

Pajaro River Watershed Emergency Drought Program

ATTACHMENT 8: DISADVANTAGED COMMUNITY ASSISTANCE

The City of Watsonville, a designated Disadvantaged Community (DAC) as documented below, is seeking a waiver from the 25 percent match requirement for construction of the Corralitos Creek Water Supply and Fisheries Enhancement Project.

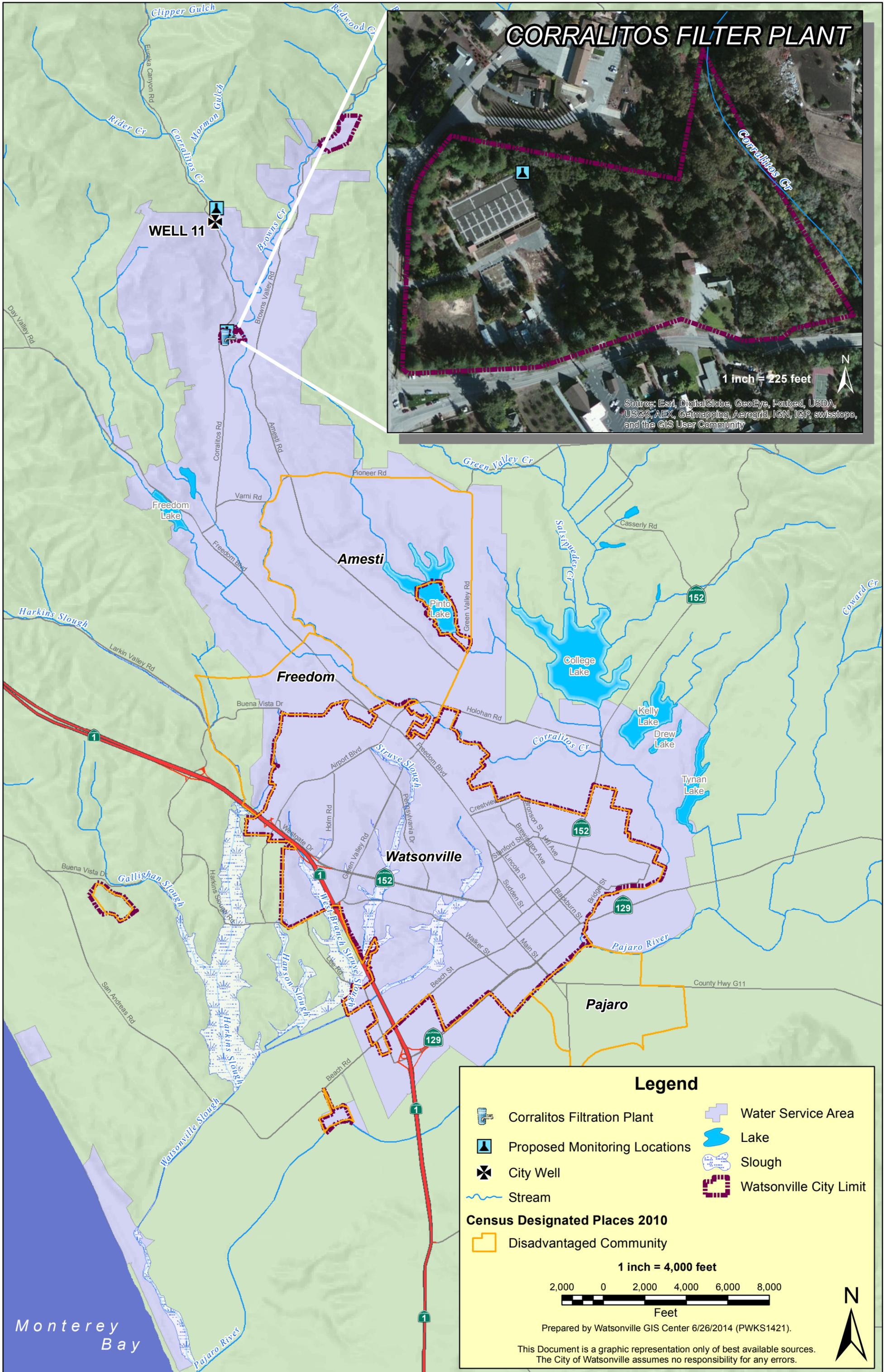
Determination of DAC Status

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. DAC status was determined based on the DAC definition provided in DWR's Proposition 84 and 1E IRWM Guidelines. A MHI of less than \$48,706 is the DAC threshold (80% of the Statewide MHI). The City of Watsonville, a 2010 Census Designated Place, has a MHI of \$46,675 (U.S Census, <http://factfinder2.census.gov>), which is below the threshold and confirms its DAC status. As shown in Figure 1, the entire City of Watsonville is within the DAC defined boundary (US Census Bureau's American Community Survey (ACS)). The population of the City of Watsonville is 49,580. The water service area encompasses the entire City of Watsonville and, thus, the entire city benefits from the project.

