

February 14, 1997

*Technical Group  
Workshop*

**CALFED  
BAY-DELTA  
PROGRAM**

D-033364

Handwritten notes: *12/11/97* and *WASH STATE*

D-033364

# Agenda

Registration	8:30 a.m.
Introductory Remarks	9:00 a.m.
Process Overview and Program Status	9:15 a.m.
Break	10:15 a.m.
Status of Potential Water Quality Projects	10:30 a.m.
Component Integration Linkages	11:00 a.m.
Ecosystem - Dick Daniel	
System Integrity - Curt Schmutte	
Water Use Efficiency - Rick Soehren	
Lunch (on your own)	12:00 p.m.



# Agenda

Component Integration (Continued)  
Storage/Conveyance - Stein Buer

Linkage Exercise

Break

Linkage Exercise (Continued)

Impact Assessment

Formation of Parameter  
Assessment Team

Wrap-Up

Adjourn

1:00 p.m.

1:15 p.m.

2:15 p.m.

2:30 p.m.

3:30 p.m.

3:45 p.m.

4:00 p.m.



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# CALFED Bay-Delta Water Quality Parameters of Concern

Ecosystem	Urban	Agriculture
<p><b><u>Metals</u></b> Cadmium Copper Mercury Selenium Zinc</p> <p><b><u>Organics/Pesticides</u></b> Carbofuran Chlordane Chlorpyrifos DDT Diazinon PCBs Toxaphene</p> <p><b><u>Other</u></b> Ammonia Dissolved Oxygen Salinity (TDS, EC) Temperature Turbidity Unknown Toxicity</p>	<p>Bromide Nutrients (Nitrate) Pathogens Salinity (TDS) TOC Turbidity Viruses</p>	<p>Boron Chloride Nutrients (Nitrate) pH (Alkalinity) Salinity (TDS, EC<sub>w</sub>) SAR Turbidity Temperature</p>

# *CALFED Water Quality Actions*

## *Priority Actions*

**Action 1:** Control the timing of agricultural drainage discharge to coincide with periods when dilution flow is sufficient to achieve CALFED water quality target concentrations. (Agricultural Drainage)

**Action 11:** Implement additional agricultural source control for water quality parameters of concern found in agricultural surface and sub-surface drainage. Implementation may include incentives and/or enforcement of existing regulations. (Agricultural Drainage)

**Action 13:** Provide incentives to fallow or retire land that is a major source of water quality parameters of concern. Landowner participation should be voluntary and by compensated purchase or lease payment. (Agricultural Drainage)

**Action 19.** Reduce urban and industrial water quality parameters of concern loadings to the Delta and its tributaries through provision of incentives for additional source control of urban and industrial runoff. An example of an incentives might be to provide rebates on construction permit fees when erosion control measures have been applied. (Urban and Industrial Runoff)

**Action 20.** Reduce urban and industrial water quality parameters of concern loadings to the Delta and its tributaries through better planning of new developments to reduce urban and industrial runoff. Examples of better planning might include design of storm drainage systems that target maximum infiltration of stormwater into the ground or on-site or regional stormwater sedimentation facilities that detain the majority of stormwater for at least 8 hours. (Urban and Industrial Runoff)

**Action 21:** Promote and support efforts of local watershed programs that improve water quality parameters of concern within the Delta and Delta tributary watersheds. Efforts may include coordination, incentives, and/or other assistance. (Watershed Coordination)

**Action 22A:** Reduce metal loadings (e.g. cadmium, copper, mercury and zinc) to the Delta and its tributaries by implementation of moderate on-site mine drainage remediation measures developed in site-specific studies at inactive mine sites. (Mine Drainage)

**Action 22B:** Reduce metal loadings (e.g. cadmium, copper, mercury, and zinc) to the Delta and its tributaries by implementation of moderate on-site mine drainage remediation measures developed in site-specific studies at abandoned mine sites. (Mine Drainage)

**Action 23:** Control discharges of domestic wastes from boats within the Delta and Delta tributaries by more extensive enforcement of existing regulations. (Wastewater and Industrial Discharges)

