



ATTACHMENT 3

WORK PLAN



COSUMNES, AMERICAN, BEAR & YUBA RIVER
INTEGRATED REGIONAL WATER MANAGEMENT



**CABY Integrated Regional Water Management Plan
Proposition 84, Round 2 Implementation Grant**

Attachment 3. Work Plan

INTRODUCTION TO THE WORK PLAN

OVERVIEW OF ATTACHMENT 3

This attachment consists of two primary sections:

- 1) Introduction to the Work Plan and
- 2) Proposed Work.

The Introduction to the Work Plan presents a summary of the entire proposal, including proposal goals and objectives, purpose and need, the regional map and a description of how the proposal is consistent with the adopted CABY IRWM Plan. The first section also describes linkages between the proposed projects that contribute to the overall benefits derived from the integrated Proposal.

The second section, the Proposed Work, includes detailed descriptions of the proposed implementation projects. Based on the goals and objectives of the proposal and for each individual project, the Scope of Work describes each task and the sequential work necessary to complete each project. Where applicable, the tasks also identify the necessary internal work products and deliverables to DWR that can be used to assess progress, accomplishments and outcomes.

As required, the tasks listed in the Proposed Work correspond to those shown on the Budget and Schedule discussed in Attachments 4 and 5.

GOALS AND OBJECTIVES OF THE CABY IRWMP AND IMPLEMENTATION GRANT PROPOSAL

The overarching goals of the CABY IRWMP are to:

- Ensure adequate and reliable water supply that can be adapted to climate change and can meet the needs of the region
- Ensure sufficient water quality to support healthy ecosystems and dependent organisms
- Preserve and restore watershed health

- Anticipate climate change needs and be prepared to respond adaptively to human and ecosystem needs
- Maintain and enhance functioning landscapes that provide sustainable services for humans

These goals are further defined by Programmatic Areas and Primary Issues:

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|---|---|
| <ul style="list-style-type: none"> • Water Supply <ul style="list-style-type: none"> ○ Conservation ○ Infrastructure ○ Water Storage ○ Water Management Operations ○ Water Transfers ○ Groundwater • Water Quality <ul style="list-style-type: none"> ○ Contamination ○ Sedimentation Management ○ Wastewater Management ○ Headwaters Protection ○ Temperature • Environment and Habitat <ul style="list-style-type: none"> ○ Fisheries ○ Aquatic Biota ○ Instream Flow ○ Meadows ○ Fire and Fuels ○ Invasive Species | <ul style="list-style-type: none"> • Climate Change • Human-Landscape Interaction <ul style="list-style-type: none"> ○ Habitat Alteration ○ Native American Uses ○ Flooding ○ Open Space ○ Disadvantaged Communities ○ Recreation ○ Hydropower ○ Agriculture ○ Sustainable Economies/Self-sufficient Communities • Governance <ul style="list-style-type: none"> ○ Political ○ Legislative ○ Regulatory |
|---|---|

Additionally, the Plan contains several Overarching Objectives that projects should conform to as follows:

- Education and Outreach
- Data Analysis and Monitoring
- Regional Land Use and Planning

All the projects in this Proposal conform to these three overarching objectives.

The following table describes how the Proposition 84, Round 1 Implementation Priority Projects address the CABY IRWMP objectives.

TABLE 3-1 PROPOSAL GOALS & OBJECTIVES SUMMARY

Issue(s)	Objective(s)	Camptonville Water System Improvement	Placerville Waterline Replacement	El Dorado County Small Hydro	Water Efficiency, Water Quality and Supply	Wolf Creek Watershed	CABY Mercury Initiative	Meadow Restoration, Assessment and Prioritization
PROGRAMMATIC AREA: WATER SUPPLY								
GOAL: ENSURE ADEQUATE AND RELIABLE SUPPLY THAT CAN BE ADAPTED TO CLIMATE CHANGE AND CAN MEET THE NEEDS OF THE REGION								
Primary Issue: Conservation								
Conservation	<i>WS-1: Help water agencies to implement urban water conservation programs, including conveyance and delivery system leak detection and control, in at least five additional communities by 2020.</i>		⊙		⊙			
Primary Issue: Infrastructure								
Aging Infrastructure	<i>WS-2: Help regional water agencies to upgrade aging infrastructure associated with urban, rural, and agricultural water supply treatment and delivery by participating in the implementation of at least five site-specific projects and lining or piping at least ten miles of canal/ditches by 2020.</i>	⊙	⊙		⊙			
Interties	<i>WS-3: In order to allow for connectivity within and between delivery systems in the case of a catastrophic infrastructure failure, work with regional water agencies to complete three major strategic interties to allow for a back up supply and/or conduit to provide water for water treatment plants, urban and municipal drinking water supplies, and/or irrigation and agricultural water by 2017.</i>				⊙			
Water Storage	<i>WS-4: By 2020, facilitate discussion with at least one agency to assess the need and determine the economic and environmental feasibility of a new storage facility and alternatives accomplishing multiple benefits.</i>						⊙	

Table 3-1, cont.

