

MAC IRWMP 2018 Update

#	Commenter	Comment	Response
1	AWA	<p>COMMENTS IN CAPS: Pg 8, Lower Mokelumne River Watershed "The Lower Mokelumne River terminates at the confluence with the Cosumnes River in San Joaquin County." THIS IS NOT CORRECT. IT SHOULD READ SOMETHING LIKE "THE COSUMNES TERMINATES AT THE CONFLUENCE WITH THE MOKELUMNE AND THE MOKELUMNE FLOWS INTO THE SAN JOAQUIN RIVER AT LIBORDI SHOALS." (YOU CAN SEE THIS ON GOOGLE MAPS).</p>	Edits made to match suggested language.
2	AWA	PG 11. SHOULD A SENTENCE BE ADDED ABOUT SGMA & IT'S REQUIREMENTS IN THE GROUNDWATER SECTION?	Added a few sentences about SGMA to the groundwater section.
3	AWA	PG 16. IS THIS CORRECT? "Alpine Watershed Group – The Alpine Watershed Group is represented on the MAC Region’s RPC."	Sentence removed.
4	AWA	<p>PG 17 THIS HAS CHANGED: Central Amador Water Project (CAWP) System – The Central Amador Water Project System provides (DELETE WHOLESAL) wholesale treated water to upcountry communities in Amador County such as Pine Grove, Pioneer, and the Mace Meadows areas. Water is diverted from the PG&E REGULATOR RESERVOIR IN Tiger Creek (DELETE: Afterbay) (a component of PG&E’s Mokelumne River hydroelectric project) and IT FLOWS BY GRAVITY (DELETE: pumped) to the Buckhorn Treatment Plant (owned and operated by AWA) in Pioneer to be treated and distributed to (DELETE: the local communities) (INSERT FROM PG 18: customers of Pine Grove, Pine Acres, Sunset Heights, Fairway Pines, Jackson Pines, Pioneer, Gayla Manor, Ranch House Estates, Pine Park East, Toma Lane, Sierra Highlands, Silver Lake Pines, Ridgeway Pines, Rabb Park, and Mace Meadows.</p>	Edits made to match suggested language.
5	AWA	<p>PG 18, THIS IS NO LONGER TRUE (I THINK YOU CAN DELETE ALL OF THIS PARAGRAPH: Tiger Creek Reservoir (Forebay and Afterbay) – The combined capacity of the Tiger Creek Forebay and Afterbay is approximately 4,000 AF. The Tiger Creek reservoirs are used by PG&E for power generation. AWA currently uses water stored in the Tiger Creek Afterbay for water supply. Water is pumped from the afterbay to Buckhorn WTP where it is treated and ready for use by the customers of Pine Grove, Pine Acres, Sunset Heights, Fairway Pines, Jackson Pines, Pioneer, Gayla Manor, Ranch House Estates, Pine Park East, Toma Lane, Sierra Highlands, Silver Lake Pines, Ridgeway Pines, Rabb Park, and Mace Meadows. Water from the afterbay is also gravity fed to the PG&E Tiger Creek Powerhouse treatment plant, which serves the PG&E Conference Center. Gravity piping is proposed that would connect Tiger Creek Regulatory, upstream of the Forebay, to Buckhorn WTP.)</p>	Paragraph removed.

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6	AWA	<p>PG 18, I DON'T SEE CPUD LISTED HERE (ALTHOUGH IT IS SOMEWHAT ADDRESSED ON PG 3, BUT NOT SCHAADS RES). IT OWNS SCHAADS RESERVOIR ON THE MIDDLE FORK AND HAS A DIVERSION, A PUMPING STATION ON THE SOUTH FORK OF THE MOKELUMNE, AND JEFF DAVIS RESERVOIR. THESE SHOULD BE DESCRIBED. THE FOLLOWING IS FROM THEIR WEBSITE:</p> <p>"In 1970, the voters approved a bond election to replace open canals and reservoirs with: a pump station on the South Fork of the Mokelumne River; a 2000 acre foot reservoir (Jeff-Davis) near Glencoe; a 1.5 million gallon storage tank in Mokelumne Hill; a 3.0 million gallon storage tank in San Andreas; and 20 miles of connecting pipeline. The system was designed with excess capacity to allow for population growth, which is why CPUD has adequate water to make it through drought years such as we have recently experienced. A system to serve Paloma was added in 1977. In 2004, a USDA grant/loan provided funding for a water system to serve the Railroad Flat/Glencoe area.</p> <p>CPUD pumps over 450 million gallons of water per year for the nearly 2000 customers in the 35 square mile District serving a population of almost 5000 people. The modern treatment plant filters and chlorinates the Mokelumne River water which is then gravity fed to Mokeulmne Hill then San Andreas. The staff of CPUD is proud of the service and excellent quality water they distribute. You are invited to stop in and ask questions about the system at the District's office location at 506 West St. Charles St., San Andreas."</p>	<p>CPUD added to water-related infrastructure section.</p>
7	AWA	<p>PG 23, WHY DO THE FIGURE NUMBERS JUMP FROM 19 (ON PG 22) TO 110 (ON PG 23) THE SAME QUESTION ABOUT TABLE NUMBERS THAT JUMP FROM 19 (PG 29) TO 110 (PG 30)?</p>	<p>The figures and tables are numbered with the chapter number first, so they look like 1-1, 1-2, 1-3... 1-9, 1-10, etc.</p>
8	AWA	<p>PG 33, CHANGES APPLIED FOR BEFORE WATER BOARD IN CAWP & JVID (TABLE 111): Central Amador Water Project Up to 1,150 AFY from Mokelumne River JVID Up to 3,800 AFY from Pardee Reservoir CAWP CHANGE BEFORE WATER BOARD: UP TO 2200 AFY FROM MOKE. JVID CHANGE BEFORE WATER BOARD: UP TO 2,800 AFY " "</p>	<p>New total water rights for CAWP and JVID added to table with explanatory text added to preceding paragraph.</p>
9	AWA	<p>PG 64, I THINK WATER QUALITY ISSUES (PRIMARILY RESULTING INCREASED FOREST FIRE THREAT SHOULD BE IN THE HIGHEST CATEGORY AND ECOSYSTEM AND HABITAT SHIFTED DOWN TO THE HIGH CATEGORY:</p> <p>1.Highest Priorities: Water Supply Availability, Water Supply Reliability, Ecosystem and Habitat, and Hydropower 2.High Priorities: Flood Management, Water Demand, and Water Quality</p>	<p>Climate change vulnerability priorities to be discussed by RPC.</p>
10	AWA	<p>PG 66, THE MOKELUMNE HAS BEEN DESIGNATED WILD & SCENIC WITH PROTECTIONS FOR FUTURE WATER DEVELOPMENT IN AMADOR AND CALAVERAS CO'S. DELETE THIS ITEM?</p> <p>2.Environmental Protection</p>	<p>Item deleted.</p>