**Action 31:** Identify and implement actions to address potential toxicity to water and sediment within the Delta and its tributaries by conducting toxicity testing and toxicity identification evaluations and/or other appropriate methods. Coordinate these efforts with other programs. (Watershed Coordination)

**Action 32A:** Provide incentives for pesticide users to increase implementation of best management practices (BMPs) including integrated pest management (IPM) to reduce pesticide loads and concentrations to the Delta and its tributaries from urban & industrial runoff. (Urban and Industrial Runoff)

**Action 32B:** Implement additional agricultural source control for water quality parameters of concern found in agricultural surface and sub-surface drainage. Implementation may include provision of incentives for pesticide users to increase implementation of best management practices (BMPs) including integrated pest management (IPM) to reduce pesticide loads and concentrations from agricultural drainage. (Agricultural Drainage)

***Other Actions***

**Action 2:** Reduce the concentration of water quality parameters of concern entering the Delta and its tributaries during low flow periods by acquiring dilution water (50,000 to 100,000 acre-feet) from willing sellers. Action is primarily targeted at the San Joaquin River. (Dilution)

**Action 3:** Reduce the concentration of water quality parameters of concern entering the Delta and its tributaries during low flow periods by acquiring dilution water (50,000 to 100,000 acre-feet). Water would be acquired by providing incentives for more efficient water management of dams, including reservoir re-operation. Action is primarily target primarily at the San Joaquin River. (Dilution)

**Action 4:** Reduce the concentration of water quality parameters of concern entering the

Delta and its tributaries during low flow periods by acquiring dilution water (50,000 to 100,000 acre-feet) through urban water conservation. Action is primary targeted at the San Joaquin River. Conservation might be achieved through use of incentives for implementation of best management practices by more suppliers and water users. Implementation of the action may reduce demand for existing water and may make dilution water available (including transfers), especially on the San Joaquin River. (Dilution)

**Action 5:** Reduce the concentration of water quality parameters of concern entering the Delta and its tributaries during low flow periods by acquiring dilution water (50,000 to 100,000 acre-feet) through greater use of reclaimed wastewater. Action is primarily targeted at the San Joaquin River. Reclamation projects could include: recharge groundwater, use for agricultural irrigation, recycling and treating for potable or non-potable urban, use of grey water, and storage for use in meeting X2 standards. Reclamation programs would focus on facilities that currently discharge treated wastewater to salt sinks or other degraded bodies of water that are not reusable. (Dilution)

**Action 6:** Reduce the concentration of water quality parameters of concern entering the Delta and its tributaries by treating agricultural drainage and releasing it during periods of low flow for dilution purposes. (Dilution)

**Action 7:** Reduce the concentration of water quality parameters of concern entering the Delta and its tributaries during low flow periods by acquiring additional dilution water through enhanced seasonal recharge and development of additional groundwater supplies. Water would be used for dilution, especially on the San Joaquin River. (Dilution)

**Action 8:** Improve water circulation in the Delta by development of improvements at the head of Old River to block fish movement into Old River and by management of water flow and stage down Old River. (Agricultural Drainage)

**Action 9:** Reduce the vulnerability of Delta water quality to salinity intrusion through implementation of the Delta Long-Term Protection Plan (including levees O & M). (Watershed Coordination)

**Action 10:** Combined with Action 11. (Agricultural Drainage)

**Action 12:** Improve source irrigation water quality in sub-surface drainage source areas. All things being equal, higher quality irrigation water will result in better quality drainage. (Agricultural Drainage)

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**Action 14:** Reduce the loadings of water quality parameters of concern entering the Delta and San Joaquin tributaries by concentrating and disposing of agricultural sub-surface drainage in evaporation ponds in the San Joaquin Valley. (Agricultural Drainage)

**Action 15:** Reduce the loadings of water quality parameters of concern entering the Delta and its tributaries by treating agricultural surface drainage and/or Delta agricultural sub-surface drainage in constructed wetlands. (Agricultural Drainage)

**Action 16:** Reduce the loadings of water quality parameters of concern entering the Delta and San Joaquin tributaries by treating a significant portion of San Joaquin agricultural sub-surface drainage by reverse osmosis or other means. (Agricultural Drainage)

