

## Attachment 7: Program Preferences

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### Tait Wells Replacement

This project meets four Program Preferences and addresses four Statewide Priorities, including the Human Right to Water Policy.

#### Program Preferences

- 1. Include Regional Projects or Programs** – The Tait Wells Replacement project would directly benefit the City. The enhanced water supply reliability of the project would indirectly benefit regional agencies by improving the City's ability to participate in regional emergency water transfer programs through system interties, which also are included in the IRWM Plan. Fully functional wells will enable the City to extract more groundwater and reduce surface water reductions, which will benefit Coho salmon recovery.
- 2. Effectively Resolve Significant Water-Related Conflicts within or between Regions** – The conflict between water for people and water for ecosystems is increasing. Through ongoing Habitat Conservation Planning, the City voluntarily began releasing water for fish bypasses in 2007. The Tait Wells provide a water source that is not subject to bypass. In future droughts, the City will need the flexibility of these wells, as less water becomes available from flowing sources in order to protect fish.
- 3. Address Critical Water Supply/Quality Needs of DAC** – A majority of residents of the City's service area (53%) meet DAC criteria and are served by this project.
- 4. Effectively Integrate Water Management with Land Use Planning** – The City's Water Supply Assessment General Plan 2030 (Erler & Kalinowski 2011) describes water supply and demand projections. The project will improve the water reliability situation of the City by restoring the reliable capacity of two Tait Wells.

#### Statewide Priorities

- 1. Drought Preparedness** – The project addresses long-term drought preparedness by contributing to sustainable water supply and reliability during water shortages. Tait Wells reduce reliance on flowing water sources. In the future, water produced from these wells may be made available regionally through emergency water system interties.
- 2. Climate Change Response Actions** – According to the US Geological Survey (USGS), local climate change impacts in the region include increased temperature in spring and fall, higher frequency of droughts and storms, and less groundwater recharge. Tait Wells expands the water supply portfolio when flowing sources are low or after storm events when the river is turbid. The project will reduce reliance on flowing sources, reducing stress on Coho salmon and steelhead trout.
- 3. Expand Environmental Stewardship** – The ability to extract water from beneath the river will allow surface water flows to be managed more flexibly for the benefit of Coho salmon and steelhead trout.
- 4. Ensure Equitable Distribution of Benefits (particularly provide access to safe, clean, and affordable water, adequate for human consumption, cooking and sanitary purposes) – Human Right to Water Policy** – The Tait Wells Replacement project improves water supply reliability for the entire City service area, including the DACs that comprise a majority of the population. Currently all residents are under mandatory 25% water curtailment, which is likely to increase if the drought continues.

This project has a high level of certainty of meeting these preferences and a moderate breadth and magnitude that the preferences will be met because the wells will represent a portion of the City's water supply.

## Improve Potable Water Quality and Water Supply Reliability to Address Drought Impacts

This project meets five Program Preferences and five Statewide Priorities, including the Human Right to Water Policy.

### Program Preferences

- 1. Include Regional Projects or Programs** – The project improves access to the high-quality North Coast water with improved drinking water supply and quality benefits to the City. The supply benefit of the project indirectly benefits the Region by improving the City's ability to participate in regional emergency water transfer programs through planned system interties which could benefit regional Coho salmon recovery efforts.
- 2. Integrate Water Management within Hydrologic Region** – The project allows integrated management of North Coast, San Lorenzo, and Loch Lomond source water supplies, creating flexibility for water managers to meet requirements for habitat conservation, water supply and water quality.
- 3. Effectively Resolve Significant Water-Related Conflicts within or between Regions** – The project provides a tool for the City's management of the increasing, and conflicting, needs of water for people and ecosystems. The City releases water for fish bypasses which increases the City's reliance on high disinfection by-product (DBP) precursor supply from Loch Lomond. This project addresses DBP concerns with aerators and access to higher quality water from North Coast sources.
- 4. Address Critical Water Supply/Quality Needs of DAC** – A majority of residents of the City's service area meet DAC criteria and are served by this project.
- 5. Effectively Integrate Water Management with Land Use Planning** – The City's Water Supply Assessment General Plan 2030 (Erler & Kalinowski 2011) describes water supply and demand projections based on land uses. The project will improve the City's water reliability by allowing tools to improve management of both agricultural and municipal water from the North Coast pipeline.