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11	AWA	<p>PG 4, TABLE 23, RPC COMMITTEE, NEEDS TO BE UPDATED TO 2018</p> <p>PG 8, TABL 24, DAC AREAS ARE MISSING FROM THIS TABLE, LIKE PIONEER</p>	<p>Table 2-3 will be updated before the Plan is published. The group may expand if others join late. Table 2-4 is not intended to be a complete list of DACs (DACs in the MAC Region under the Prop 1 definition are listed in Chapter 1). This table will be updated based on DAC representation and participation in the 2018 Update.</p>
12	UMRWA	<p>I went briefly through the chapters again and the only additional comment/suggestion I have is to add to entries to Table 11: Agencies with Major Water Resources Management Responsibilities in the Region: If you agree these are appropriate additions, please do.</p> <p>UMRWA - The Upper Mokelumne River Watershed Authority is a Joint Powers Authority comprised of six water agencies (Amador Water Agency, Calaveras County Water District, Calaveras Public Utility District, East Bay Municipal Utility District, Jackson Valley Irrigation District and Alpine County Water Agency) and the counties of Amador, Calaveras and Alpine. UMRWA's goals include enhancing water supply, protecting water quality and the environment, reducing forest fuels and improving forest health. The Authority's role is to perform water resource planning for the region, facilitate forest fuels reduction and restoration projects, secure grant funding, and leverage federal and state investments for widespread regional benefit.</p> <p>PG&E - Pacific Gas and Electric Company owns and operates the 206 megawatt Mokelumne River Hydroelectric Project (FERC license 137, reissued October 2011). The project spans over 90 miles of the North Fork Mokelumne River and adjacent streams. Seven storage reservoirs, four powerhouses, and many tunnels and flumes, most initially constructed by PG&E in the 1920s, create the Mokelumne River Project. Two tunnels, the Tiger Creek conduit and the Electra tunnel, are together 25 miles long and transport water around the North Fork Mokelumne's natural riverbed.</p>	<p>UMRWA and PG&E added to table along with accompanying descriptions.</p>

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13	EBMUD	I noticed that the “data sources” refers to the EBMUD WSMP 2006... should we be using the most recent WSMP, which I think is 2012?	The most recent WSMP was completed in 2012, but most of the climate change work used in the WSMP occurred in 2006. The WSMP cites several figures as dating to 2006, and although we sourced those figures from the WSMP, we are citing their original source.