Issue(s)	Objective(s)	Camptonville Water System Improvement	Placerville Waterline Replacement	El Dorado County Small Hydro	Water Efficiency, Water Quality and Supply	Wolf Creek Watershed	CABY Mercury Initiative	Meadow Restoration, Assessment and Prioritization
PROGRAMMATIC AREA: WATER QUALITY								
GOAL: ENSURE SUFFICIENT WATER QUALITY TO SUPPORT HEALTHY ECOSYSTEMS AND DEPENDENT ORGANISMS								
Primary Issue: Contamination								
Legacy Mining Toxins	<i>WQ-1: Work with stakeholders to annually select one abandoned mine land site and collaboratively work with the land owner/land manager to develop/implement/fund remediation of the site.</i>						⊙	
	<i>WQ-2: Work with stakeholders to remove 500 pounds of legacy mining contaminants by 2020.</i>						⊙	
Urban Run-off and Abandoned Mine Land Run-off	<i>WQ-3: Increase the number of water bodies that can achieve water quality objectives by working with affected parties to restore a natural balance to river systems via the implementation of at least 5 projects by 2020.</i>	⊙			⊙	⊙	⊙	
Sedimentation Management	<i>WQ-4: Encourage implementation of projects designed to restore natural sediment transport regime in at least three river reaches by 2020.</i>		⊙		⊙		⊙	
Primary Issue: Wastewater Management								
Wastewater Management	<i>WQ-5: CABY will work with regional agencies providing wastewater services (including small systems) to assess the level of preparedness and prevention measures in place for wastewater spills by convening at least two regional discussions on the topic and, by 2015, using the discussions and agency overflow reduction plans and sewer system master plans to create a short white paper identifying the major regional issues and strategies for managing these issues.</i>					⊙		

Table 3-1, cont.

Issue(s)	Objective(s)	Camptonville Water System Improvement	Placerville Waterline Replacement	El Dorado County Small Hydro	Water Efficiency, Water Quality and Supply	Wolf Creek Watershed	CABY Mercury Initiative	Meadow Restoration, Assessment and Prioritization
Primary Issue: Headwaters Protection								
Headwaters Protection	<i>WQ-6: By 2014, work with stakeholders to identify the watersheds that are the most critical for production of surface drinking water for the major urban areas in the CABY region and identify the major threats to those important watersheds (including wildland fire, development, insects and disease, climate change, or other threats).</i>						⊙	
	<i>WQ-7: Work with stakeholders in the affected areas to develop at least two projects annually that make the forests in these important watersheds more resilient to the identified threats (including removing structures, eradication of non-native invasive plants, decommission unneeded roads, revegetate stream banks, and/or improve the water-holding capacity of wetlands/riparian areas/meadows).</i>					⊙	⊙	⊙
	<i>WQ-8: Discuss with CABY stakeholders a watershed and water quality “credit trading program” enabling land managers and owners that discharge effluents into the same watershed and must comply with regulatory requirements to purchase credits and trade them in order to take advantage of the most economically efficient activities in the region to further compliance with water quality efforts; come to a conclusion regarding how to proceed on this issue by 2015.</i>							

Table 3-1, cont.

Issue(s)	Objective(s)	Camptonville Water System Improvement	Placerville Waterline Replacement	El Dorado County Small Hydro	Water Efficiency, Water Quality and Supply	Wolf Creek Watershed	CABY Mercury Initiative	Meadow Restoration, Assessment and Prioritization
Programmatic Area: Environment and Habitat								
GOAL: Preserve and Restore Watershed Health								
Primary Issue: Fisheries								
Fish Passage	<i>EH-1: Work with interested and affected stakeholders to make 15 additional miles of suitable spawning habitat accessible to anadromous fish by 2020</i>							
Aquatic Biota	<i>EH2: By 2015, identify and quantify at least three measures to improve aquatic habitat</i>							
Instream Flow	<i>EH-3: Assist CABY stakeholders in quantifying and securing water necessary for anadromy on the two major rivers and tributaries</i>							
Meadows	<i>EH-4: Support stakeholders in annual development, implementation and/or funding of five projects to maintain or enhance wet meadow complex function</i>							⊙
Fire and Fuels	<i>EH-5: Reduce risk of environmental and property damage by conducting fuels management on at least 10,000 acres</i>	⊙						
Primary Issue: Invasive Species								
Aquatic Invasive Species	<i>EH-6: Work with State of CA and others to implement an Aquatic Invasive Species prevention program</i>							
Terrestrial Invasive Species	<i>EH-7: Work with affected organizations to implement coordinated non-native invasive plant education, prevention and control actions to specifically treat 50 acres, provide at least one annual training and survey a minimum of 50 acres annually for prevention through rapid detection and treatment</i>					⊙		⊙

Table 3-1, cont.

Issue(s)	Objective(s)	Camptonville Water System Improvement	Placerville Waterline Replacement	El Dorado County Small Hydro	Water Efficiency, Water Quality and Supply	Wolf Creek Watershed	CABY Mercury Initiative	Meadow Restoration, Assessment and Prioritization
GOAL: ANTICIPATE CLIMATE CHANGE NEEDS AND BE PREPARED TO RESPOND ADAPTIVELY TO HUMAN AND ECOSYSTEM NEEDS								
Adaptation	<i>CC-1: By 2020, implement (or encourage the implementation of, as appropriate) the top three adaptive strategies coming out of the 2012 IRWMP update to help in making the CABY Region more climate resilient.</i>		⊙	⊙		⊙	⊙	⊙
Alternative Energy	<i>CC-2: Work with interested parties/agencies to increase alternative energy and energy efficiency, including small-scale hydropower, biomass, solar power, wind energy, and other clean energy options by implementing at least two projects by 2025.</i>			⊙				
Programmatic Area: Human-Landscape Interaction								
GOAL: MAINTAIN AND ENHANCE FUNCTIONING LANDSCAPES THAT PROVIDE SUSTAINABLE SERVICES FOR HUMANS								
Primary Issue: Native American Uses								
Native American Uses	<i>HL-2: Stakeholders value the participation of tribal entities; this objective may be developed through the Tribal Workgroup participants.</i>	⊙				⊙	⊙	⊙
Primary Issue: Flooding								
Flooding	<i>HL-3: Work with affected areas to implement flood management and/or reduction projects in Placerville, Nevada City, and Grass Valley that remove flood risk from at least 50% of the current FEMA inundation zone.</i>					⊙		
Primary Issue: Disadvantaged Communities								
Disadvantaged Communities	<i>HL-5: Work with DACs to develop high scoring projects.</i>	⊙				⊙		

Table 3-1, cont.

