Attachment 9: Program Preferences

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Program Preferences

Overview

The purpose of this attachment is to describe how implementation of the projects included in this Proposal will meet specific Program Preferences, as referenced in Section II.F of the *Proposition 84 and 1E IRWM Program Guidelines* (DWR, November 2012). This Proposal is focused on meeting two of the primary Program Preferences: addressing long-term drought preparedness, and addressing critical water supply or water quality needs of disadvantaged communities (DACs) within the region. Of the three projects presented herein, two of the projects improve drought preparedness, both of which directly address DAC water needs. As discussed in more detail in Attachment 12 – Disadvantaged Community Assistance, the implementation of the Lake Camanche Lateral Replacement Project – Phase 2 and the Camanche Area Regional Water Supply Project – Phase 1 will address water supply reliability and water quality within the DACs of Lake Camanche Village and Camanche North Shore.

In addition to the Program Preferences fulfilled by the projects herein, many of the Statewide Priorities listed in Table 1 of the *Guidelines* are also addressed by this Proposal. Specific Program Preferences and Statewide Priorities are discussed in

more detail in the following sections. The projects included in the Proposal are briefly summarized in Table 9-1.

Table 9-1: Projects Included in the Mokelumne/Amador/Calaveras Proposition 84 Round 2 Implementation Grant Proposal

Project (Implementing Agency)	Abstract
Lake Camanche Lateral Replacement Project – Phase 2 (Amador Water Agency)	Phase 2 of the Lateral Replacement Project consists of replacing 200 of the polyethylene service laterals in the Lake Camanche Water Improvement District No. 7 (WID#7) water system to reduce water system losses and prevent leakage and failures.
Camanche Area Regional Water Supply Project – Phase 1 (East Bay Municipal Utility District)	Phase 1 will install a 12-inch diameter pipeline from the Mokelumne Aqueduct to a new 0.5 million gallon per day (mgd) regional surface water treatment plant (WTP), as well as an 8-inch diameter treated water pipeline to deliver treated water to Camanche South and North Shores. The project will also include an intertie to Lake Camanche Village to serve as an alternative supply in any instance where existing groundwater supply is unavailable to serve Lake Camanche Village, and to allow for implementation of Phase 2 which consists of a WTP expansion and delivery of treated water to Lake Camanche Village. Finally, Phase 1 of CARWSP includes the Vintage Home Fixture Retrofit, a series of water conservation measures for Camanche South and North Shore Recreation Areas and Lake Camanche Village.
Ponderosa Way Restoration Project – Phase 1 (Calaveras County)	In order to control soil erosion and siltation from Ponderosa Way into Alabama Gulch, Dutchman Gulch, and the Mokelumne River, the road will be restored and a heavy duty gate near Highway 26 will be installed to control traffic during winter months. Phase 1 of the project will also allow for watershed access to CAL FIRE and BLM for fire prevention and suppression and to the general public for recreation.

Program Preferences

Table 9-2 shows which Program Preferences this Proposal will contribute to meeting. Each of the Program Preferences that will be met is discussed in greater detail in the following sections.

Table 9-2: Program Preferences Met by Proposal

Program Preference	Projects included in Proposal			Certainty	Breadth
	Lake Camanche Lateral Replacement Project – Phase 2	Camanche Area Regional Water Supply Project - Phase 1	Ponderosa Way Restoration Project – Phase 1		
Include Regional Projects or Programs	✓	✓	✓	High	Local, Regional
Integrate Water Management Programs within a hydrologic region	✓	✓	✓	High	Local, Regional
Effectively resolve significant water-related conflicts within or between regions		✓		High	Local, Regional
Contribute to attainment of CALFED Bay-Delta Program objectives			✓	High	Local, Regional, Statewide
Address critical water supply/quality needs of DACs	✓	✓		High	Local
Integrate water management with land use planning		✓	✓	High	Local, Regional
SWFM projects that provide multiple benefits and are not receiving funding	Not Applicable				
Address Statewide Priorities					
Drought Preparedness	✓	✓		High	Local, Regional
Use and Reuse Water More Efficiently	✓	✓		High	Local
Climate Change Response Actions	✓	✓	✓	Moderate to High	Local, Regional
Expand Environmental Stewardship	✓	✓	✓	High	Local, Regional
Practice Integrated Flood Management			✓	Moderate to High	Local
Protect Surface Water and Groundwater Quality	✓	✓	✓	High	Local, Regional
Improve Tribal Water and Natural Resources			✓	High	Local
Ensure Equitable Distribution of Benefits	✓	✓	✓	High	Local

