

## **3. PROJECT DESCRIPTION**

### **3.1 PROJECT LOCATION**

Water Forum stakeholders represent diverse water, government, business, agricultural, and environmental interests in most of the County of Sacramento and the cities within the County, the City of Roseville, and western portions of Placer and El Dorado counties (Exhibit 3-1). For purposes of the EIR, three study areas are considered: the direct effect study area, the indirect effect study area, and the water service study area.

#### **3.1.1 Direct Effect Study Area**

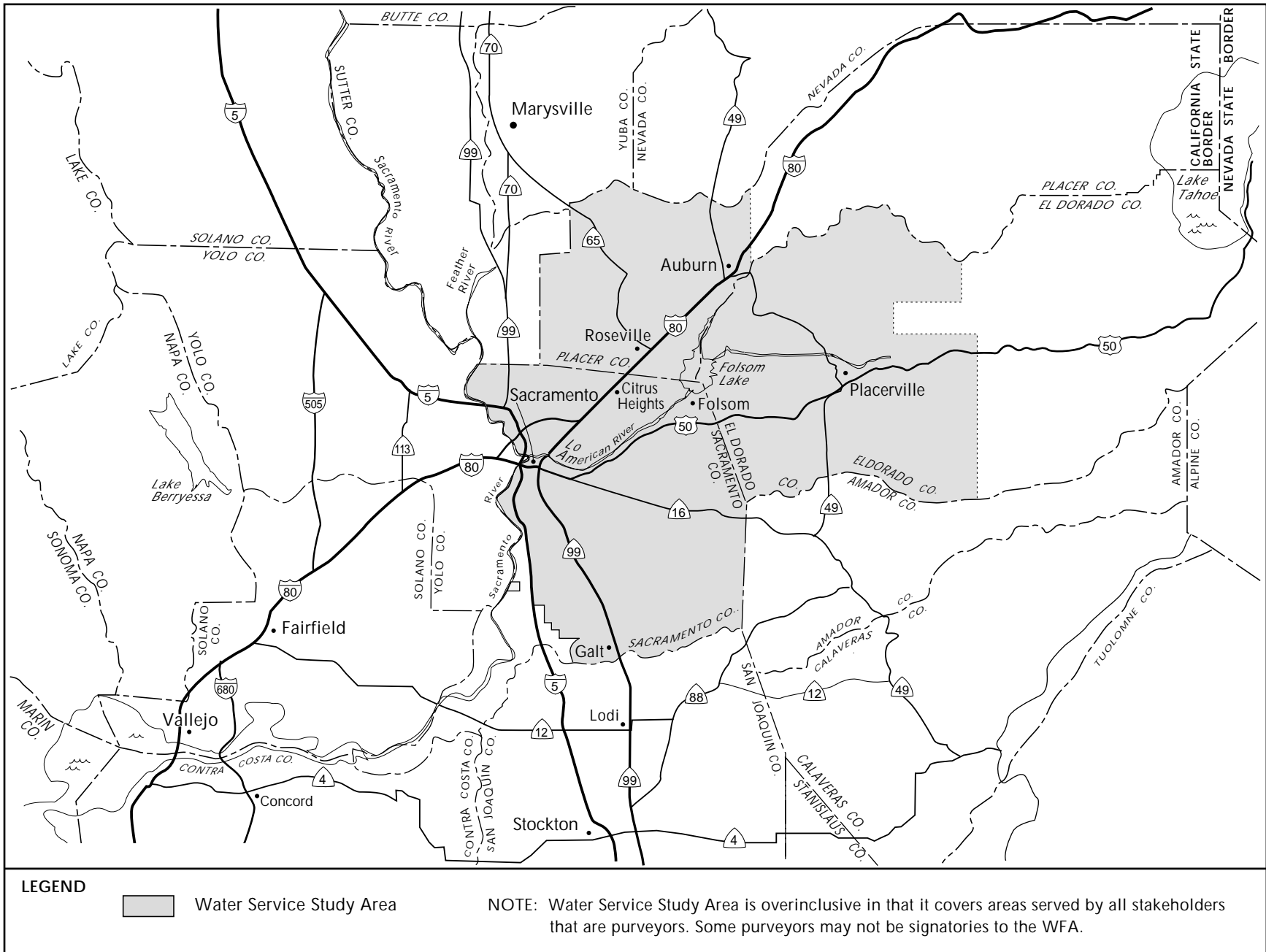
The proposed sources of future additional water supply under the WFP are additional surface water diversions from the American River and the Sacramento River, and from groundwater. Water diversions from the American River would occur upstream of Folsom Reservoir, from Folsom Reservoir proper, from Nimbus Reservoir, and from the Lower American River. The Lower American River is defined as the reach from Nimbus Dam to the confluence with the Sacramento River. Flows into the Lower American River are controlled by releases from Folsom Reservoir. Because it is likely that substantial new diversions would occur on the American River, and because preservation of the Lower American River is one of the coequal objectives of the WFP, the direct effect study area consists of Folsom Reservoir, Lake Natoma, and the in-stream and riparian areas of the Lower American River (Exhibit 3-2).

#### **3.1.2 Indirect Effect Study Area**

The indirect effect study area is defined as the broader geographic area that encompasses the surface water resources and facilities outside of the Lower American River that may be affected by the WFP. This area includes the Central Valley Project (CVP) and State Water Project (SWP) system upstream of the confluence of the Sacramento and American rivers (exclusive of the direct effect study area), along with associated reservoirs and rivers, and downstream of the confluence, into and including the Sacramento-San Joaquin Delta (Exhibit 3-3).

#### **3.1.3 Water Service Study Area**

The water service study area consists of the communities served by the Sacramento and Foothill area Water Forum stakeholder purveyors. As such, the water service study area is coincident with the boundaries of stakeholder purveyors in the cities of Sacramento, Folsom, Citrus Heights, and Galt; County of Sacramento (excluding the Delta); the City of Roseville; and South Placer and western El Dorado counties (refer to Exhibit 3-1). To the extent that some of the Water Forum stakeholder purveyors may not become signatories to the Water Forum Agreement (based on refinements to the WFP), this definition of a broad study area will overstate the environmental impacts of the WFP.