Issue(s)	Objective(s)	Camptonville Water System Improvement	Placerville Waterline Replacement	El Dorado County Small Hydro	Water Efficiency, Water Quality and Supply	Wolf Creek Watershed	CABY Mercury Initiative	Meadow Restoration, Assessment and Prioritization
Primary Issue: Recreation								
Recreation	<i>HL-7: Maintain and enhance the recreational experience in the CABY region: implement at least 6 multi-purpose projects by 2016 that include recreation as a consideration</i>							
Primary Issue: Hydropower								
Hydropower	<i>HL-7: Work with interested agencies to increase alternative energy generation, including small-scale hydropower projects and existing hydropower plant efficiency improvements by implementing at least two projects by 2015 and an additional two by 2020.</i>			⊙				
OVERARCHING OBJECTIVES								
Education and Outreach	<i>OV-1: Where possible, outreach and education will be integrated into all CABY projects and programs</i>	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Data Analysis and Monitoring	<i>OV-2: Share useable data and information across the region</i>	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Regional Planning and Land Use	<i>OV-3: Encourage all planning in the region to be completed in a coordinated fashion that ensures communication and shared solution for the benefit of the region.</i>	⊙	⊙	⊙	⊙	⊙	⊙	⊙

NEED AND PURPOSE

CABY is a collaborative planning effort that adopted an Integrated Regional Water Management Plan (IRWMP) in December 2006. Diverse stakeholder involvement was a priority from its inception, and today CABY comprises 42 organizations representing water districts, government agencies, and agricultural, tribal, environmental, and community groups. These members believe that cooperatively designing and vetting projects streamlines the planning process, thereby marshaling and maximizing resources and investments in project implementation.

The CABY region is made up of four watersheds—the Cosumnes, American, Bear, and Yuba-- which combine to form a major drainage area of the western slope of the Sierra Nevada range, from the range crest to the Central Valley. The CABY region contains vast forests and other natural, cultural and historic resources that support recreation, hydropower generation, tourism, agriculture, and species/habitats of localized and statewide significance. The collective streams, rivers, lakes, and reservoirs of these watersheds flow into the Sacramento River and are part of the Mountain Counties Area as described in the California Water Plan Update 2009 (DWR 2009), which extends from the southern tip of Lassen County to the northern part of Fresno County. Although the Mountain Counties Area makes up only 9.9 percent of the total land base and 2 percent of the total population in California, it contributes over 60 percent of the State’s domestic water supply (DWR 2009). As an example, Folsom Lake, which receives water entirely from the CABY watersheds, has a 2,780 total acre feet storage capacity yielding the largest single outflow in the Mountain Counties Area (DWR 2009).

It is clear that the future of California depends heavily on the management and quality of water supply and infrastructure within this relatively small region. The water management strategies and actions taken in these headwaters of California’s water supply affect much of the remainder of the State. However, despite the importance of the CABY region, the degraded state of its watersheds and watershed infrastructure has put its abundant benefits at great risk.

Since 1849, with the discovery of gold in the heart of the CABY region, the area has experienced extensive alteration of its natural systems as a result of intense human activity – rivers and creeks were dammed and diverted, mountain meadows were utilized for farming and grazing livestock, forests were managed for extraction, mining activities deposited thousands of pounds of elemental mercury and other heavy metals across the region, tribal resource management strategies were abandoned and Tribes disenfranchised, anadromous fisheries (once plentiful across all regional creeks and rivers) were largely extinguished.

The projects selected by CABY members to include in this proposal show their commitment to retaining and restoring the infrastructure, ecological health and resilience of this area so that we can continue to realize the benefits and services they provide — both within the region and to the rest of the state. By working closely with its stakeholders, CABY identified a suite of projects which best meet the need to restore the long term resiliency and adaptability of the region. The projects included in this current proposal demonstrate a clear balance between infrastructure and natural resource issues and all have a clear connection to the focus of

Headwaters Resiliency and Adaptability by:

- Protecting and restoring the headwaters of the region, which constitute a key element of the state’s water supply.
- Addressing the region’s most immediate needs including aging infrastructure and emergency preparedness.
- Ensuring sustainable local water supply and water quality within the Region and for downstream users without compromising the natural environment.
- Addressing far-reaching and long-term climate change affects with an intentional focus on adaptation.
- Developing model pilot projects that can be used throughout the region to ensure resilience in CABY’s headwater watersheds.
- Establishing methodologies to systematically restore rivers and meadows that were contaminated and degraded during the Gold Rush due to legacy land use practices.

Moreover, the projects chosen illustrate a determination of CABY’s diverse stakeholders, even in an environment of limited funding resources, to develop projects within all of the CABY programmatic areas that embrace the principles of Integrated Regional Water Management.

PROJECT IDENTIFICATION PROCESS

Overview

The 42-member CABY Planning Committee (PC) is made up of the 42-member organizations collectively known as CABY, with representatives from a wide cross section of interests. The PC meets four times per year and average attendance is high with the majority of stakeholders participating in each meeting. Seven years after formation, local support for CABY remains strong and the organization continues to grow every year, gaining roughly three new member agencies/entities per year with no attrition. In 2011-CABY staff carried out an extensive outreach campaign and gained 16 new members, mainly from small rural agencies representing Disadvantaged Communities across the northern half of the region. The fact that member water agencies have invested significant funding (over \$500,000 in cash contributions) and twice that amount of in-kind services by CABY members in CABY and priority projects since 2007 is a demonstration of substantive support for both the organization and its goals and programs.

