

appendix **B**

Habitat Management Element

Appendix B

The Habitat Management Element, part IV of the Water Forum Proposal, as it exists at the time of the release of the Draft EIR, is presented in this appendix to summarize the habitat management program actions for the Lower American River.

IV. LOWER AMERICAN RIVER HABITAT MANAGEMENT ELEMENT

A. Intent

The Habitat Management Element (HME) for the Lower American River, combined with other elements of the *Water Forum Agreement*, is intended to fulfill one of the Water Forum's two coequal objectives:

Preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River.

The HME is necessary to comply with the California Environmental Quality Act's (CEQA) requirement to avoid or lessen, to the extent reasonable and feasible, all significant impacts to the Lower American River resulting from future increased surface water diversions identified in the *Water Forum Agreement*. The HME will be incorporated into the Water Forum Environmental Impact Report.

The HME is also an important issue for another reason. In 1998, steelhead on many rivers, including the American, were listed as threatened under the federal Endangered Species Act and fall-run salmon were proposed for listing. As purveyors proceed with their diversion projects, they will have to consult with resource agencies. Under the Endangered Species Act, projects can move forward only if the resources agencies find that they will not jeopardize the continued existence of the species.

The Habitat Management Element will be implemented for the term of the *Water Forum Agreement* - to the year 2030.

B. Lower American River Habitat Management Element Program Components

The Lower American River HME will contain five programmatic components that together will address flow, temperature, physical habitat, and recreation issues for the Lower American River: Habitat Management Plan; Habitat Projects that Benefit the Lower American River Ecosystem; Monitoring and Evaluation Program; Project-specific Mitigation; and Lower American River Recreation.

1. The Lower American River Habitat Management Plan will include detailed descriptions of all reasonable and feasible projects that could be implemented to avoid and/or offset potential impacts to Lower American River fishery and riparian resources due to the increased surface water diversions defined under the *Water Forum Agreement*.

The Plan will also identify and define:

- a. Performance standards to be used as indicators of the health of the Lower American River (e.g. flows, temperatures, etc.)
- b. The conceptual (e.g., mitigation banking or other) and technical framework for the Habitat Management Element;
- c. Schedule and technical assistance required for development, implementation, and monitoring of the Habitat Management Element;
- d. How the Habitat Management Element will be coordinated with other programs, plans, initiatives, and/or mandates that affect the Lower American River ecosystem;
- e. Logistics and responsibilities associated with administering the Habitat Management Element;
- f. Implementation priorities, strategies, and schedules for the proposed projects;
- g. Lead organizations for implementation of each project;
- h. How the Habitat Management Element could serve as the framework for addressing any Endangered Species Act requirements; and
- I. Cost-sharing obligations and specific funding commitments.

Moreover, the Habitat Management Plan will outline protocols for Plan updating, and will clearly identify the type, amount, and costs for all technical assistance that will be required to develop/update, administer, implement, and monitor the Habitat Management Element.

Consultant services and other technical assistance will be acquired to: 1) effectively develop, implement, administer, and monitor the success of the HME; and 2) provide input to federal and state agencies for actions that will contribute to the preservation of the values of the Lower American River. This will ensure that there is effective advocacy to achieve a “fair share” of CVPIA Restoration Funds allocated to Lower American River improvements, real-time implementation of the Improved Fishery Flow Pattern Releases (focusing on the volume, temperature, and timing of flows), and preservation of riparian habitat.

In developing and updating the Habitat Management Plan, the Water Forum will not only benefit from direct technical assistance from various agencies (e.g., Bureau, California Department of Fish and Game [CDFG], Sacramento Area Flood Control Agency [SAFCA]), but also will receive technical assistance from and be able to participate in existing technical forums, including:

- C SAFCA’s Lower American River Task Force;
- C Lower American River Operations Working Group;
- C Lower American River Technical Team convened by CALFED, the Water Forum, and SAFCA; and
- C Sacramento County Parks and Recreation Department.

This Habitat Management Element will be incorporated into the Water Forum EIR. Then, within the first 18 months after the *Water Forum Agreement* is signed, the Habitat Management Plan will be completed and adopted.