Program Preference: Include Regional Projects or Programs

Per Section II.F of the *Proposition 84 and 1E IRWM Program Guidelines*, preference is given to Proposals that include regional projects or programs. As described in the California Water Code, *"Regional projects or programs means projects or programs identified in an integrated regional water management plan that accomplish any of the following:*

(a) Reduce water demand through agricultural and urban water use efficiency.

(b) Increase water supplies for any beneficial use through the use of any of the following, or other, means: 1- Groundwater storage and conjunctive water management. 2 - Desalination. 3 - Precipitation enhancement. 4 - Water recycling. 5 - Regional and local surface storage. 6 - Water-use efficiency. 7 - Stormwater management.

(c) Improve operational efficiency and water supply reliability, including conveyance facilities, system reoperation, and water transfers.

(d) Improve water quality, including drinking water treatment and distribution, groundwater and aquifer remediation, matching water quality to water use, wastewater treatment, water pollution prevention, and management of urban and agricultural runoff.

(e) Improve resource stewardship, including agricultural lands stewardship, ecosystem restoration, flood plain management, recharge area protection, urban land use management, groundwater management, water-dependent recreation, fishery restoration, including fish passage improvement, and watershed management.

(f) Improve flood management through structural and nonstructural means, or by any other means. (CWC §10537)"

All of the projects contained in this Prop 84 Round 2 Implementation Grant Proposal address this program preference, as each is a regional project. Therefore, there is a high degree of certainty that this preference will be addressed at a local and regional level. The Lake Camanche Lateral Replacement Project – Phase 2 improves operational efficiency and water supply reliability for the disadvantaged community of Lake Camanche Village by replacing leaking laterals. CARWSP – Phase I improves operational efficiency and water supply reliability through the implementation of a new water treatment plant (WTP) and associated conveyance facilities. It also improves water quality for the Camanche North and South Shore users which currently rely upon groundwater that is highly unreliable and of poor water quality. Phase 1 of CARWSP includes the Vintage Home Fixture Retrofit component consisting of the implementation of water conserving fixtures including toilets and showerheads in the Camanche North and South Shore Recreation Areas (served by EBMUD) and Lake Camanche Village (served by AWA). The installation of water conserving fixtures in these service areas will reduce water demand through urban water use efficiency measures. Additionally, CARWSP, once fully implemented, will benefit numerous areas within the MAC IRWM planning region including Camanche North and South Shores served by EBMUD, Lake Camanche Village served by AWA, and Wallace served by CCWD. Lastly, the Ponderosa Way Restoration Project – Phase 1 is a regional project that will improve resource stewardship by opening access to the Mokelumne Canyon and River, improving water-dependent recreation and by reducing erosion and siltation into the North Fork

Mokelumne River through watershed management. There is a high degree of certainty that this program preference will be addressed at the local and regional levels.

Program Preference: Effectively Integrate Water Management Programs or Projects within a Hydrologic Region Identified in the CWP

The projects included in this Proposal effectively integrate water management programs as identified in the 2009 California Water Plan (CWP) Update within the San Joaquin Hydrologic Region. Specifically, the projects integrate resource management strategies (RMS). As described in the CWP Update, an RMS is a project, program, or policy that helps local agencies and governments manage their water and related resources. A wide range of RMS are required to achieve the MAC Region's goals and objectives identified in Section 3.1 of the 2013 MAC Plan Update. Recognizing this, the three projects included in this Proposal were chosen not only because they contribute to the goals and objectives described in the MAC Plan Update, but also because they integrate multiple RMS described in the 2009 CWP Update. The RMS the projects integrate are as follows.

