



**Winston H. Hickox**  
*Secretary for  
Environmental  
Protection*

# State Water Resources Control Board

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## Division of Water Quality

10011 Street • Sacramento, California 95814 • (916) 341-5560  
Mailing Address: P.O. Box 944213 • Sacramento, California • 94244-2130  
FAX (916) 341-5550 • Internet Address: <http://www.swrcb.ca.gov>



**Gray Davis**  
*Governor*

July 11, 2003

Members and Alternates:

### MEETING OF THE AB 982 PUBLIC ADVISORY GROUP

The AB 982 Public Advisory Group (PAG) will meet on July 23, 2003 in the Sierra Hearing Room and on July 24, 2003 in the Coastal Hearing Room, in the Cal/EPA Building located at 1001 I Street in Sacramento, California. Both hearing rooms are located on the second floor of the Cal/EPA Building.

Please find enclosed the meeting agenda and the documents supporting many of the agenda items. If you are planning to have handouts, please bring at least 40 copies for the PAG members and audience.

If you have any questions regarding the PAG or the meeting, please call me at (916) 341-5560.

Sincerely,

Craig J. Wilson, Chief  
TMDL Listing Unit  
Division of Water Quality

Enclosures

cc: Interested Parties

# AB 982 Public Advisory Group

Wednesday July 23, 2003

3:00 p.m. to 6:00 p.m.

Sierra Hearing Room  
1001 I Street, 2<sup>nd</sup> Floor Cal/EPA Building  
Sacramento, California

## **AGENDA – Day 1**

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1. *Convene Meeting – Co-Chairs* 3:00 p.m. – 3:05 p.m.
2. *Introduction* 3:05 p.m. – 3:10 p.m.
  - Steve Ekstrom
  - Description of the meeting: 2004 Section 303(d) List, SWRCBs Listing and De-listing Policy Development, SWAMP Update, TMDL Guidelines Development, TMDL Program Update.
3. *October 22, 2002 Meeting Summary* 3:10 p.m.—3:20 p.m.  
Action Item: Consider approval of Meeting Summary (Attached)
4. *2004 Section 303(d) List Update* 3:20 p.m.—3:35 p.m.
  - Craig J. Wilson
  - Schedule (Attached)
  - Dialogue/Discussion
5. *Listing/De-Listing Policy Development* 3:35 p.m.—5:35 p.m.
  - Craig J. Wilson
  - Link to the Draft Policy and Flow Charts (Attached)
  - Discussion on progress and next steps
  - Dialogue/Discussion
6. *Public Comment and Questions* 5:35 p.m.—5:50 p.m.
7. *Wrap- up and Topics for Next Day* 5:50 p.m.— 6:00 p.m.
8. *Adjourn* 6:00 p.m.

# AB 982 Public Advisory Group

Thursday, July 24, 2003

9:00 a.m. to 4 p.m.

Coastal Hearing Room  
1001 I Street, 2<sup>nd</sup> Floor Cal/EPA Building  
Sacramento, California

## AGENDA – Day 2

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- |   |                       |
|---|-----------------------|
| 9. <i>Convene Meeting – Co-Chairs</i>   | 9:00 a.m. – 9:05 a.m. |
| 10. <i>Listing/De-Listing Policy Development</i><br><i>(Continued from July 23)</i> <ul style="list-style-type: none"><li>• Dialogue/Discussion</li></ul>   | 9:05 a.m.—10:15 a.m.  |
| 11. <i>Update on SWAMP Status</i> <ul style="list-style-type: none"><li>• Val Conner (Presentation Attached)</li><li>• Dialogue/Discussion</li></ul>  | 10:15 a.m.—10:45 a.m. |
| 12. <i>TMDL Guidelines Development</i> <ul style="list-style-type: none"><li>• Tom Mumley</li><li>• Link to the Draft Guidelines (Attached), Draft Regulatory Provisions (Attached)</li><li>• Discussion on progress and next steps</li><li>• Dialogue/Discussion</li></ul> | 10:45 p.m.—11:30 p.m. |
| 13. <i>Lunch</i>  | 11:30 a.m.—12:30 p.m. |
| 14. <i>TMDL Guidelines Development (Continued)</i> <ul style="list-style-type: none"><li>• Dialogue/Discussion</li></ul>  | 12:30 p.m.—3:00 p.m.  |
| 15. <i>TMDL Program Update</i> <ul style="list-style-type: none"><li>• Staff Presentation (handouts will be available at meeting)</li><li>• Dialogue/Discussion</li></ul>   | 3:00 p.m.—3:30 p.m.   |
| 16. <i>Public Comment and Questions</i>   | 3:30 p.m.— 3:45 p.m.  |
| 17. <i>Wrap- up</i>   | 3:45p.m. — 4:00 p.m.  |
| <i>Adjourn</i>  | 4:00 p.m.             |

## Agenda Item 3

October 22, 2002 Meeting Summary

## **AB 982 Public Advisory Group**

California Chamber of Commerce  
1215 K Street, Suite 1400  
Sacramento, California

### *Meeting Summary*

Tuesday, October 22, 2002

**Convene Meeting:** Co-Chairs Craig Johns and Linda Sheehan opened the meeting at 9:15 a.m. and declared a quorum.

**Introduction:** Steve Ekstrom, PAG facilitator, asked members to introduce themselves. He gave a description of the agenda noting that there were four main topics: update on the 303(d) list; listing/delisting policy; development of TMDL guidelines and the future direction of the PAG.

**Summary of the July 23, 2002 meeting:** The summary was accepted as mailed.

**Update on the Section 2002 303(d) List.** Craig J. Wilson stated that there were 295 individual and organization responses to the proposed list, totaling 1650 separate comments. Revisions to the proposal were made, in most cases, in response to this input. Copies of a document containing all stakeholder suggestions and staff responses were available at this PAG meeting. Looking forward, written comments are due by November 1, followed by a Board workshop on November 6, 2002, and a Board meeting to be held on November 19, 2002.

**{Please Note:** On November 8, 2002 the SWRCB extended the comment period to December 6, 2002. The 303(d) List will be considered for approval on January 22, 2003 at the SWRCB Board Meeting.}

Craig Wilson made the following initial points:

- In 1998, 509 water body segments were proposed for the 303(d) list; in 2002, 675 segments are proposed (39 are the result of segmentation changes).
- GIS was used to map the segments.
- The approach taken by staff was to use the 1998 list as a basis for the new list; data from each water body was examined for its quality, as was the beneficial use for each water body; if there was only one data point or exceedance, the water body was not listed.

PAG comments included:

- More time is needed to review the documents containing the propose list; 8 days is not enough time, 30 days are needed; the process shouldn't be driven by U.S.

EPA dates. Based upon this concern a consensus point was agreed to. It was decided that a letter expressing this consensus would be sent to the Chair of the SWRCB signed by the PAG Co-chairs.

***Consensus point: “The PAG strongly urges the State Board to postpone by at least thirty (30) days, its currently scheduled workshop and associated November 1 written comment deadline, to take public comments on the proposed revisions to the 2002 Section 303(d) List of impaired water bodies. If the State Board is unable or unwilling to postpone the November 6 workshop, then the PAG urges the State Board to extend the public comment period until December 1 and hold a subsequent workshop prior to adopting the revised 2002 Section 303(d) List.”***

Other questions/comments from the PAG regarding the proposed 303(d) list included:

- Is the mapping data new or old? Response: 1998 data represented educated guesses; 2002 data is more refined and GIS-driven, there is also better segmentation.
- The GIS Mapping is a good planning tool.
- Can the PAG get a copy of the map? Response: Ultimately it will be on the website.
- Can a change sheet be circulated that would make it easier to compare the 1998 list to the 2002 list? Response: Staff will try to produce this, but it could represent an enormous amount of work.
- There’s not a fact sheet for some temperature listings; this inconsistency could make some listings vulnerable.
- Some staff responses weren’t really responsive to comments that were made; how can the public decipher this? Response: This was a complex and difficult process involving over 1600 comments requiring responses; staff grant that some staff responses could have been more specific had there been more time.
- Was any consideration given to the newness or age of the data? Response: Yes, it was looked at on a case-by-case basis depending on the factor, e.g., sediments, dissolved oxygen, etc.
- Staff are to be applauded for their hard work, in spite of the occasional inconsistencies.
- There should be fact sheets for the water bodies carried over from the 1998 List in the Staff Report.