### Statewide Priorities

- 1. Drought Preparedness** – The project addresses long-term drought preparedness by contributing to sustainable water supply and quality during water shortages. The City reliance on Loch Lomond during drought creates DBP challenges which are managed with aerators and high quality North Coast supply.
- 2. Use and Reuse Water More Efficiently** – The FlexNet tower and meters are an efficient agricultural water management practice and allow for better demand management and faster leak detection.
- 3. Climate Change Response Actions** – Local climate change impacts include increased temperature in spring and fall, higher drought and storm frequency and less GW recharge. The project elements improve use of limited high quality North Coast sources and allow the use of Loch Lomond providing a valuable drought and climate change management tool.
- 4. Expand Environmental Stewardship** – The ability to maximize available water sources and limit water losses will allow more Loch Lomond storage so that environmental releases can continue.
- 5. Ensure Equitable Distribution of Benefits (particularly provide access to safe, clean, and affordable water, adequate for human consumption, cooking and sanitary purposes) – Human Right to Water Policy** – The project maximizes the available supply as well as limits losses for both the general population as well as the DAC's which comprise a majority of the Santa Cruz population.

This project has a high level of certainty of meeting these preferences and a high breadth and magnitude that the preferences will be met because the project elements provide significant water quality benefits to the City.

# Conjunctive Use and Enhanced Groundwater Recharge Project at Hanson Quarry

This project meets three Program Preferences and addresses four Statewide Priorities.

## Program Preferences

- 1. Include Regional Projects or Programs** – Many partners collaborate on management of the Santa Margarita Groundwater Basin under a Memorandum of Understanding. Conjunctive use and enhanced recharge will advance regional basin management objectives, as well as multiple objectives of the Santa Cruz IRWM Plan. Scotts Valley Water District (SVWD) is actively joining with other water agencies through a regional network of emergency water system interties, including San Lorenzo Valley Water District and Mount Hermon Association. In this way, enhancing the groundwater supply at SVWD supports regional water supply reliability and regional drought preparedness.
- 2. Effectively Resolve Significant Water-Related Conflicts within or between Regions** – Availability of water to support endangered fish species is a major issue in the San Lorenzo River Watershed. It is clear that there will be more competition for water from flowing sources in the future, and multi-faceted regional solutions are needed. The Santa Margarita Groundwater Basin may contribute up to 40% of baseflow of Zayante and Bean Creeks, two of the most productive tributaries for salmonid spawning and rearing. An objective of this project is to enhance baseflows in the watershed, especially in these tributaries.
- 3. Effectively Integrate Water Management with Land Use Planning** – This project has significant integration of water management practices with land use planning because it replaces an industrial land use (former quarry) with open space that can yield multiple benefits, including groundwater recharge, open space and habitat. In addition to wells and water infrastructure, the site is ideal for a regional recreation resource.

## Statewide Priorities

- 1. Drought Preparedness** – The project contributes to development of long-term sustainable water supply and reliability during extended water shortages; promotes conjunctive use, reuse, and recycling; and contributes to effective groundwater basin management. Water produced will be available regionally through emergency system interties.
- 2. Use and Reuse Water More Efficiently** – Winter time surface water and recycled water are potential sources for recharge, especially since recycled water is currently discharged to the ocean during the winter when irrigation demand is low. This project expands water supply reliability consistent with the IRWM Plan.
- 3. Climate Change Response Actions** – According to the USGS, local climate change impacts in the region include increased temperature in spring and fall, higher frequency of droughts and storms and less groundwater recharge. This project will advance groundwater recharge and expand conjunctive management of multiple supply sources including recycled water, surface water and stormwater runoff.
- 4. Expand Environmental Stewardship** – An objective of this project is to enhance baseflows in the watershed, especially in Bean and Zayante Creeks which are among the most productive tributaries for Coho salmon and steelhead trout spawning and rearing. State, federal and local agencies have invested at least \$3.1 million in 60 to 80 habitat restoration projects in this watershed in the past eight years and will facilitate maintaining these investments.

This project has a moderate level of certainty of meeting these preferences as this is an initial implementation stage of a long-term project and a high breadth and magnitude that the preferences will be met because the project stages integrate a variety of water management elements from injection and/or aquifer storage and recovery with a range of water sources including recycled water and surface water.