ATTACHMENT 7: PROGRAM PREFERENCES

With a high degree of certainty, the multi-beneficial projects and strategies of the Pajaro River Watershed Emergency Drought Program will achieve the results desired by the Program Preferences. The discussion below describes the four projects that make up the Program, demonstrates how the Program assists in meeting the Program Preferences, documents the certainty that the Proposal will meet the Program Preferences, and describes the breadth and magnitude to which the Program Preferences will be met.

1. Human Right to Water. The Pajaro River Watershed IRWM region has made significant progress towards providing access to safe, clean, and affordable water, adequate for human consumption, cooking and sanitary purposes. As listed in the objectives chapter of the IRWM Plan, the Pajaro region is committed to ensuring a safe water supply for our most at risk communities:

- Identifying and addressing water supply needs of disadvantaged communities (DAC).
- Identifying and addressing the drinking water quality of DAC in the Pajaro River Watershed.

Progress toward meeting these objectives was achieved in both the planning and implementation grants awarded to the region. In the planning grant, the region secured funding to complete a water resource needs and constraints study for the DAC of Pajaro. The study resulted in the identification of a project critically needed to provide safe and clean water to Pajaro. The region then assisted Pajaro in the development of the project and secured funding in the Round 2 IRWM Implementation Grant cycle.

The water project will be implemented by the Pajaro Sunny Mesa Community Services District (PSMCSD), which provides water service to 453 connections in Pajaro. Pajaro currently relies on a single well and one 600,000-gallon storage tank. The lack of operational flexibility of this system represents a severe threat to the health and safety of the Pajaro community and puts them at risk of not having a safe water supply. Recognizing the critical need of the community, the RWMG prioritized the project to increases storage and provide operational flexibility and included the project in the Round 2 IRWM Implementation Grant Application. The grant was funded by DWR and Pajaro will receive the full funding needed to construct a second 600,000-gallon tank. This will increase system storage capacity to a total of 1.2 million gallons, and thereby meet the public health, water code and fire code requirements for a public water supply system. Final design has begun and construction will begin next year. Therefore, the project will fully meet the program preference with a high degree of certainty.

The Corralitos Creek Water Supply and Fisheries Enhancement Project directly addresses the Human Right to Water preference. The City of Watsonville is a DAC. 95% of the City of Watsonville drinking water supply comes from the Pajaro Valley Groundwater Basin. The Pajaro Valley groundwater basin is in severe overdraft and is experiencing significant seawater intrusion. Compounding the groundwater problem and jeopardizing the drinking water supply for the City is the impact of hexavalent chromium. The City of Watsonville utilizes 12 production wells, all of which are impacted by hexavalent chromium and six of which will exceed the new 10ppb MCL regulatory limit. 50% of the City's water supply will be in violation of the new MCL. Until treatment is implemented, the impacted wells will not meet primary drinking water standards leaving the City vulnerable to drinking water MCL violations. The remaining 5% of the City's supply comes from the existing Corralitos treatment facility, which is a slow sand filtration plant over 75 years old. Currently, the City can only utilize the plant during summer months when there is good water quality (low turbidity and low suspended solids). Once it rains, the existing plant is shut down due to poor source water quality. Due to the existing treatment limitations, a large percentage of the City's available surface water from Corralitos Creek remains unused. The hexavalent chromium regulations coupled with the emergency drought leaves the City faced with one of two alternatives: treat for hexavalent chromium or enhance the Corralitos Creek Filter Plant. The City has evaluated the physical benefits of each alternative and developing the Corralitos Creek Filter Plant is the most effective solution at this time. If the City does not implement the Corralitos project, the City is at risk of not being able to provide access to safe, clean, and affordable water, adequate for human consumption, cooking and sanitary purposes.

While the Delivered Water Enhancement and Drought Response Irrigation Program is an agricultural supply, it is designed to offset agricultural groundwater, which helps preserve the supply for potable use by the City of Watsonville.

