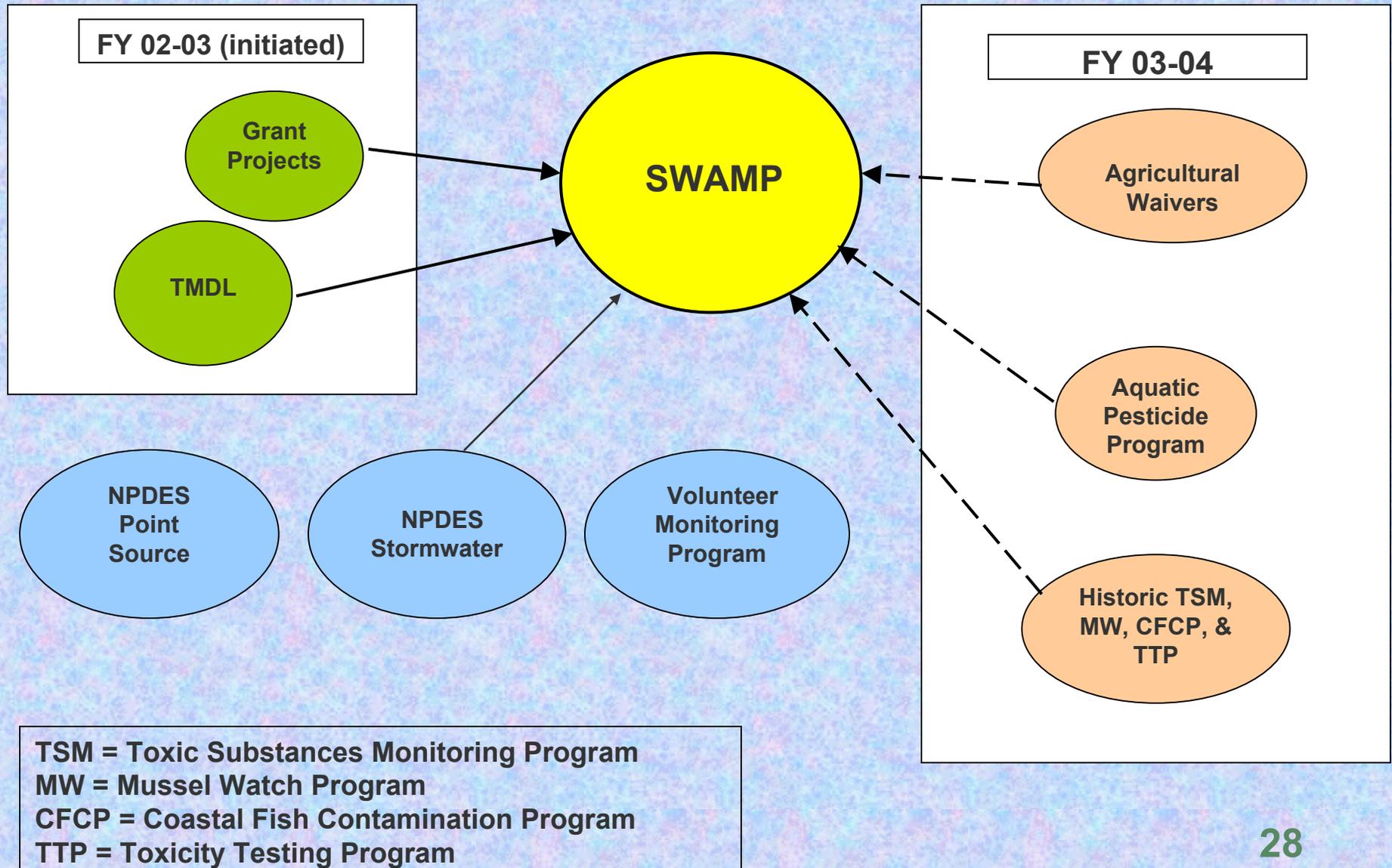
- (US EPA) EMAP (---->305b, 319h, EPIC)
- Agriculture Waiver Program (R5)
- Aquatic Pesticide Monitoring

☞ FY 04-05

- Regional Storm Water Monitoring

Monitoring Coordination

(Consistent data quality and reporting)



Outstanding Issues - Insufficient Resources

- ☞ Increase in SWAMP “partners”
- ☞ Consistency/Comparability = Training
- ☞ QA Coordination
- ☞ Requesting/receiving data
- ☞ Resistance to change

Questions?

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