



BOARD OF SUPERVISORS  
AGENDA LETTER

Agenda Number:

Clerk of the Board of Supervisors  
105 E. Anapamu Street, Suite 407  
Santa Barbara, CA 93101  
(805) 568-2240

**Department Names:** Water Agency  
**Department No.:** 054  
**For Agenda Of:** November 9, 2021  
**Placement:** Administrative  
**Estimated Tme:** N/A  
**Continued Item:** No  
**If Yes, date from:**  
**Vote Required:** Majority

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**TO:** Board of Directors, Water Agency  
**FROM:** Department Scott D. McGolpin, Public Works Director, (805) 568-3010  
Director(s)  
Contact Walter Rubalcava, Interim Deputy Public Works Director, (805) 568-3436  
Info:  
**SUBJECT:** Cloud Seeding Program 2021-22, All Supervisorial Districts

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**County Counsel Concurrence**

As to form: Yes

**Auditor-Controller Concurrence**

As to form: Yes

**Other Concurrence:** Risk Management

As to form: Yes

**Recommended Actions:**

That the Board of Supervisors:

- a) Approve the 2021-2022 Cloud Seeding Program and authorize the Chair to execute the agreement with North American Weather Consultants (not a local vendor) for cloud seeding for the period of November 9, 2021 through June 30, 2022 unless earlier terminated, in an amount not to exceed \$204,600;
- b) Consider the 2021 Addendum to the Mitigated Negative Declaration 13NGD-00000-00011 which the Board adopted on October 15, 2013; and
- c) After considering the Mitigated Negative Declaration and the 2021 Addendum to the Mitigated Negative Declaration, determine pursuant to California Environmental Quality Act Guidelines Section 15162(a) that no subsequent Environmental Impact Report or Negative Declaration is required for this project because: 1) No substantial changes are proposed in the project which require major revisions of the Mitigated Negative Declaration; 2) No substantial changes have occurred with respect to the circumstances under which the project is undertaken which require major revisions of the Mitigated Negative Declaration; and 3) No new information of substantial importance concerning the project's significant effects or mitigation measures exists which were not known and could not have been known with the exercise of reasonable diligence at the time that the Mitigated

Negative Declaration was adopted on October 15, 2013. The Mitigated Negative Declaration is located at:

<https://santabarbara.legistar.com/LegislationDetail.aspx?ID=1488396&GUID=8B49D500-ED74-4C50-BB4A-AEDBCBA813BE>

**Summary Text:**

This item is on the agenda in order to approve and execute the agreement for this year's cloud seeding program. The agreement with North American Weather Consultants (NAWC) provides for a four-month ground based cloud seeding program, with an option for a two-week extension, for the Santa Ynez watersheds above Lake Cachuma and Twitchell Reservoir. Programs conducted during the last 40 years (excluding the 1985-1986 winter after the Wheeler Fire and the 2007-2008 winter after the Zaca Fire) included ground and/or air-based seeding for both the Lake Cachuma and Twitchell watersheds. No cloud seeding was conducted in the Santa Ynez target area from 2017-2021 as a result of the Whittier and Thomas Fires. The program was bid in 2017 as a professional services contract with the option to re-hire the contractor without re-bidding for five years. NAWC was awarded the contract, and there are no local cloud seeding vendors. Given suitable conditions, seeding operations will be conducted December 1, 2021 through March 31, 2022. Should suitable seeding conditions persist, operations may be extended for an additional two weeks until April 15, 2022.

**Alignment with other River System Interests and Safety Concerns**

Special suspension criteria have been established to avoid any undesirable effects from the program. No targeting of or seeding operations which may affect urbanized areas will be conducted. The program focuses only on the backcountry watersheds behind Lake Cachuma and Twitchell Reservoir. When it is apparent that Twitchell Reservoir will fill or flows on the Cuyama and other tributaries that feed into the Reservoir approach significant volume, seeding operations will be suspended. The program includes operational constraints designed to preclude or limit seeding effects over burn and flood sensitive areas. For example, cloud seeding operations will be suspended in the Twitchell Reservoir Watershed when Water Agency staff determines there will be a potential adverse effect resulting from the Alamo Fire. Additionally, selective targeting procedures in the Twitchell Reservoir Watershed may be used to avoid the Alamo Fire burn area completely. The Flood Control District's existing storm-monitoring capabilities are augmented by the meteorological monitoring services provided by the contractor's certified meteorologist using sophisticated radar capability. As a standard practice, for safety reasons, the Flood Control District retains final decision-making authority over all seeding operations.

**Compliance with the California Environmental Quality Act (CEQA)**

On October 15, 2013, your Board approved the Mitigated Negative Declaration (MND) 13NGD-00000-00011 pursuant to the CEQA Guidelines. The Water Agency made the finding that CEQA Guidelines Section 15164 is applicable. 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. Thus, no additional review is required.

**Background:**

The cloud seeding program uses state of the art methods accepted by the Department of Water Resources to augment rainfall in designated target areas by injection of silver iodide into the cloud mass. Acting as artificial condensation nuclei, the silver iodide promotes the formation of raindrops in addition to those forming by natural processes. Cloud seeding has long been recognized as a cost-effective

supplemental water supply alternative and, for that reason, has been an ongoing operational program of the County Water Agency since 1981. Due to its ideal setting for certain types of operations, Santa Barbara has been the focus of numerous cloud seeding research programs dating back to the early 1950s. Local research programs have been sponsored by the University of California, National Science Foundation, U.S. Forest Service, Naval Weapons Center China Lake, U.S. Weather Bureau, and the National Science Foundation. Policy statements by both the American Meteorological Society in 1998 and World Meteorological Organization in 2007 support the effectiveness of winter orographic cloud seeding projects.

Currently, in October 2021, Lake Cachuma has about 99,800 acre-feet of storage space available. Twitchell Reservoir is empty and has approximately 105,000 acre-feet of water conservation pool storage space available, and a total of 194,971 acre-feet maximum reservoir storage space available.

**Fiscal and Facilities Impacts:**

Budgeted: Yes

<b><u>Funding Sources</u></b>	<b><u>Current FY Cost:</u></b>	<b><u>Annualized On-going Cost:</u></b>	<b><u>Total One-Time Project Cost</u></b>
General Fund			
State			
Federal			
Water Agency Funds	\$ 102,300.00		
Local Water Districts	\$ 102,300.00		
Total	\$ 204,600.00	\$ -	\$ -

**Narrative:**

The program costs continue to be shared equally between the Water Agency and the participating local water districts with the Water Agency staff providing administration of the project. This arrangement is considered equitable because the areas in the county located outside of water districts’ service areas derive much of the benefit from the cloud seeding program. The participating water districts include the following:

- Carpinteria Valley Water District
- City of Santa Barbara
- City of Solvang
- Goleta Water District
- Montecito Water District
- Santa Maria Valley Water Conservation District
- Santa Ynez River Water Conservation District ID#1
- Twitchell Management Authority
- Vandenberg Village Community Services District

This program was included in the 2021-22 adopted budget under the Water Resources Division, Public Works Department as identified on page D-340 in the budget book.

No General Fund monies will be utilized with this program.

**Special Instructions:**

Direct the Clerk of the Board to send two originals of the Agreement with NAWC and a copy of the minute order to the Water Agency office, Attn: Christina Lopez.

**Attachments:**

Attachment A: Agreement for Services of Independent Contractor w/NAWC includes contract summary (3 originals)

Attachment B: 2021 Addendum to MND 13-NGD-00000-00011 (CEQA Determination from Water Agency)

**Authored by:**

Matthew C. Scudato, Senior Hydrologist (805) 803-8781