**Report to the Legislature:** This was an additional agenda item pertaining to the status of the legislative report. Staff indicated that comments had been received from the environmental caucus but not from the regulated caucus. Currently the report is being reviewed in the SWRCB Executive Office.

**Reductions in SWAMP funding:** This was also an additional agenda item, carried over from a related discussion at the last PAG meeting. The PAG reiterated its concern about

reductions in monitoring. After much discussion, the following consensus point was reached:

***Consensus point: “The PAG considers a robust SWAMP program as key to the full implementation of the TMDL program, and recommends that it be given the same funding priority as the TMDL program.”***

In addition, the environmental caucus requested the minutes reflect the following: “The environmental caucus of the PAG recommends that the State Board consider use of clean-up and abatement funds to restore the \$500,000 in SWAMP funding which has been eliminated in FY 2002-03.”

**Concepts for the Listing/De-Listing Policy:** Craig Wilson reminded the PAG that at the last meeting they had agreed on two points, that the listing/de-listing process be “transparent” and that a standard set of tools be employed. He asked if the PAG might consider any other consensus points. He noted that in reviewing the letters from each caucus some intersection of interests seemed to emerge, e.g., full documentation, and consistent, repeatable and do-able processes.

The environmental caucus reiterated that a robust policy needs a robust “engine”, e.g., staff and funding. Unfortunately, it lacks the latter (note the reductions to monitoring program).

The regulated caucus suggested the Water Board adopt a strong policy, even in lean budget times, so that it can be implemented when resources are eventually increased.

Overall, staff were encouraged to weigh in on the policy statement, and not attempt to satisfy all stakeholder interests.

**Public comment:** Just before the lunch break the public was invited to comment. No one chose to speak at this time.

**TMDL Guidelines Development:** Tom Mumley presented an update on the development of TMDL guidelines. He provided handouts and reviewed the following: TMDL process elements; completed TMDLs; active TMDL projects; TMDL project phases (zero through seven); general guidance structure, concept and document schedule; potential issue papers; potential technical modules; categorical TMDL work groups; issue work groups; and other initiatives being undertaken.

PAG comments included:

- Consider adding metals to potential technical modules under bioaccumulative substances.
- How about instances where you don’t know what the pollutant is that’s causing the listing? Response: The PAG was referred to the TMDL Process Elements

- slide; the point was made that the loop back framework is flexible enough to accommodate this concern.
- How does NPDES permitting fit in? Response: At various points in the TMDL development process.
  - Is there opportunity for stakeholder input? Response: Yes, at multiple points in the process.
  - How will watershed policies influence TMDL guidelines? Response: Via interagency coordination.
  - Regarding issue papers and technical modules, are there opportunities for input? Response: Yes, it appropriate for the PAG to review these, as well as other stakeholders; some may in fact require public comment.
  - Some of the PAG members, e.g., agriculture, indicated an interest in “fleshing out” the allocation process.
  - Regarding the TMDL Process Elements flowchart, is it a linear process or are there feedback loops? Response: there are feedback loops.

Tom Mumley indicated that the next steps include sharing products with the PAG, and providing status reports and each subsequent meeting.

Rik Rasmussen was asked to introduce himself. Rik is the new TMDL Coordinator as of October 1, 2002.

**Future Direction of the PAG:** Co-chairs Johns and Sheehan noted that the PAG has been an effective group, but that in conversations they’d recently had they wondered if it’s appropriately designed for the future. They proposed that a Steering Committee be named that would meet more frequently (perhaps every other month) to do the more detailed work, and that the full PAG meet twice per year.

Comments from the PAG included:

- The PAG should have a focus, and should not go on forever.
- The PAG should exist in its current form at least until the TMDL guidelines are developed; then the PAG could consider restructuring itself.
- Others agreed with the above, but also endorsed the steering committee concept.
- An alternative opinion: have one day meetings as currently scheduled, but organize them so that the caucuses meet in the morning, and the PAG meets in the afternoon.

After more discussion it was decided to not change the structure of the PAG at this time. In the meantime, staff will ask the Board what value they might see in continuing the PAG. Staff should also weigh in on this question.

**Public Comment:** No one chose to address the PAG at this time.

**Wrap-up and Next Steps:** The next meeting of the PAG is tentatively set for Tuesday, March 11, 2003.



**Adjournment:** The Co-Chairs adjourned the meeting at 2:45 p.m.

## Agenda Item 4

Schedule for Development of  
the 2004 section 303(d) List, Listing/De-listing  
Policy, and GeoWBS Database Development



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*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.  
For a list of simple ways you can reduce demand and cut your energy costs, see our website at <http://www.swrcb.ca.gov>.*

**TO:** AB 982 Public Advisory Group

**FROM:** Craig J. Wilson  
**DIVISION OF WATER QUALITY**

**DATE:** July 11, 2003

**SUBJECT:** SCHEDULE FOR COMPLETION OF THE 2004 SECTION 303(d) LIST

Attached is a schedule for the staff efforts to complete the 2004 section 303(d) list. Also included in the schedule are the schedules for completion of the listing/de-listing policy and development of the Geospatial Water Body System (GeoWBS). GeoWBS is a geographical information system database used to develop the Clean Water Act (CWA) section 303(d) list and CWA section 305(b) report. The schedules have been consolidated to show the interdependency of these efforts.

If you have any questions about the schedule, please contact me at (916) 341-5560 or [wilscj@swrcb.ca.gov](mailto:wilscj@swrcb.ca.gov).

Attachment

## Schedule

### Development of the 2004 section 303(d) List Plus Schedules for Listing/De-listing Policy and GeoWBS Database Development<sup>1</sup>

| Task   | Deadline   |
|--|--|
| Policy Scoping Meetings  | December 2001 through March 2002   |
| Discuss Policy Proposal with RWQCBs                                | May 2002   |
| Discuss Policy Proposals at PAG meeting                            | July 2002  |
| RWQCB Recommendations on the 303(d) listing/de-listing policy      | August 2002 through January 2003   |
| Policy preparation   | January 2003 through June 2003   |
| Draft FED Preparation  | January 2003 through August 2003   |
| Regional Board review of Policy                                    | June 2003  |
| Release draft Policy   | July 1, 2003<br>(SB 469 deadline for preparing guidelines is July 1, 2003) |
| Initiate Design of GeoWBS Editor and Database                      | July 1, 2003   |
| Finalize GeoWBS database design and Final Screen Design for Editor | September 2003   |