- *Urban Water Use Efficiency:* the Vintage Home Fixture Retrofit program included in CARWSP – Phase 1 would improve urban water use efficiency in the CANS, CASS, and Lake Camanche Village service areas by replacing non-conserving showerheads and toilets with low-flow fixtures.
- *Conveyance – Regional / Local:* CARWSP – Phase 1 includes the conveyance system to deliver Mokelumne Aqueduct supplies from the regional WTP to the EBMUD service areas surrounding Lake Camanche, improving regional conveyance. The Lake Camanche Village Lateral Replacement Project – Phase 2 will improve water supply reliability by reducing water losses and replacing aging infrastructure of the Lake Camanche Village water system.
- *Conjunctive Management and Groundwater Storage:* When fully implemented, CARWSP would be managed conjunctively by providing treated surface water to Camanche North and South Shores, Lake Camanche Village, and Wallace, and meeting peak demands and providing a backup emergency supply to Lake Camanche Village and Wallace using groundwater.
- *Surface Storage – Regional / Local:* Phases 2 and 3 of CARWSP include two local storage facilities; one for the Lake Camanche Village area and one for the Wallace area, to provide pressure regulation and fire protection. The Camanche Area Laterals Replacement Project – Phase 2 optimizes existing storage by reducing system losses and therefore leaving additional supply in storage.
- *Drinking Water Treatment and Distribution:* the regional WTP would treat surface water diverted from the Mokelumne Aqueduct which would allow for distribution of a high quality, reliable water supply to the CARWSP service areas. The Camanche Area Laterals Replacement Project – Phase 2 upgrades existing distribution system infrastructure.
- *Economic Incentives (Loans, Grants, Water Pricing):* the Vintage Home Fixture Retrofit portion of CARWSP – Phase 1 would provide rebates for showerhead replacement and subsidize replacement of toilets for residents in the Camanche North and South

Shore, and Lake Camanche Village service areas still relying on non-conserving fixtures. Additionally, grant funding is being pursued for all three projects.

- *Pollution Prevention:* the Ponderosa Way Restoration Project will reduce erosion and siltation into the Mokelumne River. CARWSP - Phase 1 will reduce water treatment-related pollution discharges. The Camanche Area Laterals Replacement Project – Phase 2 will reduce unintended discharge of chlorinated water to receiving waters by reducing system losses.
- *Land Use Planning and Management:* the Ponderosa Way Restoration Project will allow for use of the River and trails as originally intended through land use planning efforts. Additionally, CARWSP – Phase 1 will provide a reliable water supply for areas approved in land use management documents.
- *Water-dependent Recreation:* Implementing the Ponderosa Way Restoration Project will provide public access to an 8.5-mile whitewater run on the North Fork Mokelumne from Ponderosa Way down to Middle Bar. It will also provide access to the river to fish, swim, picnic, hike, float and pan, as well as access to a developing trail system in the Mokelumne Canyon- Mokelumne Coast to Crest Trail, Butterfield Trail and the Mokelumne Canal Trail.
- *Watershed Management*: the Ponderosa Way Restoration Project improves the Mokelumne River watershed by better managing runoff, erosion and siltation into the North Fork Mokelumne River.

There is a high degree of certainty that these RMS will be achieved and therefore this Program Preference will be addressed. The breadth at which the Program Preference will be met is at the local and regional level.