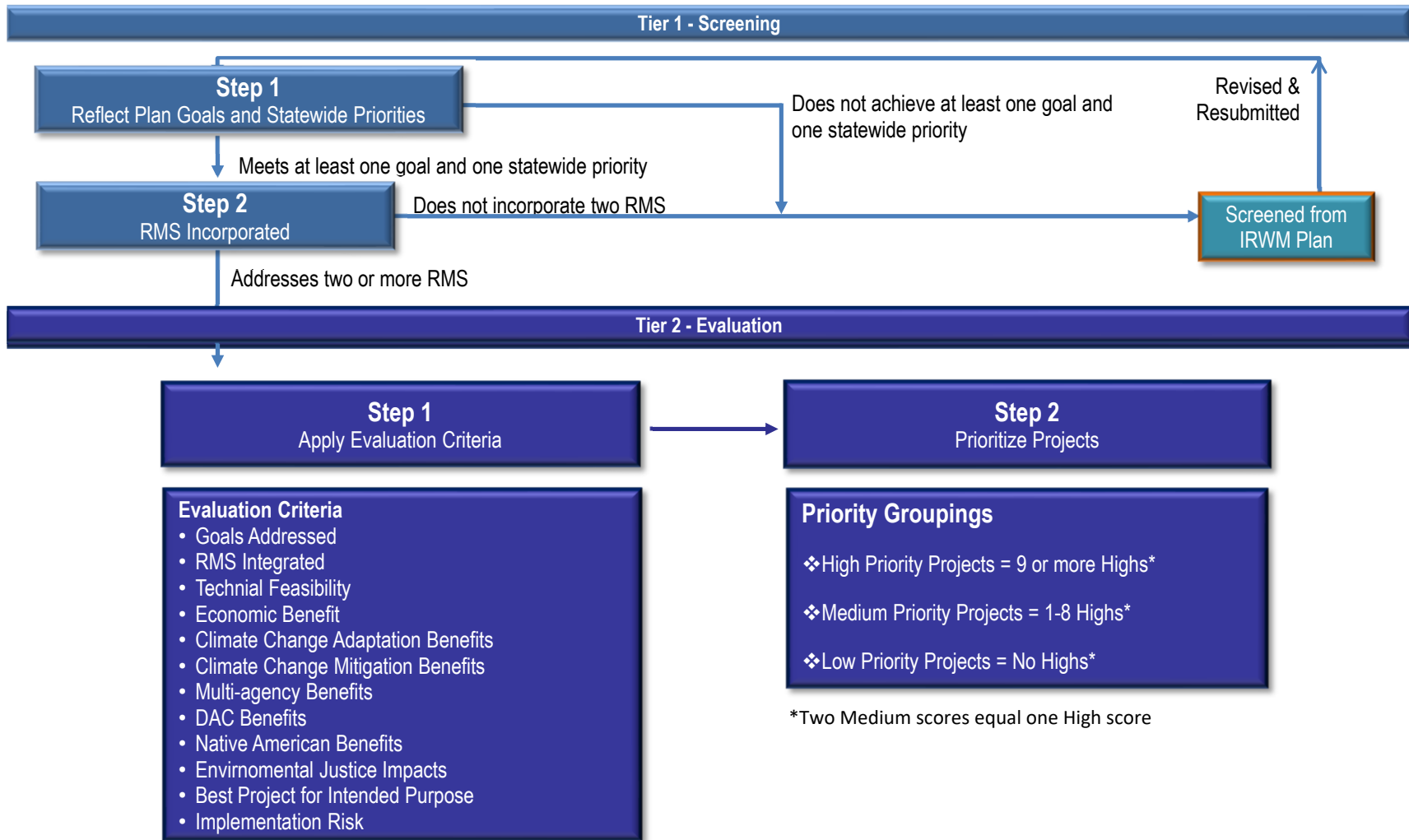
MAC Region IRWMP 2018 Update

Instructions for Reviewing Project Scoring

1. Start with the **Project Review Process Results** (Page 5). This page summarizes the results of the entire scoring and prioritization process; each subsequent page provides more detail into the various steps of the project review process. Since the Project Review Process Results page provides a summary of the scoring presented on the other pages, it is acceptable to review the Results page and only review the other pages (described in Steps 2 – 5 below) if more backup information regarding the scoring for any particular project is desired.
 - a. This page shows the total number MAC Plan Goals, Statewide Priorities, and Regional Management Strategies that each project meets as well as the score (low, medium, or high) for each of the evaluation criteria.
 - b. The resulting prioritization for each project is in the last column of this page.
 - c. The **Screening, Evaluation, and Prioritization Framework** is included on Page 3.
 - d. The **Evaluation Criteria** used to score the projects is included on Page 4
2. **Tier 1 Step 1** (Page 6) screens projects based on MAC Plan Goals and Statewide Priorities. The project must meet at least one of each to be included in the MAC Plan.
 - a. Black checkmarks reflect instances where the project proponent indicated that their project met that Goal or Statewide Priority and the reviewers agreed.
 - b. Green checkmarks reflect instances where the project proponent did not indicate their project met the Goal or Statewide Priority, but that the reviewers, based on the information provided by the project proponent, thought that the project did meet that Goal or Statewide Priority (this only occurred one time).
 - c. Red "x"s reflect instances where the project proponent indicated that the project met that Goal or Statewide priority, but that the reviewers, based on the information provided by the project proponent, disagreed. These "x"s are found exclusively in the climate change goal section, as climate change "mitigation" and climate change "adaptation" were frequently confused or misunderstood.
 - i. Climate change adaptation refers to actions taken to adapt to the effects of climate change that are already occurring or projected to occur.
 - ii. Climate change mitigation refers to reducing the emissions of greenhouse gasses in order to prevent further climate change from occurring.
 - d. The total number of MAC Plan Goals and Statewide Priorities that each project meets are shown in the last two columns of the sheet.
3. **Tier 1 Step 2** (Page 7) screens projects based on Regional Management Strategies (RMS). The project must address two or more RMS to be included in the IRWM Plan.
 - a. There were no modifications to check marks given by project proponents.
 - b. The sheet includes the total RMS addressed by each project as well as the capital cost and the overall result for each project.
4. **Tier 2 Step 1** (Page 8) applies the evaluation criteria to each project in order to score and ultimately prioritize them.
 - a. MAC Plan Goals: A project gets a "High" score if it addresses 5 or more Goals, a "Medium" score if it addresses 2-4 Goals, and a "Low" score if it only addresses 1 Goal.
 - b. RMS: A project gets a "High" score if it addresses 6 or more RMS, a "Medium" score if it addresses 3-5 RMS, and a "Low" score if it only addresses 1-2 Goals (no projects are scored as "Low" in this category as they must meet at least 2 RMS to be included in the IRWM Plan).

- c. The Economic Benefit for each project is based on a benefit/cost ratio. The benefits are the number of Goals that the project meets. The cost is the present value cost based on the capital cost, O&M costs, replacement costs, and the project life information provided by the project sponsor on the Project Information Sheet.
 - d. The scoring for the other evaluation criteria is based on information provided for each criterion by the project sponsor on the Project Information Sheet.
 - i. For all questions except for the Environmental Justice question, a “yes” answer resulted in a “High” or “Medium” score and a “no” answer resulted in a “Low” score. For the Environmental Justice question, a “yes” answer resulted in a “Low” score and a “no” answer resulted in a “High” or “Medium” score.
 - ii. Black text indicates that the project reviewer scored the project the same as the project proponent.
 - 1. For questions with no “Medium” option, a “Medium” or “High” score was assigned by the reviewer based on the rationale provided by the project sponsor.
 - iii. Purple text indicates that the project proponent checked a box but did not provide a rationale OR the project proponent did not check a box. In both cases, the reviewer had to use the other information provided by the project proponent to score the project.
 - 1. Common instances of this occurred in the Technical Feasibility category for projects that are studies. If the project is a study (and not implementation), it was automatically scored as “High” under Technical Feasibility.
 - 2. This also frequently occurred in the DAC Benefits and Native American Tribal Benefits questions. For these categories, a project was scored as “High” if it provided targeted benefits to those communities, “Medium” if it improved a system as a whole that includes those communities, and “Low” if it provided benefits to areas that don’t contain DAC or Native American communities.
 - iv. Orange text indicates that the project reviewer disagreed with the project proponent’s score in that category and changed the score.
 - 1. This most commonly occurred in the climate change categories. See Step 2.c for an explanation on climate change mitigation vs climate change adaptation.
 - 2. Some scores were also changed in the DAC and Native American benefits categories. These scores followed the guidelines described in Step 4.c.iii.2.
 - 3. Very few projects had other criteria scores changed, but there were a few changes in the Multi-Agency Benefits, Best Project for Intended Purpose, and Minimize Implementation Risk categories.
5. **Tier 2 Step 2** (Page 9) shows the overall prioritization results based on the evaluation criteria scoring described in Step 4.
- a. The originally proposed project scoring resulted in an overall “High” score if the project achieved 3 or more “High” scores in the evaluation criteria. However, this criteria for achieving an overall “High” score does not take into consideration the additional evaluation criteria that were for the 2018 MAC Plan Update, so all projects scored as “High” due to the large number of criteria evaluated.
 - b. For the 2018 Update, we recommend increasing the threshold for an overall “High” prioritization to 8 total “Highs” scores, with two “Medium” scores counting the same as a “High” score.
 - c. Tier 2 Step 2 summarizes the overall scores for older scoring systems and the recommended scoring system.

