

ATTACHMENT 7: PROGRAM PREFERENCES (Preferences)

This Attachment 7 describes how the Statewide priorities and program preferences are met and this drought application meets the Human Right to Water as passed in Assembly Bill 632. The section is organized by providing a high level overview of the overall proposal's level of meet

ing the program preferences, and then describes project by project the level of certainty, breadth and magnitude of achieving the preferences and any issues pertaining to supporting the human right to water objectives. The table below summarizes how the Westside-Sacramento 2014 Drought Funding Application proposal and projects meet the Program Preferences identified in Section IIF of the 2014 IRWM Drought Guidelines.

Table 7-1: Program Preferences Achieved by the Proposal (Preferences)		
Program Preference/Statewide Priorities	Contributes?	Narrative Discussion of Proposal's Achievement of Each Program Preference/Statewide Priority
Regional Projects/Programs	Yes	The proposal includes 2 regional projects - the YCFCWCD project which contributes to regional enhancement of GW recharge, and the Paradise Valley system intertie which supports regional consolidation of small water systems.
Effective Integration of Water Management Programs	Yes	Projects provide regional integration of GW recharge with alternative recycled water supplies to support in-lieu GW recharge
Resolve Significant Water-Related Conflicts	Yes	GW recharge enhancement supports sustainable management of aquifer used by many agricultural landowners and water suppliers
Attain one or more CalFed Bay-Delta Program Objectives	Yes	The proposed projects all meet at least one CalFed objective. CalFed objectives include Water Quality, Ecosystem Quality, Water Supply, and Levee System Integrity.
Address Critical Water Supply or Water Quality Needs of DAC's	Yes	The Lake County Mount Hannah project meets the critical water supply needs of a DAC. In addition, while not requesting DAC match waiver, all of the projects are located in DAC.
Effectively Integrate Water Management and Land Use Planning		Not applicable to this proposal
IRWMP that helps the region reduce reliance on the Sacramento-San Joaquin Delta	Yes	Projects such as Woodland Recycled Water and GW basin recharge increase regional self-sufficiency and will reduce supplies needed from Sacramento River.
Statewide Priorities		
Drought Preparedness	Yes	Proposal contributes to every element of drought preparedness including water conservation, long term water use reductions, system interties, and efficient GW management
Use/Re-use More Efficiently	Yes	Projects reduce reliance on the Delta and improve water supply reliability, improve ag and urban water use efficiency (WUE).
Climate Change Response	Yes	Recycled water and groundwater recharge enhancement advance conjunctive use and employ multiple sources to adapt to climate change.
Expand Environmental Stewardship		Not applicable to this proposal
Practice Integrated Flood Mgmt.		Not applicable to this proposal
Protect Surface and Groundwater Quality	Yes	Provides improved access to safe drinking water for small DAC's (Mount Hannah).

Table 7-1: Program Preferences Achieved by the Proposal (Preferences)		
Program Preference/Statewide Priorities	Contributes?	Narrative Discussion of Proposal's Achievement of Each Program Preference/Statewide Priority
Statewide Priorities (Cont'd)		
Improve Tribal Water and Natural Resources		Not applicable to this proposal
Ensure Equitable Distribution of Benefits including Human Right To Water	Yes	This proposal increases participation of small and DAC communities, and help assure access to safe, clean and affordable drinking water for the communities.
Total Program Preferences Met	11	

The Preferences that will be met by the proposal as a whole are through the successful completion of each of the 5 projects included in the proposal. Each project has been screened for its contribution to attaining the specific preferences

and the level of certainty each will contribute are summarized below (Level of Certainty = high (H), medium (M), or low (L). If blank, the project has not been identified as a contributor to attaining the selected program preference).

Table 7-2: Program Preferences with Expected Level of Certainty for Each Project					
Program Preference	YFCWCD – Drought Prepar. Modernization	Woodland – Recycled Water	Mount Hannah – Pipeline Water Loss Min.	Spring Valley – Pipeline Water Loss Min.	Paradise Valley – Water System Inter tie and Consol.
Regional Projects/Programs	H	H			H
Effective Integration of Water Management Programs	H	M			
Resolve Significant Water-Related Conflicts	H	M			
Attain one or more CALFED Bay-Delta Program Objectives	H	H	H	H	H
Address Critical Water Supply or Water Quality Needs of DAC's		M	H	H	H
Effectively Integrate Water Management and Land Use Planning					
IRWMP that helps the region reduce reliance on the Sacramento-San Joaquin Delta	H	H	H	H	H
Statewide Priorities					
Drought Preparedness	H	H	H	H	H
Use/Re-use More Efficiently	H	H	H	H	H
Climate Change Response	H	H		H	H
Expand Environmental Stewardship	L	L		L	
Practice Integrated Flood Mgmt.	L	L			
Protect Surface and Groundwater Quality			H	H	H
Improve Tribal Water and Natural Resources					
Ensure Equitable Distribution of Benefits including Human Right To Water			H	H	H

Project Rationale for Program Preferences, Level of Certainty, Breadth and Magnitude, and Human Right to Water

Each project provides multiple benefits that contribute to meeting the various IRWM program preferences and Statewide Priorities. The following describes the benefits of each project and related components to justify the extent and certainty to which the project will provide the benefits and meet the listed preferences. A discussion of how the project contributes to provide affordable, clean, and safe drinking water is also included.

