

**CALFED ECOSYSTEM RESTORATION PROGRAM**  
**Summary of Actions listed as Regional Meetings**

**Project Actions** - At each of the three regional meetings, in addition to the Stage 1 Actions, participants listed potential actions for FY 99 under 10 stressors. The actions are listed below by stressor, by region.

***Entrainment/Fish Screen Improvements***

**Delta/East Side Tributaries/North Bay - *Recommended same emphasis***

- Determine if agricultural diversion screens in the Delta are a cost effective restoration expenditure. The biological benefits may not warrant the high cost.
- Resolve conflicts between managed wetlands and fish entrainment in Suisun Marsh. Noted that take of endangered species becomes an issue with use of any managed wetlands as fish habitat.
- There are six priority #1 or #2 diversions in Suisun Marsh that are candidates for screens.
- Woodbridge and North San Joaquin Water Conservation District diversions on the Mokelumne River.

**San Joaquin River and Tributaries - *Recommended increased emphasis***

- Screen riparian diversions on Merced River
- Screen large diversions on the mainstem San Joaquin River. Need to resolve O&M issues on these diversions.
- Need to conduct outreach activities to diverters
- Need to consider sampling to quantify the impact of the problems
- Need to assist/update CDFG inventory of diversions in the basin in order to accelerate or complete this work. Need prioritization of diversion screening.
- General priority should be larger mainstem diversions, then riparian diversions on Merced River and elsewhere.
- On Tuolumne and other tributaries and SJR, assessment of the real impact of entrainment would be helpful to justify screening/not screening as a public information and involvement tool.

**Sacramento Mainstem and Tributaries - *Recommended same emphasis***

- Battle Creek: removal of fish hatchery weir (after isolated water supply provided to Coleman NFH) to allow passage of fish upstream. Could present a problem by allowing fall-run access to upper watershed, and superimposing redds over spring-run fish. Working group looking at actually leaving it in to keep fall and spring runs separate.
- Improve ladder and make weir more "fish tight" to facilitate exclusion and diversion of hatchery fish.
- GCID. Screen under construction, but a more complete an evaluation of it.
- Continue screening of Sacramento region diversions over 100 cfs.
- Yuba Goldfields screen.
- Colusa Basin Drain barrier. Provide a barrier to keep salmon out of the system.
- Check on McCormick-Saeltzer funding levels.

## *Fish Passage*

**Delta/East Side Tributaries/North Bay - Recommended same emphasis but noted that as projects move from planning to construction costs will increase**

- Evaluate potential passage problems in urban streams feeding into the Bay and West Delta as part of watershed plans.
- Look at nutrient loading and D.O. block in the San Joaquin River and how it can be controlled.
- Stranding issues in the bypasses (artificially created stranding). System-wide survey of artificially created stranding problems.
- Woodbridge Irrigation District
- Cosumnes River barriers, especially at low flows

### **San Joaquin River and Tributaries**

Only project to date is related to the D.O. block. Are there any other passage problems in the SJR basin?

- Is it possible to get passage above Crocker Huffman Dam? Or Merced Falls?
- Movable weir at mouth of Merced River to evaluate effectiveness of pulse flows for attraction of spawners. This counting weir should be coordinated with CMARP program.

**Sacramento Mainstem and Tributaries (same as entrainment) - Recommended same emphasis but noted that as projects move from planning to construction costs will increase (especially Battle Creek).**

- Battle Creek: removal of fish hatchery weir (after isolated water supply provided to Coleman NFH) to allow passage of fish upstream. Could present a problem by allowing fall-run access to upper watershed, and superimposing redds over spring-run fish. Working group looking at actually leaving it in to keep fall and spring runs separate.
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## ***Introduced Species***

### **Delta/East Side Tributaries/North Bay - *Recommended increased emphasis***

- *Spartina* control needs
- Incorporate information into a GIS layer that can be used with other CALFED priorities
- *Fragmoides* control in tidal and managed wetlands

### **San Joaquin River and Tributaries**

- *Arundo* and water hyacinth have already been identified as problems in the basin.