In 2011 DWR awarded CABY funds to formally update its IRWM Plan, through Round 1 of the Proposition 84 Planning Grant cycle. As part of this formal update of the IRWMP, CABY members identified and submitted for consideration to the PC more than \$50 million worth of projects that were ready for implementation, and described many millions more in projects at varying degrees of readiness. While the total costs for these projects are far more than the funds available to the region through DWR Implementation Grant programs, CABY members have emphasized throughout the project development process that the projects submitted still

represent only a fraction of the total investment needed for water and watershed management in the CABY region.

Background

The CABY staff began working with targeted communities across the region in late-2011 to develop what CABY refers to as “Tier 1” projects. Tier 1 status refers to a level of project detail and “readiness to proceed” commensurate with the project review standards established by DWR and also projects which the CABY membership has deemed ready to proceed. The “readiness to proceed” status ensures that only projects which are actually fully developed, have been assessed against DWR Plan Review Standards and have a clear set of measurable outcomes will pursue funding through DWR grant applications, or other government or foundation grant funding entities.

In 2008 the CABY Proposition 50 Round 2 Implementation Grant application was developed using a process that selected projects based purely on their overall ranking/score. While this process did identify high priority projects, it also failed to address the more systematic, intentional, integrative and strategic aspects of project implementation, which CABY members felt the organization had been formed specifically to ensure. Following that experience, CABY members established a new process: every two years the Planning Committee establishes an organizing principal upon which the next two-years project development and integration efforts are focused. In the 09/10 timeframe that focus was disadvantaged communities, water conservation and drought preparedness. In the 2011/2012 timeframe, the focus was placed on recruitment, integration and development of projects that addressed Core Program Objectives. For 2012/2013, after reviewing more than a hundred projects covering a wide range of issues that were in various stages of development as a result of update activities associated with the Round 1 Planning Grant cycle, reviewing the updated Plan Goals and Objectives and Issues, and wide-ranging discussions with CABY members, the CABY PC voted to establish **Headwaters Resilience and Adaptability** as the project development focus. Further, this focus was adopted as the principle to guide project selection for funding in the DWR Proposition 84 Implementation Grants cycle, for which this proposal is being prepared.

Finally – CABY has developed and implemented an extensive project recruitment and integration process. Given the expansive geographic scope and the great number of stakeholders in the region, CABY employed a three-pronged strategy to recruit projects through: 1) individual meetings and interviews to identify or develop projects consistent with both the members’ internal priorities and the CABY IRWMP; 2) existing work groups to identify projects addressing priority or high profile issues within the region; and, 3) watershed- scale workshop sessions bringing together a diverse group of stakeholders to develop regionally focused, multi-objective, multi-stakeholder projects. This manifold approach to project recruitment proved successful in engaging existing CABY members, garnering new CABY members and in recruiting a far greater number of projects than in the past. It also resulted in a systematic update of the projects that had been included in the 2007 IRWMP and in the 2009 Update.

Selection Process for this Proposal

As a result of this successful outreach, CABY received more than 125 new projects by early 2012. The project team completed an initial project review and categorization to create multi-stakeholder, multi-benefit integrated projects that effectively address complex watershed management issues employing multiple Resource Management Strategies. The project development process was so highly integrated that most Tier 1, ready to proceed projects were integrated into multi-stakeholder, multi-objective projects. Therefore, in many programmatic areas, only one highly integrated project remained rather than a myriad of small self-serving and localized projects. In essence, the CABY group accomplished the task of project ranking through its detailed and exhaustive integration process. By definition, a single integrated project is the highest ranking project in its programmatic area.

In Fall 2012, the Planning Committee developed a process and approach to select projects for this round of DWR Proposition 84 funding. This process included development of guiding principles for project selection, identification of sponsor/proponent requirements for participating in the application and affirmation that the list of projects met with a wide complement of CABY's objectives. In December 2012, the CABY Coordinating Committee created draft Guiding Principles for project selection. The recommended principles were forwarded to the Planning Committee for confirmation in January 2013. At that time, the Planning Committee applied them for the first time to select projects for the Proposition 84 Implementation Grant package. The Guiding Principles are as follows:

Guiding Principles for Project Selection

- Projects must be relevant to the CABY IRWM Plan.
- Projects reflect a balance between natural resources, water supply efficiency and infrastructure to illustrate a truly integrated approach to regional water and watershed management.
- Where appropriate, multi-project packages should include a fire and fuels project component given its relationship to CABY's approach to Climate Change and the demonstrated high fire risk to the region.
- Preference will be given to projects demonstrating "Bang for the Buck" in relation to impact, integration, and number of objectives met.
- On balance, consideration should be given to projects reflecting direct benefits to disadvantaged communities and groups.
- All projects must be able to stand alone on their own merits and not be included in a package to be inclusive of all stakeholder groups.
- Projects selected for a package must have a story, reflecting an integrated narrative.

Application Qualifications

- Project sponsors must have the capacity to generate the required materials within a prescribed timeline and meet all deadlines.
- Project sponsors MUST have the expertise for the proposed projects, and must have the staff and capacity to accomplish the work plan, if funded.

- Projects selected should be ideally matched to the funding source.