2. Projects that Benefit the Lower American River Ecosystem have been identified by the CALFED American River Technical Team. Currently, 22 potential projects/studies have been identified for the Lower American River. Those that could be appropriately supported through the Water Forum Successor Effort are identified in Table 1. Additional projects that could be supported by other agencies are identified in Table 2. The projects/studies identified in Table 1 are strictly potential candidates for inclusion, and should not be considered as a final array of management elements to be adopted by the Water Forum.

3. The Monitoring and Evaluation Program will: 1) establish baseline conditions for future reference and assess the health of the Lower American River as diversions increase; and 2) assess the response of fish, wildlife, and riparian communities to the management/restoration projects implemented under the Habitat Management Plan as well as the increased diversions. The Monitoring and Evaluation Program will also meet the CEQA requirement to have a mitigation monitoring plan.

Real time monitoring and regular evaluation are also necessary components of the adaptive management approach for the ongoing implementation of the *Water Forum Agreement*. Real time monitoring will be particularly useful to the Lower American River Operations Group as it makes monthly flow and temperature decisions.

Regular evaluations conducted every five years will allow the Water Forum Successor Effort to comprehensively review the overall impacts of the agreement on the health of Lower American River.

Specifics on the monitoring and evaluation program will be included in the Water Forum EIR.

4. Project-Specific Mitigation will be required of each purveyor to mitigate any site-specific impacts associated with their diversion. An example of such site-specific mitigation would be installing fish screens for new diversions or, potentially, improving existing diversion screens following increased rates of diversion.

5. Lower American River Recreation

This component is intended to address effects on recreation along the Lower American River. Two components of the *Water Forum Agreement* have an effect on the recreational flows for the Lower American River. First, the Improved Pattern of Fishery Flow Releases results in lower summer time releases so that cold water can be conserved in Folsom Reservoir to benefit the fall-run chinook salmon. Second, the increased surface water diversions result in less water being available to flow down the entire length of the Lower American River.

In order to reduce the impacts of reduced recreational flows on the Lower American River an initial list of projects has been developed. These are summarized in the table below.

This list of projects will be refined over time.

TABLE 1. Water Forum Cost-Sharing for Lower American River Habitat Projects.

Proposed projects and studies for which the Water Forum could be a cost-share partner. Table 1 contains preliminary, rough cost estimates for years 1-2 and annual costs thereafter for the life of the *Water Forum Agreement*. Estimated costs can be expected to change and are provided here for discussion purposes only.

PROJECT/STUDY	AGENCY	ANNUAL COST	
		Years 1-2	Ongoing
Wetland/Slough Complex	SAFCA	Unknown	To be determined
	CALFED	Unknown	
	Water Forum	\$25,000	
Shaded Riverine Aquatic Habitat	SAFCA	Unknown	To be determined
	CALFED	Unknown	
	Water Forum	\$25,000	
Tailrace Habitat Utilization Study	CALFED	\$15,000	Study complete
	Water Forum	\$15,000	
Thermal Refugia Utilization Study	CALFED	\$25,000	Study complete
	Water Forum	\$25,000	
Off-site Mitigation (if required)	Water Forum	Unknown	Unknown
Monitoring and Evaluation	SAFCA	\$100,000	\$100,000
	Water Forum	\$100,000	\$100,000
	CVPIA	\$100,000	\$100,000
Plan Development, Updating & Technical Assistance	SAFCA	\$150,000	\$70,000
	Water Forum	\$150,000	\$70,000
	CVPIA	\$150,000	\$70,000

TABLE 2. Additional Lower American River Habitat Projects. These are additional projects and studies that would be carried out by other organizations.