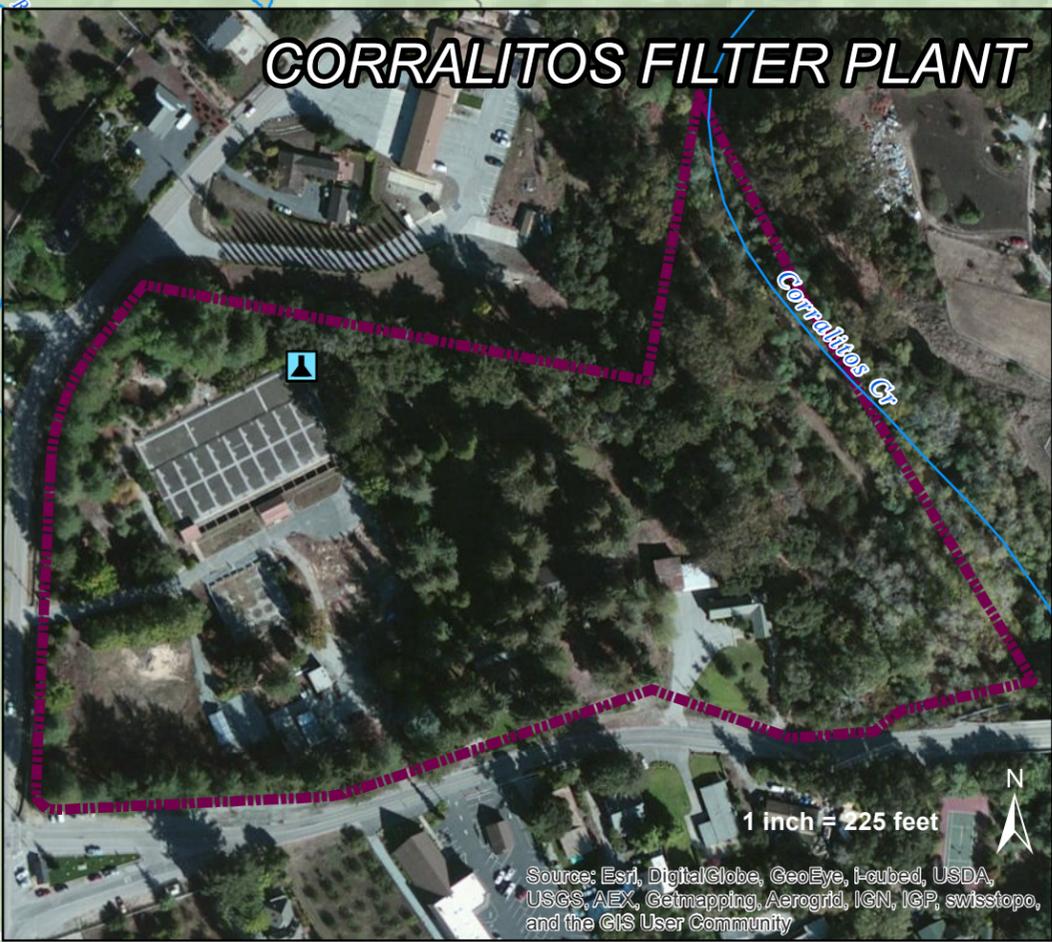
TABLE 1

Qualification of Census Designated Place as DAC

DAC Evaluation Criteria	Response
Is the entire DAC community benefitted by this Project?	Yes, the City of Watsonville is a Census Designated Place. The water service area encompasses the entire City of Watsonville and will benefit from the Project.
Median household income (MHI):	\$46,603
Year for the median household income	2010
Source of information	U.S. Census Bureau, ACS (2006-2010)



CORRALITOS FILTER PLANT



WELL 11

Amesti

Freedom

Watsonville

Pajaro

Monterey Bay

Critical Water Supply and Water Quality Need

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. The basin overdraft has led to competition for the finite groundwater resources, has created conflict between the agricultural and urban water users, and has led to numerous water related lawsuits in the region, forcing the City and the local water agency, PVWMA, to re-evaluate local water supplies and consider the enhancement and expansion of existing local water supplies to offset groundwater pumping.

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. The City will continue to evaluate hexavalent chromium treatment while maximizing efficiency and production from the Corralitos facility.

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 and risk MCL violations.

The new hexavalent chromium regulation will be implemented July 1, 2014. If the Corralitos project is not implemented, the City is at risk of not delivering a safe drinking water supply. Grant funding is needed to implement the project. A summary of how the project meets the drought funding objectives and the critical water supply and water quality needs is presented in Table 2.

TABLE 2
How Project Accomplishes Critical Water Supply and Water Quality Needs

Drought Objective	How Project Accomplishes Needs
Increase local water supply and the delivery of safe drinking water	The project will provide 1,000 AFY of water to be delivered to the City of Watsonville (DAC).
Drought Objective	How Project Accomplishes IRWM Objectives
Reduce water quality conflicts or ecosystem conflicts created by the drought	The project will reduce water quality conflicts and ecosystem conflicts by offsetting 1,000 AFY of pumped groundwater from an overdrafted groundwater basin impacted by significant seawater intrusion and the subject of multiple law suits due to the conflict created by finite groundwater resources and numerous users.
Water supply reliability, water conservation and water use efficiency	The project will increase water supply reliability by providing 1,000 AFY of water to be delivered to the City of Watsonville (DAC) from the Corralitos Creek in lieu of pumping from the Pajaro Valley Groundwater Basin, which is an overdrafted basin impacted by significant seawater intrusion.
Stormwater capture, clean-up storage and treatment	The project will treat stormwater flow by removing deleterious organic materials.
Drinking water treatment and distribution	The project will deliver safe drinking water supply in compliance with the new hexavalent chromium MCL limits of 10 ppb.
Ecosystem and fisheries restoration and protection	Corralitos Creek supports a local steelhead population. The project will decrease water turbidity in the creek and enhance water and habitat.