### **Sacramento Mainstem and Tributaries - *Recommended increased emphasis***

- *Arundo* and Tamarisk, especially in Cache Creek. Focus on riparian plants as opposed to aquatic species for the Sacramento River and tributaries.
- Klamath weed in upland areas. Small scale issue in Battle Creek watershed.
- Mitten crabs.

## ***Population Management***

### **Delta/East Side Tributaries/North Bay - *Recommended increased emphasis***

- Need to know actual exploitation rate and stock composition by areas in ocean. Current harvest index is inadequate.
- More complete spawning escapement data (especially numbers of fish, but also stock differentiation and age composition)
- Need better data on inland harvest.
- Relative importance of survival/mortality in Delta and upstream

### **San Joaquin River and Tributaries**

- Basin-wide population study needed. This should be coordinated with CMARP and other ongoing efforts.
- Scale analysis

### **Sacramento Mainstem and Tributaries**

- Look for guidance from CMARP on population management issues.
- Floodplain dependent species and how they are reacting to restoration efforts.

## *Floodplain/Marsh Restoration*

### **Delta/East Side Tributaries/North Bay - *Recommended same or increased emphasis***

- Follow-up on previous studies (discontinued in 1991) by ACOE on Donlon and Venice Cut Islands. [did Simonstad include in his study?]. Also follow-up on status of Little Mandeville Island. What is the fish use of these areas?
- Western Delta projects: Bradford Island tidal restoration.
- Sonoma Creek- Camp 2 Island and other North Bay wetlands projects
- Quantification of fish usage of North Bay areas, and its relationship to overall population productivity for the species of interest.
- North Contra Costa County wetlands restoration projects [shorter term location to evaluate benefits of tidal restoration since Suisun Marsh projects will take a longer period of time]
- Evaluate fish use of shaded riverine aquatic and flooded riparian habitat pre- and post removal of invasive plants
- Link McCormick-Williamson Tract with tidal and other wetlands restoration along eastern edge of Delta.

### **San Joaquin River and Tributaries**

- Establish floodplain easements on the Tuolumne and San Joaquin River
- Develop floodplain easement / acquisition criteria, and link with NRCS/CVPIA/ACOE
- Outreach to landowners about options and opportunities
- Better coordination/implementation of adaptive management and monitoring programs between and among projects on the different SJR tributaries
- Setback feasibility study: make sure the ACOE follows through on this.

### **Sacramento Mainstem and Tributaries - *Recommended more emphasis on tributaries, same emphasis on mainstem***

- Lower American River Floodplain Restoration. Urbanized areas: deal with point/non-point pollutant inflow problems. Look at role of restoration project physical fixes to give operational ramping flexibility.
- Groundwater inflows and their effects.
- *Arundo* is interfering with the natural form and function of the American River floodplain. Build on CVPIA project funding in this area.
- Stony Creek: now that there is a siphon, fish will move back in. Will need to look at planning efforts in this watershed.
- Contradiction in Stage 1 Actions for Clear Creek re: a) channel maintenance flows to scour encroaching vegetation, and b) establish riparian vegetation. There is some rationale to support both items, depending on where in the watershed the action is located and what type of vegetation you are targeting, but this needs to be clearer in Stage 1 list.

## *River Geomorphology*

### **Delta/East Side Tributaries/North Bay - Recommended the same or increased emphasis**

It was noted that there is overlap with floodplain/marsh actions, since habitat restoration along a levee could be characterized as either type of action. It was noted that there seems to be a drop in CALFED interest in levee restoration/setback actions. There are a lot of potential conflicts with flood control actions, and limits to the longevity of restoration projects in the face of future flood control measures.

- Link with levee projects and landowners to better manage habitat on levees (example is MOU for non-project levees [AB 360 program])
- Use aerial photography to identify historical corridors for rivers and floodplains (especially East Side Tributaries) and plan restoration actions accordingly

### **San Joaquin River and Tributaries**

#### All Tributaries

- Link actions to a systematic floodplain evaluation and monitoring. Evaluate "hands-on" restoration completed so far in comparison to other restoration techniques. Requires an independent perspective (such as a "standing panel") for evaluation.
- Find ways to increase instream habitat/channel complexity.
- Reduce detrimental effects of fine sediments; make up for loss of sediment sources.