Habitat Projects that Benefit the Lower American River Ecosystem				
Priority	Actions	Study or Project	Possible Funding Source(s)	Lead Organization
High	New Flow Standards	Project	CVPIA	USBR
High	Flow Fluctuation Criteria	Project	CVPIA	USBR
High	Dry Year Flow Augmentation	Project	CVPIA	PCWA USBR/USFWS
High	Folsom Temperature Control Device (TCD)	Project	USBR	USBR
High	Folsom Reservoir Cold Water Pool Management	Project	SCWA Folsom SJWD USBR	USBR
High	Instream Cover (Woody Debris)	Project	ACOE SAFCA	ACOE SAFCA
High	Flood Control Channel Improvement	Project	SAFCA ACOE	SAFCA
High	Spawning Habitat Management/ Maintenance	Study, Project	CVPIA CALFED	CDFG USFWS
High	Hatchery Temperature Control	Project	USBR	USBR
High	Hatchery Management Practices	Project	USBR CDFG	CDFG
Moderate	Fire Management	Project	SAFCA Sacramento County	Sacramento County SAFCA
Low	Increase Artificial Production of Salmonids	Project	USBR CDFG	CDFG
Low	Angling Regulations	Project	CDFG	CDFG

Table 2. - continued

Project-specific Mitigation				
Priority	Actions	Study or Project	Possible Funding Source(s)	Lead Organization
	Fish Screen Improvement	Project	Water Forum purveyors with fish screens CVPIA	Water Forum purveyors

It is also recognized that the State Steelhead Restoration Plan includes a study of the feasibility of reintroduction of steelhead above Folsom Dam. Water Forum water purveyors are concerned that reintroduction not impose Endangered Species Act requirements on diversions upstream of Folsom Dam.

After the technical team prepared this list, an additional potential project was identified by the Department of Fish and Game. It would be beneficial to tag steelhead to determine the extent of natural spawning in the Lower American River.

LEGEND:

- ACOE - Army Corps of Engineers
- CVPIA - Central Valley Project Improvement Act
- Folsom - City of Folsom
- PCWA - Placer County Water Agency
- SAFCA - Sacramento Area Flood Control Agency
- SCWA - Sacramento County Water Agency
- SJWD - San Juan Water District
- USBR - United States Bureau of Reclamation
- USFWS - United States Fish and Wildlife Service

TABLE 3. Potential Projects to Address Effects on Lower American River Recreation

Project	Potential Funding Source(s)	Lead Organization(s)
Update Recreation Element of the Lower American River Parkway Plan	Water Forum HME and Sacramento County	Water Forum Successor Effort, Sacramento County
Increase access to American River	Water Forum HME, Sacramento County, City of Sacramento	Water Forum Successor Effort, Sacramento County
Trails adjacent to waterways	Water Forum HME, Sacramento County, City of Sacramento	Water Forum Successor Effort, Sacramento County
Purchase and develop Uruttia property for recreational and environmental values	Sacramento County, Sacramento City, and Water Forum HME	Sacramento County and Sacramento City

Consideration will be given to locating projects in the service areas of purveyors contributing to the Lower American River Habitat Management Element. Preference will be given to those projects having the greatest nexus to the recreational impacts on the Lower American River resulting from implementation of the *Water Forum Agreement*.

Funding for recreation projects is included in the Habitat Management Element Cost Allocation Principles. Contributions to the HME would be for both Habitat and Recreational projects, with the Water Forum Successor Effort deciding on annual expenditures.

C. Relationship to a Coordinated Multi-Agency Lower American River Ecosystem Partnership

The Lower American River ecosystem is also affected by agencies outside the Water Forum. Many agencies have some type of jurisdiction over decisions that affect the ecosystem. Several outside agencies have responsibility and financial resources to benefit the Lower American River.

It is also recognized that the Water Forum Successor Effort will not by itself have sufficient funding to implement all the actions necessary to fully preserve the Lower American River ecosystem. Therefore it is intended that the Water Forum Habitat Management Element (HME) be part of a coordinated Multi-Agency Lower American River Ecosystem Partnership. It is proposed that this Partnership be established by a Memorandum of Understanding among:

- C The Water Forum Successor Effort (legally administered by the Sacramento City-County Office of Metropolitan Water Planning);
- C Sacramento Area Flood Control Agency (SAFCA);
- C CALFED (or its successor);

- C U.S. Bureau of Reclamation (CVP and CVPIA);
- C U.S. Fish and Wildlife Service;
- C National Marine Fisheries Service
- C California Department of Fish and Game;
- C Sacramento County Parks Department.