<sup>1</sup> Legend for colors: **Green** = steps to complete the 2004 section 303(d) list  
**Black** = steps to complete the listing/de-listing policy  
**Red** = completion of a major milestone  
**Magenta** = steps for GeoWBS completion

| Task   | Deadline                             |
|--|--------------------------------------|
| Release draft FED and draft Policy   | September 2003                       |
| Hearing(s) on the Policy   | November 2003                        |
| Initial Review of GeoWBS Editor (Alpha Release)  | November 15, 2003                    |
| Response to comments on Policy   | September through December 2003      |
| <b>2004 List:</b> Open statewide solicitation, RWQCB staff begins compiling in-house data. RWQCBs primary focus on reassessment of waters that are scheduled for TMDL development within next two years. | November 2003                        |
| Regional Board review of Policy and FED  | September 2003 through December 2003 |
| Revise FED and draft policy  | November 2003 through January 2004   |
| Beta Release and User Testing of GeoWBS Editor   | January 2004                         |
| <b>2004 List:</b> Close solicitation   | January 2004                         |
| <b>2004 List:</b> Complete compilation of in-house data searches (RWQCB staff)   | February 2004                        |
| GeoWBS Editor Release 1 in Production  | February 2004                        |
| Ongoing Refinements, Maintenance, Support and Technology Transfer for GeoWBS   | February 2004 to December 2004       |
| <b>2004 List:</b> Begin input of information into database. This includes mapping and fact sheet preparation.  | February 2004                        |

| Task  | Deadline   |
|---|--|
| SWRCB Workshop and Board Meeting on Policy  | March 2004 (SB 469 deadline for finalized guidelines is January 1, 2004) |
| OAL approval of Policy  | April 2004   |
| Notice of Decision on Policy  | May 2004   |
| <b>2004 List:</b> Complete data organization into spread sheets and QA/QC checks (RWQCB and contractors; SWRCB lead)  | April 2004   |
| <b>2004 List:</b> Complete fact sheets and mapping of new data and information. Review of fact sheets and internal listing assessments using Listing Policy protocols (committee of SWRCB and RWQCBs) | June 2004  |
| <b>2004 List:</b> Public notice draft list (statewide notice) and SWRCB hearing   | July 2004  |
| <b>2004 List:</b> SWRCB workshop  | October 2004   |
| <b>2004 List:</b> SWRCB adopts final list and develops final response to comments   | November 2004  |
| <b>2004 List:</b> State submits final list to USEPA for approval  | December 2004  |

## Agenda Item 5

# DRAFT Water Quality Control Policy for Assessing California Surface Waters



**Winston H. Hickox**  
Secretary for  
Environmental  
Protection

# State Water Resources Control Board

## Division of Water Quality

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**TO:** AB 982 Public Advisory Group

**FROM:** Craig J. Wilson  
**DIVISION OF WATER QUALITY**

**DATE:** July 11, 2003

**SUBJECT:** DRAFT POLICY FOR GUIDANCE ON ASSESSING CALIFORNIA  
SURFACE WATERS

Pursuant to SB 469, SWRCB staff have prepared a draft policy for guidance on assessing California surface waters. The draft policy is posted at:

[http://www.swrcb.ca.gov/tmdl/docs/listing\\_policy\\_draft\\_070103.pdf](http://www.swrcb.ca.gov/tmdl/docs/listing_policy_draft_070103.pdf)

A glossary for the draft policy is also available at:

[http://www.swrcb.ca.gov/tmdl/docs/listing\\_policy\\_glossary\\_070103.pdf](http://www.swrcb.ca.gov/tmdl/docs/listing_policy_glossary_070103.pdf)

The draft policy describes the process by which the SWRCB and RWQCBs shall comply with the listing and reporting requirements of Clean Water Act sections 303(d) and 305(b). Attached are several figures that show graphically the relationships of the major sections of the draft Policy. Figure 1 indicates the relationships between the steps to develop the Integrated Water Quality Report. Figures 2 and 3 present graphically the data quality and data quantity processes presented in the draft Policy. Figure 4 shows the relationship among the various lists or categories of waters.

SWRCB staff are currently developing a Functional Equivalent Document that describes the justification for the provisions of the draft policy. The draft policy contains brief justifications for many of the policy's provisions.

If you have any questions about the draft policy, please contact me at (916) 341-5560 or [wilscj@swrcb.ca.gov](mailto:wilscj@swrcb.ca.gov).

