



County of Santa Barbara^{NS} Planning and Development

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To: Board of Directors
Santa Barbara County Water Agency

From: Dave Ward, Deputy Director *DWard*
Development Review South Division

Staff Contact: Dennis Gibbs, Senior Hydrologist

Date: September 15, 2008

Re: **CEQA Determination for the Santa Barbara County/Twitchell Reservoir
Cloud Seeding Program: Addendum to previous Negative Declaration (00-ND-
29).**

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 00-ND-29 was prepared in November 2000 for the 2000-2001 Santa Barbara County and Twitchell Reservoir Cloudseeding Program. This 15164 letter hereby amends 00-ND-29 for the proposed 2008-2009 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 proposed to be located along ridgelines surrounding 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 00-ND-029 as finalized on November 3, 2000.

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PROJECT DESCRIPTION:

The project description has been modified to include the specific 2008-2009 "Suspension Criteria" proposed by the County Water Agency to protect the Santa Ynez River Watershed, which has not yet recovered from the Zaca Fire and to protect the Santa Ynez River and the Cuyama River from excessive flows due to seeding operations during the upcoming winter season. *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:

2008-2009 CLOUD SEEDING SUSPENSION CRITERIA

A. GENERAL CRITERIA FOR SANTA BARBARA COUNTY

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 issues a severe storm, precipitation, 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 in the project area.

B. SPECIFIC CRITERIA

Santa Ynez River Watershed

There will be no seeding of the Santa Ynez River Watershed during the 2008-2009 Winter Season. Staff field investigations have determined it will be at least one more year before enough watershed recovery in the burn areas from the Zaca Fire have occurred to conduct cloud seeding.

Twitchell Reservoir / Cuyama River Watershed

1. Cloud seeding operations shall be suspended in the Twitchell Watershed when only 30,000 Acre Feet of storage remain in the conservation pool (elevation 608.75'). The conservation pool is full

at elevation 622.30' (108,758 acre-feet of storage). This leaves 119,000 AF of Flood Control capacity for the 2008-2009 winter season.

2. Seeding operations shall be suspended if the current or projected flow on the Cuyama River is 15,000 cfs or greater, as determined by the District/Agency.
3. The NWS or NOAA predicts a storm of 5" or greater over any 24 hour period to occur in any location of the Sisquoc Watershed.
4. The ground seeding sites at Mt. Lospe, Harris Grade and Sudden Peak will not be used when the wind direction at the 850mb (millibars) and 700mb (approximately 4000 and 10,000 feet above mean sea level) levels are observed or predicted in the next three hours to equal or exceed 260°, 250° and 240° respectively. The 4000 feet level is selected since it is near the elevation of the ground seeding sites and is a level for which wind directions are forecasted from sophisticated mesoscale atmospheric models. Likewise, the 10,000 feet level is a good approximation of the movement of the rain cells embedded within the storm. The 700mb level is also a level for which forecasts are available. This will preclude any seeding material being transported released from ground sites over the burned areas in the Sisquoc and Santa Ynez River Watersheds. Wind directions at approximately 1000 foot intervals are available in near real time on a five-minute basis from the National Weather Service NEXRAD radar sites such as those located at Vandenberg AFB and Los Angeles (site actually located near Oxnard) and are continually monitored by staff during operational periods.
5. There is a low-level atmospheric inversion either observed or predicted to develop in the next three hours at or below 7000 feet that would present the opportunity for seeding material released from the ground seeding sites to become trapped below the inversion and be transported over the burned areas in Santa Barbara County.

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 Cuyama 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, 00-

ND-29, 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 Planning and Development Department 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 2008-2009 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.