**Action 17:** Reduce urban and industrial water quality parameters of concern loadings to the Delta and its tributaries by detention and strategic release of 20 to 30 percent of urban runoff water. Action would involve retrofitting existing urban and industrial areas with detention basins at the outlets of drainage basins contributing largest loadings of parameters of concern. (Urban and Industrial Runoff)

**Action 18:** Reduce urban and industrial water quality parameters of concern loadings to the Delta and its tributaries through enforcement of existing source control regulations for urban and industrial runoff. (Urban and Industrial Runoff)

**Action 24:** Reduce water quality parameters of concern loadings to the Delta and its tributaries by treating a portion of upstream municipal wastewater effluent in wetlands. (Wastewater and Industrial Discharges)

**Action 25:** Reduce point source water quality parameters of concern loadings to the Delta and its tributaries through cost effective control of industrial and municipal wastewater discharges. Methods may include encouragement of pollutant credit trading. (Wastewater and Industrial Discharges)

**Action 26:** Reduce the formation of disinfection by-products, and their concentration in the domestic water supply, resulting from the use of chlorine in water treatment plants. Conversion of facilities from chlorine to ozone would serve to reduce the formation of disinfection by-products (Water Treatment)

**Action 27:** Reduce point source water parameters of concern loadings to the Delta and its tributaries through control of industrial and municipal wastewater discharges. Methods may include incentives for reclamation and reuse. (Wastewater and Industrial Discharges)

**Action 28A:** Improve treated drinking water quality parameters of concern by providing incentives for the addition of enhanced coagulation, ozone, granular activated carbon filtration and/or membrane filtration facilities to the water systems treating water from the Delta. (Water Treatment)

**Action 28B:** Improve source water quality parameters of concern at domestic water supply intakes, as identified in the geographic scope, by reducing Delta Island discharges that are high in TOC or other compounds that impact source water quality, or by relocating water supply intakes to areas that are not influenced by those discharges. (Water Treatment)

**Action 29:** Improve water quality parameters of concern within the Delta and its tributaries by restoring or improving riparian habitat. (Watershed Coordination)

**Action 30:** Combined into Action 29. (Watershed Coordination)

Note: If you submitted a project to CALFED before January 8, 1997 and do not see it listed or if the information below is inaccurate, please contact Carol Howe at (916) 921-3509.

## Potential CALFED Water Quality Projects

Action	Project Name	Project Manager	Agency/Organization	CALFED Funding Request
<b>AGRICULTURAL DRAINAGE</b>				
1. Control the timing of agricultural drainage discharge to coincide with periods when dilution flow is sufficient to achieve CALFED water quality target concentrations.	1-1: Treatment of Agricultural Drain Water and Coordinated Discharge of Agricultural Drain Water Based on Real-Time Monitoring of Water Quality in the Delta and its Tributaries**	Richard Breuer	Department of Water Resources, Division of Local Assistance	\$1,195,000
	1-2: Real Time Monitoring Program	Dennis Wichelns	San-Luis Mendota Water Authority	\$150,000
	1-3: San-Joaquin River Real-Time Monitoring and Management	Jo Anne Kipps	California Department of Water Resources, San Joaquin District	\$402,200
11. Implement additional agricultural source control for water quality parameters of concern in agricultural surface and sub-surface drainage. Implementation may include incentives and/or enforcement of existing regulations.	11-1: Tailwater/Tilewater Separation Project	Jeff Bryant	Firebaugh Canal Water District	\$2,100,000
13. Provide incentives to fallow or retire land that is a major source of water quality parameters of concern. Landowner participation should be voluntary and by compensated purchase or lease payment.	13-1: Improvement of Agricultural Drain Water through Land Management**	Richard Breuer	Department of Water Resources, Divisions of Local Assistance and Planning	\$280,000

\*\*Funding request subject to verification

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## Potential CALFED Water Quality Projects