Proposed Screening, Evaluation, and Prioritization Framework



Evaluation Criteria	Description
Address MAC Plan Update Goals	High = Addresses 5 or more goals Medium = Addresses 2 to 4 goals Low = Addresses less than 2 goals
Integrate with State RMS	High = Incorporates 6 or more RMSs Medium = Incorporates 3 to 5 RMSs Low = Incorporates 2 RMSs
Ensure Technical Feasibility	High = Ample technical knowledge and supporting data to uphold claimed benefits/values Medium = Adequate technical knowledge and supporting data to defend claimed benefits/values although some gaps may exist Low = Insufficient technical knowledge or supporting data to sustain claimed benefits/values
Maximize Economic Feasibility	High = High estimated benefit-cost ratio (2.5+) Medium = Mid-range estimated benefit-cost ratio (1.5 to 2.5) Low = Lower benefit-cost ratio (0 to 1.4)
Incorporate Climate Change Adaptation Benefits	High = Climate change adaptation benefits have been demonstrated Medium = Climate change adaptation benefits are likely Low = Climate change adaptation benefits are unlikely
Incorporate Climate Change Mitigation Benefits	High = Climate change mitigation benefits have been demonstrated Medium = Climate change mitigation benefits are likely Low = Climate change mitigation benefits are unlikely
Provide Multi-Agency/Entity Benefits	High= Benefits 3 agencies/entities Medium = Benefits 2 agencies Low= Benefits 1 agency/entity
Maximize DAC Benefits	High = Provides targeted benefits to one or more DACs Medium = May provide some benefits to one or more DACs Low = Provides no DAC benefits
Maximize Native American Benefits	High = Provides targeted benefits to one or more Native American tribal community Medium = May provide some benefits to one or more Native American tribal community Low = Provides no Native American tribal community benefits
Minimize EJ Impacts	High = Does not have environmental justice impacts Medium = May have environmental justice impacts Low = Has environmental justice impacts
Minimize Implementation Risk	High = Minimal implementation risk due to documented institutional barriers such as regulatory, environmental, or permitting obstacles, and low degree of controversy, potential legal challenge, or potential partners' uncertainty. Medium = Moderate implementation risk due to documented institutional barriers such as regulatory, environmental, or permitting obstacles, and moderate degree of controversy, potential legal challenge, or potential partners' uncertainty. Low = High implementation risk due to documented institutional barriers such as regulatory, environmental, or permitting obstacles, and high degree of controversy, potential legal challenge, or potential partners' uncertainty.
Best Project for the Intended Purpose	High = Project is the best possible alternative to meet the stated need from a social, environmental and economic perspective. Medium = Other alternatives exist that may be preferable from a social, environmental and economic perspective. Low = Other alternatives clearly exist that will be better to meet the intended need from a social, environmental and economic perspective.

MAC IRWMP
Project Review Process Results

#	General Project Information			Tier 1, Step 1 Screening			Tier 1, Step 2 Screening		Tier 2, Step 2 Prioritization												
	Entity	Project Name	Project Status	Total Goals	Total State-wide Priors.	Result	Total RMS	Result	Econ. Benefit	Goals Addressed	RMS Integrated	Technical Feasibility	Multi-Agency Benefits	Climate Change Adaptation Benefit	Climate Change Mitigation Benefit	DAC Benefits	Native American Tribal Benefits	No EJ Concerns	Impl. Risk	Best Project for Intended Purpose	Result
1	ARCD	Soil Health & Climate Resilient Agriculture Education Program	Planning/Initial Study	5	1	PASS	3	PASS	High	High	Medium	High	Low	Medium	High	Low	Low	High	High	High	Medium
2	AWA	Groundwater Banking Conjunctive Use Study	Planning/Initial Study	7	7	PASS	14	PASS	High	High	High	High	High	High	Low	Medium	Medium	High	High	High	High
3	AWA	Groundwater Capacity in Amador County	Planning/Initial Study	7	7	PASS	14	PASS	High	High	High	High	High	Medium	Low	Medium	Medium	High	High	High	High
4	AWA	Amador Canal Water Conservation Project	Planning/Initial Study	9	7	PASS	14	PASS	High	High	High	High	Low	High	Medium	Medium	Medium	High	High	High	High
5	AWA	PG&E Storage Recovery	Planning/Initial Study	7	7	PASS	10	PASS	High	High	High	High	High	High	Medium	Medium	Medium	High	Medium	High	High
6	AWA	Lower Bear River Reservoir Expansion Study	Planning/Initial Study	7	7	PASS	10	PASS	High	High	High	High	High	High	High	Medium	Medium	High	Low	Medium	High
7	AWA	Surface Storage Feasibility Study	Planning/Initial Study	7	7	PASS	10	PASS	High	High	High	High	High	High	Medium	Medium	Medium	High	Medium	Medium	High
8	AWA	Lake Camanche Recycling Water Project	Conceptual Design	7	7	PASS	14	PASS	Medium	High	High	High	Low	High	Low	Medium	Low	High	High	High	Medium
9	AWA	Amador Water Agency System Computer Modeling	Planning/Initial Study	10	9	PASS	25	PASS	High	High	High	High	High	High	Medium	Medium	Medium	High	High	High	High
10	AWA	Amador Water Agency Master Plan	Planning/Initial Study	10	9	PASS	25	PASS	High	High	High	High	High	High	Medium	Medium	Medium	High	High	High	High
11	AWA	Highway 88 Corridor Sewer Trunk Line Study	Planning/Initial Study	8	7	PASS	13	PASS	High	High	High	High	High	Medium	Low	High	Low	High	Medium	High	High
12	AWA	Camanche Area Regional Water Supply Project Phase II (CARWSP II)	In Design	5	7	PASS	10	PASS	High	High	High	High	Medium	Low	Low	High	Low	High	High	High	Medium
13	AWA	Ione WTP Planning Study	Conceptual Design	4	7	PASS	7	PASS	High	Medium	High	High	High	Low	Low	Medium	Low	High	High	High	Medium