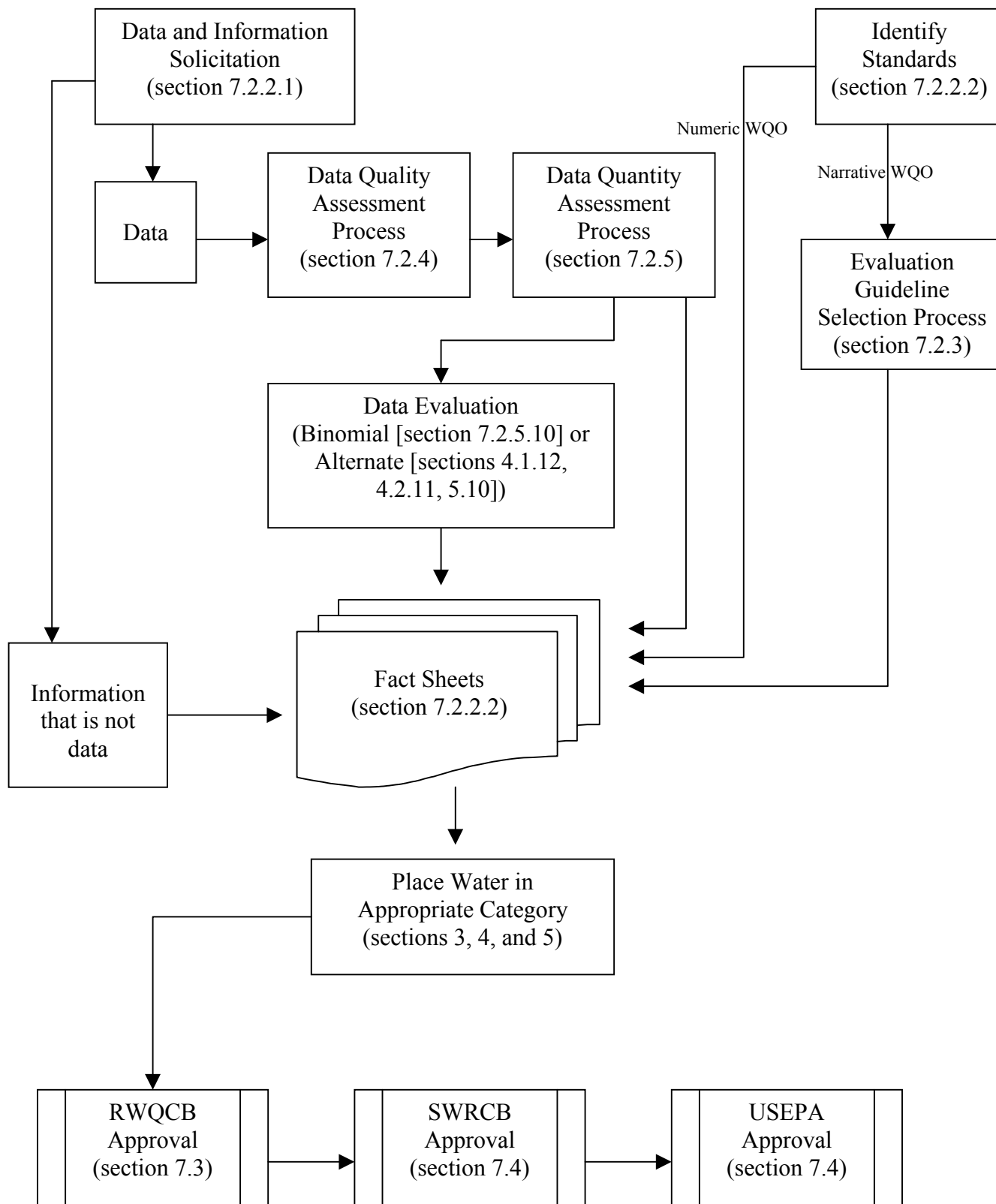
Attachments

**California Environmental Protection Agency**



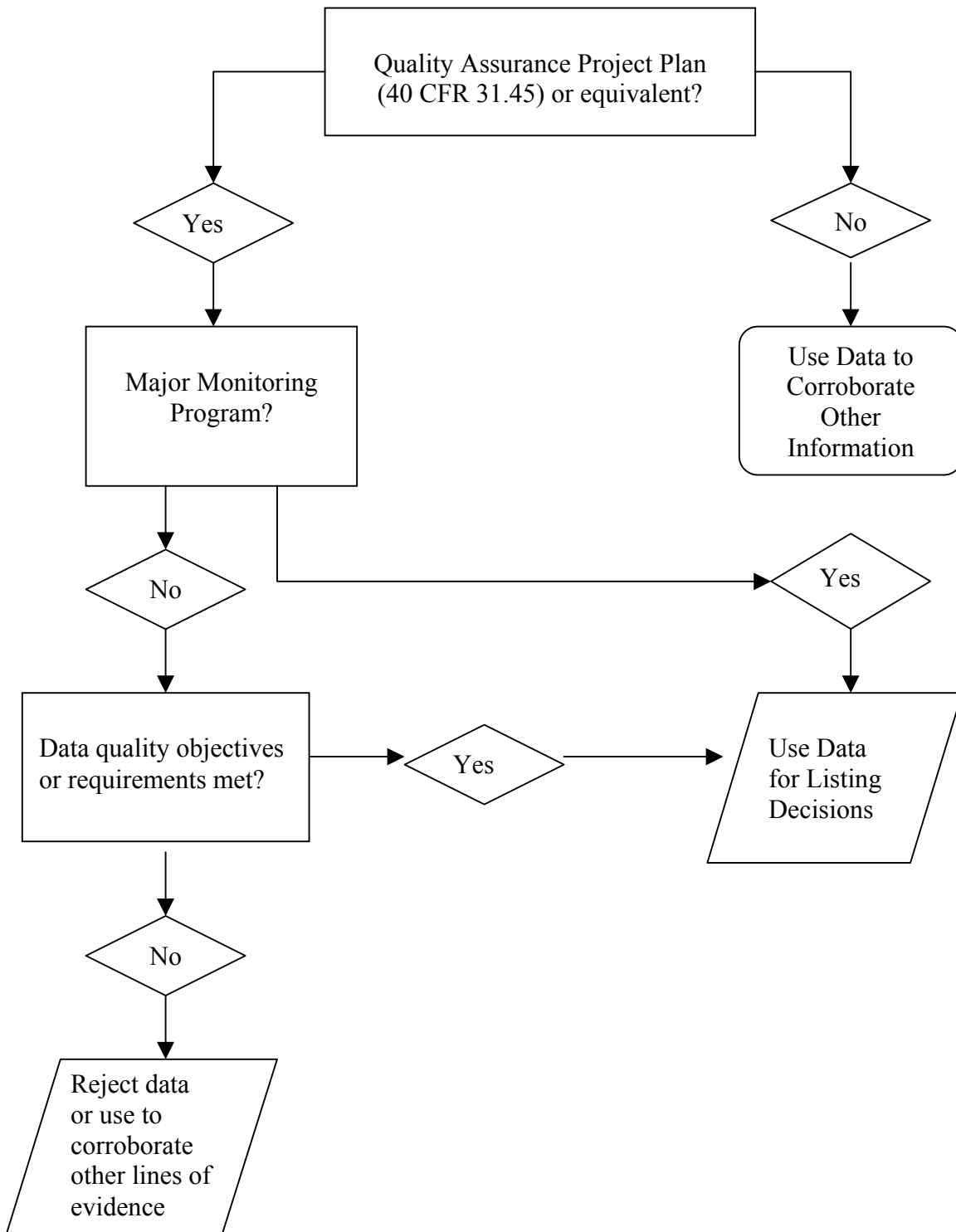


**Figure 1: Guidance for Assessing California Surface Waters<sup>1</sup>**

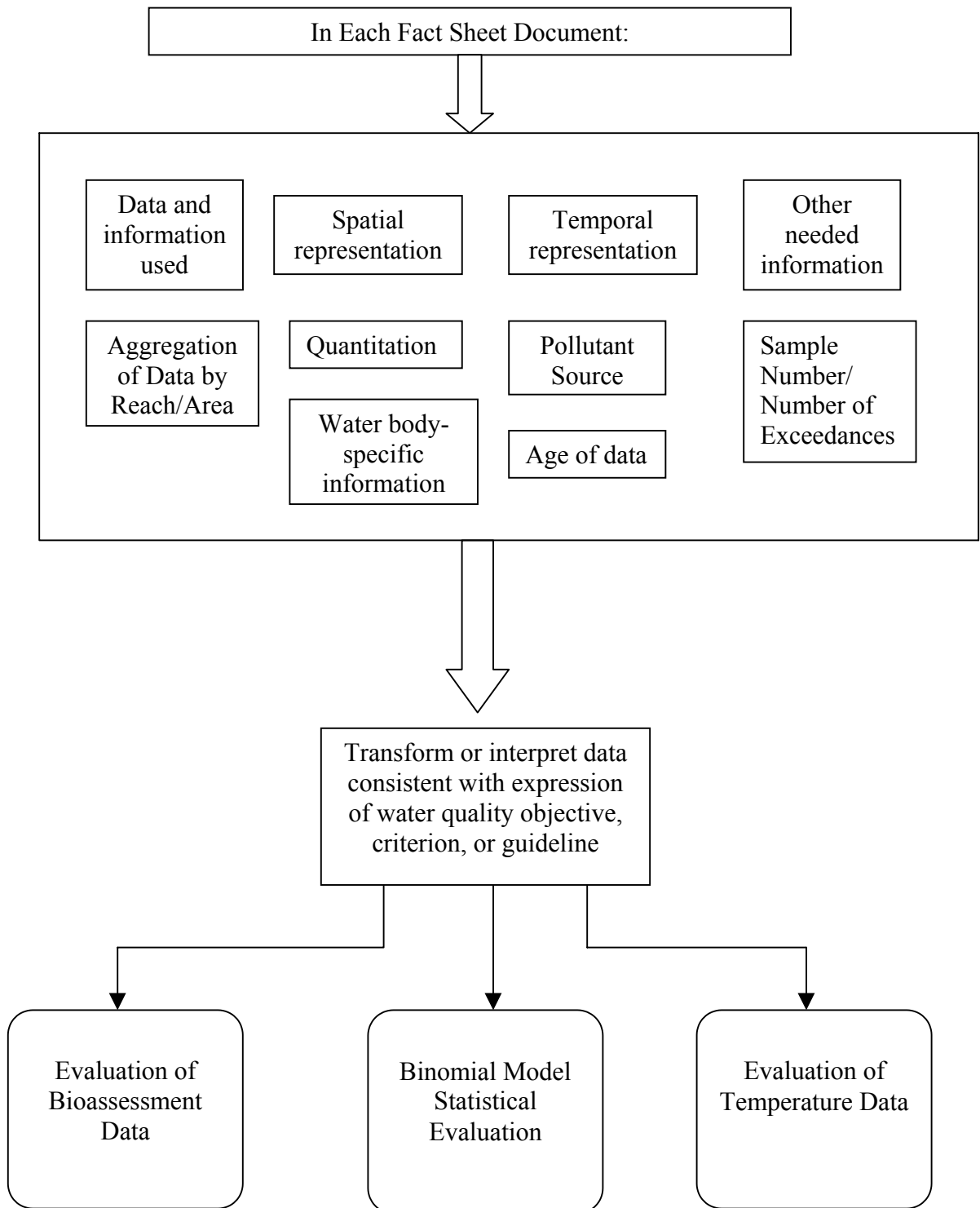


<sup>1</sup> The section references in the figure correspond to the sections of the draft Water Quality Control Policy for Guidance on Assessing California Surface Waters (dated July 1, 2003).