Project: YCFCWCD – Drought Preparedness Canal Modernization Project

Automating the 160 mile canal delivery system (automated gates and flow meters) will increase agricultural water use efficiency for a savings of 7,000 afy while the 2 wells will allow recovery of 7,600 afy of recharged groundwater. The project is consistent with actions contained in the adopted Westside IRWMP and provides regional benefits (to both Lake and Yolo Counties, and to groundwater users in the Yolo County region). The project meets the CalFed objective of providing good water quality for all beneficial uses in the YCFCWCD service area by increasing deliveries of higher quality surface water to all customers during drought years. By improving its water supply reliability, there will be environmental and ecosystem benefits from increased Cache Creek flows for fish populations, aquatic benefits and recreational uses. Increased groundwater levels from recharge will also increase base flows into the canals. Increased flows in the canal system will benefit downstream environmental uses. The project will improve groundwater quality during drought conditions, improve groundwater recharge potential, increase water use efficiency benefits, and better prepare the region for drought management.

Level of Certainty in Meeting Program Preferences - High. The 14,600 afy in project water savings and well yield has been conservatively calculated and only includes the benefits of pumping stored canal water from wells and reducing water system losses (e.g., spillage/seepage). There has also been a pilot project implemented validating the water savings potential for full project implementation. Other project benefits that will be achieved (e.g., stormwater flow storage increases) are not included in quantified benefits. The project water savings are considered

conservative and reliable with a high level of certainty for meeting stated Preferences.

Breadth and Magnitude To Which Preferences Will Be Met - The project contributes to 10 preferences and provides vast regional benefits, therefore is wide ranging and has a high magnitude. The project will extract annually recharged canal flows from new wells and control canal flows more precisely. The result will be annual accrual of upstream water storage in an estimated 7 out of every 10 years. This will yield more surface water deliveries during dry years and reduce corresponding groundwater pumping increases in responses to shortages. Future water shortages will be less severe with the project. Environmental and ecosystem impacts will be lessened during drought conditions with additional water storage available, thereby supporting additional surface water releases.

Human Right To Water - YCFCWCD experiences significant groundwater level declines during drought conditions. Many smaller communities reliant on groundwater and farmers with shallow wells for farm workers can be negatively impacted by groundwater level declines. Reduced pumping capacity and water quality degradation can affect the Human Right to Water for these customers. Wells have gone dry (below well screens) and alternatives are not readily available. Increasing water supply reliability will lower the risk that low income or disadvantaged populations do not receive minimum water service levels (55 gpcd).

Project: City of Woodland – Recycled Water Project

The City will be developing a recycled water project that will provide 1,280 afy for irrigation and industrial uses. This represents about 10% of the City's current water supply. The City has the Title 22 tertiary treated wastewater available, and is working with end users to receive recycled water when transmission facilities are available. The project will provide the City with a reliable water supply (available in drought conditions) that will replace the use of potable water during the irrigation season (and year around for industrial uses). This will reduce the City's reliance on local groundwater, allow for in-lieu groundwater recharge, and reduce the drought induced groundwater impacts being experienced in 2014.

Level of Certainty in Meeting Program Preferences - High. The Preferences the project will contribute towards are considered substantial and reliable with a proven technology and water source. The

1,280 afy of new recycled water supply is based on customer demands for those accounts that would be transitioned from the potable system to the recycled water source. The City already has the recycled water source and necessary water quality available, and only needs to construct the necessary distribution system and pump station to convey recycled water to customers. The project will be constructed in existing City right-of-way and is expected to deliver recycled water within one year when construction begins.

Breadth and Magnitude to Which Preferences Will Be Met - The project contributes to 11 preferences and provides some regional benefits, therefore is wide ranging and has a moderate magnitude. The project will reduce City groundwater pumping on an annual basis, resulting in higher static and pumping water levels during normal and dry years. The recycled water project will diversify the City's water portfolio and reduced drought impacts on local groundwater supplies. Recycled water benefits will accrue every year, reducing the City's reliance on groundwater most impacted by drought conditions.

Human Right To Water - The City of Woodland serves a population that is 45% disadvantaged (although Woodland as a whole is not classified as a disadvantaged community). To the extent that the City can develop water supplies that are cost-effective and do not cause significant impacts on disadvantaged customers, the City is meeting its Human Right to Water objectives. The recycled water project provides a lower cost per af supply vs. treated groundwater or surface water alternatives. The lower cost recycled water will be made available to public facilities that benefit the community and disadvantaged customers the most.