Program Preference: Effectively Resolve Significant Water-related Conflicts

CARWSP is the culmination of over two decades of planning and cooperation among EBMUD, CCWD, and AWA to achieve a mutually agreeable solution to address critical water supply and quality issues in the Lake Camanche area. The full project will help all three entities meet existing mandates for fire flow requirements, provide high quality water to customers that are currently threatened by unreliable supplies, and meet secondary maximum contaminant levels (MCLs) for both iron and manganese, which are currently not being met in some areas.

Program Preference: Contribute to attainment of CALFED Bay-Delta Program objectives

The Ponderosa Way Restoration Project – Phase 1 will reduce sediment loading to the Mokelumne River upstream of the Delta, and will therefore assist in achieving the CALFED Bay-Delta water quality program objective. There is a high degree of certainty that loading will be reduced and therefore this Program Preference will be addressed. The breadth to which the Program Preference will be met is at the local, regional, and statewide levels.

Program Preference: Address Critical Water Supply or Water Quality Needs of DACs

This Proposal for the MAC Region includes two projects that will directly address critical water supply and quality needs of DACs: AWA's Lake Camanche Lateral Replacement

Project - Phase 2 (for the DAC of Lake Camanche Village) and CARWSP – Phase 1(for the DACs of Camanche North Shore and Lake Camanche Village). These projects lie within the DACs discussed herein and directly benefit these communities (See Attachment 10 – DAC Assistance for more detail).

Lake Camanche Village has aging, unreliable water infrastructure delivering their water supplies. The Lake Camanche Village water system has high water losses and severe operating restraints throughout its water system, owned and operated by AWA. The service laterals are aging and they regularly leak and fail, causing significant damage to other infrastructure and substantial water losses. Implementation of the Lake Camanche Lateral Replacement Project – Phase 2 would improve the reliability of the portion of the Amador Water System serving Lake Camanche Village, minimize system water losses, reduce required maintenance, and minimize lost revenue.

CARWSP – Phase 1 will deliver high quality, treated surface water to the DAC of Camanche North Shore recreation area, as well as Camanche South Shore. The primary source of water supply in the Camanche area is groundwater. Groundwater quantity and quality in the area vary considerably among well sites due to the region's geology and the small and unpredictable yields of the groundwater system that typifies this area of the Sierra foothills. Located on the eastern fringe of the San Joaquin Valley Groundwater Basin, the groundwater resources in the Camanche area are associated with the fractured rock systems typically found in the foothills as well as the alluvial systems characteristic of the San Joaquin Valley geology to the west. Over the years, groundwater has proven to be an unreliable and often unsuitable water supply source for the Camanche area. In addition to the highly variable quantities of available groundwater, Camanche area groundwater quality has also been a chronic issue. Based on quarterly sampling in monitoring wells north of Lake Camanche in Amador County, groundwater iron concentrations are much greater than the secondary MCL of 300 µg/L, reaching concentrations as high as 7,052 µg/L. Additionally, total manganese concentrations in monitoring wells are greater than the secondary MCL of 50 µg/L, reaching concentrations as high as 329 µg/L. Because of these impaired groundwater quantity and quality conditions EBMUD has not been able to provide a high quality, reliable water supply to the Camanche area. CARWSP will also provide economic incentives to the Lake Camanche Village and Camanche north Shore Recreation Areas to reduce demands, improving supply reliability.

If these projects are implemented, there is a High certainty that that this Program Preference will be met at the local level.

Program Preference: Integrate Water Management with Land Use Planning

Two of the three projects included in this Proposal will contribute to integrating water management with land use planning. The Ponderosa Way Restoration Project – Phase 1 will restore Ponderosa Way to reduce erosion and siltation into the Mokelumne River, providing water quality improvements in the River, while also allowing Calaveras County to fulfill General Plan goals related to public recreation and access to remote areas within the watershed for fire protection. Calaveras County, the lead agency for the project is a land use

planning entity that has participated in the MAC IRWM planning process and will continue to do so throughout implementation of the Ponderosa Way Restoration Project. There is a high degree of certainty that this program preference will be addressed at the local and regional levels.