14	AWA	Upper-Lower Water System Reliability Intertie Project	Planning/Initial Study	3	3	PASS	3	PASS	High	Medium	Medium	High	High	High	Low	Medium	Medium	High	Medium	High	Medium
15	AWA	Lake Camanche Transmission Main Project	Design Complete	6	7	PASS	6	PASS	High	High	High	High	Medium	Low	Medium	Medium	Low	High	High	High	Medium
16	AWA	Amador Water Agency Low Pressure Fire Flow Improvements	Conceptual Design	3	3	PASS	3	PASS	Medium	Medium	Medium	High	High	High	Low	Medium	Medium	High	High	High	Medium
17	AWA	CAWP Fire Protection Project	Conceptual Design	6	4	PASS	3	PASS	High	High	Medium	High	High	High	Medium	Medium	Low	High	High	High	High
18	AWA	CAWP Tanks Replacement and Consolidation Project	Conceptual Design	7	4	PASS	3	PASS	High	High	Medium	High	High	High	High	Medium	Low	High	High	High	High
19	AWA	Floating Covers Replacement Project	Conceptual Design	3	4	PASS	3	PASS	High	Medium	Medium	High	High	High	Low	High	Medium	High	High	High	High
20	AWA	Lake Camanche Water Service Replacement – Phase IV	Design Complete	7	6	PASS	9	PASS	High	High	High	High	Low	High	High	High	Low	High	High	High	High
21	AWA	Amador Water Agency Treated Water Supply Study	Planning/Initial Study	9	7	PASS	14	PASS	High	High	High	High	Low	Medium	Low	High	Medium	High	High	High	High
22	AWA	Community Leachfield Groundwater Nitrate Study	Planning/Initial Study	8	7	PASS	13	PASS	High	High	High	High	Low	High	Medium	Medium	Medium	High	High	High	High
23	AWA	Martell Wastewater Lift Station Reduction Project	Planning/Initial Study	6	6	PASS	7	PASS	High	High	High	High	Low	Low	High	High	Low	High	High	High	High
24	AWA	Regional Wastewater Treatment and Recycling Project	Conceptual Design	8	7	PASS	16	PASS	High	High	High	High	High	High	Medium	Medium	High	High	High	High	High
25	AWA	Lake Camanche Regional Wastewater System	Conceptual Design	9	7	PASS	14	PASS	High	High	High	High	Medium	High	Low	High	Low	High	High	High	High
26	AWA	Tanner WTP Rehabilitation and Efficiency Project	In Design	6	7	PASS	7	PASS	High	High	High	High	High	Medium	Low	High	Medium	High	High	High	High
27	AWA	Water Storage Reoperation Study	Planning/Initial Study	7	7	PASS	10	PASS	High	High	High	High	High	High	Low	Medium	Medium	High	High	High	High
28	AWA	SGMA Implementation for Amador County	Planning/Initial Study	7	7	PASS	14	PASS	High	High	High	Medium	High	Medium	Low	Medium	Medium	High	High	High	High
29	AWA	Fishery Habitat Improvements	Planning/Initial Study	6	4	PASS	9	PASS	High	High	High	High	High	Medium	Low	Low	Low	High	High	High	Medium
30	AWA	New York Ranch Reservoir Conservation and Management	Planning/Initial Study	7	8	PASS	16	PASS	High	High	High	High	Medium	Medium	Low	Medium	Medium	High	Medium	High	Medium
31	AWA	MAC Conservation Program Implementation	Planning/Initial Study	5	7	PASS	12	PASS	High	High	High	High	High	High	High	Medium	Medium	High	High	High	High
32	CCWD	Sheep Ranch Drinking Water Treatment & Distribution Compliance Project	Design Complete	3	3	PASS	3	PASS	Medium	Medium	Medium	High	Low	High	Low	High	Low	High	High	High	Medium
33	CCWD	West Point Automated Meter Reading Project	Conceptual Design	4	2	PASS	2	PASS	High	Medium	Low	High	Low	Low	Medium	High	Low	High	High	High	Medium
34	CCWD	West Point Water Treatment Plant Drinking Water Compliance Project	Design Complete	3	1	PASS	3	PASS	High	Medium	Medium	High	Low	Medium	Low	High	High	High	High	High	Medium
35	CCWD	Wilson Dam Meadow Restoration and Habitat Enhancement Plan	Planning/Initial Study	5	3	PASS	3	PASS	High	High	Medium	High	Low	High	Low	High	Low	High	High	High	Medium
36	Foothill	Amador Household Water Efficiency Project	Conceptual Design	6	3	PASS	3	PASS	High	High	Medium	High	Low	High	High	Medium	Medium	High	High	High	High
37	Foothill	Mokelumne High Country Meadow Restoration	Planning/Initial Study	8	4	PASS	9	PASS	High	High	High	High	Medium	Medium	High	Medium	Medium	High	High	High	High
38	Foothill	Riparian Noxious Weed Abatement Plan	Planning/Initial Study	3	1	PASS	6	PASS	High	Medium	High	High	Medium	High	Low	Medium	Medium	High	High	High	High
39	Foothill	Restoring the Upper Mokelumne's Anadromous Fish	Planning/Initial Study and Conceptual Design	4	1	PASS	6	PASS	Medium	Medium	High	High	High	Medium	Low	Medium	Medium	High	High	High	Medium
40	Foothill	Upper Mokelumne Watershed Landowner Guide	Planning/Initial Study	7	1	PASS	11	PASS	High	High	High	High	High	Medium	Medium	Medium	Medium	High	High	High	High
41	Jackson	Jackson Creek Sewer Line Relocation - Conceptual Design/Feasibility Study	Planning/Initial Study	2	3	PASS	3	PASS	Medium	Medium	Medium	High	Low	Low	Low	High	Low	High	High	High	Medium
42	UMRWA	Hemlock Forest Restoration Water Yield Project Study	Environmental Review Complete	4	3	PASS	3	PASS	High	Medium	Medium	High	High	High	Low	Medium	Medium	High	High	High	High
43	UMRWA	MAC Region DAC Small Communities Water Needs Assessment	Planning/Initial Study	4	3	PASS	2	PASS	High	Medium	Low	High	High	Low	Low	High	Medium	High	High	High	Medium
44	UMRWA	North Fork Mokelumne Watershed Erosion Control & Water Quality Restoration Plan	Planning/Initial Study	4	3	PASS	6	PASS	High	Medium	High	High	High	Low	Low	Medium	Medium	High	High	High	Medium
45	UMRWA	North Fork Mokelumne Watershed Erosion Control & Water Quality Restoration Project	Planning/Initial Study	4	3	PASS	6	PASS	Medium	Medium	High	High	High	Low	Low	Medium	Medium	High	High	High	Medium
46	UMRWA	Upper Mokelumne Erosion and Water Quality Assessment and Restoration Plan	Planning/Initial Study and Conceptual Design	5	4	PASS	10	PASS	High	High	High	High	High	Medium	Low	Medium	Medium	High	High	High	High
47	CAFT	South Fork Mokelumne River Watershed Program	Environmental Review Complete	6	5	PASS	8	PASS	High	High	High	High	High	Medium	Medium	Medium	Medium	High	High	High	High