2. Include Regional Projects or Programs. From its inception, the Pajaro River Watershed IRWM planning effort and associated stakeholders have focused on developing multi-beneficial management strategies to address the many needs and water resources interests in the basin. Ultimately, the effort led to the creation of the Pajaro River Watershed IRWM Plan. Borne out of the planning process was the Pajaro River Watershed IRWM project review process that prioritizes projects based on their ability to deliver multiple benefits, across a broad region, and through inter-agency

cooperation. All four of the projects included in this proposal deliver broad benefits through inter-agency cooperation, however, the SBCWD Expanded Recycled Water Use Project is the best example of a regional program.

The Expanded Recycled Water Use Project is a component of the Hollister Urban Area (HUA) Water Project. The HUA Project was developed in partnership by the City of Hollister (COH), San Benito County (SBC), San Benito County Water District (SBCWD), and Sunnyslope County Water District (SSCWD) to address water supply, water quality, and wastewater discharge requirements through an integrated and comprehensive approach across agency boundaries and throughout the Hollister Urban Area (HUA). A Memorandum of Understanding (MOU) was executed in 2004 by the COH, SBC, SBCWD, and later amended to include SSCWD. The MOU established the goals and institutional framework for regional water and wastewater master planning.

The MOU described the principles, objectives, and assumptions that ultimately formed the institutional framework and basis of the 2008 HUA Water and Wastewater Master Plan. The Master Plan, focused on the following goals to meet the HUA needs:

- Improve municipal, industrial, and recycled water quality
- Increase the reliability of the water supply
- Coordinate infrastructure improvements for water and wastewater systems
- Implement goals of the Groundwater Management Plan
- Integrate recommendations of the Long-term Wastewater Management Plans (LTWMP) with the Master Plan
- Support economic growth and development consistent with the City of Hollister and San Benito County General Plans and Policies
- Consider regional issues and solutions

The project and delivery of benefits will be delivered across agency boundaries on a regional scale, demonstrating the significant breadth and magnitude to which the program preference will be met.

3. Effectively integrate water management programs and projects within a region. The Pajaro River Watershed IRWM planning process integrates the projects through identification of common goal and objectives. As a result, the projects are linked in function, goals, and location. In 2012, through the Pajaro River Watershed IRWM Plan Update project solicitation and review process, the Central Coast Agricultural Water Quality Coalition (CCAWQC) submitted the Conservation Planning and On-farm Irrigation Efficiency Project. The goal of the project was to develp and implement an extensive outreach program to build grower and community understanding and support for irrigation efficiency, based on the ideas that irrigation efficiency is good for the grower's bottom line, good for the basin's water supplies and good for the long term health of the watershed. The project received a high priority scoring based on the multiple IRWM objectives and priorities addressed by the project. In 2014 in response to the drought, the PVWMA initiated the project to expand the recycled water distribution system to optimize use of the recycled water and reduce demands on the overdrafted groundwater beasin.

Through the 2014 drought project solicitation, the CCAWQC partnered with PVWMA and the Resource Conservation District of Santa Cruz (RCD) to integrate the irrigation efficiency project with the expanded recycled water distribution project, which are linked in function, goals, and location. The integration of the projects increased the type and level of benefits delivered from the individual projects and resulted in a high priority scoring and selection of the integrated project for inclusion in this IRWM Drought Grant application (Delivered Water Enhancement and Drought Response Irrigation Program). The integrated projects will ensure efficient use of the recycled water deliveries in the coastal area of the Pajaro Valley.

4. Effectively resolve water-related conflicts. Developing a safe, reliable water supply is the highest priority water resource issue for the Pajaro River Watershed IRWM region. Groundwater is the primary source of supply in the Pajaro Valley and the beneficial use of the basin is threatened by overdraft, seawater intrusion, and contamination from salts and other contaminants. This has led to conflict amongst water users over the safe and reliable use of the groundwater. The Delivered Water Enhancement and Drought Response Irrigation Program and the Corralitos Creek Water Supply and Fisheries Enhancement Project expand existing supplies in the Pajaro Valley and thus, contribute to the reduction of conflict amongst water users.