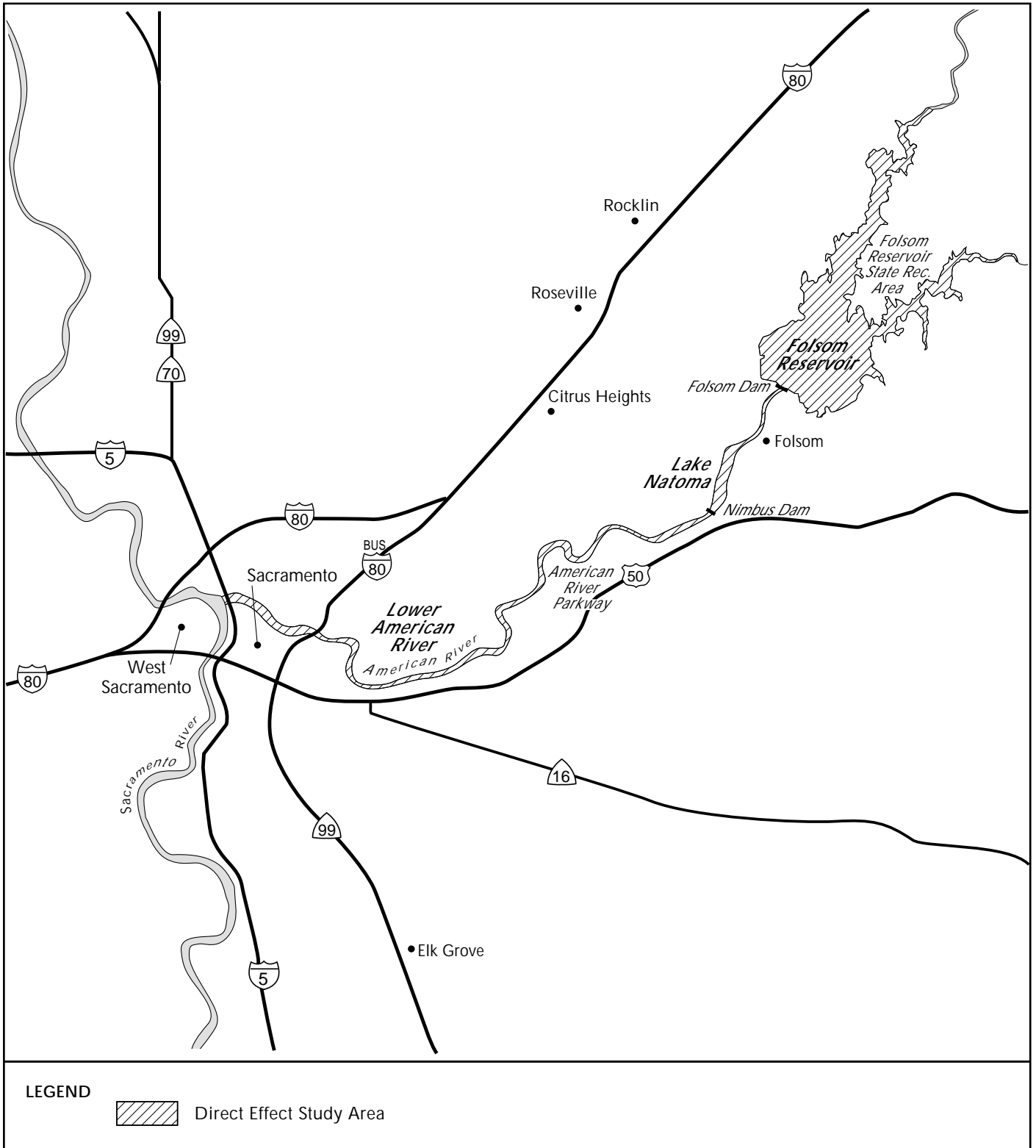


# Water Service Study Area

## WATER FORUM PROPOSAL EIR

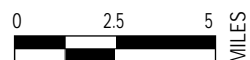
EXHIBIT 3-1

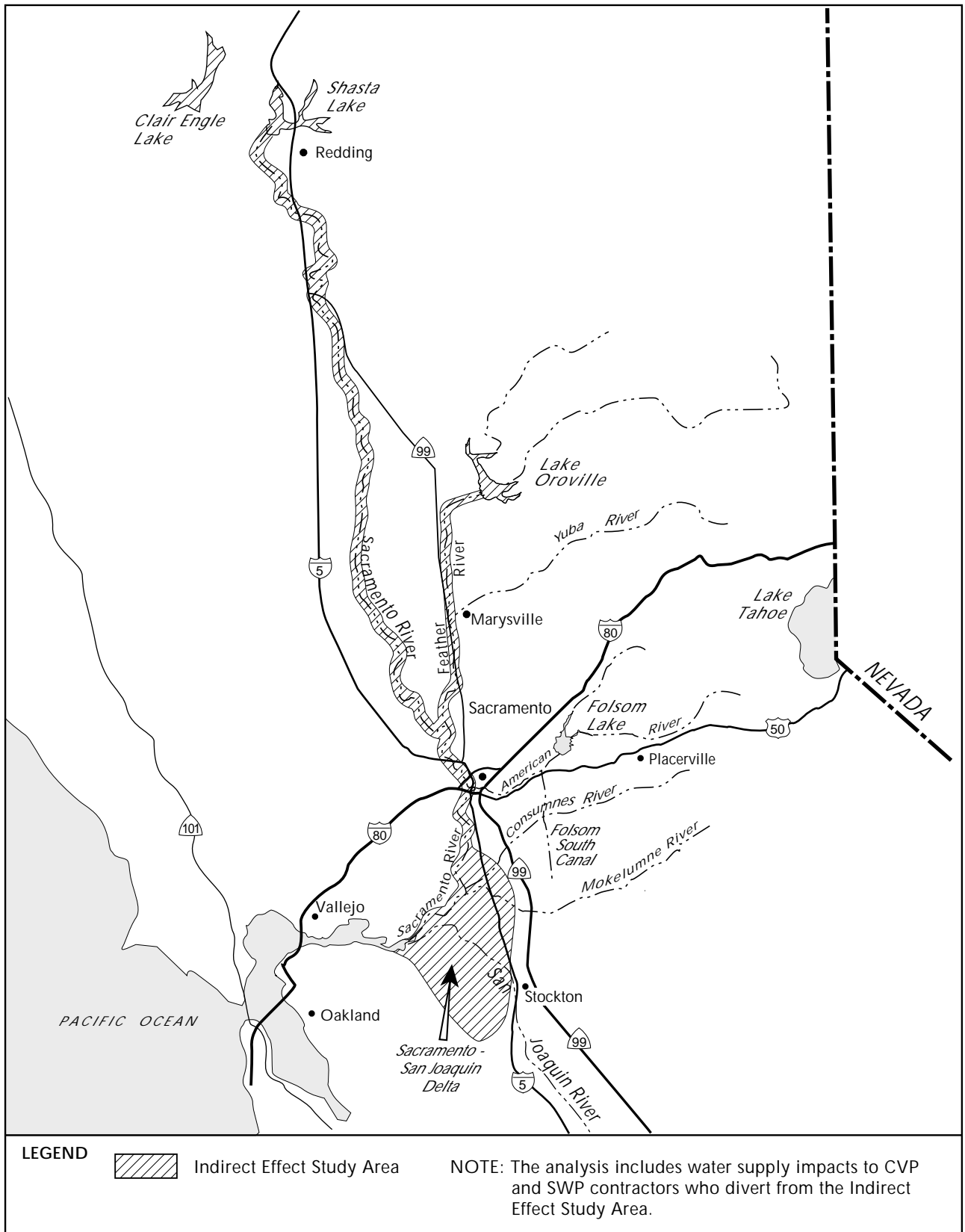




Direct Effect Study Area

WATER FORUM PROPOSAL EIR





Indirect Effect Study Area  
 WATER FORUM PROPOSAL EIR



## 3.2 HISTORY OF THE WATER FORUM

The Water Forum, a group of water agencies, business groups, agricultural interests, environmentalists, citizen groups, and local governments, has been working together since the fall of 1993 evaluating future water resource needs and supplies of the Sacramento metropolitan area. This evaluation determined the course for solving the region's water supply, water quality, and Lower American River public trust issues. The Water Forum Working Group has formulated the ***Water Forum Proposal*** for the effective long-term management of the region's water resources.

### 3.2.1 Background of Water Resources Planning in the Region

For more than 20 years, the cities of Sacramento, Folsom, and Galt, the County of Sacramento, and water districts and purveyors in the County have engaged in discussions attempting to plan, allocate, and manage the region's surface and groundwater resources for municipal, industrial, and agricultural purposes. Several extensive studies of water resources management in Sacramento County were conducted during that time. Regional water planning studies have also been prepared to address water supply issues in neighboring Placer and El Dorado counties.

The history of water management decisions in Sacramento County has proven that the task of formulating a regional water plan is a technically and politically complex endeavor involving numerous competing interests. Consequently, in 1991 the City and County of Sacramento created the City-County Office of Metropolitan Water Planning (CCOMWP), to engage in a joint planning effort. In 1993, business, environmental, public, local government, municipal, industrial, agricultural, and water interests formed the Sacramento Area Water Forum to implement a collaborative process leading to a united approach to meeting the water needs of the region. The foothill water interests in Placer and El Dorado counties joined the negotiations shortly thereafter.

### 3.2.2 Stages of the Water Forum Agreement

The first four stages of the Water Forum process have been completed. They were: 1) getting organized; 2) educating the diverse interest groups about each other's issues and concerns; 3) developing the Draft Agreements-in-Principle; and 4) reporting on the progress toward a regional water agreement and continued negotiations, during which time the WFP was formulated. During that time, stakeholder boards were continually apprised of the status of negotiations with specific requests to authorize continued negotiations. The draft recommendations were presented to the public and stakeholder boards in January 1997. Since then stakeholders have continued to consult with their organizations, and based on feedback and further negotiations, have resolved most of the remaining issues. The Water Forum has embarked on the fifth stage--the environmental analysis of the WFP and preparation of the Water Forum Action Plan. The Water Forum Action Plan includes the WFP, which memorializes progress to date in the negotiations. It also outlines the steps and schedule for refining the WFP into the Water Forum Agreement that will be approved by the boards of the

stakeholder organizations. Stages six and seven will be to refine the WFP through consideration of comments on the Draft EIR, and to adopt and implement the Water Forum Agreement.

### **3.2.3 Development of the Water Forum Proposal**

The WFP was developed by representatives of the Water Forum stakeholder groups and was published in draft form in January 1997. They are the refinement of the Water Forum's previously published Draft Agreements-in-Principle (distributed in April 1995) and Progress Toward a Regional Water Agreement detailing Proposals Under Serious Consideration (distributed in January 1996). At each stage, stakeholder boards were asked to review and comment upon the principles/proposals, and authorize their representatives to proceed with negotiations. The draft agreements/proposals and the stakeholders' comments formed the basis of the WFP. Subsequent negotiations resulted in further refinement of the WFP, and form the basis of the project description that is the subject of this EIR.

The WFP includes seven elements:

#### **Element**

- I Increased Surface Water Diversions**
- II Actions to Meet Customers' Needs While Reducing Diversion Impacts on the Lower American River in Drier Years**
- III Support for an Improved Pattern of Fishery Flow Releases from Folsom Reservoir**
- IV Lower American River Habitat Management Element**
- V Water Conservation**
- VI Groundwater Management**
- VII Water Forum Successor Effort**

### **3.2.4 Parties to the Water Forum Agreement and Status of Negotiations**

At its inception, the Water Forum was a stakeholder coalition of interest groups in Sacramento County, including business and agricultural groups, water interests, environmental interests, citizen groups and local government. After initiation of the Water Forum process, the foothill water interests joined the discussions. These agencies include El Dorado County Water Agency, El Dorado Irrigation District (EID), Georgetown Divide Public Utility District (GDPUD), Placer County Water Agency (PCWA), and the City of Roseville.

The modeling output on which much of this EIR analysis is based assumes participation by all of the stakeholder purveyors at specified diversion amounts (see Section 3.4.1, Element I: Increased Surface Water Diversions). Thus, this EIR analyzes the impacts of the eventual contemplated scope of the WFP assuming all stakeholders join in the Water Forum Agreement. However, negotiations were still underway at the time of modeling, and some stakeholders have remaining issues that are not resolved. Those purveyors include Arcade Water District, Rancho Murieta Community Services District, Rio Linda Elverta Community District, EID, and GDPUD. These purveyors are expected to enter into Procedural Agreements with signatories

to the Water Forum Agreement and may not be initial signatories to the Agreement. Water Forum signatories commit to work in good faith with these stakeholders to negotiate mutually acceptable agreements to resolve remaining issues. Once these issues are resolved, the Water Forum Proposal is expected to be amended to include them.

Meanwhile, until these agencies sign the Water Forum Agreement their projects would be outside of its scope and would require project-specific environmental analysis, including consideration of cumulative impacts of water diversion during dry and critically dry years, and mitigation.

### **3.2.5 Process for Environmental Review and Adoption of the Water Forum Agreement**

The environmental review process and the Water Forum process are taking place concurrently in a manner that allows the integration of public and agency comments on the Draft EIR into the planning process. Comments received on the Draft EIR will be considered and used to refine the WFP into recommendations for a Water Forum Agreement. After public and agency review of the Draft EIR, a Final EIR, including written responses to comments, will be prepared and circulated. As the CEQA lead agencies, the City and County of Sacramento will consider and, if appropriate, certify the Final EIR, decide whether to approve the Water Forum Agreement, and adopt the required findings. After Final EIR certification, the other stakeholders of the Water Forum will be asked to take action on the Water Forum Agreement and agree to participate in its implementation. Public agency stakeholders, acting as responsible agencies under CEQA, may also use the EIR in deciding whether to approve the Water Forum Agreement. The Agreement will be implemented by the Water Forum Successor Effort representing the stakeholders who adopt the Agreement.

After final approval of the Agreement by the Water Forum stakeholders, the Final EIR will be forwarded to other agencies for their consideration in connection with (1) their responsibilities as State Trustee Agencies, as defined by State CEQA Guidelines §15386 and/or (2) separate, subsequent actions potentially needed for the plan's implementation. State Trustee Agencies include: California Department of Water Resources (DWR), State Water Resources Control Board (SWRCB), State Lands Commission (SLC), and California Department of Fish and Game (CDFG). Federal agencies which may have separate, subsequent actions related to the plan's implementation include the U. S. Bureau of Reclamation (USBR), U. S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and U. S. Army Corps of Engineers (USACE). The Final EIR will provide program-level technical analysis upon which environmental review of implementation actions and their project level environmental documents may be based.