Tier 1 - Screening
Step 2 - Resource Management Strategies Incorporated

Project No.	Submitted by	Project Name	Project Status	Agricultural Water Use Efficiency	Urban Water Use Efficiency	Flood Management	Conveyance - Delta	Conveyance - Regional / local	System Reoperation	Water Transfers	Conjunctive Management & Groundwater Storage	Desalination - Brackish and Sea Water	Recycled Municipal Water	Precipitation Enhancement	Surface Storage - CALFED	Surface Storage - Regional / local	Drinking Water Treatment & Distribution	Groundwater and Aquifer Remediation	Matching Quality to Use	Pollution Prevention	Salt & Salinity Management	Urban Stormwater Runoff Management	Agricultural Lands Stewardship	Ecosystem Restoration	Forest Management	Land Use Planning and Management	Recharge Area Protection	Sediment Management	Watershed Management	Economic Incentives	Outreach and Engagement	Water and Culture	Water-Dependent Recreation	Crop Idling for Water Transfers	Dewaporation or Atmospheric Pressure Desalination	Fog Collection	Irrigated Land Retirement	Rainfed Agriculture	Snow Fences	Waterbag Transport / Storage Technology	TOTAL RMS	Capital Costs	Overall Result					
1	ARCD	Soil Health & Climate Resilient Agriculture Education Program	Planning/Initial Study	✓																																					3	\$70,000	Medium					
2	AWA	Groundwater Banking Conjunctive Use Study	Planning/Initial Study	✓	✓																																					14	\$200,000	High				
3	AWA	Groundwater Capacity in Amador County	Planning/Initial Study	✓	✓																																					14	\$300,000	High				
4	AWA	Amador Canal Water Conservation Project	Planning/Initial Study	✓	✓	✓																																				14	\$250,000	High				
5	AWA	PG&E Storage Recovery	Planning/Initial Study		✓																																					10	\$100,000	High				
6	AWA	Lower Bear River Reservoir Expansion Study	Planning/Initial Study		✓																																						10	\$200,000	High			
7	AWA	Surface Storage Feasibility Study	Planning/Initial Study		✓																																						10	\$200,000	High			
8	AWA	Lake Camanche Recycling Water Project	Conceptual Design	✓	✓																																						14	\$14,000,000	Medium			
9	AWA	Amador Water Agency System Computer Modeling	Planning/Initial Study	✓	✓	✓																																					25	\$70,000	High			
10	AWA	Amador Water Agency Master Plan	Planning/Initial Study	✓	✓	✓																																					25	\$250,000	High			
11	AWA	Highway 88 Corridor Sewer Trunk Line Study	Planning/Initial Study	✓	✓																																						13	\$50,000	High			
12	AWA	Camanche Area Regional Water Supply Project Phase II (CARWSP II)	In Design		✓																																						10	\$6,500,000	Medium			
13	AWA	Ione WTP Planning Study	Conceptual Design		✓																																						7	\$200,000	Medium			
14	AWA	Upper-Lower Water System Reliability Intertie Project	Planning/Initial Study																																								3	\$75,000	Medium			
15	AWA	Lake Camanche Transmission Main Project	Design Complete		✓																																						6	\$900,000	Medium			
16	AWA	Amador Water Agency Low Pressure Fire Flow Improvements	Conceptual Design																																								3	\$2,000,000	Medium			
17	AWA	CAWP Fire Protection Project	Conceptual Design																																								3	\$150,000	High			
18	AWA	CAWP Tanks Replacement and Consolidation Project	Conceptual Design																																								3	\$2,500,000	High			
19	AWA	Floating Covers Replacement Project	Conceptual Design																																								3	\$150,000	High			
20	AWA	Lake Camanche Water Service Replacement - Phase IV	Design Complete		✓																																						9	\$495,000	High			
21	AWA	Amador Water Agency Treated Water Supply Study	Planning/Initial Study	✓	✓	✓																																						14	\$100,000	High		
22	AWA	Community Leachfield Groundwater Nitrate Study	Planning/Initial Study	✓	✓																																							13	\$100,000	High		
23	AWA	Martell Wastewater Lift Station Reduction Project	Planning/Initial Study	✓	✓																																							7	\$150,000	High		
24	AWA	Regional Wastewater Treatment and Recycling Project	Conceptual Design	✓	✓																																							16	\$100,000	High		
25	AWA	Lake Camanche Regional Wastewater System	Conceptual Design	✓	✓																																							14	\$14,000,000	High		
26	AWA	Tanner WTP Rehabilitation and Efficiency Project	In Design		✓																																							7	\$10,000,000	High		
27	AWA	Water Storage Reoperation Study	Planning/Initial Study		✓																																							10	\$50,000	High		
28	AWA	SGMA Implementation for Amador County	Planning/Initial Study	✓	✓																																							14	\$100,000	High		
29	AWA	Fishery Habitat Improvements	Planning/Initial Study																																									9	\$100,000	Medium		
30	AWA	New York Ranch Reservoir Conservation and Management	Planning/Initial Study	✓	✓	✓																																							16	\$35,000	Medium	
31	AWA	MAC Conservation Program Implementation	Planning/Initial Study		✓																																								12	\$1,664,000	High	
32	CCWD	Sheep Ranch Drinking Water Treatment & Distribution Compliance Project	Design Complete																																									3	\$4,000,000	Medium		
33	CCWD	West Point Automated Meter Reading Project	Conceptual Design		✓																																								2	\$500,000	Medium	
34	CCWD	West Point Water Treatment Plant Drinking Water Compliance Project	Design Complete																																										3	\$1,250,000	Medium	
35	CCWD	Wilson Dam Meadow Restoration and Habitat Enhancement Plan	Planning/Initial Study																																										3	\$290,000	Medium	
36	Foothill	Amador Household Water Efficiency Project	Conceptual Design		✓																																								3	\$695,000	High	
37	Foothill	Mokelumne High Country Meadow Restoration	Planning/Initial Study																																										9	\$1,500,000	High	
38	Foothill	Riparian Noxious Weed Abatement Plan	Planning/Initial Study																																										6	\$25,000	High	
39	Foothill	Restoring the Upper Mokelumne's Anadromous Fish	Planning/Initial Study and Conceptual Design																																										6	\$2,100,000	Medium	
40	Foothill	Upper Mokelumne Watershed Landowner Guide	Planning/Initial Study	✓																																									11	\$50,000	High	
41	Jackson	Jackson Creek Sewer Line Relocation - Conceptual Design/Feasibility Study	Planning/Initial Study																																										3	\$200,000	Medium	
42	UMRWA	Hemlock Forest Restoration Water Yield Project Study	Environmental Review Complete																																										3	\$0	High	
43	UMRWA	MAC Region DAC Small Communities Water Needs Assessment	Planning/Initial Study		✓																																								2	\$200,000	Medium	
44	UMRWA	North Fork Mokelumne Watershed Erosion Control & Water Quality Restoration Plan	Planning/Initial Study			✓																																							6	\$225,000	Medium	
45	UMRWA	North Fork Mokelumne Watershed Erosion Control & Water Quality Restoration Project	Planning/Initial Study			✓																																							6	\$2,000,000	Medium	
46	UMRWA	Upper Mokelumne Erosion and Water Quality Assessment and Restoration Plan	Planning/Initial Study and Conceptual Design																																											10	\$250,000	High
47	CAFT	South Fork Mokelumne River Watershed Program	Environmental Review Complete																																										8	\$64,990	High	