In 2009, PVWMA in partnership with the City of Watsonville, constructed and began operation of the Watsonville Area Water Recycling Facility (WRF). Recycled water from the facility provides the Coastal agricultural area with a local, reliable, safe and drought proof irrigation supply. The new supply for the Coastal growers allows those growers most at risk of seawater intrusion to use a supplemental supply and stop groundwater pumping. This strategy of delivering a supply to the Coastal area to off-set groundwater pumping has the most significant impact on stopping seawater intrusion. The Delivered Water Enhancement Project included in this grant will enhance the supply that is available for delivery to the Coastal growers. Additionally, the City's implementation of the Corralitos project, also included in this

grant, reduces groundwater usage by the City, further reducing conflict with agricultural water users. The City and PVWMA continue to work together to develop both urban and agricultural water supplies to balance the basin, eliminate overdraft, stop seawater intrusion, and reduce conflict between water users.

5. Address DAC Water Supply and Quality Needs. A DAC is defined as a community with an annual median household income (MHI) that is less than 80 percent of the statewide annual median household income. The annual MHI for California is estimated to be $61,400 (U.S. Census, http://factfinder2.census.gov). The City of Watsonville has an MHI of $46,603 (U.S Census, http://factfinder2.census.gov), which is less than 80 percent of the MHI and confirms its DAC status.

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6. Integrate Water Management with Land Use Planning. All of the projects included in the Pajaro River Watershed Emergency Drought Program considered and integrated land use planning into the project development. However, the SBCWD Expanded Recycled Water Use Project best demonstrates the effective integration of water management with land use planning.

The General Plans adopted by the City of Hollister and San Benito County anticipate continued significant growth until 2023. Based on data from the California Department of Finance, the County population is projected to increase from 57,490 in 2005 to 76,901 in 2023. Projected potable demand associated with this growth is 4,515 AFY.

Current and projected demands can be met by the existing supplies in normal (non-drought) conditions. However, in critically dry years, municipal supplies may be reduced to approximately 60 percent of CVP contract entitlements and in multiple dry year conditions, up to 50 percent (Hollister Urban Area Water and Wastewater Master Plan (Master Plan, Page 1-7). Based on current trends, it is likely that the reliability of imported CVP supplies will continue to decline in the future. Therefore, a long-term plan was required for a reliable water supply to meet the projected growth defined by the City of Hollister and San Benito County General Plans. The 2008 Hollister Urban Area (HUA) Water and Wastewater Master Plan was developed, in consideration of the UWMP, WDRs, and City and County General Plans, to guide an integrated approach to optimize water supply, wastewater management, and water recycling. The SBCWD Expanded Recycled Water Use Project is one of the project in the HUA program. The HUA Water Project was a recommendation developed in the Master Plan to meet the needs described above and accomplish the following goals:

- Provide a reliable and sustainable water supply to meet the current and future demands of the HUA.
- Improve the quality of municipal drinking water, industrial supply, and recycled water for urban and agricultural irrigation users.
- Achieve the goals of the City of Hollister (COH) Long-Term Wastewater Management Plan and the Sunnyslope County Water District (SSCWD) Long-Term Wastewater Management Plan.

7. Part of an IRWM Plan that Reduces Reliance on the Sacramento-San Joaquin Delta. The Pajaro River Watershed IRWM Water Supply objectives demonstrate a commitment by the region to reduce reliance on the Delta:

1. Meet 100% of M&I and agriculture demands (both current and future conditions) in wet to dry years including the first year of a drought
2. Meet 85% M&I and 75% agriculture demands (both current and future conditions) in second and subsequent years of a drought
3. Identify and address water supply needs of disadvantaged communities in the Pajaro River Watershed
4. Implement water conservation programs to reduce M&I and agricultural water uses consistent with SBx7-7 and CVPIA

5. Maximize the use of recycled water during the irrigation season and expand other uses of recycled water
6. Optimize the use of groundwater and aquifer storage
7. Maximize conjunction use opportunities including interagency conjunctive use.
8. Optimize and sustain use of existing import surface water entitlements from the San Felipe Unit.