## **3.3 OBJECTIVES OF THE WATER FORUM**

The Water Forum has been evaluating future water resource needs and supplies of the Sacramento metropolitan area since 1993. As a result of these evaluations the Water Forum has identified specific areas of concern and has agreed to formulate a plan to achieve the following *coequal objectives*:

*Provide a reliable and safe water supply for the region's economic health and planned development through the year 2030*

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

### **3.4 ELEMENTS OF THE WATER FORUM proposal**

In order to achieve the Water Forum's coequal objectives, a comprehensive package of linked actions has been developed to make more water available while protecting the Lower American River from environmental damage. This approach requires the support and participation of each of the Water Forum stakeholders. The seven elements of the WFP are discussed below.

#### **3.4.1 Element I: Increased Surface Water Diversions**

To meet the region's increasing water supply needs, the Water Forum stakeholders have developed a balanced program that includes planned increases in surface water diversions. Proposed surface water diversion projects are described below, by purveyor, and summarized in Tables 3-1a and b. These proposed diversions are subject to continuing refinement based on the environmental analysis of the Draft EIR. It is important to note that the diversions indicated in Tables 3-1a and b are the volumes that were included in the modeling analysis for purposes of impact assessment. However, mutually acceptable agreements for participation in all elements of the Water Forum Agreement have not been reached with Arcade Water District, Rancho Murieta CSD, El Dorado Irrigation District, and Georgetown Divide PUD (see Table 3-1b). These suppliers have entered into Procedural Agreements with the Water Forum to negotiate mutually acceptable agreements in the future. In addition, Arden Cordova Water Service has decided not to participate in the Water Forum Proposal.

Modeling *does not* imply that there is agreement on these diversions. Nor does it imply that all stakeholder representatives believe that all of these diversions will necessarily occur. Diversions shown in Table 3-1b will be included as part of the Water Forum Agreement only if mutually acceptable agreements can be reached.

In the following text and Table 3-1, "1995 Baseline," or "baseline diversion" reflects the historic maximum amount of water that purveyors diverted annually from the American River through the year 1995. In some cases, the 1995 Baseline is something other than historic maximum diversions. For example, the City of Folsom's baseline amount was negotiated at 20,000 AF, which is within the range of uncertainty in the historic diversion data. This value considers the seniority of the City's pre-1914 water rights (the year in which water rights laws involving applications and permit approvals by the state came into effect), the capacity of Folsom's diversion and treatment facilities, and historical diversion uncertainty. For the purposes of negotiations, the baseline amount is the lowest annual volume a water purveyor can expect to divert through the year 2030, with the exception of the driest, or "conference" years.

Conference years are defined as years when March through November unimpaired inflow into Folsom Reservoir is less than 400,000 AF, and water supplies are inadequate to achieve baseline amounts for all purveyors. Stakeholders have agreed to negotiate conference year diversions when these conditions arise.

“2030 Diversion” reflects the stakeholder representatives’ recommendations for the amount of surface water that each purveyor will divert in most years (average and wetter years) to meet its needs through the year 2030. “2030 Diversion (Drier Years)” and “2030 Diversion (Driest Years),” describe decreases in permissible diversions agreed upon in drier and driest years. The definitions of wet/average, drier, and driest years as they apply to each purveyor are found in the end notes of Table 3-1. These negotiated definitions are based in part on the alternative water sources available to each.

### **Purveyor-Specific Recommendations for the Water Forum Proposal**

The following are capsule summaries of the recommendations for agreement for each purveyor and the modeling assumptions used in this EIR analysis. As noted above, some purveyors are expected to enter into Procedural Agreements and will not be included as signatories to the WFP until additional issues are resolved. Some purveyor-specific agreements are not reflected in Table 3-1 because they do not involve direct surface water diversions. These purveyors would either contract with others for surface water already accounted for in the model, and/or rely on groundwater resources to meet demand.

#### Arden Cordova Water Service

Consistent with the status of negotiations at the time of modeling, the Water Forum modeling assumes Arden Cordova’s 2030 average and wet year diversions would be increased from 3,500 AF to 5,000 AF; the drier and driest year diversions would be 5,000 AF. Arden Cordova Water Service (ACWS) has now withdrawn from the Water Forum process. The environmental analysis of future impacts of the WFP plus future cumulative conditions remains essentially accurate, however, given that the ACWS diversion would be approximately as modeled. ACWS would not be bound by the provisions of the WFP, including reduced dry year diversions and mitigation commitments.

#### City of Folsom

The City of Folsom (Folsom) would increase its average and wet year American River diversions from an agreed upon baseline amount of 20,000 AF to a year 2030 level of 34,000 AF. In drier years, Folsom would divert and use a decreasing amount of surface water from 34,000 AF to 22,000 AF (or the equivalency, see example below) in a three stage stepped and ramped reduction in proportion to the decrease in the March through November unimpaired inflow to Folsom Reservoir, from 950,000 to 400,000 AF. Under stage 1, Folsom would divert a decreasing amount from 34,000 AF to 30,000 AF in proportion to the decrease in March through November when the unimpaired inflow to Folsom Reservoir is greater than 870,000 AF but less than 950,000 AF. Under stage 2, Folsom would divert 27,000 AF when the March

**Table 3-1a**  
**1995 and Proposed Year 2030 Surface Water Diversions**  
**Note: The Diversions Described Below, Combined With the Alternative Water Supplies, Will Meet Each Supplier's Customers' Needs to the Year 2030**

Water Supplier/Organization	1995 Baseline <sup>1</sup>	2030 Diversion (wet/average years)	2030 Diversion (drier years)	2030 Diversion (driest years) <sup>2</sup>
<b>AMERICAN RIVER DIVERSIONS UPSTREAM OF NIMBUS</b>				
City of Folsom	20,000 AF <sup>19</sup>	34,000 AF <sup>3</sup>	decreasing from 34,000 AF to 22,000 AF <sup>4</sup>	20,000 AF <sup>5</sup>
Northridge Water District	0 AF	29,000 AF <sup>9,17</sup>	0 AF <sup>10,17</sup>	0 AF
Placer County Water Agency <sup>6,7</sup>	8,500 AF	35,500 AF <sup>3</sup>	Continue to divert 35,500 AF, with a replacement to the river equivalent to their drier diversions above baseline. The drier the year, the more water would be replaced up to 27,000 AF <sup>4</sup>	Continue to divert 35,500 AF, with a replacement of 27,000 AF to the river.
City of Roseville <sup>7</sup>	19,800 AF	54,900 AF <sup>3</sup>	decreasing from 54,900 AF to 39,800 AF with a replacement to the river equivalent to their drier diversions above baseline. The drier the year, the more water would be replaced up to 20,000 AF <sup>4</sup>	Continue to divert 39,800 AF, with a replacement of 20,000 AF to the river.
San Juan WD and Family in Sacramento County (Citrus Heights WD, Fair Oaks WD, Orange Vale Water Company)	44,200 AF <sup>8</sup>	57,200 AF <sup>3</sup>	decreasing from 57,200 to 44,200 AF <sup>4</sup>	44,200 AF
San Juan WD (Placer County)	10,000 AF	25,000 AF <sup>3</sup>	decreasing from 25,000 to 10,000 AF <sup>4</sup>	10,000 AF
South Sacramento County Agriculture (includes Clay WD, Omochumne-Hartnell WD, Galt ID, and Sacramento County Farm Bureau)	0 AF	35,000 AF <sup>9</sup>	0 AF <sup>10</sup>	0 AF
SMUD	15,000 AF <sup>11</sup>	30,000 AF <sup>3</sup>	decreasing from 30,000 to 15,000 AF <sup>4</sup>	15,000 AF

Table 3-1a (continued)  
1995 and Proposed Year 2030 Surface Water Diversions

Note: The Diversions Described Below, Combined With the Alternative Water Supplies, Will Meet Each Supplier's Customers' Needs to the Year 2030

Water Supplier/Organization	1995 Baseline <sup>1</sup>	2030 Diversion (wet/average years)	2030 Diversion (drier years)	2030 Diversion (driest years) <sup>2</sup>
<b>AMERICAN RIVER DIVERSIONS BETWEEN NIMBUS AND THE MOUTH</b>				
Carmichael WD <sup>18</sup>	12,000 AF	12,000 AF	12,000 AF	12,000 AF
City of Sacramento	50,000 AF	310 CFS <sup>12,13</sup>	90,000 AF <sup>15</sup>	50,000 AF

Water Supplier/Organization	1995 Diversions	2030 Diversion (wet/average years) <sup>14</sup>	2030 Diversion (drier years) <sup>14</sup>	2030 Diversion (driest years) <sup>14</sup>
<b>SACRAMENTO RIVER DIVERSIONS</b>				
City of Sacramento	45,000 AF	290 CFS <sup>13</sup>	290 CFS <sup>13</sup>	290 CFS <sup>13</sup>
County of Sacramento	0 AF	up to 78,000 AF <sup>16</sup>	up to 78,000 AF <sup>16</sup>	up to 78,000 AF <sup>16</sup>
Placer County Water Agency <sup>6</sup>	0 AF	35,000 AF	35,000 AF	35,000 AF
Natomas Central Mutual Water Company within Sacramento County	53,000 AF	45,600 AF	45,600 AF	45,600 AF