#### Tuolumne

- Implement Phase 2 of the Mining Reach (Ruddy) plan.
- Special Run-Pool 10 site (levee breach needs repair). Possibly treat as add-on to Special Run-Pool 9.
- Tuolumne upper spawning reach. Land acquisition under way, need detailed design work. Land available for acquisition related to in-channel restoration opportunities exists in dredger tailing reach. Need conceptual designs (McBain and Trush doing this) before land acquisition begins.

#### Merced and Stanislaus

- Lower Western Stone project needs final engineering design. CVPIA is partially funding this project. Need additional \$125,000
- Ratzlaff Project is still short \$1.5 million.
- Need a long-term assessment of gravel supply for these types of projects.
- Robinson and SRP 10 projects may need funding in FY '00
- Preliminary engineering on Western Stone project (see AFRP item A-10). This is a contingent funding project.
- Stockton East/CDFG Lover's Leap project. What is their level of interest in pursuing it?
- Stanislaus River: need sediment budget and geomorphic analysis
- River-wide habitat assessment and restoration plan needed for the Stanislaus.

San Joaquin River Mainstem

- What is the ACOE doing on the SJR mainstem?

**Sacramento Mainstem and Tributaries- *Recommended increased emphasis on tributaries***  
Actions listed under floodplain/marsh restoration

**Levee Program Input**

- Demonstrate how levee reconstruction and habitat restoration activities can be integrated and levee maintenance assurance agreements can be established.
- Demonstrate beneficial reuse of dredged materials in creating shallow water habitat while establishing dredge permitting parameters.
- Tie-in existing benchmarks and tidal gauges to established NAVD88 common datum.

## ***Watershed Management***

### **Delta/East Side Tributaries/North Bay- *Recommended increased emphasis***

- Calaveras River is a gap in watershed management work
- Continue efforts to look for implementation projects from previously funded planning exercises

### **San Joaquin River and Tributaries**

- Problem with the Stanislaus River system not having a watershed management plan
- Orestimba Creek and other areas on west side of valley.
- Stakeholder/Outreach activities on the Stanislaus River
- Sediment management on Stanislaus; seems to be a local runoff problem. NRCS involvement may be useful.

### **Sacramento Mainstem and Tributaries- *Recommended increased number of projects***

- Upper Cache Creek watershed does not have a watershed conservancy or other stakeholder group.
- Comprehensive framework plan for Lower American River.
- Pilot project with upper watershed to help conclusively establish presence/absence of significant link between upper and lower watersheds.

## *Water Quality and Water Temperature*

### **Delta/East Side Tributaries/North Bay**

- Focus on contaminant problems which are road blocks to restoration in the bay
- Establish more coordinated, community based (volunteer) effort as part of a coordinated approach to monitoring in the watershed.
- Link USGS efforts on foodweb and nutrient cycling in Delta and Bay with the same issues on rivers

### **San Joaquin River and Tributaries - *Recommended increased emphasis***

#### San Joaquin River Mainstem

- Ag drainage flows are an issue.
- Real time water quality monitoring program is being implemented. There is a need to supplement the number of stations, particularly as other agencies (such as USGS) remove stations (Dale Hoffman)
- Grasslands Water District proposal.
- Need telemetered water temperature monitoring at these stations as well. Current parameters are typically flow, electrical conductivity, and D.O.
- Need more temperature monitoring in order to conduct future temperature modeling efforts.
- There should be a CMARP connection to some of these activities

#### Tuolumne River

- Water temperatures released from the dam are the coldest possible, based on bottom releases from the dam, so don't include reservoir re-operation on FY '99 list.
- Agriculture return flow issue is less important so don't include for FY '99.

#### Merced River

- Water temperature study
- Reservoir operations investigation

#### Stanislaus River

- There is AFRP contingent funding for temperature modeling.

### **Sacramento Mainstem and Tributaries**

- Groundwater inflow issues on the American River
- Dry Creek/Miner's Ravine. There are water quality problems, but also restoration potential. Salmon spawning occurs in Secret Ravine.