In addition, the Planning Committee intentionally selected projects that could include the Sierra Native Alliance (SNA), a CABY member, as a project partner. The Sierra Native Alliance is a non-profit dedicated to empowering Native youth through education, cultural resources and environmental activities. Through their Native Youth Conservation Corps (NYCC) the SNA serves Native youth ages 16-24 from a variety of tribal backgrounds providing them with job training and internships working on restoration projects throughout the Sierra. Four of the projects included in this Proposal include the SNA NYCC as a partner. The projects are:

1. Camptonville Water System Improvement Project
2. Wolf Creek Watershed: Restoration, Stormwater Source Control and Flood Management
3. CABY Mercury and Sediment Initiative
4. Meadow Restoration, Assessment and Prioritization in the American, Bear and Yuba Watersheds.

Key components of the NYCC involvement in these CABY projects include:

- Workforce development for the implementation of on-the ground restoration projects including meadow restoration, fire fuel reduction, invasive plant removal, native plant re-vegetation and erosion control.
- Labor cost savings for project implementation
- Education and training for tribal youth including:
 - Acquiring tribal language skills associated with native plants, birds and fish
 - Learning native restoration techniques
 - Developing skills in outreach around conservation issues

The General Information tables for each project (in the Proposed Work section, below) describe in detail the work that will be complete by the assumed contract execution date of October 1, 2013.

The following table is a list of specific projects in this Proposal, including an abstract of each project, the current status in terms of percent completion of design, and implementing agencies:

TABLE 3-2 SUMMARY OF SPECIFIC PROJECTS

PROJECT	DESCRIPTION	
1 - Camptonville Water System Improvement Project	Abstract	<p>The project intends to solve critical water quality and supply needs for the Camptonville DAC. The project includes the retrofit of an existing water treatment plant, the construction of a new water storage tank and the development and institution of significantly improved operational procedures. The project will enable treatment plant to meet water quality standards, improve storage capacity, evaluate and modify water infrastructure to improve system efficiency, increase knowledge of the ground water system, manage creek flows to benefit the ecosystem, and optimize efficient use, conservation and recycling of water resources through customer outreach and education.</p>
	Status	<p>30% Design complete. CEQA and other environmental documentation will be completed as part of the project as is allowed for Disadvantaged Communities.</p>
	Lead Agency	<p>Camptonville Community Services District (CCSD) Partners: Camptonville Community Partnership, Sierra Native Alliance</p>
2 - City of Placerville Waterline Replacement	Abstract	<p>This project will design, permit and construct 2,000 feet of 8-inch and 12-inch pipeline to replace aging and leaking pipeline in the City of Placerville’s water system. The waterlines to be replaced are the City’s highest priority pipeline improvements, and contribute significantly to the 20 percent of water that is unaccounted for within the City’s distribution system. Through this Project the City is improving water supply reliability by improving water system efficiency thus decreasing source water and energy demand and promoting overall headwater sustainability.</p>
	Status	<p>95% design complete: A CEQA Notice of Exemption, as a Statutory Exemption under Public Resources Code, Section 21080.21, for the Project was filed with the El Dorado County Clerk on June 26, 2012 (Attached)</p>
	Lead Agency	<p>City of Placerville</p>

3 - El Dorado County Small Hydro Development Program	Abstract	EID's Tank 7 In-conduit Hydroelectric Project is one of the most promising projects prioritized in a 2007 study of hydroelectric opportunities in El Dorado County. This in-conduit project substitutes a pump acting as a turbine in place of an existing pressure reducing station. The energy that is normally released by the PRS would be used to generate hydropower that is sent to the grid through a PG&E interconnection. The water used to generate the hydropower is from an existing water right and does not result in any change in water diversions. It will increase the amount of energy available to the power grid, reduce greenhouse gas emission and decrease natural gas consumption, while still providing consistent and reliable water flows during all high demand events.
	Status	30% Design Complete: The California Environmental Quality Act (CEQA) includes a "Small Hydroelectric Categorical Exemption" (CEQA Guidelines Section 15328) for projects at existing facilities that meet certain criteria (e.g., projects with capacities of 5 MW or less and that do not affect in stream flows or special-status species). The Project meets these criteria and therefore, EID filed a Notice of Exemption with the El Dorado County Clerk on January 6, 2010 (attached).
	Lead Agency	El Dorado Irrigation District
4 - Water Efficiency, Water Quality, and Supply Reliability in the CABY Region	Abstract	The Nevada Irrigation District (NID) and Placer County Water Agency (PCWA) both serve raw and treated water to homes, farms and businesses in Nevada and Placer counties in the foothills of Northern California's Sierra Nevada mountains. Both agencies rely on canals, ditches, flumes and reservoirs, many of which were built in the Gold Rush era and which need updating and repair, in order to attain the CABY IRWM's water supply, water quality and water efficiency goals. This project will install critically needed interties between agencies' systems to ensure emergency back up water supply and fire flows, line 4 miles of canals to conserve water and improve water quality and install gaging stations to better monitor water losses and leakages. NID and PCWA will also collaborate in a coordinated water conservation education effort to customers.
	Status	Interties: 40% design completed. NID and PCWA anticipate preparation of a mitigated negative declaration to comply with CEQA for the intertie projects to be completed by February 2014. Depending on the acreage and any soil disturbance, a Stormwater Pollution Prevention Plan or a