The Multi-Agency Lower American River Habitat Ecosystem Partnership will incorporate key objectives from other ongoing or planned state and federal initiatives involving the agencies identified above, including:

- C the American River component of CALFED's Ecological Restoration Program Plan (ERPP);
- C SAFCA's emerging floodway management plan (FMP);
- C Sacramento County's American River Parkway Plan (ARPP); and
- C The federal Anadromous Fish Restoration Program (AFRP) of the Central Valley Project Improvement Act (CVPIA).

The Partnership will also draw upon the expertise of groups such as SAFCA's Lower American River Task Force, the Water Forum's Lower American River Technical Team, and the Bureau's Lower American River Operations Group.

Each member of the Multi-Agency Partnership will be represented on a Partnership Steering Committee. The Steering Committee will oversee development of the detailed Habitat Management Plan which will identify priorities for environmental restoration and enhancement. Although each agency will retain autonomy over its own budget, the Steering Committee will coordinate opportunities for costs sharing. Through the integration of ongoing and planned management/restoration efforts, the most effective program for the Lower American River will be developed, thereby providing maximum benefits to the river ecosystem. Moreover, through cooperation and cost-sharing, the costs to each organization for developing, implementing, and monitoring the Program will be minimized.

D. Water Forum Cost Allocation Principles

1. Proposed Lower American River habitat projects and studies that could be supported by the Water Forum Habitat Management Element are shown in Table 1 (on page 72). Potential projects to address effects on Lower American River recreation that could be supported by the Water Forum Habitat Management Element are shown in Table 3 (on page 75).
2. Cost-Sharing among Water Forum Purveyors
 - a. The City of Sacramento and the Sacramento County Water Agency (through Zone 13) will commit to a combined total of \$375,000 annually to the Habitat Management Element (including an estimated, but not earmarked, \$35,000 for recreational projects.).

The City of Sacramento and Sacramento County Water Agency (SCWA) will commit to funding their share of the Habitat Element starting when they sign the *Water Forum Agreement*. Their contributions will fund the majority of the Water Forum's share of the core program, especially real time monitoring, evaluation, and

planning. The City of Sacramento will contribute \$125,000 annually and SCWA will contribute \$250,000 annually using Zone 13 funds.¹

b. Sacramento County Water Agency Zone 13 funds will be use to meet the HME obligations for the purveyors serving the unincorporated areas of Sacramento County and in the City of Citrus Heights.

Property owners in the unincorporated areas of Sacramento county and in the City of Citrus Heights are assessed in their property taxes for county-wide water management expenses that could include many of the real time monitoring, evaluation and planning activities in the Habitat Management Program.

Therefore SCWA's Zone 13 contribution to the Habitat Management Element will cover the financial obligations of these water users serving the unincorporated area of Sacramento County and the City of Citrus Heights: Carmichael Water District, Citrus Heights Water District, Citizens Utilities in Sacramento county, Clay Water District, Del Paso Manor County Water District, Fair Oaks Water District, Florin County Water District, Galt Irrigation District, Natomas Mutual Water District, Northridge Water District, Omuchumne-Hartnell Water District, Orange Vale Water Company, Sacramento Municipal Utility District, and San Juan Water District in Sacramento County.

c. Contributions from Other Purveyors.

Other purveyors that divert from the American River are the City of Folsom, Placer County Water Agency, City of Roseville, San Juan Water District in Placer County, El Dorado Irrigation District, and Georgetown Divide Public Utility.

(1) Central Valley Project water. A portion of their increased diversions will be Central Valley Project water for which these purveyors contribute into the Central Valley Project Restoration Fund. The Water Forum Successor Effort will work to ensure that a fair share of those Restoration Funds will be spent on improvements to the Lower American River.

Therefore, these purveyors will not be contributing to the Water Forum Habitat Element for increased diversions of CVP water. If for any reason, the purveyors do not contribute to the CVP Restoration fund for increased diversions of CVP water over their baseline amounts (i.e. historic maximum amount of water diverted in any one year through the year 1995 or, in certain appropriate instances, other amounts specified in the agreement), they would contribute to the Habitat Management Element as set forth below.