**Table 3-1a (continued)  
1995 and Proposed Year 2030 Surface Water DiversionsNotes**

1. Baseline: As it applies to these diversions, Baseline means the historic maximum amount of water that suppliers diverted annually from the American River through the year 1995. Clarifications pertaining to the San Juan Water District, SMUD and the City of Folsom are noted in footnotes 8, 11, and 19.
2. Driest Years (i.e. Conference Years): Defined as follows: Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 400,000 acre feet. Conference years are those years which require diverters and others to meet and confer on how best to meet demands and protect the American River.
3. Wet/Average Years: As it applies to these diverters, Wet/Average Years is defined as follows: Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is greater than 950,000 acre feet.
4. Drier Years: As it applies to these diverters, Drier Years is defined as follows: Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 950,000 acre feet.
5. In the Conference Years, the City of Folsom would reduce diversions by an additional 2,000 acre feet below its baseline to 18,000 AF through additional conservation to achieve recreational benefits to Folsom Reservoir and fishery benefits to the Lower American River.
6. PCWA would receive support for an American River diversion of 35,500 AF (8,500 AF existing and 27,000 AF additional) in wetter and average years and a new Sacramento/Feather Diversion of 35,000 AF. PCWA is willing to exchange 35,000 AF of its American River water for Sacramento and/or Feather River water provided the terms of such exchange do not result in any diminution of PCWA's water supply or an increased cost to PCWA.
7. For these suppliers, some or all of their water supply diverted from the American River or Folsom Reservoir in the drier and driest years could be replaced with water released from the Middle Fork Project Reservoirs by reoperating those reservoirs. Reoperation of the MFP reservoirs causes the reservoirs to be drawn down below normal minimum pool volumes.
8. The baseline for SJWD and their wholesale service area within Sacramento County is the full amount of their entitlements (CVP contract and water rights) which they exercised in 1995.
9. Wet/Average Years: As it applies to these diverters, Wet/Average Years is defined as follows: When the projected March through November Unimpaired Inflow to Folsom Reservoir is greater than 1,600,000 acre feet.
10. Drier Years: As it applies to these diverters, Drier Years is defined as follows: When the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 1,600,000 acre feet.
11. The baseline for SMUD is the 1995 diversion amount which reflects the shut down of Rancho Seco Power Plant.
12. Wet Average Years: As it applies to the City of Sacramento, Wet/Average Years is defined as follows: Time periods when the flows bypassing the E. A. Fairbairn Water Treatment Plant diversion exceed the "Hodge flows."
13. For modeling purposes, it is assumed that the City of Sacramento's total annual diversions from the American and Sacramento River in year 2030 would be 130,600 for use within the City limits.
14. As it applies to these diverters, there is no Water Forum limitation to diversions from the Sacramento River.
15. Drier Years: As it applies to the City of Sacramento, Drier Years is defined as follows: Time periods when the flows bypassing the City's E.A. Fairbairn Water Treatment Plant diversion do not exceed the "Hodge flows." Within its existing capacity, the City can divert from the American River 155 cfs in June, July and August, 120 cfs in January through May and September, and 100 cfs in October through December.
16. The total for the County of Sacramento (78,000 AF) represents 45,000 AF of firm entitlement and 33,000 AF of intermittent water. The intermittent supply is subject to reduction in the drier and driest years. To reduce reliance on intermittent surface water, the County of Sacramento intends to pursue additional firm supplies.
17. Northridge Water District (NWD) and other signatories have agreed that for an interim ten year period, NWD would be able to divert PCWA water in years when the projected March through November Unimpaired Inflow to Folsom Reservoir is greater than 950,000 acre feet. After the ten-year period, unless the State Water Resources Control Board issues a subsequent order, NWD will divert up to 29,000 acre feet of water from Folsom Reservoir under the NWD-PCWA contract only in years when the projected March through November unimpaired inflow into Folsom Reservoir is greater than 1,600,000 AF.
18. Carmichael Water District will divert and use up to their license amount 14,000 acre feet. By the year 2030, it is most likely that the water demand for the District will be reduced to their historic baseline level of 12,000 acre feet by implementation of Urban Water Conservation Best Management Practices. Signatories to the Water Forum Agreement acknowledge and agree that CWD shall not relinquish control of or otherwise abandon the right to any quantity it has foregone delivery and/or diversion of under this Agreement, and shall retain the right (if any) to transfer that water for other beneficial uses, after that water has served its purpose of assisting in the implementation of the Improved Pattern of Fishery Flow Releases; for diversion or redirection at, near, or downstream of the confluence of the Lower American River and the Sacramento River. The signatories also recognize that any such transfer of water by CWD must be in accordance with applicable provisions of federal and state law.
19. This is an agreed upon amount which is within the historic diversion data and is equivalent to Folsom's current treatment capacity.

Source: CCOMWP 1998

<p align="center"><b>Table 3-1b</b>  <b>1995 and Proposed Year 2030 Surface Water Diversions</b>  <b>for Purveyors That Have Not Concluded Their Negotiations</b></p>				
Water Purveyor	1995 Baseline <sup>1</sup>	2030 Diversion (wet/average years)	2030 Diversion (drier years)	2030 Diversion <sup>2</sup> (driest years)
Arcade WD	3,500 AF	11,200 AF	11,200 AF	20,000 AF <sup>5</sup>
Arden Cordova Water Service	3,500 AF	5,000 AF <sup>3</sup>	5,000 AF <sup>4</sup>	5,000 AF
El Dorado ID	20,000 AF	48,400 AF <sup>3</sup>	Decreasing from 48,400 to 38,900 AF <sup>4</sup>	38,900 AF
Georgetown Divide PUD <sup>5</sup>	10,000 AF	18,700 AF <sup>3</sup>	Decreasing from 18,700 to 12,500 AF <sup>4</sup>	12,500 AF
Rancho Murietta CSD	0 AF	1,500 AF <sup>6</sup>	1,500 AF <sup>6</sup>	0 AF

Note: Assumptions included in these footnotes are for Draft EIR modeling purposes only. Modeling these diversions does not imply there is agreement on these assumptions:

- Baseline: As it applies to these diversions, Baseline means the historic maximum amount of water that suppliers diverted annually from the American River through the year 1995. Clarifications pertaining to the San Juan Water District, SMUD, and the City of Folsom are noted in footnotes 8, 11, and 19.
- Driest Years (i.e., Conference Years): Defined as follows: Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 400,000 acre-feet. Conference years are those years which require diverters and others to meet and confer on how best to meet demands and protect the American River.
- Wet/Average Years: As it applies to these diverters, Wet/Average Years is defined as follows: Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is greater than 950,000 acre-feet.
- Drier Years: As it applies to these diverters, Drier Years is defined as follows: Years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 950,000 acre-feet.
- For this supplier, some or all of their water supply diverted from the American River or Folsom Reservoir in the drier and driest years could be replaced with water released from PCWA's Middle Fork Project Reservoirs by reoperating those reservoirs.
- As it applies to this diversion, water in Wet/Average and Drier Years is diverted at the mouth of the American River or from the Sacramento River.

Source: CCOMWP 1998.

through November unimpaired inflow to Folsom Reservoir is greater than 650,000 AF but less than or equal to 870,000. Under stage 3, Folsom would divert 22,000 AF when the March through November unimpaired inflow to Folsom Reservoir is greater than 400,000 AF but less than or equal to 650,000 AF.

In the driest years, when the March through November unimpaired inflow to Folsom Reservoir is less than or equal to 400,000 AF, Folsom would reduce diversions (or the equivalency, see example below) to 20,000 AF. Also, Folsom would reduce diversions in the driest years by encouraging additional, extra-ordinary conservation to effectively achieve a reduction to 18,000 AF.

As an example of how Folsom would meet its needs during the drier and driest years, Folsom would reduce diversions by imposing additional conservation levels, and would continue to divert water from Folsom Reservoir for the balance of its needs. However, Folsom would enter into agreements with other suppliers that have access to both surface water and groundwater for an equivalent exchange of the amount of reduction needed by Folsom as outlined above in the three stages of reduction. Under these arrangements, those suppliers would use groundwater in lieu of surface water equivalent to the amount that Folsom would continue to divert.

#### El Dorado Irrigation District

It is proposed that the El Dorado Irrigation District (EID) enter into a Procedural Agreement with signatories to the Water Forum Agreement. After resolution of remaining issues and compliance with CEQA, the Agreement will be amended to include EID's proposed diversions (which are included in this EIR analysis) or an agreed upon refinement of their diversions. EID is proposing to increase its year 2030 average and wet year American River diversions from a baseline level of 20,000 AF to 48,400 AF in 2030. Surface water diversions in drier and the driest years for EID would be decreasing amounts from 48,400 to 39,900 AF.

#### Georgetown Divide Public Utility District

It is proposed that the Georgetown Divide Public Utility District (GDPUD) enter into a Procedural Agreement with signatories to the Water Forum Agreement. After resolution of remaining issues and compliance with CEQA, it is anticipated that the Agreement will be amended to include GDPUD's proposed diversions (which are included in this EIR analysis), or an agreed upon refinement of their diversions. The GDPUD is proposing to increase its average and wet year American River diversions from a baseline level of 10,000 AF to 18,700 AF in 2030. Surface water diversions in drier and the driest years for GDPUD would be decreasing amounts from 18,700 to 12,500 AF. During the drier and driest years GDPUD would reduce its demand by additional conservation and by fully utilizing the water supply of Stumpy Meadows Reservoir. Additionally, GDPUD is continuing to evaluate opportunities for alternative dry year supplies. One option may be to replace to the American River a portion of GDPUD's increased diversion by an agreement with the Placer County Water Agency (PCWA) through re-operation of PCWA's Middle Fork Project (MFP) reservoirs. (See discussion of PCWA, page 3-14, for the description of MFP reoperation.)

Northridge Water District

Northridge Water District (Northridge) would divert up to 29,000 AF of Placer County Water Agency (PCWA) water, for an interim ten year period, in years when the projected March through November unimpaired inflow into Folsom Reservoir is greater than 950,000 AF. The amount diverted would also be consistent with the water delivery schedule provided for in the Northridge-PCWA Contract, which allows annually increasing diversions up to 24,000 AF per year during the interim ten year period.

At any time during this ten-year period, if Northridge is able to take delivery of Sacramento River water through a Sacramento River pipeline, Northridge would thereafter divert water from the Sacramento River (and not from the Folsom Reservoir) in those years when the projected March through November unimpaired inflow into Folsom Reservoir is less than 1,600,000 AF.

After the ten-year period, unless the State Water Resources Control Board issues a subsequent order, Northridge would divert water up to 29,000 AF annually from Folsom Reservoir under the Northridge-PCWA contract only in years when the projected March through November unimpaired inflow into Folsom Reservoir is greater than 1,600,000 AF.

Placer County Water Agency

Placer County Water Agency (PCWA) would increase its average and wet year American River diversions from a current level of 8,500 AF to a year 2030 level of 35,500 AF. During drier years, PCWA would divert and use 35,500 AF from the American River. In these drier years PCWA would also replace water to the river from reoperation of its Middle Fork Project (MFP) reservoirs in the following amounts:

When unimpaired inflow to Folsom Reservoir is:	PCWA would release:
950,000 AF or more	0 AF
400,000 AF or less	27,000 AF

The amount of water released to the river from reoperation of the MFP reservoirs between 950,000 AF and 400,000 AF will be in linear proportion to the amounts shown above.