Action	Project Name	Project Manager	Agency/Organization	CALFED Funding Request
15. Reduce the loadings of water quality parameters of concern entering the Delta and its tributaries by treating agricultural surface drainage and/or Delta agricultural sub-surface drainage in constructed wetlands.	15-1: Reduction of Selenium Inputs to the Sacramento-San Joaquin Delta	Alex J. Horne/Nigel Quinn	University of California, Berkeley	\$452,600
16. Reduce the loadings of water quality parameters of concern entering the Delta and San Joaquin tributaries by treating a significant portion of San Joaquin agricultural sub-surface drainage by reverse osmosis or other means.	16-1: Electrokinetic Selenium Removal Phase II	Dennis Falaschi	Panoche Drainage District	\$185,000
32B. Implement additional agricultural source control for water quality parameters of concern found in agricultural surface and sub-surface drainage. Implementation may include provision of incentives for pesticide users to increase implementation of best management practices (BMPs) including integrated pest management (IPM) to reduce pesticide loads and concentrations from agricultural drainage.	32B-1: Salt Creek Watershed Project	Roney Gutierrez	Colusa County Resource Conservation District	\$200,000
	32B-2: Colusa County RCD Augmentation Funding for Rice Systems	John Sinkovitz	Colusa County Resource Conservation District	\$257,000

\*\*Funding request subject to verification

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## Potential CALFED Water Quality Projects

Action	Project Name	Project Manager	Agency/Organization	CALFED Funding Request
<b>WATERSHED COORDINATION</b>				
21. Promote and support efforts of local watershed programs that improve water quality parameters of concern within the Delta and Delta tributary watersheds. Efforts may include coordination, incentives, and/or other assistance.	21-1: Adopt-A-Watershed Framework for Excellence**	Kim Stokely	Adopt-A-Watershed/Trinity River Resource Conservation District	\$800,000
	21-2: Placer County Water Quality Assessment and Monitoring Program	Richard Gresham	Placer County Resource Conservation District	\$649,800
	21-3: Butte Creek Watershed Riparian Restoration	Dr. Donald Holtgrieve/Allen Harthorn	California State University, Chico	\$79,897
29. Improve water quality parameters of concern within the Delta and its tributaries by restoring or improving riparian habitat.	29-1: Sacramento River Greenway Project	Larry Rillera	County of Yolo	\$345,000
	29-2: Cache Creek Watershed Management Project	Bill Croyle/Sue Yee	Central Valley Regional Water Quality Control Board	\$50,000
	29-3: Butte Creek Riparian Restoration Research Preserve	Dr. Donald Holtgrieve/Allen Harthorn	Butte Creek Watershed Conservancy and California State University, Chico	\$125,000

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## Potential CALFED Water Quality Projects

Action	Project Name	Project Manager	Agency/Organization	CALFED Funding Request
31. Identify and implement actions to address potential toxicity to water and sediment within the Delta and its tributaries by conducting toxicity testing and toxicity identification evaluations and/or other appropriate methods. Coordinate these efforts with other programs.	31-1: Identification of Agricultural and Urban Sources of Diazinon and Chlorpyrifos to the Tuolumne River	Dr. Charles Kratzer	U.S. Geological Survey	\$146,000
	31-2: Assessment of Water Quality Benefits from Mine Remediation	Charles N. Alpers	U.S. Geological Survey	\$500,000
	31-3: Source Identification and Transport of Diazinon and Chlorpyrifos in Two Major Subbasins of the Merced River	Dr. Charles Kratzer	U.S. Geological Survey	\$195,000
	31-4: Identification of Constituents Responsible for Aquatic Toxicity in the Sacramento River Watershed	Valerie Connor/Jerry Bruns	Central Valley Regional Water Quality Control Board	\$526,800
	31-5: Sacramento-San Joaquin Delta Fish Contamination Study	Dr. Bruce Thompson/Jay Davis	San Francisco Estuary Institute	\$70,000

\*\*Funding request subject to verification

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## Potential CALFED Water Quality Projects