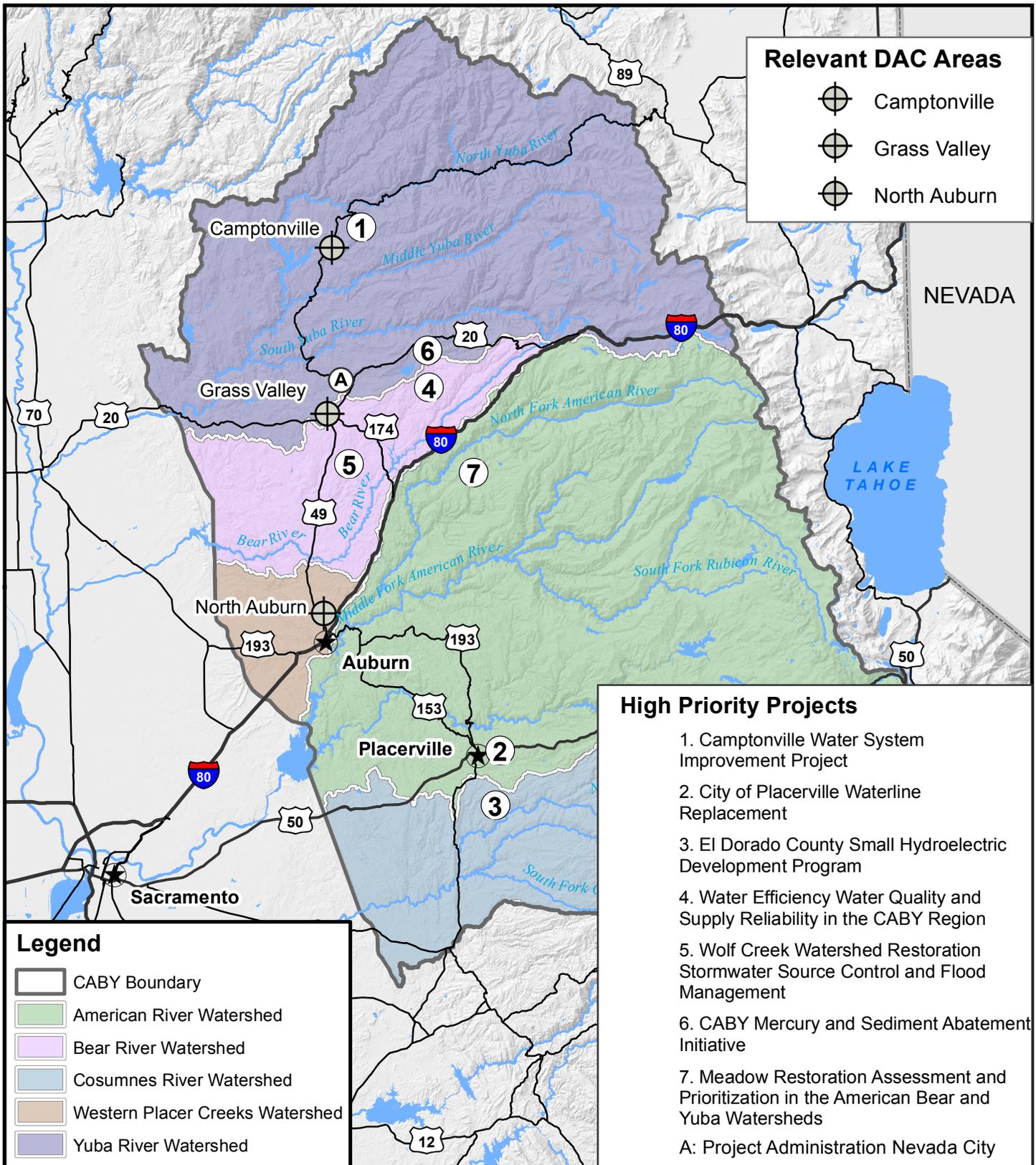
		<p>Water Pollution Control Plan may be prepared for the project.</p> <p>Canal Lining: 10% design complete: PCWA and NID anticipate filing a categorical exemption from CEQA in December 2014.</p> <p>Gaging Stations: 10% design complete: NID will comply with CEQA by preparing and filing a Notice (or Notices) of Categorical Exemption for the new gaging stations in August 2013. No permits will be required.</p>
	Lead Agency	Nevada Irrigation District and Placer County Water Agency
5 - Wolf Creek Watershed: Restoration, Stormwater Source Control and Flood Management	Abstract	The overall goal of this project is to improve the hydrologic and ecologic function of Peabody Creek, while addressing local flooding issues, incorporating green infrastructure stormwater management elements, and actively engaging local community members in stewardship of the creek.
	Status	Preliminary Design Complete: Once the project is funded, the City of Grass Valley will lead permitting as part of this project for both the installation of pervious concrete and restoration of the Upper Floodplain (see site map), including, CEQA, 401,404, streambed alteration, and encroachment permits as is allowed for Disadvantaged Communities. The City of Grass Valley was the lead agency for CEQA in Phase I, which was a Categorical Exemption (Class 33 Small Habitat Restoration a-d), and anticipates a similar CEQA finding for this phase.
	Lead Agency	American Rivers. Partners: City of Grass Valley, Wolf Creek Community Alliance, Sierra Native Alliance