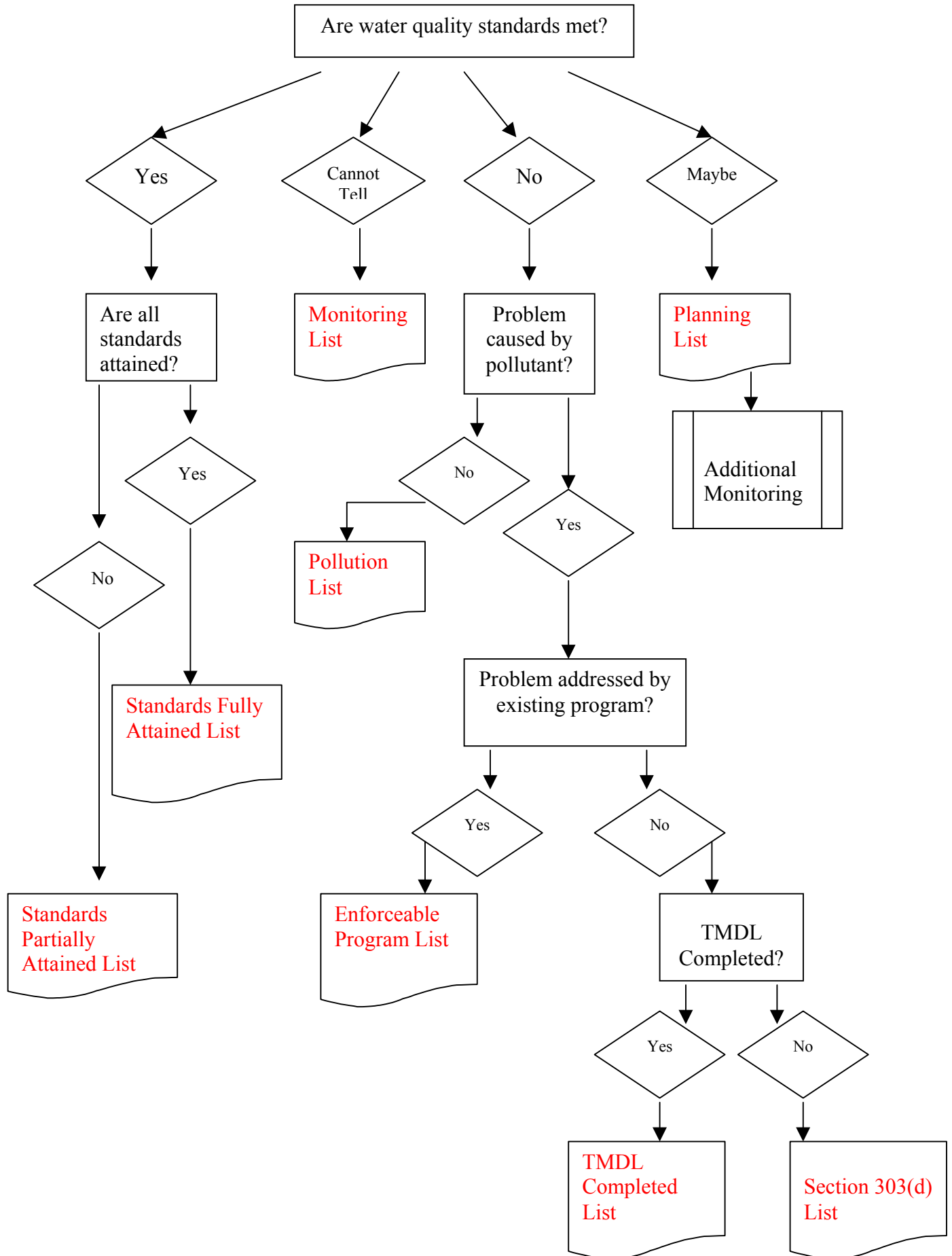
**Figure 2: Data Quality Assessment Process (section 7.2.4)**



**Figure 3: Data Quantity Assessment Process (section 7.2.5)**



**Figure 4: Categories of Waters (sections 3, 4, and 5)**



## Agenda Item 11

# California's Surface Water Ambient Monitoring Program

SWAMP Update 2003

# California's Surface Water Ambient Monitoring Program

## “SWAMP” Update - 2003

Val Connor  
Division of Water Quality

## Why monitor?

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

## The Challenge:

- 190 hydrologic units (655 hydrologic sub-areas)
- 211,000+ miles rivers and streams
- Over 10,000 lakes (1.6+ million acres)
- Over 1,300,000+ acres of bays and estuaries
- 1,609 miles of coastline

## The Regulatory Challenge:

- CWA section 305(b) report
- CWA section 303(d) list, TMDLs
- Porter Cologne, Basin Plans
- Implementation, 319h
- CWA section 106(e)

## Why Monitor?

- 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**

## SWAMP

- Required by AB 982
- Propose comprehensive state program (surface water)
- Coordinate all Board water quality monitoring projects/programs
- Comparable data



## SWAMP 2000

- Proposed a cost efficient monitoring program to meet all CWA needs for all water types and pollutant sources
  
- Requested
  - \$59 to \$115 million (\$600,000)
  - 87 to 132 PYs (10 PYs)

## 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

## Implementation Strategy - draft due October 2003

- 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--2003 Status

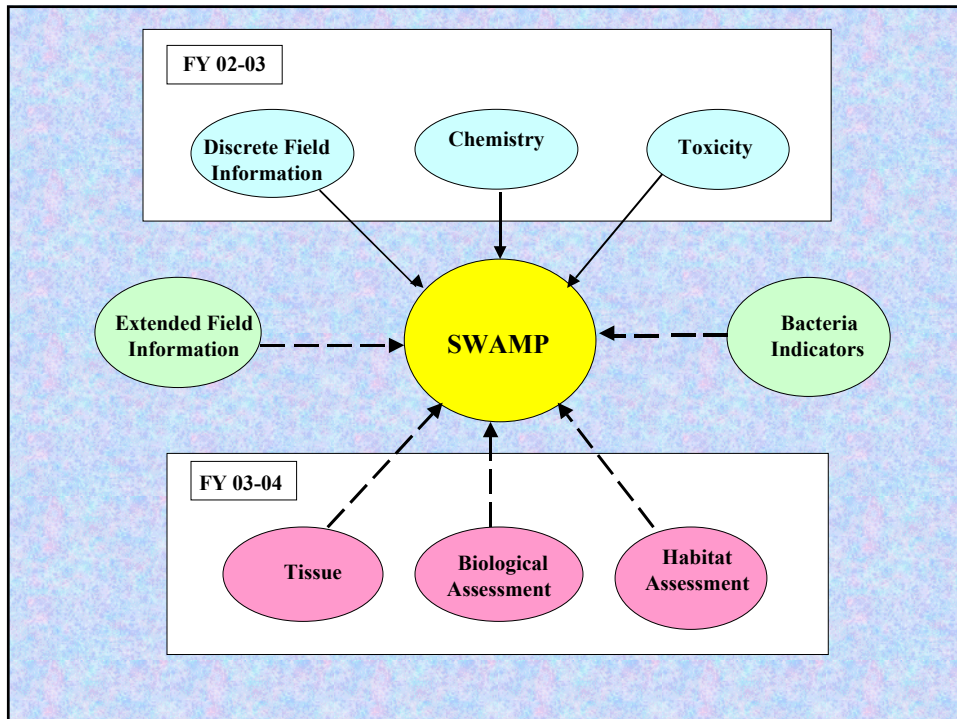
- Consistent and objective sampling, analysis and assessment methods:
  - Sampling: standard field protocols;
  - Analysis: performance based;
  - Assessment: Policy - May 2004
- Consistent data quality assurance:
  - Statewide QAPP, 1st Ed.
  - Next Ed.: DQO's - screen Vs. definitive

# SWAMP Goals--2003 Status

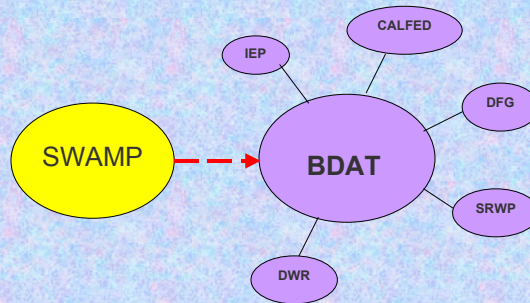
Centralized and Integrated data management-

- SWAMP database -
  - chemical, toxicity and field data
- SWAMP--->BDAT (SCCWRP, RMP)
  - tissue, pathogens, biological, habitat
  - Link to STORET

SWAMP-->(WIN)-->Geotracker--> STORET?