Action	Project Name	Project Manager	Agency/Organization	CALFED Funding Request
<b>URBAN AND INDUSTRIAL RUNOFF</b>				
32A. Provide incentives for pesticides users to increase implementation of best management practices (BMPs) including integrated pest management (IPM) to reduce pesticide loads and concentrations to the Delta and its tributaries from urban & industrial runoff.	32A-1: Urban Pesticide Toxicity Control Strategy	John Sanders	Department of Pesticide Regulation	\$130,000
<b>MINE DRAINAGE</b>				
22A. Reduce metal loadings (e.g. cadmium, copper, mercury, and zinc) to the Delta and its tributaries by implementation of moderate on-site mine drainage remediation measures developed in site-specific studies at inactive mine sites.	22A-1: Balaklala Mine	Linda Mercurio	Mining Remedial Recovery Company	\$1,630,800
	22A-2: Mammoth Mine	Linda Mercurio	Mining Remedial Recovery Company	\$4,836,000
	22A-3: Penn Mine Site Long-Term Solution Project	Greg K. Vaughn	Regional Water Quality Control Board Central Valley Region	\$5,616,000
22B. Reduce metal loadings (e.g. cadmium, copper, mercury, and zinc) to the Delta and its tributaries by implementation of moderate on-site mine drainage remediation measures developed in site-specific studies at abandoned mine sites.	22B-1: Mt. Diablo Mercury Mine Site Remediation and Mercury Export Reduction Project	J. Michael Walford	Contra Costa County Department of Public Works	\$430,000

\*\*Funding request subject to verification

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## Potential CALFED Water Quality Projects

Action	Project Name	Project Manager	Agency/Organization	CALFED Funding Request
<b>MUNICIPAL AND INDUSTRIAL DISCHARGES</b>				
23. Control discharges of domestic wastes from boats within the Delta and Delta tributaries by more extensive enforcement of existing regulations.	23-1: Control of Domestic Wastes and Hydrocarbon Discharges from Boats in the Delta**	Richard Breuer	Department of Water Resources, Divisions of Local Assistance and Planning	\$150,000
24. Reduce water quality parameters of concern loadings to the Delta and its tributaries by treating a portion of upstream municipal wastewater effluent in wetlands.	24-1: Constructed Wetland Demonstration Project at the Sacramento Regional Wastewater Treatment Plant**	Chuck Williams	Sacramento Regional County Sanitation District	
25. Reduce point source water quality parameters of concern loadings to the Delta and its tributaries through cost effective control of industrial and municipal wastewater discharges. Methods may include encouragement of pollutant credit trading.	25-1: Sacramento Combined Sewer System Improvement**	Gary A. Reents	City of Sacramento, Department of Utilities	\$103,000,000
26. Reduce the formation of disinfection by-products, and their concentration in the domestic water supply, resulting from the use of chlorine in wastewater treatment plants. Conversion of facilities from chlorine to ozone would serve to reduce the formation of disinfection by-products.	26-1: Ultraviolet Light Disinfection at the SRWTP Using Medium Pressure Lamps**	Chuck Williams	Sacramento Regional Wastewater Treatment Plant	\$663,000

\*\*Funding request subject to verification

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## CALFED Bay-Delta Program Early Implementation Information Paper

January 1997

This paper has been prepared in response to numerous questions regarding the possible early implementation of specific projects which are part of the CALFED alternatives, and the potential for conflict with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

Based on preliminary review of NEPA and CEQA regulations, agencies can pursue projects which are part of the alternatives and included within the Programmatic EIR/EIS independent from its completion. However, any of these projects which may significantly affect the human environment must:

- be justified independently of the program;
- be accompanied by an adequate environmental document; and
- not prejudice the ultimate decision on the program.

Projects intended for early implementation which are not specifically included within the CALFED Program and associated Programmatic EIR/EIS and which would be capable of proceeding independent from the CALFED Program, are not limited by the same constraints as those projects which are dependent on the CALFED Program and included in the Programmatic EIR/EIS. An example of this would be those projects approved and funded by the Ecosystem Roundtable and the Category III program. Projects which fall into this category must still comply with applicable environmental laws and therefore must:

- have been described, studied or assessed under a previous CEQA/NEPA document or have new documentation prepared.