The CARWSP – Phase 1 project provides emergency surface water supply to the Lake Camanche Village community located in Amador County. When Amador County approved the Lake Camanche Village, the water supply for the area was expected to be groundwater with surface water to serve as an alternative supply in the event that unproven groundwater resources were insufficient to meet the community's needs. As documented in this proposal the groundwater supply for Lake Camanche Village is unreliable and thus the CARWSP project provides the alternative supply that was foreseen as necessary when Amador County approved the Lake Camanche Village project.

Program Preference: Address Statewide Priorities

The Statewide Priorities that the Proposal addresses are described in the following sections. These Statewide Priorities are met by at least one project, but in most cases a combination of the projects. The manner in which these are met is discussed in the following sections.

Drought Preparedness

Two of the three projects included in this Proposal will contribute to drought preparedness for the MAC IRWM Region. Specifically, when the Lake Camanche Lateral Replacement Project – Phase 2 and CARWSP – Phase 1 are implemented, the Statewide Priority will be met on a local and regional basis, increasing drought preparedness and increasing water supply reliability for the AWA and EBMUD service areas, including Lake Camanche Village, Camanche North Shore, and Camanche South Shore, as well as other portions of AWA and EBMUD's service areas by contributing to sustainable water supply and improving overall water system reliability, year-round and during water shortages.

The Lake Camanche Lateral Replacement Project – Phase 2 consists of replacing aged infrastructure, reducing water losses and increasing or restoring water system operational efficiency. Currently, the AWA water system in the Lake Camanche Village area has high volumes of water loss. By improving the infrastructure and reducing leakage, AWA is promoting water conservation, and improving efficiencies. CARWSP – Phase 1 includes the Vintage Home Fixture Retrofit that will contribute to water savings in the Camanche North and South Shore recreation areas and Lake Camanche Village through the installation of low-flow showerheads and toilets. At all times, but especially during a drought, it is important that water not be wasted and that water be efficiently used to meet the needs of the Region. With the implementation of these projects, this Statewide Priority will be met with high degree certainty at a local and regional level.

Use and Reuse Water More Efficiently

Similar to the Drought Preparedness Statewide Priority, the Lake Camanche Lateral Replacement Project – Phase 2 and CARWSP – Phase 1 help contribute to this Statewide Priority by using potable water resources more efficiently and effectively.

The Lake Camanche Lateral Replacement Project – Phase 2 consists of replacing approximately 200 service laterals from the 1970s; these aged pipelines have been subject to severe cracking leading to substantial water losses within the AWA system, so the implementation of this project will help reduce water losses and increase water conservation. The Vintage Home Fixture Retrofit portion of CARWSP – Phase 1 will also contribute to water conservation through the implementation of a water conservation program consisting of rebates for low-flow showerheads and subsidized low-flow toilet replacement in the Camanche North and South Shore recreation areas and Lake Camanche Village. There is a high degree of certainty that this Statewide Priority will be met at the local level.

Climate Change Response Actions

All three projects presented in this Proposal provide climate change response actions in various fashions. As with the Drought Preparedness priority previously described, the Lake Camanche Lateral Replacement promotes potable water resources use efficiency. This water use efficiency, in turn, results in less water being diverted and treated to meet regional water demands which ultimately reduces energy demands and greenhouse gas (GHG) emissions. CARWSP, when fully implemented, will provide potable surface water to the communities of Wallace and Lake Camanche Village, in addition to Camanche North and Shore Shores as planned for Phase 1. Delivering high quality, treated surface water to these communities will provide the opportunity for conjunctive management of their water supply sources. There is a high degree of certainty that this statewide priority will be addressed at the local and regional levels. The Ponderosa Way Restoration Project will also help attenuate peak flows which are expected to increase in severity and frequency in the future due to climate change.