## 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 Goals--2003 Status

- Monitor and interpret data for each hydrologic unit at least one time every five years
  - **1 - 2 years of data; need funding**
  - **Partner with local watershed groups**
    - Consolidated RFP
- Focus on all waters of the state without bias to known impairment
  - **US EPA EMAP Program**
    - coastal & streams
    - probabilistic design
    - biological & habitat assessment

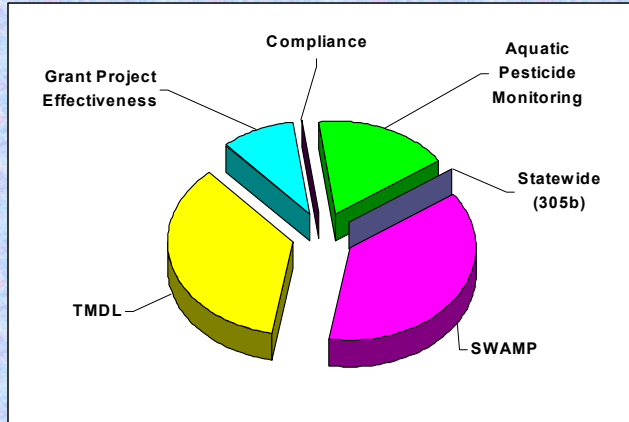
## SWAMP Goals--2003 Status

- Identify specific water quality problems
  - Evaluate all available information
- Assess effectiveness of water quality regulatory programs
  - Rely on other Board Programs
  - Initiated coordination efforts

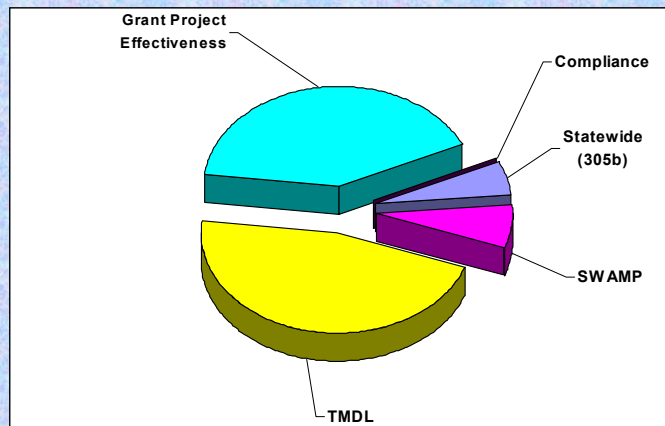
## Program Coordination

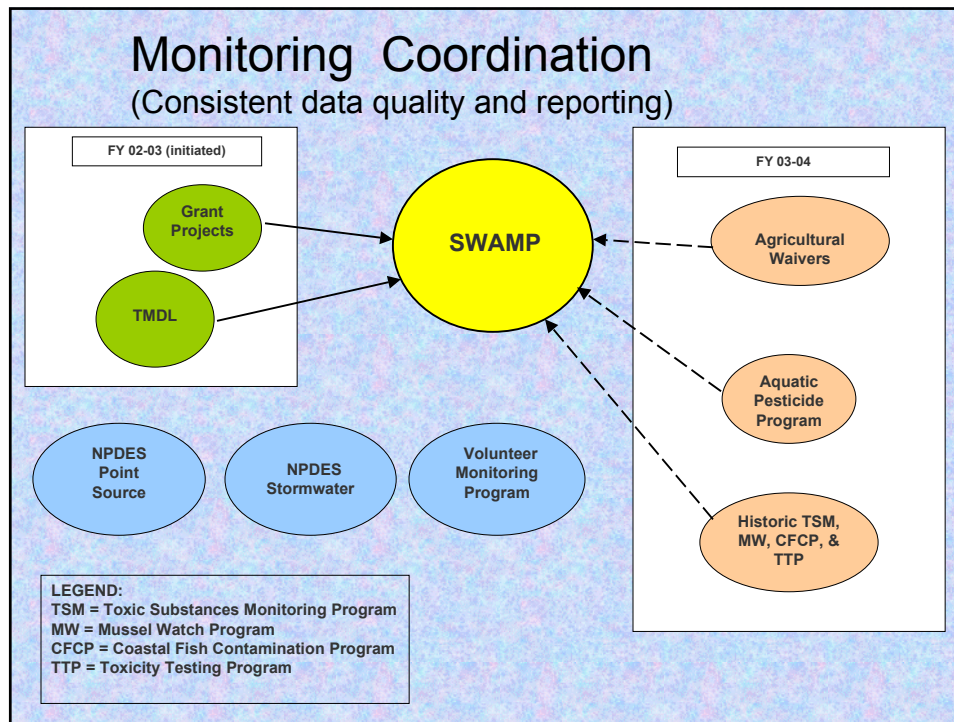
- FY 02-03:
  - TMDL Program
  - Grant Projects
- FY 03-04
  - (US EPA) EMAP (---->305b, 319h, EPIC)
  - Agriculture Waiver Program (R5)
  - Aquatic Pesticide Monitoring

## Monitoring Funds (FY 02-03)



## Monitoring Funds (FY 03-04)





## Coordination w/ DFA: (Props. 13, 40, 50 and 319h)

### ☞ Projects collecting W. Q. data

- SWAMP QAPP
- SWAMP Data Reporting

### ☞ How?

- RFP notification
- Contract “boiler plate” language
- SWAMP Web site; Bd contacts
- Training for staff
- Workshops for Applicants

## Outstanding Issues - Insufficient Resources

- Increase in SWAMP “partners”
- Consistency/Comparability = Training
- QA Coordination
  - Officers--who?
  - Approve Plans
  - Review Project Reports
- Requesting/receiving data
- Resistance to change

## Next 24 Months

- Find funding for regional monitoring
- Intra- & Inter-agency Outreach/Education
- 10 year Implementation Plan
- Continue Training
- Initiate statewide assessments
- Reporting (305b, RB assessments, factsheets)
- National Water Quality Monitoring Council
- Complete database development
- 2nd. Edition QAPP
- 2nd SPARC



## Questions?

Val Connor  
Assessment and TMDL Support Unit  
Division of Water Quality  
State Water Resources Control Board  
(916) 341-5573  
[connv@swrcb.ca.gov](mailto:connv@swrcb.ca.gov)

## Agenda Item 12

### DRAFT TMDL Guidance: A Process for Addressing Impaired Waters in California



**Winston H. Hickox**  
Secretary for  
Environmental  
Protection

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For a list of simple ways you can reduce demand and cut your energy costs, see our website at <http://www.swrcb.ca.gov>.*

**TO:** AB 982 Public Advisory Group

**FROM:** Rik L. Rasmussen  
**DIVISION OF WATER QUALITY**

**DATE:** July 11, 2003

**SUBJECT:** DRAFT TMDL GUIDANCE: A PROCESS FOR ADDRESSING IMPAIRED  
WATERS IN CALIFORNIA

Pursuant to SB 469, SWRCB staff have prepared a draft TMDL Guidance: A Process For Addressing Impaired Waters in California. The draft guidance is posted at:

[http://www.swrcb.ca.gov/tmdl/docs/impaired\\_waters\\_guidance0703.pdf](http://www.swrcb.ca.gov/tmdl/docs/impaired_waters_guidance0703.pdf)

The draft guidance document builds on existing laws and regulations for developing TMDLs in California and is intended to serve as a guide to TMDL practitioners and interested parties. As such, it is anticipated that a separate regulations package will be drafted to implement the guidance. A draft of the proposed implementing regulations is attached.