## *Water Management/Improved Stream Flows*

### **Delta/East Side Tributaries/North Bay - *Recommended using existing funding***

- Develop a methodology to identify timing and magnitude of water needs for the ecosystem
- Work with ACOE to review and revise flood control operations, especially if floodway modifications allow higher releases in flood control operations (identify ecosystem benefits)
- Ensure proper gaging where needed; reverse decommissioning trend in gaging stations (including water quality and temperature monitoring)
- Consider potential to treat water temperature comprehensively

### **San Joaquin River and Tributaries**

- Is there a need to address flow issues in the San Joaquin system? It was noted that potential San Joaquin fall-run chinook salmon listing resulted in a report being prepared by DFG re: salmon threats in the San Joaquin River system. The report noted that water temperature was identified as a deleterious stressor in virtually all the tributaries. Flows could be looked at as a possible contributor to this.
- Re-operation evaluations (Stanislaus, CVPIA evaluation) to improve environmental conditions.
- "Ecologically compatible water management". Mimic natural hydrograph more closely.
- Perhaps consider variability in low flow regime, rather than unchanging base flows.
- Possible water management actions related to flows for steelhead? Would need appropriate canyon habitat and sufficiently low summer water temperatures.
- CVPIA is proposing funding with CDFG's Dennis McEwan for genetic study of steelhead.

### **Sacramento Mainstem and Tributaries - *Recommended increased efforts at operational opportunities***

- Re-operation and timing of water releases. Bypassing power generation facilities.
- Clear Creek. Saeltzer is the only source to acquire water. Water management activities could focus more on changes at the dam.
- Sacramento River. Evaluate re-operation, more natural flow regime in conjunction with ACOE.

## *Education*

### **Delta/East Side Tributaries/North Bay- *Recommended increased emphasis***

- Outreach to landowners on management of lands
- Demonstration levee setback project in Delta could be used as an education tool for landowners and others in the Delta. The planning phase could begin in FY '99
- Demonstration project to explore different ag practices with wildlife and fisheries benefits (particularly in North Bay).
- Educational components added on to other restoration projects that are already underway.
- Educational efforts to help control introduction and spread of invasive non-native species. (See non-native invasive species team).
- Outreach to school age kids on overall program.

### **San Joaquin River and Tributaries- *Recommended increased emphasis***

- Possibly fund an outreach field excursion on the Stanislaus to build awareness, using a "Water Education Foundation tour" type of approach. Target landowners and affected communities.
- Resource Conservation District staff support; use vernal pool outreach model (with RCD/NRCS lead)
- Tuolumne Outreach Facility? Conceptual Plan?

### **Sacramento Mainstem and Tributaries- *Recommended increased emphasis***

- Need for more programmatic approach to education
- Landowner outreach
- Involve education professionals to develop programs at all levels
- Recruit volunteers/academics to participate in projects.
- CALFED Program public outreach on projects.

## ***Other Items***

### **Delta/East Side Tributaries/North Bay**

- In Stage 1 document, look at more consistent use of terminology regarding Bay-Delta, Delta, East Side Tribs, North Bay, estuary, etc.
- Stage 1 document, page 12, Sediment Supply item #2 is obscure
- Stage 1 document, page 8, #6. Incentives should apply to North Bay area as well

### **San Joaquin River and Tributaries**

- ERPP needs to "aim high"
- Possibilities for flood bypasses for the SJR mainstem

### **Sacramento Mainstem and Tributaries**

- How will multi-phased projects be funded?

**Attached are the participants for each of the three regional meetings.**

**CALFED ECOSYSTEM RESTORATION PROGRAM  
SAN JOAQUIN REGIONAL MEETING**

**Modesto Irrigation District, Modesto**

**9 November 1998**

The San Joaquin Region meeting was held to review the status of restoration project expenditures, and solicit input on future near-term restoration projects in the San Joaquin River basin. The public, various stakeholders, and resource agencies were invited. Attendees included the following.