8. SW Priority – Drought Preparedness. All four of the projects included in the Pajaro River Watershed Emergency Drought Program address the drought preparedness statewide priority. The PVWMA Delivered Water Project delivers a combination of recycled water and blend water to the area of the Pajaro Valley most impacted by seawater intrusion. This project alleviates drought impacts by reducing coastal groundwater pumping in exchange for a reliable supply of high quality, supplemental irrigation water while protecting agriculture, the valley's primary land use. By constructing the K-1 line of the Coastal Distribution System (CDS), PVWMA will be able to provide water to an additional 310 acres, an area that uses 750 AFY on average. Plumbing the blend wells into the CDS will improve delivered water quality, which will increase customer demand and help staff to optimize the production of recycled water. The DRIP program will ensure that the supplemental water will be used efficiently and will further reduce groundwater pumping by providing irrigation efficiency assistance for growers and irrigators. A rigorous monitoring program will measure progress toward the estimated water supply and water quality benefits at the scale of the individual grower, the DWZ, and the basin. Overall, the project increases local water supply reliability while helping to protect the groundwater resource from seawater intrusion.

The SCVWD South County Recycled Water Improvements Project involves the construction of three new turnouts to meet a combined recycled water demand of 520 AFY. The three turnouts will provide irrigation supplies for a vegetable grower, a nursery, and a seed company. The turnouts will be constructed in early 2015 and will immediately alleviate drought impacts for these users. By increasing recycled water use, the project will offset potable water use by an equivalent amount, resulting in 520 AFY of in-lieu groundwater recharge. This additional recharge will help maintain groundwater levels for both drinking water and agricultural purposes and avoid groundwater overdraft. Maintaining groundwater levels may also help maintain baseflows in gaining reaches of creeks.

In 2012, the City of Hollister's water reclamation facility produced an average of 1.85 MGD of recycled water. Of the recycled water produced, approximately 460 AFY was used for irrigation of 45 acres at the City's Riverside Park and 90 acres at the spray field. The unused recycled water is currently discharged to percolation ponds, which are uncovered and unlined allowing for evaporation and percolation. In 2014, it was determined that approximately 700 AFY of recycled water could be available immediately based on current inflows to the City's water reclamation facility. The available supply could grow up to 1,230 AFY by 2025, based on the assumption that wastewater flows will increase by approximately 4 percent annually. The SBCWD Expanded Recycled Water Use Project involves construction of the pipelines necessary to deliver this available supply and immediately provide drought relief. Additionally, the pipelines and associated appurtenances are sized to accommodate an average annual supply of 2,450 AFY. This larger volume of annual supply could be made available sooner if SBCWD implements a related project to line the existing seasonal storage reservoir; otherwise, the supply would grow over time as the City's population grows and influent flows to the water reclamation facility increase.

The City of Watsonville Corralitos Creek Water Supply and Fisheries Enhancement Project improves existing facilities to optimize the use of available surface water supplies. A 2003 pilot study evaluated the effectiveness of membrane treatment technology for increasing and optimizing surface water production from Corralitos Creek. The Corralitos Creek Project would improve the treatment facilities to allow increased diversions during the higher turbidity, winter flows, thereby optimizing and increasing the supplies from the Creek. Corralitos Creek is subject to seasonal fluctuations in water quality. Dry weather flows typically contain turbidity less than 2 nephelometric turbidity units (NTU) and low amounts of total organic carbon (TOC) and color. During the rainy season, storm events result in turbidity spikes over 100 NTU and sustained (longer than one week) turbidity events over 20 NTU. To prevent overloading the slow-sand filtration plant, the City operates the plant during the dry season and discontinues use of the facility when winter rains drives influent turbidity above 10 NTU. Due to existing treatment limitations, a large percentage of the available surface water from Corralitos Creek remains unused. The Corralitos Creek Project would improve the treatment facilities to allow increased diversions during the higher turbidity, winter flows, thereby optimizing and increasing the supplies from the Creek.

The ability of the membrane system to treat high turbidity water during the winter will allow for an additional 1,000 AFY, for a total of 1,400 AFY, of surface water to be delivered to the distribution system in lieu of pumped groundwater. This total represents a 375 percent increase in surface water usage compared to the existing system operation. Additionally, the project would reduce the City's demand on the overdrafted groundwater basin. Without the project, the City will need to rely on the groundwater wells.