PCWA would make the releases contingent on: 1) its ability to be reimbursed for its release of water on terms acceptable to PCWA; 2) PG&E's agreement to such reoperation until the present power purchase contract with PG&E expires (presently anticipated by year 2013); and 3) PCWA's determination that it has sufficient water in its reservoirs to make the additional releases to mitigate conditions in dry years without jeopardizing the supply for PCWA's customers. (Note: Operational modeling for PCWA based on historical hydrology and projected requirements has shown that reoperation water should be available for such release and sale

without drawing MFP reservoirs below 50,000 AF.) The source of this replacement water in drier years would be water not normally released in those years from the PCWA Middle Fork Project. PCWA would also divert and use 35,000 AF from the Sacramento and/or Feather Rivers if exchanges of equal amounts can be made with others under terms acceptable to PCWA.

#### Rancho Murieta Community Services District

It is proposed that the Rancho Murieta Community Services District (RMCS D) enter into a Procedural Agreement with signatories to the Water Forum Agreement. Upon resolution of remaining issues and compliance with CEQA, it is anticipated that the Agreement will be amended to include RMCS D's proposed diversions (which are included in this EIR analysis), or an agreed-upon refinement of their diversions. RMCS D does not currently receive American River water. For assessing impacts, it was assumed that RMCS D would receive 1,500 AF from a diversion near the mouth of the American River or from the Sacramento River.

#### City of Roseville.

The City of Roseville (Roseville) would increase its average and wet year American River diversions from a current level of 19,800 AF to a year 2030 level of 54,900 AF. In drier years, Roseville would divert and use a decreasing amount of surface water from 54,900 AF to 39,800 AF by additional conservation, using groundwater, and using reclaimed water.

In these drier years, up to 20,000 AF of replacement water will be released to the river from reoperation of Placer County Water Agency's Middle Fork Project reservoirs.

#### San Juan Water District Consortium (Sacramento and Placer Counties)

San Juan Water District Consortium (SJWD), comprised of the San Juan Water District located in both Sacramento and Placer Counties, Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water Company, and a portion of the City of Folsom, would increase its average and wet year American River diversions from a current level of 54,200 AF to a year 2030 level of 82,200 AF. In drier years SJWD would reduce diversions by up to 28,000 AF by relying more on groundwater and increased conservation.

#### South Sacramento County Agriculture

South Sacramento County Agriculture, including Clay Water District, Galt Irrigation District, Omochumne-Hartnell Water District, and Sacramento County Farm Bureau, would divert and use up to 35,000 AF from the Folsom South Canal in years when the March through November unimpaired flow into Folsom Reservoir is greater than 1,600,000 AF (i.e., "above-Hodge"). The balance of the agricultural users' needs would be met by groundwater pumping.

Support for this diversion is linked to successful negotiation of an agricultural water conservation program. This negotiation would be done through the Water Forum Successor

Effort. Agricultural users in South Sacramento County would also participate in the development of groundwater management arrangements for the South Area and the Galt Area.

### Sacramento Municipal Utility District

Sacramento Municipal Utility District (SMUD) would increase its average and wet year American River diversion from a current level of 15,000 AF to a year 2030 level of 30,000 AF. In drier years, SMUD would reduce diversions by up to 15,000 AF by reducing demand and by using groundwater. SMUD and the County of Sacramento have begun negotiations for purchase by the County and transfer from SMUD of a 15,000 acre foot block of SMUD's USBR contract. A portion of the payments to SMUD from the County would be used to construct groundwater facilities that would be operated and maintained by the County. Groundwater from these wells would be available as an alternative supply for SMUD to meet increased demands in drier and conference years.

SMUD is also planning on constructing additional co-generation facilities at locations within the City of Sacramento's American River Place of Use (POU). SMUD will negotiate with the City of Sacramento for delivery of up to 15,000 AF of water for their planned co-generation facilities within the POU.

### Arcade Water District

It is proposed that Arcade Water District (AWD) enter into a Procedural Agreement with signatories to the Water Forum Agreement. After resolution of remaining issues, it is anticipated that the WFP will be amended to include a purveyor-specific agreement with AWD.

The baseline volume and the amount of water that would be diverted by AWD in drier years from its Keller American River well system is unresolved. Modeling used in the EIR assumed diversion and use of 11,200 AF from the Keller American River well system and reduced use of City of Sacramento water in drier years when the flows bypassing the diversion at Fairbairn Water Treatment Plant (FWTP) are below "Hodge Flows." During these periods, it was assumed that AWD would rely more on groundwater resources and increased conservation. In driest years AWD would divert 3,500 AF from the Keller system. AWD's North Highlands service area is included in the North Central Group and during average and wet years would be served through a combination of surface water and groundwater.

### Carmichael Water District

Carmichael Water District (CWD) will divert and use up to their license amount of 14,000 acre feet. By the year 2030, it is likely that the District's water demand will be reduced to their historic baseline level of 12,000 acre feet by implementation of Urban Water Conservation Best Management Practices. Signatories to the Water Forum Agreement acknowledge and agree that CWD shall not relinquish control of or otherwise abandon the right to any quantity it has foregone delivery and/or diversion of under the Agreement, and shall retain the right (if any) to transfer that water for other beneficial uses, after that water has served its purpose of

assisting in the implementation of the Improved Pattern of Fishery Flow Releases, for diversion or redirection at, near, or downstream of the confluence of the Lower American River and the Sacramento River. The signatories also recognize that any such transfer of water by CWD must be in accordance with applicable provisions of federal and state law.

### City of Sacramento

Currently the 310 cubic feet per second (cfs) diversion capacity at the Fairbairn Water Treatment Plant (FWTP) is constrained to 155 cubic feet per second by the City's ability to treat the water. The City may rehabilitate its FWTP diversion facility and expand treatment capacity by 100 million gallons per day. This will allow the City to divert and treat an additional 155 cfs consistent with the terms described below. Concurrent with the expansion of the FWTP the City will also construct other facilities such as expansion/rehabilitation of Sacramento River WTP and river intake to assure that a reliable alternative supply (groundwater, pumpback and/or diversion from the Sacramento River) is available whenever it is needed.

During periods when the Lower American River flows are sufficient (i.e. above the "Hodge" standard), the City could fully use its increased diversion capacity at FWTP. In drier periods when the Lower American River flows are not sufficient (i.e. below the "Hodge" standard), the City could divert from a new diversion site near the mouth of the American River and pump the water back to FWTP for treatment, use groundwater, or divert and use water from the Sacramento River.

Additional diversions from the Sacramento River and groundwater in the north area will also be used by the City to meet year 2030 demands.

### Citizens Utilities Company of California

Citizens Utilities Company of California (CUCC) has six service areas within the metropolitan area of Sacramento County, located within the North Central area, the South County Municipal and Industrial (M&I) area, and the City of Sacramento's American River water rights Place of Use (POU) area. CUCC also provides water service in Placer County for the Sabre City Mobile Home Park and is the exclusive franchisee for water service in western Placer County.

CUCC would contract with the City of Sacramento to use approximately 7,200 AF from the City's FWTP and the Sacramento River Plant for use in that part of CUCC's area that is also within the City's POU.

CUCC would also contract for use of a portion of the surface water provided from PCWA for use in the north central area of Sacramento County.

CUCC would contract for use of a portion of the surface water provided through the County of Sacramento/Sacramento County Water Agency for its service area in the south portion of Sacramento County.

CUCC would also continue to use groundwater to meet needs in each of its service areas.

#### Del Paso Manor Water District

Del Paso Manor Water District (DPMWD) would use groundwater to meet year 2030 demands until such time as DPMWD and the City of Sacramento enter into an agreement for delivery of surface water from the City's system to DPMWD. DPMWD has a contract with the City for 2,460 AF of the City's American River entitlement. Water supply facilities need to be constructed for delivery of City water to DPMWD.

Negotiations on specific conditions for delivery of surface water under this contract would be undertaken by the Water Forum Successor Effort and DPMWD.

#### Florin County Water District

Florin County Water District (FCWD) would use groundwater to meet year 2030 demands until such time as FCWD and the City of Sacramento enter into an agreement for delivery of surface water from the City's system to FCWD. FCWD is located within the place of use for the City of Sacramento's American River entitlement.

Negotiations on specific conditions for delivery of surface water under this contract would be undertaken by the Successor Effort and FCWD.

#### County of Sacramento/Sacramento County Water Agency

County of Sacramento/Sacramento County Water Agency (County/SCWA). Sacramento County (County) supplies water in seven separate retail service areas within the unincorporated area. County retail service areas vary in size from as few as 30 connections in the smallest area to more than 17,000 connections in the Laguna/Vineyard service area.

Sacramento County Water Agency (SCWA) is responsible for providing wholesale water to an area of the Laguna, Vineyard, and Elk Grove communities commonly referred to as "Zone 40." The long term Master water Plan for Zone 40 is based on meeting present and future water needs through a program of conjunctive use of groundwater and surface water.

The County/SCWA would divert its surface water entitlement, both firm (45,000 AF) and intermittent water, up to 78,000 AF in total, from near the mouth of the American River or from the Sacramento River. Surface water would be treated at the City of Sacramento's Sacramento River WTP or FWTP. The County/SCWA would also use groundwater on a conjunctive basis and to meet the balance of its need which is projected at 87,000 AF by the year 2030.

The County/SCWA has also agreed to participate in the development of a groundwater management arrangement for the South Area.

### Natomas Central Mutual Water Company

Natomas Central Mutual Water Company (Natomas) would meet demands to the year 2030 for the Sacramento County portion of Natomas with surface water from the Sacramento River and from groundwater pumping. Groundwater pumping would only be implemented as part of a conjunctive use program which would preserve the groundwater table.

Natomas would consolidate several of its Sacramento River diversions into an upgraded diversion with a new fish screen which meets the Fish and Wildlife Service's screening criteria. Natomas would form a partnership with other parties to interconnect the Sacramento River with the San Juan/Northridge pipeline from Folsom Reservoir.

### City of Galt

The City of Galt (Galt) would use groundwater to meet its projected year 2030 demands. The sustainable yield of the Galt Area groundwater basin would be enhanced by South Sacramento County agriculture's use of surface water diverted from the Folsom South Canal in years when the March through November unimpaired flow into the Folsom Reservoir is greater than 1,600,000 AF.

Galt has also agreed to participate in the development of a groundwater management arrangement for the Galt Area.

### **3.4.2 Element II: Actions to Meet Customers' Needs While Reducing Diversion Impacts on the Lower American River in Drier Years**

This element is to ensure that sufficient water supplies will be available to customers in dry years as well as wet years. The regional economy is dependent on sufficient water being available for our businesses and homes even in drought years. The intent of this element of the WFP is that suppliers continue to meet their customers' needs to the year 2030 while minimizing diversion impacts on the Lower American River in the drier and driest years.

