Tahoe Sierra IRWM Drought Preparedness Project

Attachment 7 – Program Preferences
Regional Water Conservation Program

The Regional Water Conservation Program Project (Project) supports the Program Preferences described in the 2014 Integrated Regional Water Management (IRWM) Drought Guidelines, as follows:

1. **Regional Drought Preparedness:** The Regional Water Conservation Project would effectively address long-term drought preparedness by implementing the following:
    - Promotes Water Conservation (Water savings appliance rebates)
    - Improves landscape irrigation efficiencies (Turf removal and irrigation water saving devices)
    - Achieves long term reduction of water use (28 ac-ft/year water savings after implementation)

2. **Use and Reuse Water More Efficiently:** As discussed above, the Regional Water Conservation Project increases urban water use efficiency measures through implementation of water conservation best management practices.

3. **Climate Change Response Actions:** The Project would also address climate change response through a reduction of Greenhouse Gas (GHG) Emissions and a reduction in energy consumption through the long-term reduction on water supply demand and distribution. Estimated reductions of energy consumption are 36,000 kWh/yr which results in an annual 25 metric ton of C02e green house gas reduction.

4. **Ensure Equitable Distribution of Benefits: Address and consider the Human Right to Water (AB 685) needs within the region:** The regional project implementation area includes several disadvantaged communities (City of South Lake Tahoe, Kings Beach and Woodfords Community) and outreach for participation in the program will target these areas. The proposed Project would not only result in a long-term water use reduction and the subsequent beneficial effect on the water sources within the region, but also has a long-term financial effect on water consumers by reducing their water use costs and maintaining affordability of safe drinking water. The goal of AB 685 is to ensure safe, clean, affordable and accessible water adequate for domestic uses and implementation of the Project is consistent with these goals.

Attachment 7 – Program Preferences
Squaw Valley Public Service District and Squaw Valley Mutual Water Company Interconnection Facility Project

The SVPSD and SVMWC Interconnection Facility (Project) supports the Program Preferences described in the 2014 Integrated Regional Water Management (IRWM) Drought Guidelines, as follows:

1. **Regional Drought Preparedness:** The Project will establish a system intertie between SVPSD and SVMWC that will provide immediate drought preparedness. Public water systems have long been encouraged to utilize interties to achieve public health and resource management objectives and the community benefits from these water system interconnections as they prepare the common constituencies for emergencies such as water supply system failure caused by drought.

2. **Use and Reuse Water More Efficiently:** The system intertie will allow for mutual aid between water suppliers during drought-related water shortages. Interconnections between SVPSD and SVMWC will benefit the water consumers of both agencies by providing a reliable water supply backup to maintain the delivery of safe drinking water. System failure of either system, caused by drought as listed above, or other circumstances such as planned maintenance, repair, rehabilitation, relocation, power outages and/or contamination, can easily dictate the need for one agency to support the other by supplying potable water.

3. **Ensure Equitable Distribution of Benefits: Address and consider the Human Rights to Water needs within the Region (AB 685):** The proposed Project would construct a critical piece of infrastructure required to provide a safe, reliable source of backup water supply during drought or emergency periods. Implementation of the proposed Project is consistent with the obligations contained within Assembly Bill 685, which provides a framework to guide agencies with responsibilities that impact the quality, affordability and accessibility of water for domestic purposes. The goal of AB 685 is to achieve universal access to clean water in the state. Implementation of the Project is consistent with the goals of AB 685.

Attachment 7 – Program Preferences
Tahoe City Main Emergency Water Supply Project

The Tahoe City Main Emergency Water Supply Project (Project) supports the Program Preferences described in the 2014 Integrated Regional Water Management (IRWM) Drought Guidelines, as follows:

1. **Regional Drought Preparedness:** The Project would provide for immediate backup to the Tahoe City main water system. Currently, the community relies on two groundwater wells for drinking water production with no backup water supply. The original water supply well for Tahoe City is no longer useable due the groundwater table elevation declining below the pump intake, caused largely by water supply demand and reduced groundwater levels.

   An existing lake intake, the Grove Street Intake, has been maintained in a usable state and can be used as an emergency water supply source. Water from this source is untreated and its use would necessitate a boil water order for all customers in the system. Adequate space does not exist near the existing intake building to setup portable water treatment units. The proposed Project would extend a dedicated raw water line from the existing intake to a location on Tahoe City Public Utility District (TCPUD) property where portable treatment units could be staged for emergency water treatment and supply, as needed.

2. **Use and Reuse Water More Efficiently:** This project would help to meet future water demands by increasing water supply reliability during emergency events. As discussed above, the Tahoe City water system currently has no potable water supply backup. During the summer months which coincide with peak water demand conditions, failure of either of the Tahoe City wells would result in rationing and the need to activate the existing Grove Street lake intake. The proposed Project would extend a raw water pipeline from the existing lake intake to a location on TCPUD property where portable treatment units could be staged to provide emergency water treatment and supply to the Tahoe City community in the event of continued drought or emergency.

3. **Ensure Equitable Distribution of Benefits: Address and consider the Human Right to Water (AB 685) needs within the region:** The proposed Project would construct a critical piece of infrastructure required to provide a safe, reliable source of backup water supply during drought or emergency periods. Implementation of the proposed Project is consistent with the obligations contained within Assembly Bill 685, which provides a framework to guide agencies with responsibilities that impact the quality, affordability and accessibility of water for domestic purposes. The goal of AB 685 is to achieve universal access to clean water in the state. Implementation of the Project is consistent with the goals of AB 685.

Attachment 7 – Program Preferences
Lukins Brothers Waterline Replacement Project

The Lukins Brothers Waterline Replacement Project (Project) supports the Program Preferences described in the 2014 Integrated Regional Water Management (IRWM) Drought Guidelines, as follows:

1. **Regional Drought Preparedness:** The Project would achieve long-term reduction of water use through the replacement of 2000 linear feet of leaking, aged water delivery infrastructure. The current waterline has a significant leak history with 5-6 leak repairs annually. Although adequate maintenance is provided on the line, the loss of water prior to the repair of these leaks amounts to 65000 gallons per year. The current waterline has reached its life expectancy (50 years) resulting in numerous leaks annually due to the deterioration of the line. The replacement waterline would result in significant water savings through the reduction in leakage as well as the 42 newly installed residential water meters that are a part of the project. Total annual water savings from this project is estimated to be 6.9 ac-ft/yr.

2. **Use and Reuse Water More Efficiently:** As discussed above, the Lukins Brothers Waterline Replacement Project has a significant water conservation element through the implementation of 42 residential water meters and the reduction of water delivery infrastructure leakage (both of which are California Urban Water Conservation Council Best Management Practices).

3. **Climate Change Response Actions:** The Project would result in an estimated water savings of 6.9 ac-ft/yr, which also reduces the amount of energy necessary to pump and deliver the water. The energy savings are estimated to be 7,900 kWh/yr which then results in approximately 5.45 metric tons of CO2e green house gas reduction.

4. **Ensure Equitable Distribution of Benefits: Address and Consider the Human Right to Water Needs Within the Region (AB 685):** The proposed Project would construct a critical piece of infrastructure required to continue to provide a safe, reliable source of water supply within a disadvantaged community. Implementation of the proposed Project is consistent with the obligations contained within Assembly Bill 685, which provides a framework to guide agencies with responsibilities that impact the quality, affordability and accessibility of water for domestic purposes. The goal of AB 685 is to achieve universal access to clean water in the state. Implementation of the Project is consistent with the goals of AB 685.