



Santa Barbara County Public Works Department

Flood Control ♦ Water Agency ♦ Project Clean Water

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To: Board of Directors
Santa Barbara County Water Agency

From: Matthew Scudato *MCS*
Water Agency Senior Hydrologist

Date: September 30, 2021

Re: **CEQA Determination for the Santa Barbara County/Twitchell Reservoir Cloud Seeding Program:**
Addendum to previous Negative Declaration (**13NGD-00000-00011**).

CEQA Guidelines Section 15164 allows an addendum to be prepared when only minor technical changes are proposed in the project or changes which would not create new significant impacts. Negative Declaration 13NGD-00000-00011 was prepared in October 2013 for the 2013-2014 Santa Barbara County and Twitchell Reservoir Cloud Seeding Program. This 15164 letter hereby amends 13NGD-00000-00011 for the proposed 2021-2022 Santa Barbara County/ Twitchell Reservoir Cloud Seeding Program.

Location: The Santa Barbara County portion of the cloud seeding program is located along the Santa Ynez River watershed, upstream of Lake Cachuma reservoir. The Twitchell Reservoir portion of the cloud seeding program is located along the border of Santa Barbara and San Luis Obispo counties in the Twitchell Reservoir watershed.

Physical structures involved in the project are stationary land-based generators used to disperse silver iodide into the atmosphere. These generators are located along ridgelines adjacent to the Twitchell Reservoir and Santa Ynez River watersheds.

BACKGROUND:

The Santa Barbara County Water Agency proposes to continue the cloud seeding program that has been conducted in Santa Barbara County since 1981 (excluding 1985-86 and 2007-2008). In 1992, the program was expanded to include the Twitchell Reservoir watershed. Runoff water accumulated in Twitchell Reservoir is periodically released to recharge the Santa Maria Groundwater Basin. Impacts of the cloud seeding program are described in Negative Declaration 13NGD-00000-00011 as finalized on October 15, 2013.

PROJECT DESCRIPTION:

The project description has been modified to include the specific 2021-2022 "Suspension Criteria" proposed by the County Water Agency. *Suspension criteria are subject to revision when deemed necessary by the Santa Barbara County Water Agency (Agency) and Santa Barbara County Flood Control District (District).* The proposed suspension criteria are presented below:

2021-2022 CLOUDSEEDING PROGRAM SUSPENSION CRITERIA

A. General Criteria for the Entire Project Area in both Santa Barbara and San Luis Obispo Counties

Criteria in this category apply to the entire project area including all of Santa Barbara County and the Twitchell Reservoir Drainage of Southern San Luis Obispo County.

1. Whenever the National Weather Service (NWS) issues a severe storm, precipitation, flood warning or flash flood warning that affects any part of the project area, the project meteorologist shall suspend operations which may affect that part. Operations will be suspended at least for the period that the warning is in effect.
2. The Project Meteorologist or District/Agency personnel shall retain independent authority to suspend cloud seeding operations for any part, or all of the project area in the event that unforeseen conditions develop during storm events which in their best judgment have the potential to cause flooding or other adverse conditions anywhere within the project area.

B. Specific Criteria for Individual Areas/Watersheds

South Coastal Areas:

1. No targeting of or seeding operations which affect the urbanized areas of the South Coast of Santa Barbara County south of the Santa Ynez Mountains Ridgeline will be conducted.

Santa Ynez River Watershed:

1. Prior to and during each storm event the District will make stream flow runoff forecasts for the Santa Ynez River using a hydrologic computer model. Additionally, Automatic Local Evaluation in Real-Time (ALERT) telemetered rainfall data, radar, and quantitative precipitation forecasts will be monitored. If, prior to any storm event the model indicates that the storm has the potential to generate a 15,000 cubic feet per second (CFS) or greater flow in the Santa Ynez River near Lompoc (real-time streamgage 11133000), the storm may be seeded *only* if; (1) both the District/Agency and Project meteorologist concur, and (2) measures are taken to continuously monitor the storm event. If stream flow runoff forecasts predict flows of over 15,000 cfs in the Santa Ynez River near Lompoc based on **observed** rainfall data, seeding operations which may impact the Santa Ynez River flow below Bradbury Dam shall be immediately suspended.
2. Should it be predicted that Lake Cachuma entirely fill and/or spill based on the Flood Control's Santa Ynez River computer flow model, seeding operations to target the Santa Ynez Watershed will be suspended for the remainder of the season.
3. In the event Lake Cachuma spills, operations may be re-initiated after suspension, at the direction of District/Agency staff, with consideration of hydrologic and meteorological conditions, in order to extend the baseflow of the Santa Ynez River.

Special suspension criteria for the watersheds surrounding Jameson Reservoir:

1. During periods of strong westerly wind flow, there will not be seeding from the Gibraltar ground site which is the most easterly ground site in the network. This site may still be used during periods of southerly and southwesterly flow where seeding effects will not significantly impact precipitation rates in the areas of the burn scar.

2. Seeding activity will be suspended from the Dos Vistas and West Camino Cielo ground site during periods of westerly flow, if 24-hour precipitation is forecasted to exceed 1.5 inches, or if hourly precipitation in or around the area of the burn scar is forecasted to exceed 0.6 inches during any given 1-hour period. These special criteria would apply only to storm periods exhibiting strong westerly flow.

Cuyama, Sisquoc and Santa Maria River Watersheds:

1. Cloud seeding operations shall be suspended in the Twitchell Watershed when District/Agency project that the conservation pool of Twitchell Reservoir will fill. The conservation pool is full at elevation 622.13' (105,971 acre-feet of storage). This leaves 89,000 AF of Flood Control Capacity.
2. Seeding operations shall be suspended if the current or projected flow on the Cuyama River is 15,000 CFS or greater at Buckhorn Canyon (real-time streamgage 11136800), as determined by the District/Agency using information supplied by the California-Nevada River Forecast Center and real-time data.
3. Seeding operations shall be suspended if the current or projected flow on the Sisquoc River is 10,000 CFS or greater at Garey (real-time streamgage 11144000), as determined by the District/Agency using information supplied by the California-Nevada River Forecast Center and real-time data.

Note: All suspension criteria are subject to revision should hydrologic conditions warrant it. All revisions must be documented in writing and be approved by District/Agency representatives with notification provided to the project meteorologist.

CHANGES IN PROJECT IMPACTS:

The proposed modifications in project description are intended to minimize the potential for cloud seeding activities to contribute to potential flood hazards along the Santa Ynez and Santa Maria rivers. These modifications would restrict cloud seeding operations to a level of activity equal to or less than has occurred in the past. Potential impacts of the revised cloud seeding program would be no greater than those disclosed in the previous environmental document, 13NGD-00000-00011, based on the added restrictions. Therefore, no new impacts would be anticipated due to the proposed modification of the project.

FINDINGS:

It is the finding of the Water Agency that the previous environmental document as herein amended may be used to fulfill the environmental review requirements of the current project. Because the current project meets the conditions for the application of State CEQA Guidelines Section 15164, preparation of a new EIR or ND is not required.

Discretionary action by the Board of Directors of the Santa Barbara County Water Agency on the proposed 2021-2022 Santa Barbara County/Twitchell Reservoir Cloud Seeding Program may now proceed with the understanding that any substantial changes in the proposal may be subject to further environmental review.