If you have any questions about the draft guidance or the proposed draft regulations, please contact me at (916) 341-5549 or [rasmr@dwq.swrcb.ca.gov](mailto:rasmr@dwq.swrcb.ca.gov).

Attachment

### **Addressing Impaired Waters: Regulatory Structure and Options**

Regional Boards have wide latitude, numerous options, and some legal constraints that apply when determining how to address impaired waters. Irrespective of whether section 303(d) of the Clean Water Act requires a TMDL, the process for addressing waters that do not meet applicable standards will be accomplished largely through existing regulatory tools and mechanisms. This policy is intended to outline those tools and mechanisms, and explain how the federal requirement to establish total maximum daily loads (TMDLs) fits within those confines. This policy is not intended and shall not be construed as limiting the authority of the State Water Resources Control Board (State Board) or the Regional Water Quality Control Boards (Regional Boards) in any manner. A flowchart is included as attachment A, which tracks this discussion.

The following principles apply to the process of resolving impairments in surface waters not attaining standards in California:

**A. If the water body is neither impaired nor threatened, the appropriate regulatory response is to delist the water body.**

The first step in addressing a listing is to identify the scope of the problem. In some cases, this analysis will lead to a conclusion that standards are in fact being attained and the water is not threatened, either because the assumptions underlying the listing were incorrect, or because the impairment has been corrected. In such circumstances, it is appropriate to delist the water body.

**B. If the failure to attain standards is due to the fact that the applicable standards are not appropriate to natural conditions, an appropriate regulatory response is to correct the standards.**

If the water body is impaired, the cause of the impairment must be ascertained. There are five common reasons<sup>1</sup> that standards are being exceeded. Though infrequent, three are related to problems with the standards themselves.

- 1. Natural conditions alone are incompatible with the Standards:** This occurs either when natural background levels of a pollutant exceed water quality objectives, or natural background conditions are incompatible with the beneficial uses assigned in the basin plan, or natural background conditions are degrading the water body.
- 2. Standards are too broad or too vague:** For example, a water body may extend beyond an area where associated beneficial uses are appropriate, such as the geographic boundaries of an estuarine environment.
- 3. Incompatible Uses Exist:** This may occur when two or more uses are incompatible with each other. For instance, wildlife waste may generate pathogen levels that render the water unsuitable for human recreation.

In each of the above situations, revision of the standards themselves may be the best (or only) way to address the impairment. Revision of the standards can include removing uses, establishing subcategories of uses, establishing seasonal uses (all of which require a Use Attainability Analysis (UAA), establishing a Site-Specific Objective (SSO), or other modification

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<sup>1</sup> This is not intended to be an exclusive list of causes.

of the water quality standard. Additionally, an anti-degradation finding may authorize the lowering of water quality to some degree, which may address the impairment.

**C. The State Board and Regional Boards are responsible for the quality of all waters of the state, irrespective of the cause of the impairment. In addition, a TMDL must be calculated for impairments caused by certain EPA designated pollutants.**

The two other common causes or categories of impairment are related to anthropogenic factors. They include waters impaired by pollution and waters impaired by certain EPA designated pollutants. The Porter-Cologne Water Quality Control Act charges the State Water Resources Control Board and Regional Water Quality Control Boards with the responsibility of protecting the beneficial uses and quality of all waters of the state, irrespective of the cause of the impairment. Thus, if possible, the impairment should be corrected in either event. Presently, the EPA has designated all pollutants as suitable for TMDL calculation under proper technical conditions.

- 4. Pollutants:** The term “pollutant” is defined in section 502(6) of the Clean Water Act. Section 303(d) of the Clean Water Act requires TMDLs be adopted for each impairing “pollutant” that is suitable for TMDL calculation. EPA has determined that under proper technical conditions, all pollutants are suitable for TMDL calculation. Thus, before undertaking an action to correct an impairment, the Loading Capacity of the pollutant must be calculated for these impaired waters, and thus the load reductions necessary (considering seasonal variations and a margin of safety) to attain standards. Corrective action will implement the assumptions and requirements of the Loading Capacity using any combination of existing regulatory tools.
- 5. Pollution:** The term “pollution” is defined in section 502(19) of the Clean Water Act and section 13050(l) of the California Water Code. When non-pollutant pollution is the cause of the impairment, the Regional Boards may skip the step of calculating the Loading Capacity and proceed immediately to designing corrective action using existing regulatory tools.

**D. Subject to available resources, all violations of standards should be redressed if possible, and the Boards may use any combination of existing regulatory tools to do so.**

Existing regulatory tools include<sup>2</sup> individual or general waste discharge requirements (be they under Chapter 4 or under Chapter 5.5 (NPDES permits) of the Porter-Cologne Water Quality Control Act), individual or general waivers of waste discharge requirements, enforcement actions, interagency agreements, regulations, basin plan amendments, and other policies for water quality control. Basin plan amendments can include adopting new or revised implementation measures, adopting prohibitions, or where appropriate, modifying standards. The priority ranking assigned to an impaired water will help the Regional Boards determine which impairments will be addressed in what order.

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<sup>2</sup> This section is not intended to include an exhaustive list of tools available to the State Board or Regional Boards to address violations of standards. It is only intended to provide an example of possibilities.

**E. If the solution to an impairment will require multiple actions of the regional board, the solution must be implemented through a basin plan amendment or other regulation.**

The requirement to use a basin plan amendment or other regulation to tie together numerous actions by the Regional Board stems from the California Administrative Procedures Act (APA). Consistent with the APA, any policy, plan, or guideline must be adopted as a regulation in the proper manner before it may be applied. The term “underground regulation” has been used to describe regulations that have not been properly adopted. The APA requirements ensure that persons subject to regulations have the opportunity to participate in the process during which the assumptions underlying an implementation plan are derived. If there were no such process, every regulated person would be subject to subsequent requirements based upon assumptions determined in a previous proceeding to which they were not a party. Accordingly, when an implementation plan would require multiple actions of the Regional Board, the plan must be adopted as a separate action to enable interested persons to comment upon the assumptions of the plan, before they are imposed, one by one, on members of the public at large. The Regional Boards generally use the basin planning process to adopt such plans.

**F. If the solution to an impairment can be implemented with a single vote of the regional board, it may be implemented by that vote.**

When an implementation plan can be adopted in a single regulatory action, such as a permit, a waiver, or an enforcement order, there is no legal requirement to first adopt the plan through a basin plan amendment. The plan may be adopted directly in that single regulatory action. The permittee (or other regulated party), and any other interested persons may challenge all assumptions underlying the implementation plan during that permitting (or other regulatory) action. In such circumstances, a basin plan amendment may be redundant. There may nonetheless be case-specific reasons why a Regional Board may choose to adopt an implementation plan by a basin plan amendment even if it could be implemented by a single vote of the Regional Board. There is no error in doing so should the Regional Board, for whatever reason, deem it desirable.

**G. If a solution to an impairment is being implemented by a regulatory action of another state, regional, local, or federal agency, and the regional board finds that the solution will actually correct the impairment, the regional board may certify that the regulatory action will correct the impairment and if applicable, implement the assumptions of the TMDL, in lieu of adopting a redundant program.**

The Regional Boards and State Board have the ultimate authority over water quality protection for all waters in the State. That responsibility does not imply that the State Board or a Regional Board must adopt redundant regulations when they determine that another regulatory body is adequately addressing a water quality problem. Like most state agencies, the State and Regional Boards generally have inadequate resources to timely address each and every water quality problem, and they must therefore, prioritize use of their resources where they will do the most good. The fact, however, that another regulatory body is addressing a water quality problem is not alone a sufficient basis for a Regional Board to forego remedial action. The Regional Boards may neither delegate nor abdicate their responsibility over the waters of the State. Only when the Regional Board independently determines that a program being implemented by another regulatory entity will be adequate to correct the impairment, may the Regional Board rely upon that program. If a Regional Board makes such findings, and the findings are supported by substantial evidence in the administrative record, the Regional Board may certify that such

program will implement the assumptions and requirements of the TMDL, and accordingly forego further regulations. Nothing in this policy should be construed as implying that State may avoid its responsibilities under Water Code sections 13263, 13269, 13377, or any other section of the Porter Cologne Act.