Tier 2 - Evaluation
Step 1 - Apply Evaluation Criteria

Project No.	Submitted by	Project Name	Project Status	TOTAL GOALS	TOTAL RMS	Economic Benefit	Goals Addressed	RMS Integrated	Technical Feasibility	Climate Change Adaptation Benefit	Climate Change Mitigation Benefit	Multi-Agency Benefits	DAC Benefits	Native American Tribal Benefits	EJ Concerns	Best Project for Intended Purpose	Minimize Implementation Risk
1	ARCD	Soil Health & Climate Resilient Agriculture Education Program	Planning/Initial Study	5	3	High	High	Medium	High	Medium	High	Low	Low	Low	High	High	High
2	AWA	Groundwater Banking Conjunctive Use Study	Planning/Initial Study	7	14	High	High	High	High	High	Low	High	Medium	Medium	High	High	High
3	AWA	Groundwater Capacity in Amador County	Planning/Initial Study	7	14	High	High	High	High	Medium	Low	High	Medium	Medium	High	High	High
4	AWA	Amador Canal Water Conservation Project	Planning/Initial Study	9	14	High	High	High	High	High	Medium	Low	Medium	Medium	High	High	High
5	AWA	PG&E Storage Recovery	Planning/Initial Study	7	10	High	High	High	High	High	Medium	High	Medium	Medium	High	High	Medium
6	AWA	Lower Bear River Reservoir Expansion Study	Planning/Initial Study	7	10	High	High	High	High	High	High	High	Medium	Medium	High	Medium	Low
7	AWA	Surface Storage Feasibility Study	Planning/Initial Study	7	10	High	High	High	High	High	Medium	High	Medium	Medium	High	Medium	Medium
8	AWA	Lake Camanche Recycling Water Project	Conceptual Design	7	14	Medium	High	High	High	High	Low	Low	Medium	Low	High	High	High
9	AWA	Amador Water Agency System Computer Modeling	Planning/Initial Study	10	25	High	High	High	High	High	Medium	High	Medium	Medium	High	High	High
10	AWA	Amador Water Agency Master Plan	Planning/Initial Study	10	25	High	High	High	High	High	Medium	High	Medium	Medium	High	High	High
11	AWA	Highway 88 Corridor Sewer Trunk Line Study	Planning/Initial Study	8	13	High	High	High	High	Medium	Low	High	High	Low	High	High	Medium
12	AWA	Camanche Area Regional Water Supply Project Phase II (CARWSP II)	In Design	5	10	High	High	High	High	Low	Low	Medium	High	Low	High	High	High
13	AWA	lone WTP Planning Study	Conceptual Design	4	7	High	Medium	High	High	Low	Low	High	Medium	Low	High	High	High
14	AWA	Upper-Lower Water System Reliability Intertie Project	Planning/Initial Study	3	3	High	Medium	Medium	High	High	Low	High	Medium	Medium	High	High	Medium
15	AWA	Lake Camanche Transmission Main Project	Design Complete	6	6	High	High	High	High	Low	Medium	Medium	Medium	Low	High	High	High
16	AWA	Amador Water Agency Low Pressure Fire Flow Improvements	Conceptual Design	3	3	Medium	Medium	Medium	High	High	Low	High	Medium	Medium	High	High	High
17	AWA	CAWP Fire Protection Project	Conceptual Design	6	3	High	High	Medium	High	High	Medium	High	Medium	Low	High	High	High
18	AWA	CAWP Tanks Replacement and Consolidation Project	Conceptual Design	7	3	High	High	Medium	High	High	High	High	Medium	Low	High	High	High
19	AWA	Floating Covers Replacement Project	Conceptual Design	3	3	High	Medium	Medium	High	High	Low	High	High	Medium	High	High	High
20	AWA	Lake Camanche Water Service Replacement – Phase IV	Design Complete	7	9	High	High	High	High	High	High	Low	High	Low	High	High	High
21	AWA	Amador Water Agency Treated Water Supply Study	Planning/Initial Study	9	14	High	High	High	High	Medium	Low	Low	High	Medium	High	High	High
22	AWA	Community Leachfield Groundwater Nitrate Study	Planning/Initial Study	8	13	High	High	High	High	High	Medium	Low	Medium	Medium	High	High	High
23	AWA	Martell Wastewater Lift Station Reduction Project	Planning/Initial Study	6	7	High	High	High	High	Low	High	Low	High	Low	High	High	High
24	AWA	Regional Wastewater Treatment and Recycling Project	Conceptual Design	8	16	High	High	High	High	High	Medium	High	Medium	Medium	High	High	High
25	AWA	Lake Camanche Regional Wastewater System	Conceptual Design	9	14	High	High	High	High	High	Low	Medium	High	Low	High	High	High
26	AWA	Tanner WTP Rehabilitation and Efficiency Project	In Design	6	7	High	High	High	High	Medium	Low	High	High	Medium	High	High	High
27	AWA	Water Storage Reoperation Study	Planning/Initial Study	7	10	High	High	High	High	High	Low	High	Medium	Medium	High	High	High
28	AWA	SGMA Implementation for Amador County	Planning/Initial Study	7	14	High	High	High	Medium	Medium	Low	High	Medium	Medium	High	High	High
29	AWA	Fishery Habitat Improvements	Planning/Initial Study	6	9	High	High	High	High	Medium	Low	High	Low	Low	High	High	High
30	AWA	New York Ranch Reservoir Conservation and Management	Planning/Initial Study	7	16	High	High	High	High	Medium	Low	Medium	Medium	Medium	High	High	Medium
31	AWA	MAC Conservation Program Implementation	Planning/Initial Study	5	12	High	High	High	High	High	High	High	Medium	Medium	High	High	High
32	CCWD	Sheep Ranch Drinking Water Treatment & Distribution Compliance Project	Design Complete	3	3	Medium	Medium	Medium	High	High	Low	Low	High	Low	High	High	High
33	CCWD	West Point Automated Meter Reading Project	Conceptual Design	4	2	High	Medium	Low	High	Low	Medium	Low	High	Low	High	High	High
34	CCWD	West Point Water Treatment Plant Drinking Water Compliance Project	Design Complete	3	3	High	Medium	Medium	High	Medium	Low	Low	High	High	High	High	High
35	CCWD	Wilson Dam Meadow Restoration and Habitat Enhancement Plan	Planning/Initial Study	5	3	High	High	Medium	High	High	Low	Low	High	Low	High	High	High
36	Foothill	Amador Household Water Efficiency Project	Conceptual Design	6	3	High	High	Medium	High	High	High	Low	Medium	Medium	High	High	High
37	Foothill	Mokelumne High Country Meadow Restoration	Planning/Initial Study	8	9	High	High	High	High	Medium	High	Medium	Medium	Medium	High	High	High
38	Foothill	Riparian Noxious Weed Abatement Plan	Planning/Initial Study	3	6	High	Medium	High	High	High	Low	Medium	Medium	Medium	High	High	High
39	Foothill	Restoring the Upper Mokelumne's Anadromous Fish	Planning/Initial Study and Conceptual Design	4	6	Medium	Medium	High	High	Medium	Low	High	Medium	Medium	High	High	High
40	Foothill	Upper Mokelumne Watershed Landowner Guide	Planning/Initial Study	7	11	High	High	High	High	Medium	Medium	High	Medium	Medium	High	High	High
41	Jackson	Jackson Creek Sewer Line Relocation - Conceptual Design/Feasibility Study	Planning/Initial Study	2	3	Medium	Medium	Medium	High	Low	Low	Low	High	Low	High	High	High
42	UMRWA	Hemlock Forest Restoration Water Yield Project Study	Environmental Review Complete	4	3	High	Medium	Medium	High	High	Low	High	Medium	Medium	High	High	High
43	UMRWA	MAC Region DAC Small Communities Water Needs Assessment	Planning/Initial Study	4	2	High	Medium	Low	High	Low	Low	High	High	Medium	High	High	High
44	UMRWA	North Fork Mokelumne Watershed Erosion Control & Water Quality Restoration Plan	Planning/Initial Study	4	6	High	Medium	High	High	Low	Low	High	Medium	Medium	High	High	High
45	UMRWA	North Fork Mokelumne Watershed Erosion Control & Water Quality Restoration Project	Planning/Initial Study	4	6	Medium	Medium	High	High	Low	Low	High	Medium	Medium	High	High	High
46	UMRWA	Upper Mokelumne Erosion and Water Quality Assessment and Restoration Plan	Planning/Initial Study and Conceptual Design	5	10	High	High	High	High	Medium	Low	High	Medium	Medium	High	High	High
47	CAFT	South Fork Mokelumne River Watershed Program	Environmental Review Complete	6	8	High	High	High	High	Medium	Medium	High	Medium	Medium	High	High	High