<p>6 - CABY Mercury and Sediment Abatement Initiative</p>	<p>Abstract</p>	<p>An estimated 26 million pounds of mercury were used in the Sierra Nevada during the California Gold Rush. Of these, an estimated 10 million pounds were lost to the environment in placer or hydraulic mining operations and another 3 million pounds were lost from hard rock mining. The CABY region in particular was the scene of the most intensive mining and most extensive mercury pollution in California. The seven distinct projects included in this Proposal (five remediation projects, one data collection project, and one coordination project) will implement an integrated approach to address the legacy of abandoned mines in the watershed of the CABY region, and provide an example for other west-slope Sierra IRWMPs that are facing similar issues.</p>
	<p>Status</p>	<p>Relief Hill Hydraulic Mine Remediation – 90% Pre-final Design. Environmental permitting requirements have been completed by the Forest Service under CERCLA, therefore CEQA and NEPA are not required.</p> <p>Malakoff Diggins Hydraulic Mine Feasibility Study – 30% Concept Design: Environmental permitting (CEQA, NEPA) is not required for certain of the following activities (Work Plan subtasks 2.1-2.6), because they constitute the planning and design phase of the project. Work Plan subtasks 2.7 and 2.8 will undergo CEQA review after the pilot/prototype phase of the project is completed and the management activity can be described in full, at the completion of this project.</p> <p>Omega Diggins and Scotchman Creek Hydraulic Mine Assessment – 10% Design. CEQA N/A</p> <p>Spring Creek and Shady Creek Mining Impacts Assessment – 10% Design. CEQA N/A</p> <p>Combie Reservoir Mercury Treatment Facility – 100% Final Design. DWR CEQA, Mitigated Negative Declaration, Notice of Determination 9-25-2009, has been completed for the Combie Project. The initial project analysis and CEQA clearance were completed with the assistance of a 2008 Sierra Nevada Conservancy grant in the amount of \$100,000 and with NID Watershed Reserve funds. The process to acquire the permits listed below began in November 2009 and all permits have been obtained: California Department of Fish and Game, Long-term Stream</p>

		<p>Alteration Agreement for reservoir maintenance, submitted November 4, 2010 ; California Regional Water Quality Control Board, Central Valley Region, Waste Discharge Requirements under Section 402 National Pollution Discharge Elimination System Permit, and Water Quality Certification under Section 401 of the Clean Water Act, submitted October 28, 2010 : U.S. Army Corps of Engineers, Nationwide Permit 16 (SPK #2009-00913), Return Water from Upland Contained Disposal Areas, received February 10, 2011.</p> <p>Mercury Contaminated Fish: Data Collection and Public Education – 100% Final Design. CEQA N/A</p> <p>CABY Mercury Forum – 100% Final Design. CEQA N/A</p>
	<p>Lead Agency</p>	<p>The Sierra Fund. Partners: Tahoe National Forest, South Yuba River Citizens League, Yuba Watershed Institute, Bureau of Land Management, Nevada Irrigation District, Sierra Native Alliance</p>

7 - Meadow Restoration, Assessment and Prioritization in the American, Bear and Yuba Watersheds	Abstract	<p>This project addresses the problems of degraded meadows in the CABY Region. Project partners will improve the ecological integrity of six meadows and will assess and prioritize remediation projects in more than 50 additional meadows. Restoration activities will address the full range of impacts facing Sierra meadows and will establish a foundation for future restoration activities through a watershed-scale assessment and prioritization. The project represents a coordinated program to maintain and protect and improve meadows across the CABY region.</p>
	Status	<p>Rucker, Blackjack, Butcher, Bear and Gold Hill Meadow; completed design.</p> <p>Rucker, Blackjack, Butcher, and Bear Meadows: All planning and environmental permits complete.</p> <p>Deer Meadow: Will not require environmental compliance at this design stage.</p> <p>Eliot Meadow: NEPA environmental assessment will be 90% complete by October 2013. Expect a CEQA categorical exemption for Elliot Meadow (per discussions and prior permitting with Central Valley Regional Water Quality Control Board).</p> <p>Gold Hill Meadow: CEQA environmental work (categorical exemption) complete. A California Department of Fish and Wildlife Streambed Notification Permit is in process and an Army Corps of Engineers Permit is also in process.</p>
	Lead Agency	<p>South Yuba River Citizens League. Partners American Rivers, United States Forest Service, American River Conservancy, Yuba Watershed Institute, Sierra Native Alliance</p>

A – Project Administration	Abstract	This project is the administrative function coordinating all activities of the Proposal. The Sierra Fund will provide vital and required grant activities for the overall Proposal and contract with DWR including: project administration, financial oversight and controls, labor compliance, project coordination, field oversight and project reporting.
	Status	Ready to go at time of grant award.
	Lead Agency	The Sierra Fund.



Cosumnes, American, Bear & Yuba River
Integrated Regional Water Management

SYNERGIES AND LINKAGES AMONG PROJECTS – HOW PROJECTS COLLECTIVELY IMPLEMENT THE CABY IRWM PROPOSAL

Since the 1970's, agencies, organizations and entities across the region have struggled to merge the priorities of serving the human population and its needs with the restoration and enhancement of watershed lands to functionality and productivity. The CABY group currently sits at the nexus of these two challenging goals – maximizing the sustainability of the natural resource and watershed systems (which both produce and need the water of the region) with the human needs and infrastructure both in-region and downstream. At this point, some of these systems are so intertwined that what is good for infrastructure is good for the watershed lands and vice versa. So, the focus on **Resiliency and Adaptability** looks both backward – at rectifying damage done in the past – and forward towards addressing issues of climate change and increasing human demands and use patterns.

With the advent of climate change as a regional issue (largely since the mid-1990's), the potential impacts of climate change and variability in the region have been the subject of much concern and, at times, controversy. Both water agencies and organizations with a focus on natural systems have increasingly been in agreement that any resource planning in the area (including infrastructure operational flexibility) must focus not only on how the system used to function but also on how the system is likely to function in the future. With such an intertwined system of water movement and delivery and a complex interaction of natural system management, the future holds a high degree of complexity if the fluctuations in precipitation (in terms of timing, amount and type) are to be accommodated by both the human and natural systems.