- H. If a solution to an impairment is being implemented by a non-regulatory action of another entity, and the regional board finds that the solution will actually correct the impairment, the regional board may certify that the non-regulatory action will correct the impairment and if applicable, implement the assumptions of the TMDL, in lieu of adopting a redundant program.**

Similar to G., above, the Regional Boards may rely upon voluntary actions by non-regulatory entities, if the Regional Board makes findings, supported by substantial evidence in the record, that a program being implemented by a non-regulatory entity will be adequate to correct the impairment. The fact that the Regional Boards have limited resources to accomplish their water quality mission can and should be used as a basis to encourage interested persons to voluntarily undertake to abate impairments in the time before the Regional Boards may otherwise be able to address them.

### Process for adopting TMDLs in California

#### Section 1. Definitions:

- a) **Loading capacity (LC).** The greatest amount of loading that a water can receive without violating water quality standards.
- b) **Load allocation (LA).** The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which can range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Wherever possible, natural and nonpoint source loads should be distinguished. (40 CFR 130.2(g))
- c) **Waste Load allocation (WLA).** The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation (40 CFR 130.2(h)).
- d) **Margin of Safety (MOS).** A required component of the TMDL that accounts for the uncertainty about the relationship between the pollutant loads and the quality of the receiving waterbody (CWA section 303(d)(1)(C)). The MOS is normally incorporated into the conservative assumptions used to develop TMDLs (generally within the calculations or models) and approved by EPA either individually or in state/EPA agreements. This may be referred to as an "implicit" MOS. If the MOS needs to be larger than that which is allowed through the conservative assumptions, additional MOS can be added as a separate component of the TMDL (in this case, quantitatively, a TMDL = LC = WLA + LA + MOS). When the MOS is expressed as a specific reservation or assignment of part of the LC, it may be referred to as an "explicit" MOS.
- e) **Total Maximum Daily Load (TMDL).** The sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources and natural background, and a margin of safety (MOS). TMDLs can be expressed in terms of mass

per time, toxicity, or other appropriate measures that relate to a state's water quality standard.

**Section 2.** TMDLs are adopted with programs that implement correction of the impairment.

TMDLs may be adopted in any of the following ways:

- a) The TMDL may be adopted with and reflected in assumptions underlying a basin plan amendment, or another regulation or policy for water quality control that is designed to guide the Regional Board in correcting the impairment. The TMDL is adopted by adopting the regulations that guide how the region will implement it.
- b) The TMDL may be adopted with and reflected in assumptions underlying a permitting action, enforcement action, or another single regulatory action that is designed by itself to correct the impairment. The TMDL is adopted by adopting the regulatory action that implements it.
- c) The TMDL may be adopted with and reflected in a resolution or order that certifies either that:
  - i) A regulatory program has been adopted and is being implemented by another state, regional, local, or federal agency, and the program will correct the impairment; or
  - ii) A non-regulatory program is being implemented by another entity, and the program will correct the impairment.
- d) Subsection c), above, shall not be construed as authorizing the Regional Board to delegate its authority over water quality control to another regulatory or non-regulatory entity. In all cases the Regional Board must determine the LC of the water body, and thus the load reductions necessary (considering seasonal variations and a margin of safety) to attain standards. The Regional Board must exercise its independent discretion to determine whether or not such alternative program is consistent with the LC. As such, any resolution under subsection c), above, must include specific findings, supported by substantial evidence in the record, that demonstrate each of the following about the regulatory or non-regulatory program:
  - i) The program is consistent with the assumptions and requirements of the TMDL;
  - ii) Sufficient mechanisms exist to provide reasonable assurances that the program will address the impairment in a reasonable period of time;
  - iii) Sufficient mechanisms to enforce the program exist or the regional board otherwise has sufficient confidence that the program will be implemented, such that further regulatory action by the Regional Board is unnecessary and would be redundant.The above findings will require a fact-specific inquiry, dependent upon the type of impairment at issue, the identity, authority, and interests of those proposing the alternative program, and a variety of other factors. A lower confidence that the program will remain in place and will succeed can be mitigated by findings that sufficient fallback provisions exist to ensure that the impairment will be addressed in a reasonable period of time if the program is unsuccessful. Such fallback provisions could include instructions that staff commence a regulatory program under section 2.a) or 2.b) above at a time-certain if the impairment has not then been addressed.
- e) Any certification under subdivision c) above, may only be issued and remains valid if:
  - i) A monitoring plan that addresses the impaired water has been adopted or approved by the Regional Board, and it is adhered to;



- ii) The program contains conditions that require trackable progress, and such progress is tracked;
  - iii) The certification contains a provision setting forth that the it may be revoked by the Regional Board based upon its findings that the program has not been adequately implemented, is not achieving its goals, or is no longer adequate to restore water quality.
- f) A Regional Board may delegate the authority to make certifications under section 2.c) to its Executive Officer for non-controversial TMDLs.
  - g) When TMDLs are adopted under sections 2.b) or 2.c), above, the TMDLs must be referenced in the relevant Basin Plans before or during the next triennial review. (40 CFR 130.6(c).)

**Section 3.** State Board Review. The manner of review by the State Board shall depend upon and be consistent with the manner in which the TMDL has been adopted by the Regional Board.

- a) Basin Plan amendments are subject to State Board approval pursuant to Water Code section 13245.
- b) Permits and orders are subject to State Board review pursuant to Water Code section 13320.
- c) Interested persons may file a petition for State Board reconsideration of any certification under section 2.c) above, in the manner described in Division 3, Chapter 28, Article 6, of Title 23 of the California Code of Regulations, however, any such petition shall be filed not later than 30 days after the date of the certification by the Regional Board.

**Section 4.** Transmittal to USEPA and Request for Approval. The TMDL shall be transmitted to USEPA for approval as follows:

- a) By the Division of Water Quality, for TMDLs adopted pursuant to Section 2.a).
  - i) The Division of Water Quality shall not transmit the TMDL for approval until the Office of Administrative Law has concluded any applicable review of the regulations implementing the TMDL.
- b) By the Regional Board's Executive Officer, for TMDLs adopted pursuant to Section 2.b) or 2.c).
  - i) The Division of Water Quality shall prepare a standard transmittal form for use by the Regional Boards.
  - ii) The Regional Board shall not transmit the TMDL for approval until either the time to file a petition for review with the State Board has lapsed, or the State Board has dismissed any petitions challenging, or has otherwise approved, the certification or order.
  - iii) A copy of each transmittal by a Regional Board shall be sent to the Division of Water Quality.

**Section 5.** Delisting.

- a) When a Regional Board determines that a water body is in fact attaining standards and is not threatened, the Regional Board may on its own motion entertain a resolution recommending the water body be immediately delisted, in lieu of waiting until the next listing cycle. Given the process established by the 303(d) list policy to list and delist

waters at regular intervals, failure to take action under this subsection in lieu of waiting until the next 303(d) listing cycle, shall not be deemed inappropriate or improper.

- b)** No water body shall be deemed delisted pursuant to section 5.a), above, until the State Board has approved the recommendation, and the decision has been transmitted to, and thereafter approved by, USEPA.

Attachment A: Impaired Waters Regulatory Decision Tree