# ***Criteria for Project Implementation***

- *Degree CALFED Objectives Met*
- *Quantity of Benefits to Water Quality*
- *Benefit/Cost Ratio*
- *Engineering, Environmental and Economic Analysis / Support*
- *Time to Implement*
- *Local / Regional / State / Federal Partnerships*

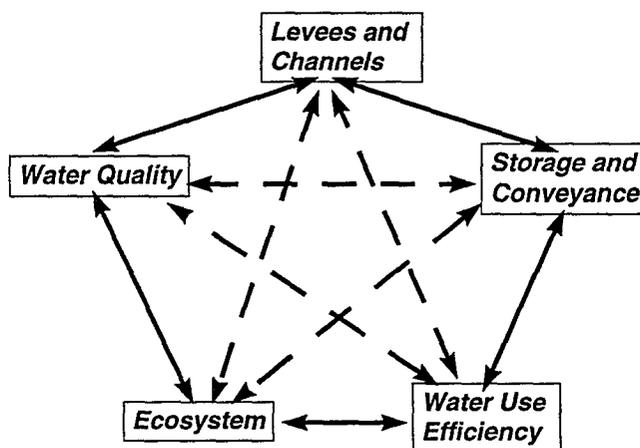
# CALFED Water Quality Technical Group: Linkages Discussion Notes

February 14, 1997  
Meeting

As part of Phase II of CALFED, elements of the various programs (Water Quality, Ecosystem...) will be combined into alternatives that will be analyzed for their ability to achieve program objectives, cost, stakeholder acceptance, and environmental impact. To date, CALFED has not formally considered linkages among elements from the different programs. However, as the actions proposed by the individual programs begin to constitute alternatives, these linkages will have to be identified, understood, and factored into analysis of the alternatives.

Therefore, one of the topics addressed at the February 14 meeting of the Water Quality Technical Group (WQTG) will be these linkages. Representatives of each program will attend to describe their program as it relates to water quality and water quality actions. The specifics of linkages will then be discussed with the WQTG. The discussion will be oriented around two examples of Water Quality Program features that influence or directly involve other programs: wetlands creation and timed release of discharges. The following are notes pertaining to this presentation and discussion. **Please feel free to mark comments on your notes and share them with us, whether or not the comment is directly addressed during the discussion.**

Schematic of Linkages Among Elements of Different Programs:



## Program Features

### *Water Quality*

#### **Control or Treatment:**

- Mine Drainage
- Agricultural Drainage
- Urban and Industrial Runoff
- Wastewater

#### **Other:**

- Watershed Management Coordination
- Water Supply Treatment
- Dilution

### *Levees and Channels*

- Subsidence Control
- Levee Maintenance and Rehabilitation
- Levee Setbacks and Channel Widening
- Beneficial Reuse of Dredge Materials
- Other

### *Storage and Conveyance*

- Reservoirs
- Widened Channels
- Isolated Channels
- Pumping Facilities
- Re-operation
- Intake Locations
- Diversion Locations
- Groundwater Banking, Conjunctive Use

### *Ecosystem*

- Meander Belts
- Shallow Water Habitat
- Riparian Habitat
- Wetlands
- In-stream Flow

### *Water Use Efficiency*

#### **Improved Physical Efficiency**

#### **Local Water Management for Multiple Benefits**

#### **Agricultural**

- Source Control
- Tailwater Recycling
- EWMP's

#### **Urban**

- BMP's

#### **Diverted Environmental Water**

- Time Flow Releases
- BMP's

## Linkage Case Examples

### Wetlands

#### **Where and for what?**

#### *For treatment of (WQ):*

- Agricultural drainage in the Delta (Action 15)
- Agricultural drainage in the San Joaquin Valley (Action 15)
- Mine drainage (Action 22)
- Municipal wastewater (Action 24)
- Urban and industrial runoff (Action 20)

#### *For habitat enhancement in (EC):*

- Tidal wetlands
- Floodplain wetlands
- An alternative for reuse of surface drainage