Text Color Coding Key:
Purple: Project proponent checked a box but did not provide a rationale OR the project proponent did not check a box
Orange: Project reviewer disagreed with the project proponent's score in that category and changed the score
Black: Project proponent checked the "yes" box and provided an explanation OR checked the "no" box

Tier 2 - Evaluation
Step 2 - Prioritize Projects

Project No.	Submitted by	Project Name	Project Status	RESULT (3 HIGHS)	RESULT (5 HIGHS)	RESULT (Recommended Approach)
1	ARCD	Soil Health & Climate Resilient Agriculture Education Program	Planning/Initial Study	High	High	Medium
2	AWA	Groundwater Banking Conjunctive Use Study	Planning/Initial Study	High	High	High
3	AWA	Groundwater Capacity in Amador County	Planning/Initial Study	High	High	High
4	AWA	Amador Canal Water Conservation Project	Planning/Initial Study	High	High	High
5	AWA	PG&E Storage Recovery	Planning/Initial Study	High	High	High
6	AWA	Lower Bear River Reservoir Expansion Study	Planning/Initial Study	High	High	High
7	AWA	Surface Storage Feasibility Study	Planning/Initial Study	High	High	High
8	AWA	Lake Camanche Recycling Water Project	Conceptual Design	High	High	Medium
9	AWA	Amador Water Agency System Computer Modeling	Planning/Initial Study	High	High	High
10	AWA	Amador Water Agency Master Plan	Planning/Initial Study	High	High	High
11	AWA	Highway 88 Corridor Sewer Trunk Line Study	Planning/Initial Study	High	High	High
13	AWA	Ione WTP Planning Study	Conceptual Design	High	High	Medium
14	AWA	Upper-Lower Water System Reliability Intertie Project	Planning/Initial Study	High	High	Medium
15	AWA	Lake Camanche Transmission Main Project	Design Complete	High	High	Medium
16	AWA	Amador Water Agency Low Pressure Fire Flow Improvements	Conceptual Design	High	Medium	Medium
17	AWA	CAWP Fire Protection Project	Conceptual Design	High	High	High
18	AWA	CAWP Tanks Replacement and Consolidation Project	Conceptual Design	High	High	High
19	AWA	Floating Covers Replacement Project	Conceptual Design	High	High	High
20	AWA	Lake Camanche Water Service Replacement – Phase IV	Design Complete	High	High	High
21	AWA	Amador Water Agency Treated Water Supply Study	Planning/Initial Study	High	High	High
22	AWA	Community Leachfield Groundwater Nitrate Study	Planning/Initial Study	High	High	High
23	AWA	Martell Wastewater Lift Station Reduction Project	Planning/Initial Study	High	High	High
24	AWA	Regional Wastewater Treatment and Recycling Project	Conceptual Design	High	High	High
25	AWA	Lake Camanche Regional Wastewater System	Conceptual Design	High	High	High
26	AWA	Tanner WTP Rehabilitation and Efficiency Project	In Design	High	High	High
27	AWA	Water Storage Reoperation Study	Planning/Initial Study	High	High	High
28	AWA	SGMA Implementation for Amador County	Planning/Initial Study	High	High	High
29	AWA	Fishery Habitat Improvements	Planning/Initial Study	High	High	Medium
30	AWA	New York Ranch Reservoir Conservation and Management	Planning/Initial Study	High	High	Medium
31	AWA	MAC Conservation Program Implementation	Planning/Initial Study	High	High	High
32	CCWD	Sheep Ranch Drinking Water Treatment & Distribution Compliance Project	Design Complete	High	Medium	Medium
33	CCWD	West Point Automated Meter Reading Project	Conceptual Design	High	Medium	Medium
34	CCWD	West Point Water Treatment Plant Drinking Water Compliance Project	Design Complete	High	High	Medium
35	CCWD	Wilson Dam Meadow Restoration and Habitat Enhancement Plan	Planning/Initial Study	High	High	Medium
36	Foothill	Amador Household Water Efficiency Project	Conceptual Design	High	High	High
37	Foothill	Mokelumne High Country Meadow Restoration	Planning/Initial Study	High	High	High
38	Foothill	Riparian Noxious Weed Abatement Plan	Planning/Initial Study	High	High	High
39	Foothill	Restoring the Upper Mokelumne's Anadromous Fish	Planning/Initial Study and Conceptual Design	High	Medium	Medium
40	Foothill	Upper Mokelumne Watershed Landowner Guide	Planning/Initial Study	High	High	High
41	Jackson	Jackson Creek Sewer Line Relocation - Conceptual Design/Feasibility Study	Planning/Initial Study	High	Medium	Medium
42	UMRWA	Hemlock Forest Restoration Water Yield Project Study	Environmental Review Complete	High	High	High
43	UMRWA	MAC Region DAC Small Communities Water Needs Assessment	Planning/Initial Study	High	High	Medium
44	UMRWA	North Fork Mokelumne Watershed Erosion Control & Water Quality Restoration Plan	Planning/Initial Study	High	High	Medium
45	UMRWA	North Fork Mokelumne Watershed Erosion Control & Water Quality Restoration Project	Planning/Initial Study	High	Medium	Medium
46	UMRWA	Upper Mokelumne Erosion and Water Quality Assessment and Restoration Plan	Planning/Initial Study and Conceptual Design	High	High	High
47	CAFT	South Fork Mokelumne River Watershed Program	Environmental Review Complete	High	High	High