It is envisioned that American River diversions above the H Street Bridge in average and wetter years will increase from the current level of 216,500 AF annually to about 481,000 AF annually. This represents a significant portion of the total annual flow of the American River, which averages about 2.6 million AF with a range of less than 400,000 AF to 6.3 million AF. In drier years the river is already stressed. The health of the fishery would be expected to degrade if diversions from the Lower American River were increased by these amounts in drier years.

To avoid these impacts suppliers will develop actions to meet their customers' needs in drier and driest years. Such actions include: conjunctive use of groundwater basins consistent with the sustainable yield objectives; utilizing other surface water resources; reoperation of reservoirs on the Middle Fork of the American River; increased conservation during drier and driest years; and reclamation. Each supplier's dry year diversions are described in Section 3.4.1 and Table 3-1.

### **3.4.3 Element III: Support for an Improved Pattern of Fishery Flow Releases from Folsom Reservoir**

This element supports needed assurances for continued implementation of a pattern of water releases from Folsom Reservoir that more closely matches the needs of anadromous fish, in particular fall run chinook salmon, which need more cool water in the fall and are not present in the American River in the summer.

Beginning in December 1994, the Water Forum convened a Fish Biologists' Working Session of fish experts with special knowledge of the Lower American River. Their charge was to develop recommendations for an improved pattern of releases from Folsom Reservoir. Participants included representatives from the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), State Water Resources Control Board (SWRCB), U.S. Bureau of Reclamation (USBR), and representatives from the Water Forum. The group came to general agreement regarding which fish species in the Lower American River should be given priority when there are constraints in water availability and developed an Improved Pattern by which available water can be released from Folsom Reservoir in a "fish friendly" manner consistent with the reservoir's flood control objectives. The Water Forum recommendations were considered by the U.S. Department of the Interior when it developed its recommendations for Anadromous Fish Restoration Plan (AFRP) flows for the Lower American River.

The Central Valley Project Improvement Act was passed in 1992. This law authorized fish and wildlife restoration as an additional purpose of the Central Valley Project. It also required the federal government to develop an Anadromous Fish Restoration Program (AFRP) plan including implementation of an improved pattern of fishery flow releases from Folsom Reservoir to benefit anadromous fish.

Since 1995 the Bureau, in consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game, has attempted on a voluntary basis to release water from Folsom Reservoir in a manner consistent with the flow objectives for the Lower American River to the extent Reclamation's available water supply has permitted it to do so. Their AFRP flow objectives for the Lower American River are set forth in the November 20, 1997 "Department of the Interior Final Administrative Proposal on the Management of Section 3406 (b)(2) Water." They are essentially the same as the Improved Pattern of Fishery Flow Releases developed by the Fish Biologists' Working Session which was convened by the Water Forum. It is recognized that as additional information becomes available in the future it could be beneficial to further refine this Improved Pattern.

For purposes of the *Water Forum Proposal*, the Improved Pattern of Fishery Flow Releases is defined as the AFRP flow objective for the Lower American River as set forth in the November 20, 1997 "Department of the Interior Final Administrative Proposal on the Management of Section 3406(b)(2) Water."

Signatories agree to recommend that the updated Lower American River standard be included in the Bureau of Reclamation's permit for operation of Folsom and Nimbus dams. It will incorporate two of the *Water Forum Proposal* provisions:

- (1) Agreement on water diversions upstream of Nimbus Dam under varying hydrologic conditions; and
- (2) The Improved Pattern of Fishery Flow Releases which would be implemented essentially the same as the AFRP Lower American River flow objectives in the November 20, 1997 Final Administrative Proposal.

#### **3.4.4 Element IV: Lower American River Habitat Management Element**

This element, combined with an "Improved Pattern of Fishery Flow Releases from Folsom Reservoir" and "Actions to Meet Customers' Needs While Reducing Diversion Impacts on the Lower American River in the Drier Years," is included to mitigate the impacts of the increased diversions on the Lower American River in a reasonable and feasible manner.

The Water Forum Habitat Management Element (HME) will be part of a coordinated multi-agency Lower American River ecosystem partnership. Funding for the Water Forum's share of the costs for habitat projects such as real time monitoring, evaluation and planning will be provided by the City of Sacramento, Sacramento County Water Agency (using Zone 13 funds) on behalf of suppliers in the unincorporated areas of Sacramento County and the City of Citrus Heights, the City of Folsom, Placer County Water Agency, the City of Roseville and San Juan Water District (for that portion of their district outside of Sacramento County). These actions are key to providing information that will guide the expenditures of all agencies' funds for Lower American River habitat improvement projects.

This multi-agency partnership will be established by a Memorandum of Understanding. Agencies expected to participate include: the Water Forum Successor Effort (legally administered by the City of Sacramento under the auspices of the City-County Office of Metropolitan Water Planning); the Sacramento Area Flood Control Agency; CALFED (or its successor); U.S. Bureau of Reclamation (responsible for administering the Central Valley Project and the Central Valley Project Improvement Act); U.S. Fish and Wildlife Service; California Department of Fish and Game; and the Sacramento County Parks Department (which administers the Lower American River Parkway Plan).

Each member of the multi-agency program will be represented on a steering committee. The steering committee will oversee development of the detailed Habitat Management Program to identify priorities, time lines, budgets and funding sources for environmental restoration and enhancement.

Although each agency will retain autonomy over its own budget, the multi-agency partnership steering committee will coordinate opportunities for cost sharing. Integration of ongoing and planned management/restoration efforts will help the cooperating agencies develop the most

effective program for the Lower American River, 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 Habitat Management Program will be minimized.

The multi-agency program will contain four components that together will address flow, temperature, and physical habitat issues for the Lower American River:

- , Habitat Management Plan Development, Updating, and Technical Assistance;
- , Projects that benefit the Lower American River Ecosystem;
- , Monitoring and Evaluation Program; and
- , Project-Specific Mitigation (which will remain the responsibility of each supplier).

These components will address flow and temperature conditions for important species in the Lower American River, including fall run chinook salmon, steelhead, and splittail.

The multi-agency program will incorporate "adaptive management" which allows for flexibility in making resource management decisions as additional data become available. Information collected under the ongoing Monitoring and Evaluation Program will be fed back into the management decision making process on a real time basis.

Three actions anticipated to be carried out by other agencies are essential for the overall Water Forum Agreement:

- , Temperature Control Device for the urban water intake from Folsom Dam;
- , Optimal use of the cold water pool in Folsom Reservoir; and
- , Improved Pattern of Fishery Flow Releases.

The Water Forum Agreement is dependent on those actions being implemented.

As described above, the Improved Pattern of Fishery Flow Releases from Folsom Reservoir will somewhat reduce summer flows to conserve water to allow increased releases in the fall to benefit fall run chinook salmon spawning. However, the pattern of releases that will substantially improve conditions for the salmon, along with the proposed increased diversions, will also adversely impact summertime recreation flows in the Lower American River.

Therefore the WFP also includes commitments to fund projects to mitigate these recreational impacts. Potential projects include increased boating access to the American River, development of trails adjacent to waterways, and purchase of land adjacent to waterways for recreational and environmental values.

### **3.4.5 Element V: Water Conservation Element**

The Water Conservation Element of the WFP is essential to meeting both of the coequal goals of the Water Forum. First, conserved water will be available to help supply the region's water needs. Second, conservation will minimize the need for increased groundwater pumping and increased use of surface water, including water diverted from the American River.

In some cases water conservation will allow suppliers to delay or reduce capital investments required for expansion of water and wastewater treatment facilities. Water conservation programs also reflect public support for the conservation of limited natural resources.

It is also important that suppliers implement active water conservation programs to demonstrate that water they supply is being used efficiently. This is a requirement when they apply for state and federal approvals to increase surface water diversions.

Suppliers and their customers in this area have already implemented many water conservation efforts. However, stakeholder representatives have found that existing efforts will be insufficient to meet the region's needs for a reliable water supply. Major components of the Water Conservation Element are:

A. Residential Water Meters. This is a sensitive issue in the Sacramento region. Extensive research by stakeholder representatives has revealed limits on purveyors' ability to meet water needs solely by diverting or pumping more water. Water meters and pricing based on the quantity used may be essential to meet goals of providing a safe, reliable water supply and preserving the Lower American River.

In unmetered areas customers pay a flat rate regardless of how much water they use, providing no economic incentive to be efficient. In metered areas customers pay based on the amount of water used. Some people see water meters as a means to pay for only what they use, much like gas or electric meters.

Suppliers receiving water from the Central Valley Project are subject to the conservation provisions, including metering, of the Central Valley Project Improvement Act (CVPIA). CVPIA conservation requirements, including meter retrofit, exist independent of the WFP.

Many of the regulatory approvals for needed water facilities will have to be provided by state and federal agencies. These agencies will review requests in the context of statewide water shortages and virtually universal metering in the rest of the State.

The state legislature has already mandated meters for all new houses. Many stakeholder representatives believe that if the issue of meters for existing houses is not addressed, the legislature or regulatory agencies are likely to impose their own requirements.

Therefore, in order to improve efficiency of water use and to avoid more severe requirements imposed by others, the WFP includes a gradually phased-in retrofit program starting in the

fourth year after signing of the Water Forum Agreement. Each supplier will determine the most fair, equitable and cost effective way to implement the mutually agreed upon program within its service area.

Recognizing that the City of Sacramento has a City Charter prohibiting mandatory meter retrofit, theirs will be an actively pursued voluntary program. Those suppliers receiving relatively fewer benefits from the Water Forum Agreement will also implement voluntary programs.

Within a reasonable time suppliers will read all meters, include water usage on bills and base water use charges on the quantity used.

Water Forum signatories will not implement local retrofit on resale, or any other requirements that would impose escrow or disclosure responsibilities on realtors. This provision will not apply to the City of Sacramento since their City Charter prohibits mandatory metering. All suppliers will retain the ability to implement incentives for a voluntary meter retrofit program at time of resale that would not impose escrow or disclosure requirements.

B. Other Water Conservation Programs. If they had not already done so, suppliers will implement other agreed upon water conservation programs by the start of the fourth year after signing the Water Forum Agreement. The majority of these are similar to the Best Management Practices included in the statewide Memorandum of Understanding Regarding Urban Water Conservation.

The Water Conservation Element contains the criteria that have been negotiated for implementation of the Water Forum's Best Management Practices. Using these criteria as a reference, each supplier has negotiated the details of its water conservation program with the other Water Forum stakeholder representatives.