The purpose of the CABY IRWMP is to create a flexible and inclusive regional framework to better integrate local, regional and statewide water management efforts. The framework for the CABY IRWMP ensures that locally derived, solution-oriented actions are coordinated at the regional level to collectively address the cumulative impacts of past actions and to ensure the resiliency of the State's important headwaters. Early in the project selection process for this Proposal, a determination was made that the project suite would need to include projects that benefited both natural and infrastructure systems – as adaptability and resiliency for both systems are integral to the long-term sustainability of water supplies for the region and beyond.

Synergies and Linkages between Projects

The **Headwaters Resilience and Adaptability Program** projects included in this Proposal represent a complete spectrum of issues and topics, which in the aggregate, address both infrastructure and natural resource issues identified in the IRWMP. Infrastructure projects were selected that address a small rural DAC, an incorporated historic city and a pilot project to demonstrate the functionality and benefits of small hydroelectric power generation. For natural resources the project selected address legacy mining impacts, headwaters restoration and utilization of green infrastructure to prevent localized flooding while improving habitat. Further,

the CABY PC specifically directed the workgroups and committees charged with developing this Proposal to consider synergies and linkages between and within projects using the following considerations:

- **Selection of projects at multiple elevations** thus spanning the full range of CABY habitats and communities, including:
 - The Wolf Creek Watershed: Restoration, Stormwater Source Control, and Flood Management project and
 - The Meadow Restoration, Assessment and Prioritization in the American, Bear and Yuba Watersheds project
- **A mix of localized projects that address clear single-location needs with projects that have a regional impact** including:
 - The Camptonville Water System Improvement Project,
 - The Water Efficiency, Water Quality and Supply Reliability in the CABY Region Project and the Placerville Waterline Replacement Project.
- **Inclusion of pilot, demonstration or model projects whose benefits can be expanded through implementation of similar projects across the region** including:
 - The CABY Mercury and Sediment Abatement Initiative, which provides demonstrated methodologies for mercury remediation which can be exported across the region and the entire historic mining regions of the Sierra Nevada
 - The El Dorado County Small Hydroelectric Development Project which creates a local model for installation of small scale hydrogenating facilities on existing infrastructure in this topographically rich region.
 - Additional examples are the Wolf Creek Watershed: Restoration, Stormwater Source Control and Flood Management and Camptonville Water System Improvement Projects which will both create methodologies, designs and installation programs which can be exported to DACs and other communities across the region.
- **Siting of projects across all of the primary CABY watersheds** as accomplished by the spread of projects between the Cosumnes, American, Bear and Yuba watersheds within this Proposal.
- **Projects that directly address the resiliency of natural and infrastructure systems -** both individually and collectively including:
 - Individually: The Wolf Creek Watershed: Restoration, Stormwater Source Control, and Flood Management project or the City of Placerville Waterline Replacement project
 - The joining of multiple projects with a regional impacts: The CABY Mercury and Sediment Abatement Initiative and the Water Efficiency, Water Quality and Supply Reliability in the CABY Region project

- **Inclusion of projects which result in direct water conservation and/or use efficiencies** including:
 - The Water Efficiency, Water Quality and Supply Reliability in the CABY Region project,
 - The Meadow Restoration, Assessment and Prioritization in the American, Bear and Yuba Watersheds project and
 - The Camptonville Water System Improvement Project.
- **Creating implementation actions that represent adaptive management options in response to climate change** including:
 - The El Dorado County Small Hydroelectric Development Project
 - The Water Efficiency, Water Quality and Supply Reliability in the CABY Region and
 - The Meadow Restoration, Assessment and Prioritization in the American, Bear and Yuba Watersheds
- **Pairing projects that create synergies of impact internally and between projects** including:
 - The CABY Mercury and Sediment Abatement Initiative which will both remove elemental mercury and create a proven strategy for creating additional storage in regional impoundments by allowing for the removal of contaminated sediments which displace significant storage capacity, paired with the Meadow Restoration, Assessment and Prioritization in the American, Bear and Yuba Watersheds project which will augment flows to these impoundments;
 - The El Dorado County Small Hydroelectric Development Project and the Water Efficiency, Water Quality and Supply Reliability in the CABY Region project which collectively address GHG emissions, water loss and multiple or adaptive uses of existing infrastructure; and
 - The Water Efficiency, Water Quality and Supply Reliability in the CABY Region project and the Meadow Restoration, Assessment and Prioritization in the American, Bear and Yuba Watersheds, both of which augment water supplies, increase green/infrastructure conservation and provide adaptive management strategies that augment the outcomes of each individual set of projects.
- **Balancing infrastructure and natural resource projects within each implementation package**, as accomplished by this Proposal which includes four infrastructure projects, one joint infrastructure and habitat improvement project and two natural resource projects – all of which have collateral benefits for both types of project.
- **Creating a balance of project sponsors across all stakeholder groups, including DAC, governmental agencies and non-profit organizations** as is accomplished through this project suite which not only has a mix of primary sponsors but which also includes a mix

of project partners within most of the projects (as a result of CABY's aggressive integration strategy).

All of the projects in this Proposal have been developed using the collaborative process described above. The following project sections each contain:

1. Project Goals and Objectives
2. Project Purpose and Need
3. List of elements within larger projects
4. Integrated elements of the project
5. A project map (as well as site maps for some projects)
6. A description of completed or expected completed work prior to October 1, 2013
7. A brief discussion of relevant existing data and studies
8. A section describing project timing and phasing and whether the project can stand alone.

Please note: The second part of this Attachment (Proposed Work) includes a Work Plan for overarching Project Administration tasks to be performed by the Applicant. This Work Plan correlates directly to the tasks identified in the Project Administration Budget and Project Administration Schedule. Project Administration has been separated out in this way following instructions at the Implementation Applicant Workshop on 2/14/2013 and discussions with DWR staff.