Project: LCSD Mount Hannah – Pipeline Water Loss Minimization Project

Mount Hannah is a disadvantaged community that will be replacing their existing (and only) water well with a new well in 2014 (funded by another source). They will also be replacing a 900-foot leaking conveyance pipeline running between its water well and system storage tank (to be funded in this Application). The leak losses are estimated to be 900,000 gallons per year based on the difference in water production and customer demand data. The combination of a new well and conveyance pipeline will allow Mt. Hannah to provide service meeting the CDPH 55 gpcd minimum service level. CDPH has recommended that Mt. Hannah replace their leaking conveyance pipeline immediately.

Currently Mt. Hannah per capita consumption is about 35 gpcd.

Level of Certainty in Meeting Program Preferences - High. Mt. Hannah's water losses occurring from the leaking conveyance pipeline are documented (observed and calculated comparing production vs. demand data). Replacing the conveyance pipeline will yield the water savings expected and therefore provides a high level of certainty in meeting Preferences.

Breadth and Magnitude To Which Preferences Will Be Met - The project contributes to 9 preferences and provides localized benefits, therefore is wide ranging and has a low overall magnitude. The project will reduce Mt. Hannah's water system losses by the equivalent of 28 gpcd. The water loss would be converted into actual water service once the conveyance pipeline has been replaced. This represents a significant percentage (up to 45%) of the system supply. The new water well will be installed in 2014 by CDPH.

Human Right To Water - Mt. Hannah is a disadvantaged community (income survey available). Currently the water system can only provide customers with about 35 gpcd, well below the minimum service level of 55 gpcd specified by CDPH to meet basic human water needs and consumption. The proposed project will enable Mt. Hannah to provide its customers with at least the minimum service level required for basic human needs. Currently these customers are not being provided with their Human Right to Water.

Project: LCSD Spring Valley – Pipeline Water Loss Minimization Project

Spring Valley will be replacing existing leaky water pipelines and installing a distribution loop to improve drinking water quality to meet standards. The combined annual water losses are estimated to be 10,000,000 gallons from pipeline leak losses and system flushing losses for water quality purposes. A total of 16,600 linear feet of pipeline will be installed through the project. Currently Spring Valley is under a Curtailed Water Right Order from the SWRCB limiting water service to <48 gpcd. The proposed project will allow Spring Valley to at least meet the CDPH 55 gpcd minimum service level.

Level of Certainty in Meeting Program Preferences - High. Spring Valley has calculated the water losses occurring by comparing water production vs. metered demand data. Replacing the leaking pipelines will reduce water system losses substantially. The water distribution loop is

required to enable Spring Valley to reliably meet water quality MCLs for trihalomethanes (THM). Replacing the leaking pipelines and distribution loop will yield the calculated water savings expected and therefore provides a high level of certainty in meeting Preferences.

Breadth and Magnitude To Which Preferences Will Be Met - The project contributes to 7 preferences and provides localized benefits, therefore is wide ranging and has a low overall magnitude. The project will reduce Spring Valley's water system losses by the equivalent of 17 gpcd. The water loss would be converted into actual water service once the conveyance pipeline has been replaced. This represents a significant percentage (up to 30%) of the system supply.

Human Right To Water - Spring Valley is under order by the SWRCB to provide customers with <48 gpcd. This is less than the minimum service level of 55 gpcd specified by CDPH to meet basic human water needs and consumption. The proposed project will enable Spring Valley to provide its customers with at least the minimum service level required for basic human needs. Currently these customers are not being provided with their Human Right to Water.

Project: LCSD Paradise Valley – Water System Intertie and Consolidation Project

Paradise Valley will be constructing a water conveyance intertie pipeline consolidating its water system with Clearlake Oaks. Both agencies have agreed to consolidate their water systems and this project would fund the necessary intertie improvement. Currently Paradise Valley customers are limited to water use <50 gpcd per emergency drought declaration by Lake County in response to current drought conditions. A total of 8,900 linear feet of pipeline will be installed through the project. The proposed project will allow Paradise Valley to meet the CDPH 55 gpcd minimum service level.

Level of Certainty in Meeting Program Preferences - High. Paradise Valley will have a very reliable water system once consolidated with Clearlake Oaks. Paradise Valley's current groundwater production capacity is not adequate to meet current demands or higher demands associated with meeting the Human Right to Water objectives. Both systems have agreed to the consolidation and once funding is approved, the project will be implemented immediately providing a high level of certainty in meeting Preferences.

Breadth and Magnitude To Which Preferences Will Be Met - High. The project contributes to 9 preferences and provides regional benefits, therefore is wide ranging and has a moderate overall magnitude. The consolidation with Clearlake Oaks is the most cost-effective solution for Paradise Valley in meeting their current and future water needs. With the project Paradise Valley will have a reliable water supply from Clearlake Oaks' surface water supply from Clear Lake with groundwater capacity for backup or emergency purposes while meeting minimum Human Right to Water objectives.

Human Right To Water - Paradise Valley is under emergency order by Lake County to provide customers with <50 gpcd in response to current drought conditions. This is less than the minimum service level of 55 gpcd specified by CDPH to meet basic human water needs and consumption. The proposed project will enable Paradise Valley to provide its customers with at least the minimum service level required for basic human needs. Currently these customers are not being provided with their Human Right to Water.