C. Public Involvement. In the implementation of Best Management Practices (especially meter retrofit and pricing based on quantity of water used) water suppliers will establish a citizens involvement program, such as citizens advisory committees to help design, implement and market water conservation programs. Each supplier will establish this program within three years of signing the Water Forum Agreement if it does not already have such a program. Each supplier's citizens involvement program is described in its Water Conservation Plan.

D. Water Conservation Plans. Each supplier's water conservation plan will be incorporated as an appendix to the Water Forum Agreement.

E. Agricultural Water Conservation. Agricultural water conservation is also projected to increase over the life of the Water Forum Agreement. Much of the surface water used by agriculture in the Sacramento region is from the Central Valley Project and its use will be subject to the conservation requirements of the Central Valley Project Improvement Act. Specifics on the agricultural water conservation program will be negotiated by the Water Forum Successor Effort.

### **3.4.6 Element VI: Groundwater Management Element**

This element provides a framework by which the groundwater resource in Sacramento County can be protected and used in a sustainable manner. It also provides a mechanism for coordination with those adjacent counties that share the groundwater basin. Groundwater supplies over half the water used in the region. The potential for continued over pumping and contamination caused stakeholder representatives to conclude that some type of groundwater management plan is needed to protect this vital resource.

State legislation enacted in the early 1990s allows for local groundwater management planning. In 1998 the State Department of Water Resources reported on the status of groundwater management in California.

These groundwater management recommendations include monitoring the amount of water withdrawn from the groundwater basin and the planned use of surface water in conjunction with groundwater. This is known as "conjunctive use." Conjunctive use improves overall water supply reliability while at the same time providing for sustainable use of groundwater in a way that does not require restrictions on groundwater pumping.

A key provision of this element includes recommendations on "sustainable yield," which is the amount of water that can be safely pumped from the basin over a long period of time without damaging the aquifer. Given the hydrology of the region, separate estimated average annual sustainable yield recommendations have been formulated for each of the three sub-areas of the basin as follows:

North Area: 131,000 AF

South Area: 273,000 AF

Galt Area: 115,000 AF

#### **Sacramento North Area Groundwater Management**

The Sacramento North Area Groundwater Management Authority (Authority) was established in August, 1998 through adoption of a joint powers authority using the existing authority of the City of Sacramento, the City of Folsom, the City of Citrus Heights, and the County of Sacramento. The Authority includes representatives of organized water suppliers in the North Area, as well as representatives of North Area agricultural interests and businesses that rely on their own wells.

In order to facilitate conjunctive use programs and maintain long-term sustainable yield, the Sacramento North Area Groundwater Management Authority will have the authority to establish regulatory fees based on level of benefit received. Only those who benefit could be subject to any fee. In the North Area residential pumpers who irrigate less than two and-a-half acres will be exempt from any fees. The Authority may also decide to exempt or modify the

conditions applying to other types of users. Approval of any regulatory fees will be subject to all requirements of the law including full public notice and hearings.

### South Area and Galt Area

Discussions about groundwater management in the South Area and the Galt Area will be undertaken by the Water Forum Successor Effort. Because the South Area and the Galt Area each have their own unique circumstances, the Sacramento North Area Groundwater Management Authority is not a template for programs appropriate to the needs in these two areas.

The Groundwater Element also contains: provisions to ensure adequate basin-wide coordination among the three sub-areas of the basin; provisions for alternative dispute resolution mechanisms to address problems which may arise; and provisions for collaboration with the Water Forum Successor Effort.

Finally, this element stresses the importance of having groundwater users in adjacent counties participate in the management and governance structure for shared groundwater basins. The WFP outlines specific ways in which such participation can be accomplished.

### **3.4.7 Element VII: Water Forum Successor Effort**

Signing of the Water Forum Agreement will be an important milestone in the water management process. However, actual implementation of this complex Agreement over the next three decades will require an ongoing effort. In order to ensure implementation of the Agreement, a Water Forum Successor Effort will be created with membership comprised of those organizations signatory to the Water Forum Agreement. Its responsibilities will be to oversee, monitor, and report on implementation of the Water Forum Agreement. **The Water Forum Successor Effort will not have any authority to govern or regulate.**

While the Water Forum Agreement should not be amended for frivolous reasons, it must also be able to respond to changing conditions. It is recognized that in the future there will be significant changes in circumstances that cannot be foreseen today. For instance, laws, regulations, health standards, technologies, and even the health of the fishery will undoubtedly change over the next 30 years in ways we cannot now predict. For the Agreement to have "shelf life" there must be some mechanism to track and adapt to any changing conditions.

Any future proposals to amend the Water Forum Agreement will be considered in the context of both of the Water Forum's co-equal objectives. In considering any amendments to the Water Forum Agreement, the Successor Effort will use the same interest-based collaborative process used to develop the initial Agreement. Amending the Water Forum Agreement will require approval of the boards of directors of organizations signatory to the Agreement.

Another ongoing need will be to resolve disputes in a way that preserves the integrity of the Agreement. All signatories to the Agreement commit to some form of dispute resolution before

resorting to litigation. While not foregoing their rights, the signatories will first work in good faith to resolve the dispute among themselves.

Funding for the Water Forum Successor Effort will be provided by water suppliers signatory to the Water Forum Agreement based on the number of connections they serve. Sacramento County Zone 13 contributions to the Successor Effort will cover the obligations of the water suppliers in the unincorporated areas of Sacramento County and the City of Citrus Heights. Stakeholder representatives to the Water Forum Successor Effort will approve the Successor Effort's annual budget. For administrative purposes only the Successor Effort will be housed in the City-County Office of Metropolitan Water Planning.

### **3.5 WATER FORUM RESPONSE TO ENVIRONMENTAL EFFECTS**

The above-described Elements were developed after extensive research and negotiations among the Water Forum stakeholders. Stakeholder representatives worked together for more than 40,000 hours, identifying the region's water-related issues, researching potential solutions, agreeing on principles to guide the development of a regional water solution, and negotiating a Water Forum Proposal that responds to the Water Forum's two coequal objectives: to provide a reliable and safe water supply for the region's economic health and planned development through the year 2030, and to preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River.

The Water Forum, in seeking a creative solution to longstanding regional water disputes, adopted an approach of interest-based negotiation, with the assistance of a mediator. Water Forum stakeholders also commissioned recognized experts to conduct studies on the biological and engineering questions raised in the negotiations. Throughout their negotiations, Water Forum stakeholder representatives evaluated and considered the potential environmental impacts of the WFP, using state-of-the-art models to analyze impacts on temperature, hydrology, and fish mortality. The results of the Water Forum's studies were incorporated into the negotiations, new proposals were then developed, and additional modeling and analysis was performed, in an iterative process. With the assistance of biological experts, and in consultation with federal and state agencies that will have jurisdiction over aspects of the implementation of the Water Forum Agreement, the stakeholder representatives developed a WFP that addresses both the need for water supply for current and future residents of the region, and instream flows to protect the fisheries and other public values.

For example, Element III, Support for An Improved Pattern of Fishery Flow Releases from Folsom Reservoir, was developed after extensive consultation with fisheries experts. Until recently, the U.S. Bureau of Reclamation operated Folsom Reservoir in a manner that released relatively higher flows in the summer and reduced releases in the fall. This does not match the life cycle needs of the fall run chinook salmon which need more water in the fall and are not present in the summer. An extensive hydrological and biological analysis found that with the historic pattern of releases from Folsom, increased diversions envisioned by the Water Forum would have unacceptable impacts on the Lower American River fisheries. Therefore, the Water Forum convened a Fish Biologists' Working Session of fish experts, charged with developing

recommendations on an improved pattern of releases. Participants included representatives from the U.S. Fish and Wildlife Service, California Department of Fish and Game, State Water Resources Control Board, U.S. Bureau of Reclamation, and representatives from the Water Forum. The results of this intensive effort is the Improved Pattern of Flow Releases, which will optimize instream flows and temperature conditions for fall-run chinook salmon in the Lower American River.

As described above, many aspects of the WFP will reduce the overall amounts of new diversions from the Lower American River, especially in drier years. Purveyors signing the Water Forum Agreement would agree to reduce their diversions on the Lower American River in drier years, to specified levels, and to institute programs including water conservation measures and increased conjunctive use. In addition, because these reductions will not eliminate increased diversions to supply future needs, Element IV includes funding commitments for an interagency Habitat Management Program to provide habitat restoration and other benefits to the Lower American River ecosystem. All this was developed in order to avoid adverse environmental impacts.

Consistent with the Water Forum's prior proceedings, it is anticipated that the WFP will be reviewed and refined as appropriate to respond to the unanticipated adverse environmental effects. Comments received on this Draft EIR relating to impacts and potential mitigation measures will also be considered and may result in further refinements of the WFP before presentation to stakeholder boards for approval.

As noted above, implementation of the WFP will require the involvement and approval of not only the Water Forum stakeholders, but also numerous state and federal agencies. These agencies will be subject to various regulatory standards including requirements of environmental review. This EIR is being prepared in compliance with state CEQA requirements, but is not intended by itself to constitute compliance with the National Environmental Policy Act (NEPA). NEPA will apply to federal actions implementing the Water Forum Agreement. It is anticipated that the Water Forum Successor Effort, funded pursuant to the Water Forum Agreement, will assist the USBR of Reclamation in its NEPA compliance. The Successor Effort will also monitor and coordinate implementation of the Water Forum Agreement by stakeholders and regulatory agencies.

## **3.6 OTHER WATER RESOURCES PLANNING EFFORTS**

### **3.6.1 American River Water Resources Investigation (ARWRI)**

The USBR, with the Sacramento Metropolitan Water Authority and others, conducted a study, including preparation of a Draft EIS and EIR, to identify unmet water resource needs, formulate alternative plans to meet the needs, and recommend a preferred federal water resources management alternative. The scope of the study included the American River and several other rivers above the Delta in Sacramento, Sutter, El Dorado, Placer, and San Joaquin counties. The purpose of the study was to make a recommendation to Congress for the preferred federal water

resource management alternative. The project alternatives addressed were both structural, including the Auburn Dam, and nonstructural, including conjunctive use programs.

In May 1998, USBR issued its Record of Decision regarding the proposed action for the ARWRI. The ARWRI is the subject of the Final Environmental Impact Statement (FEIS), ARWRI, California (FES 97-36, dated November 27, 1997), developed in compliance with the National Environmental Policy Act (NEPA). The adopted decision is as follows:

“Reclamation has not identified a Federal role for meeting the future water needs of the ARWRI study area; therefore, a Federal program is not being selected.