(2) Non-Central Valley Project water. Some purveyors will also be increasing their diversions of non-CVP water. For increased diversions of

¹ If in the future, a joint City of Sacramento, Sacramento County Water Agency (SCWA), and East Bay Municipal Utility District (EBMUD) project is implemented, EBMUD will be asked to pay a portion of SCWA's \$250,000 annual contribution.

non-CVP water from the American River, purveyors would pay \$3 per acre foot when they divert the water. Increases are defined as amounts above their baseline (i.e. historic maximum amount of water diverted in any one year through the year 1995 or, in certain appropriate instances, other amounts specified in the agreement). If a purveyor exchanges current CVP water deliveries with non-CVP water they will pay \$3 per acre foot for the water they exchange.

It is specifically recognized that Placer County Water Agency would only contribute to the HME for increased American River diversions of non-CVP water used by PCWA. Contributions to the HME for PCWA water used by San Juan Water District, City of Roseville, Northridge Water District and any other purveyors are not the responsibility of PCWA.

3. Cost Cap

The City of Sacramento, SCWA and other Water Forum signatories' commitments to financially contribute to the HME are capped at the dollar amounts shown in sections a, b, and c above, adjusted only for inflation as set by the January issue of the "*Engineering New Record*" published Construction Cost Indexes for U.S. - 20 Cities Average and for the San Francisco Area. The annual adjustment index would be calculated using the average of the cost indexes for these two areas.

If the Water Forum balance in the Habitat Management Element fund exceeds \$1 million of unearmarked funds, annual contributions would be reduced or deferred until the unearmarked balance went below \$1 million.

Every five years the Water Forum Successor Effort will review the evaluation of the health of the Lower American River ecosystem. At those times any signatory to the *Water Forum Agreement* can request that the Water Forum Successor Effort renegotiate the Cost Cap to increase or decrease the amount based on the needs at that time. Any increase or decrease would have to be approved by the signatories to the *Water Forum Agreement*.

4. Through the Multi-Agency Partnership, agencies in addition to the Water Forum Successor Effort and its signatory agencies will be requested to contribute to the budget. Total costs shared by all partners, (including Water Forum and requested cost-sharing from SAFCA, U.S. Bureau of Reclamation and CALFED) for each of the first two years are estimated to be approximately \$915,000. Annual costs thereafter for monitoring, evaluation, plan updating and technical assistance are estimated to be approximately \$510,000. Additional funding will be needed for projects identified in the Habitat Management Plan and recreational projects.

This program assumes significant financial contributions from other members of the Multi-Agency Lower American River Ecosystem Partnership. If that does not occur, it would be considered a changed circumstance requiring renegotiation.

5. Project Specific Mitigation.

Any project-specific habitat mitigation, (e.g. fish screens at diversion facilities) or

recreation mitigation is the responsibility of individual purveyors. Costs for project specific mitigation are not eligible for funding under the Habitat Management Element.

E. Adaptive Management

The Habitat Management Element is based on the principal of “adaptive management,” which allows for flexibility in making future resource-management decisions as additional data become available. Information collected under the on-going Monitoring and Evaluation Program will be fed back into the management decision making process on a real-time basis.

It is recognized that monitoring and evaluation may identify adverse impacts not currently anticipated. If the unanticipated impacts are significant, this would be considered a changed condition. The Water Forum Successor Effort would meet and confer on options for mitigating these unanticipated impacts.

Options include additional habitat measures to reduce or eliminate the adverse impacts. Funding could come from the Water Forum participants or other partners in the Multi-Agency Lower American River Ecosystem Partnership. If unanticipated significant adverse impacts cannot be mitigated, this would be considered a changed circumstance requiring renegotiation of the relevant portions of the *Water Forum Agreement*.

If the Lower American River is designated as critical habitat for an endangered or threatened species, the Endangered Species Act may require a higher level of mitigation than that anticipated to be paid from the Habitat Management Element. Thus, if the Lower American River is designated as critical habitat, it may be considered a changed condition to be addressed by the Water Forum Successor Effort.

F. Specific Agreement for the Lower American River Habitat Management Element.

All signatories will support and where appropriate, participate in the Lower American River Habitat Management Element as set forth above.