

MONTEREY COUNTY



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January 27, 2023

Karla Nemeth, Director
California Department of Water Resources
P.O. Box 942836
Sacramento, CA 94236-0001

Re: Support for the County of Monterey's Weather Modification Pilot Program for the Nacimiento and San Antonio Watersheds: 2022 Urban Community Drought Relief Grant Program

Dear Ms. Nemeth,

On behalf of the County of Monterey Board of Supervisors, we are pleased to support the Monterey County Water Resources Agency (MCWRA) Weather Modification Pilot Program for the Nacimiento and San Antonio Watersheds.

The Monterey County Water Resources Agency (MCWRA) manages Nacimiento Reservoir, in northern San Luis Obispo County, and San Antonio Reservoir, in southern Monterey County, for the combined goals of flood protection, water conservation, operation of the Salinas Valley Water Project, environmental compliance, and recreation.

MCWRA seeks to initiate an aerial weather modification program with the purpose of augmenting natural precipitation in the watersheds that drain into Nacimiento Reservoir and San Antonio Reservoir to provide additional inflow to both reservoirs. The preferred method will utilize cloud seeding. This is a process by which silver iodine particles are introduced into clouds, providing a nucleus where condensation can form then subsequently freeze and fall to the ground as snow or rain, depending upon the surface temperature. Silver iodine is used because its molecular structure closely resembles the molecular structure of ice.

Every ten years, the National Oceanic and Atmospheric Administration (NOAA) publishes U.S. Climate Normals which are a 30-year average of conditions, including temperature and precipitation, that can help demonstrate changes in climate over time. The most recent data, which covers a 30-year period from 1990 to 2020, shows much warmer than average temperatures for the western United States and a 5-10% in average annual precipitation when compared to the 20th-century average.

Despite events in January 2023 that brought large quantities of precipitation to Monterey County, the three-month U.S. Seasonal Drought Outlook for the period ending in March 2023 indicates that drought will remain across much of California. A weather modification pilot program would allow MCWRA to maximize precipitation from storms when they do occur and increase the amount of inflow to Nacimiento and San Antonio Reservoirs, allowing for storage of water than can be sustainably managed during times of drought.

Based on a preliminary feasibility study, a 5-month long cloud seeding program in the target area could yield an additional 9% to 17% increase in precipitation for the two watersheds. The *Weather Modification Pilot Program for the Nacimiento and San Antonio Watersheds ("Pilot Program")* would include developing a robust and successful design for MCWRA's permanent weather modification program, an evaluation of the proposed program to fulfill requirements of the California Environmental Quality Act (CEQA), and selection of a contractor to implement the program.

The Pilot Program would have a duration of multiple winter season cycles to obtain data to fine tune the final weather modification program that could be permanently implemented. The Pilot Program will utilize only aerial seeding methods during the program duration. The final program will be proposed after all the data is evaluated and any necessary modifications to optimize the program are made.

The impacts of this program will have a direct positive effect throughout the Salinas Valley in Monterey County and the northern area of San Luis Obispo County. By maximizing the seasonal water in the reservoirs, more water will be available for the reservoir releases during the spring and summer months. The increase in available water for diversion at the Salinas River Diversion Facility (SRDF) will decrease groundwater pumping in the Castroville Area.

The SRDF provides treated river water to offset groundwater pumping by the agricultural water users in the critically overdrafted 180/400 Foot Aquifer Subbasin, in turn slowing the advance of seawater intrusion which impairs the drinking water supplies of the disadvantaged communities around Salinas and Castroville. The release of the reservoir water throughout the spring and summer months also provides recharge to the Salinas Valley Groundwater Basin. This aquifer recharge supports sustainable management of groundwater resources for disadvantaged communities along the Salinas River such as San Ardo and areas within San Lucas, King City, Soledad, Greenfield and Chualar.

Increased reservoir releases also have a positive impact on fish habitat and migration throughout the Salinas River. This directly attributes to the improved habitat for the critically threatened South-Central California Coast Steelhead (*Oncorhynchus mykiss irideus*).

The Project would also increase available recreation reservoir levels for the Nacimiento and San Antonio Reservoirs. The increase in recreation would bring increased revenue for the communities along the reservoirs and into the Upper Salinas Valley that are impacted negatively by the drought conditions. San Luis Obispo County would also benefit from the available stored water for their Nacimiento Water Project.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Luis Alejo', is written over a faint circular stamp.

Luis Alejo, Chair
Monterey County Board of Supervisors