While no Federal action will be initiated to meet the water needs of the local area, Reclamation will, as appropriate, cooperate with local agencies as specific water management activities are proposed and implemented. Reclamation would exercise its statutory authorities, such as that afforded by the Central Valley Project Improvement Act, to provide assistance in implementation and cooperate in the process with local lead officials. Such cooperation may involve individual actions on the part of Reclamation that constitute “major Federal actions”, and as such would require that Reclamation comply with NEPA and other Federal statutes. Under those circumstances, Reclamation would prepare the required additional documentation.”

### **3.6.2 Central Valley Project Improvement Act (CVPIA)**

The Central Valley Project (CVP) Improvement Act (Title 34 of Public Law 102-575), enacted in 1992, authorized the USBR to implement several programs to improve the operation of the CVP and achieve a reasonable balance among competing uses of CVP water. Folsom Dam is part of the CVP. Objectives of the CVP Improvement Act include protecting and restoring fisheries and wildlife in the Central Valley, including the allocation of 800,000 AF per year to this purpose; addressing impacts of the CVP on fish and wildlife; enhancing the operational flexibility of the CVP; expanding the use of water transfers; improving water conservation; and addressing the requirements of fish, wildlife, agricultural, municipal, industrial, and power generation water users. The USBR prepared a Draft Programmatic EIS for the CVP Improvement Act programs. A final EIS is under preparation.

### **3.6.3 CALFED Bay-Delta Program**

In order to provide comprehensive ecosystem protection for the Bay-Delta Estuary, representatives of the State and Federal governments and urban, agricultural and environmental interests have participated in the development of the CALFED Bay-Delta Program. The purpose of this program is to develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta region. The four primary objectives of this program address issues related to the maintenance and improvement of water facilities (i.e., levees), water quality, ecosystem quality, and water supply within the Bay-Delta Estuary (CALFED, 1997).

As part of this program, the state and federal agencies with management and regulatory responsibility in the Bay-Delta Estuary will work cooperatively as CALFED, and will provide policy and oversight direction. State and federal cooperation was formalized in June 1994 with the signing of a Framework Agreement by the involved state and federal agencies. This agreement provides for the cooperative management of the Bay-Delta Estuary by state and federal agencies in three primary areas: 1) water quality standards formulation; 2) coordination of State Water Project and Central Valley Project operations with regulatory requirements; and 3) long-term solutions to problems in the Bay-Delta Estuary (CALFED, 1997).

Nothing in the WFP would prejudice major CALFED decisions such as selection of a project to convey water through and/or around the Delta. The components of the Habitat Management Element of the WFP have been coordinated with the Ecosystem Restoration Program Plan (ERPP) for the Lower American River. In addition, it is anticipated that in taking action on specific water projects included in the WFP, the State Water Resources Control Board (SWRCB) will reserve jurisdiction so that it can ensure compatibility with the CALFED program.

#### **3.6.4 Bay-Delta Water Quality Hearings**

##### **Bay-Delta Water Rights Hearings**

The State Water Resources Control Board is currently conducting hearings to decide how to best meet the objectives of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (1995 Bay-Delta Plan). These hearings have been organized into eight phases to address various issues and review existing agreements currently negotiated among stakeholders and water rights holders. At the conclusion of the hearings, the state board will decide what water rights holders in the Bay-Delta estuary will be required to do to help meet the objectives of the 1995 Bay-Delta Plan. Outcomes of these hearings could include changes in the operations of facilities used in the diversion and use of water. The final decision of the state board will serve as the regulatory mechanism for water rights implementation of the current flow-dependent water quality objectives contained in the 1995 Bay-Delta Plan (California Water Clearinghouse, July 1998).

#### **3.6.5 East Bay Municipal Utility District Supplemental Water Supply**

The East Bay Municipal Utility District (EBMUD) analyzed alternatives to secure American River water pursuant to its contract for CVP water with USBR. As part of that study EBMUD, Sacramento County, and the City of Sacramento developed an alternative involving a diversion and pumpback facility near the mouth of the American River that could be jointly used by EBMUD and Sacramento County to convey water to the Fairbairn Water Treatment Plant and Folsom South Canal. The joint project would not include diversions for EBMUD at Nimbus Dam. The proposed joint project was analyzed as an alternative in EBMUD's Supplemental Water Supply Draft EIR/EIS (EBMUD 1997a). A Final EIR/EIS is being prepared.

While considerable progress has been made, there are still a number of outstanding issues that require resolution before final agreement on the joint project can be reached. Some of these include water availability in varying water year types; fisheries protection, assurances, cost and operational issues; and environmental impacts.

### **3.6.6 City of Sacramento Water Supply Expansion Project**

The City of Sacramento is proposing to rehabilitate its capacity to divert and expand its capacity to treat up to 100 mgd of water from the Sacramento and/or American Rivers for municipal and industrial uses. This project is being evaluated in an EIR process.

### **3.6.7 Folsom Dam Flood Control Reoperation**

USBR and the Sacramento Area Flood Control Agency (SAFCA) are considering options for modifying the operation of Folsom Dam to provide enhanced flood protection for the Lower American River flood plain. The reservoir is currently being operated under an interim agreement between USBR and SAFCA for which a Final EIR and Finding of No Significant Impact were adopted in 1994. In 1996, the U.S. Congress authorized the Secretary of the Interior to indefinitely continue the current “interim” operation until such time as a long-term flood control plan for the Lower American River is implemented. Discussions are now underway between SAFCA and USBR regarding potential long-term flood control alternatives, including continuation of current operations. The WFP is consistent with the re-operation of Folsom Dam for flood control (see Section 4.6, Flood Control).

### **3.6.8 Sacramento Municipal Utility District CVP Contract Amendment**

The Sacramento Municipal Utility District (SMUD) is currently considering a contract amendment with the U.S. Bureau of Reclamation for the re-assignment of 15,000 AF of contracted water per year to the Sacramento County Water Agency. The SMUD contract amendment proposes to change the current diversion point from the Folsom South Canal to a point, or points, downstream on the American or Sacramento rivers. In addition, the proposed amendment would allow for subsequent changes in delivery diversion points for other purposes (Olmstead, 1997). This project is currently in the environmental review phase (Olmstead, 1997).

### **3.6.9 Central Valley Project Water Contracting, American River Diversion**

USBR, in response to §206 of Public Law 101-514 (Fazio), is preparing environmental documentation of three contracts for diversion of a total of up to 50,000 acre-feet per year (AF/Yr) for use by the Sacramento County Water Agency, San Juan Water District, and El Dorado County Water Agency. A portion of the Sacramento County Water Agency allotment would be used by the City of Folsom under a subcontract arrangement. Two joint EIS/EIRs are being prepared for the project: one with USBR and the County of Sacramento as co-lead agencies, and a second with USBR and the County of El Dorado as co-lead agencies.

### **3.6.10 American River Watershed Investigation**

The U.S. Army Corps of Engineers (USACE) has been investigating options for providing long-term flood control in the American River watershed. A comprehensive feasibility report evaluating long-term flood control was completed by USACE in 1992. USACE has since been reevaluating long-term flood control alternatives, including an Auburn Dam alternative, operational alternatives, and alteration of the spillway at Folsom Dam, among others, as part of the American River Watershed Investigation. Water Forum stakeholders understand that due to pressing issues concerning regional water supply, water quality, and Lower American River fisheries, a WFP is needed with or without Auburn Dam.

### **3.6.11 Placer County Water Agency (PCWA)/Northridge Water District Long-term Groundwater Stabilization Project**

The Long-term Groundwater Stabilization Project would allow for the sale of up to 29,000 AF of water per year from the PCWA to Northridge Water District. The project would allow conjunctive use of water resources, in an effort to stabilize the regional groundwater aquifer.

### **3.6.12 City of Folsom Natoma Pipeline and Water Treatment Plant Expansion Projects**

This project proposes to expand the City of Folsom water treatment plant from its current treatment capacity of 25 mgd to 40 mgd. In addition, the project includes the proposed replacement of the existing 48-inch raw water concrete pipeline with a new 60-inch pipeline, which would increase pumping plant capacity. The alignment of the proposed pipeline would closely approximate the existing pipeline alignment. These projects are approved and underway.

### **3.6.13 Roseville/USBR Pumping Plant Expansion**

The City of Roseville is proposing the expansion of its raw water pumping plant from 240 cfs (153 mgd) to 400 cfs (259 mgd). Approval of this project is contingent upon USBR approval for the use of federal facilities to convey non-Central Valley Project water. This project is currently in the environmental review phase.

### **3.6.14 Long-term Warren Act Contract, Roseville/USBR**

The City of Roseville is negotiating with the USBR for the use of federal facilities to convey non-Central Valley Project water. The City is planning to increase current water purchases under an existing contract with the Placer County Water Agency from approximately 20,000 AF/Yr to approximately 30,000 AF/Yr over a 25-year period. This project is currently in the environmental review phase.

### **3.6.15 PCWA/USBR Pump Station Project**

PCWA and USBR are proposing to install a permanent pump station on the American River south of the confluence of the North and Middle forks (near the Ophir Tunnel), permanently replacing the PCWA's temporary pump station facilities (which USBR has installed and removed seasonally for several years).

### **3.6.16 USBR Temperature Control Device (TCD)**

USBR is designing operation a temperature control device (TCD) at the existing water supply intake at Folsom Dam that currently serves Folsom, Roseville, and San Juan Water District. To mitigate for the future cumulative water temperature impacts to the Lower American River fishery (including the Water Forum purveyors' diversions), the TCD is intended to control the elevation at which water withdrawals from Folsom Reservoir would occur. Since Folsom Reservoir is thermally stratified during much of the year, the depth at which water is withdrawn will influence the volume of the operative "coldwater pool," a key component in maintaining viable downstream fisheries in the Lower American River. The TCD is being addressed in the Central Valley Project Water Contracting, American River Division EIR/EIS for Public Law 101-514 contract with Sacramento County being proposed by USBR and the County of Sacramento, and has been authorized by Congress.

### **3.6.17 Cooperative Transmission Pipeline Project**

The San Juan Water District along with Citrus Heights Water District, Fair Oaks Water District, Northridge Water District, Orange Vale Water Company, and Rio Linda Elverta Community Water District have jointly constructed a major portion of a 12-mile reinforced concrete pipeline from Granite Bay to Rio Linda. Northridge will to rely on this pipeline to convey its PCWA supply. Future turnouts to the purveyors are possible.

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