**Issues by Program**

***Ecosystem***

- Habitat creation/enhancement (quality -- location, functions, hazards; and quantity)
- Water quality impacts on ecosystem (effluent quality, load/flow changes)
- Regulatory compliance (wetlands, ESA, CDFG)

***Levees and Channels***

- Subsidence control
- Hydraulic detention

***Water Use Efficiency***

- Consumptive use
- Source control reduces load/flow to wetlands
- Mitigation for seasonal wetland loss due to EWMP's

***Storage and Conveyance***

- Flow and construction impacts on jurisdictional wetlands
- Hydraulic detention
  - Flow capacity
  - Storage
- Operation of wetlands
- Supplemental water demand; can be reduced in ecosystem wetlands through reuse of drainage, etc.

***Water Quality***

- Treatment benefits
- Ecological hazard
- TOC loading
- Potential to improve instream flow quality

***Altered load/flow through timed release of***

- Agricultural drainage (Action 1)
- Urban runoff (Action 17)

**Timed Release of Water**

**Where and how?**

***Retention of subsurface drainage from the San Joaquin Valley (Action 1):***

- The root zone and shallow groundwater (WUE, WQ)
- Surface impoundments (SC, WQ)

***Retention of urban runoff (Action 17):***

- Surface impoundments (SC, WQ)

**Issues by Program**

*Ecosystem*

- Impoundment hazards
- Load/flow through time for ecosystem. Parameters
- Optimizing operations for system capacity or other objectives

*Levees and Channels*

- Subsidence control wetlands as impoundments

*Water Use Efficiency*

- Source control reduces load and flow
- Long-term applied water impacts (soil salinization and leaching)
- Increased uniformity may increase potential for storage as shallow groundwater
- Potential to dilute outflow with diverted environmental water releases

*Storage and Conveyance*

- Storage of drainage water
- Operations of “dirty water” reservoirs
- Operations of “clean water” reservoirs to provide dilution

*Water Quality*

- Load/concentration/flow relationships
- Water quality improvements/hazards in impoundments
- Regulatory feasibility

## **CALFED Water Quality Technical Group Parameter Assessment Sub-Group**

The purpose of the Parameter Assessment Team can be summarized as follows:

- Advise CALFED on application of numerical criteria for impact assessment and alternative evaluation
- Advise CALFED on the use of analytical tools, including mathematical models, their proper utilization, and the interpretation of analytical results

To date the CALFED Water Quality Technical Group (WQTG) has provided technical input regarding CALFED's Water Quality Program. This input has included general definitions of desirable beneficial use water quality, water quality problem identification and description (i.e., parameters of concern), and formulation of actions to address water quality problems. CALFED will now be using this information (along with information from the other programs) to form alternatives.

Target ranges for parameters of concern will be used as tools for evaluation of the impacts of alternatives in the programmatic EIR/EIS. **The target ranges are not expected to have any regulatory or contractual function, although they may be influenced by regulatory and contractual requirements.** It is anticipated that the measure of target ranges will be quantitative in some cases, and qualitative in others. When appropriate and feasible, models will be used to simulate parameter impacts.

The target ranges will have an important role in planning and evaluation of alternatives. For the process to succeed, it is essential that development of target ranges and the methods to measure achievement of these ranges receive adequate technical and stakeholder review. The WQTG as a whole is probably too large to participate intimately in this review process. However, among WQTG membership are many individuals who could provide the needed review. It is therefore proposed that the WQTG constitute, from its membership and with participation of others with appropriate expertise, a Parameter Assessment Sub-Group.. Recommendations of this group would be made directly to CALFED, and available to the WQTG for their review and comment.

Critical perspectives that are needed on the sub-group include individuals with significant knowledge regarding the water quality requirements for the full range of beneficial uses, existing water quality conditions, and prediction of water quality impacts of anticipated actions. Specific examples of some possible membership disciplines include water quality modelers, aquatic toxicologists, and drinking water suppliers.

**If you feel that you have the appropriate expertise or would like to recommend someone to participate on this team please FAX Rick Woodard (916 654-9780).**

# **Future WQTG Meetings**

- **April 1, 1997**
- **August 6, 1997**
- **June 8, 1997**
- **October 1, 1997**

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