Expand Environmental Stewardship

All three projects address environmental stewardship. The Ponderosa Way Restoration Project – Phase 1 will correct severe erosion issues along the North Fork of the Mokelumne River, significantly reducing sediment loading to the river and improving water quality for environmental resources. The project will also enable more than 17 miles of trails to be accessed and will provide recreational opportunities and no-cost water access that is currently unreachable. CARWSP – Phase 1 and the Lake Camanche Lateral Replacement Project – Phase 2 will conserve water, effectively leaving additional water in the Mokelumne River, benefitting local habitat. The Lateral Replacement Project will also reduce unintended discharge of chlorinated water to receiving waters, improving quality for surrounding habitat. The projects have a high degree of certainty of meeting this Statewide Priority at the local and regional level.

Practice Integrated Flood Management

The Ponderosa Way Restoration Project – Phase 1 practices integrated flood management by identifying an integrated approach to managing water quality impacts of storm and flood events. The project will reduce water quality impacts from flooding by restoring Ponderosa Way, while integrating significant environmental and recreation benefits. There is a high degree of certainty that this statewide priority will be addressed at the local level.

Protect Surface Water and Groundwater Quality

All three projects will contribute to the Statewide Priority to protect surface water and groundwater quality with a high degree of certainty at the local and regional levels. The Lake Camanche Lateral Replacement Project will reduce leakage, preventing treated, chlorinated water from being discharged to the Cosumnes Subbasin via groundwater recharge, drainages, creeks and water bodies treated. The Ponderosa Way Restoration Project will improve water quality in the Mokelumne River by minimizing erosion and siltation on Ponderosa Way, addressing the critical water quality issue of sedimentation and associated turbidity. CARWSP – Phase 1 will replace groundwater wells with a new surface WTP to deliver a high quality water supply to users surrounding Lake Camanche. It will treat and distribute high quality surface water supplies from the Mokelumne Aqueduct in lieu of the groundwater supplies which exhibit water quality problems including high iron and manganese concentrations, bacterial contamination, and hydrogen sulfide contamination.

Improve Tribal Water and Natural Resources

A tribe of the Northern Sierra Miwok lives just south of West Point. According to the 2010 Census, they number 215, about 5% of the community population. The restoration of Ponderosa Way will provide Native American living in the Wet Point area access to the Mokelumne Canyon from Rich Gulch (where, incidentally, one of the County's last Miwok villages, Apautawilu, thrived until the early 1900's when it was abandoned). This reestablished river access will permit members of the West Point band of Miwoks to renew the fishing practices of their ancestors. If this project is implemented, there is a High certainty that this statewide priority will be met at the local and regional levels.

Ensure Equitable Distribution of Benefits

This Proposal has increased the participation of disadvantaged communities in the MAC IRWM process by including projects that will directly benefit the DACs of Lake Camanche Village and Camanche North Shore. Two of the three projects included in this proposal will improve water supply reliability and water quality for DACs and will ensure safe drinking water is available to these communities: the Lake Camanche Lateral Replacement Project – Phase 2 and the Camanche Area Regional Water Supply Project – Phase 1. The MAC Region has strived to reach a diverse group of stakeholders and include DACs in both the IRWM planning process and the implementation of projects include in the adopted 2013 MAC IRWM Plan Update. A balanced and diverse representative of community stakeholder interested has been achieved, including special outreach to the DACs of Lake Camanche Village and Camanche North Shore. These projects directly address aging infrastructure, unreliable water supply, and poor water quality. The Lake Camanche Lateral Replacement Project – Phase 2 will minimize costs of potable supplies by reducing water losses, minimizing future infrastructure maintenance and improving water system efficiencies. CARWSP – Phase 1 will provide a reliable, high-quality water supply to Camanche North Shore, and water conservation measures will be implemented in Camanche North Shore and Lake Camanche Village, reducing water usage and the cost associated with water use for these residential users residing in DACs. With DAC benefits as a primary focus of this proposal, there is a high degree of certainty that this statewide priority will be addressed at the local and regional levels.