<b>Name</b>	<b>Representing</b>	<b>Address</b>	<b>Phone/Email</b>
Cindy Darling	CALFED	1416 Ninth Street, Suite 1155 Sac. CA 95814	916 657-2666 Fax 916 654-9780
Rebecca Fawver	CALFED	1416 Ninth Street, Suite 1148 Sac. CA 95814	916 653-1334 Fax 916 653-5699
Tim Ford	TID/MID	P.O. Box 949 Turlock, CA 95381	209-883-8275 .tjford@tid.org.
Tim Ramirez	Tuolumne River Preservation Trust; CALFED Integration Panel	TRPT Fort Mason Center, Bldg.C San Francisco, CA 94123	415 292-3531 Fax 916 931-1813 tuolumne@igc.apcorg
Alice Low	CH2M Hill/CVPIA	2485 Natomas Park Dr. #600 Sac. CA 95833	916 920-0300 Fax 916 920-8463 alow@ch2m.com
Dave Vogel	Natural Resource Scientists, Inc.	P.O. 1210 Red Bluff, CA 96080	530-527-9587 Fax 530- 527-6181 natrsinc@aol.com
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Stephani Spaar	DWR, RSO	3251 S St. Sacramento, CA 95816	916-227-7554 Fax 916-227 7536 sspaar@water.ca.gov

Barry Mortimeger	RW Beck	1851 Heritage Lane, Suite 200, Sacramento, CA 95815	916-929-3653/1710 bmortime@rwbeck.co m
Caroline Mitton (morning only)	Sierra Club	1120 Tasmania, Modesto, CA 95356	cmitt@ainet.com
Jeff Phipps (morning only)	CALFED/CMARP	2021 Driftwood Circle El Dorado Hills CA 95762	916- 933-6425 Fax 916-933-7636
Tom Zuckerman (morning only)	Central Delta Water Agencies, Ecosystem Roundtable member	146 West Weber Ave., Stockton, CA 95202	209-943-5431 Fax 209 943-0905
Rhonda Reed (afternoon only)	CDFG	1234 East Shaw Ave. Fresno, CA .93710	209-243-4005x 172 Fax 209-243-4061 r2reed@compuserue.co m
Scott Wilcox	EA/CALFED	3841 N. Freeway Blvd. #145 95834	916-924-7450 sdw@eaest.com

**CALFED ECOSYSTEM RESTORATION PROGRAM  
DELTA/EAST SIDE TRIBS/NORTH BAY REGIONAL MEETING**

17 November 1998

*Attendees:*

<b>Name</b>	<b>Representing</b>
Joe Miyamoto	EBMUD
Kent Nelson	DWR - ESO
Lori Clamurro	Delta Protection Commission
Nancy Schaefer	SF Bay Joint Venture
Susan Hatfield	EPA
Amy Harris	Surface Water Resources, Inc.
Nadine Hitchcock	California Coastal Conservancy
Steven Chappell	Suisun Resource Conservation District
Erwin Van Nieuwenhuysse	USFWS - Anadromous Fish Restoration Program
Kim Laur	Entrix
Frank Wernette	CDFG
Cindy Darling	CALFED
Rebecca Fawver	CALFED
Peter Kiel (morning)	CALFED
Michael Fainter (morning)	CALFED
Scott Wilcox	EA/CALFED

**CALFED ECOSYSTEM RESTORATION PROGRAM  
SACRAMENTO REGIONAL MEETING  
19 November 1998**

*Attendees:*

<b>Name</b>	<b>Representing</b>
Jason Peltier	CVP Water Association, Ecosystem Roundtable member
Elaine Kleckner	SMUD, Hydro Licensing
Paul Olmstead	SMUD
Rick Dreher	Army Corps of Engineers
Jan Lowery	Cache Creek Conservancy
Diana Jacobs	State Land Commission
Jonas Minton	Water Forum
Tim Washburn	SAFCA
Amy Harris	Surface Water Resources, Inc.
Mal Toy	Placer County WA
Anitra Pawley	The Bay Institute, Integration Panel member
Bill Zemke	PG&E Hydro
Kris Vyverberg	CDFG Stream Evaluation Program
Rob Titus	CDFG Sacramento
Carl Mesick	USFWS Anadromous Fish Restoration Program
Jim Smith	USFWS Red Bluff
Martha Turner	CFPDR
Barney Flynn	Sacramento River Partners
Steve Hirsch	Metropolitan Water District
Susan Ramos	Bureau of Reclamation
Scott Wilcox	EA/CALFED
Cindy Darling	CALFED
Rebecca Fawver	CALFED
Jo Turner	CALFED
Peter Kiel	CALFED
Wendy Halverson	CALFED