



Weather Modification Pilot Program (Cloud Seeding) Update

May 5, 2025

Overview of Cloud Seeding Pilot Program



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How Cloud Seeding Works



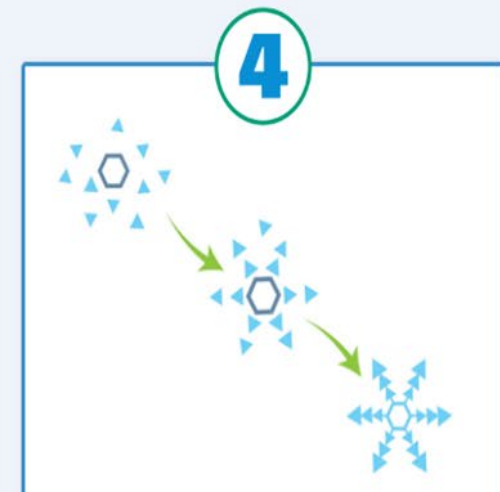
1 Storms come into the watershed region bringing in clouds and moist air flowing over the mountains, cooling and creating clouds composed of supercooled water droplets.



2 Silver iodide particles mixed with acetone are vaporized and released into the atmosphere using ground based seeding systems.



3 Silver iodide particles rise into cold, high-altitude air; moisture in the air condenses to form ice crystals on the particles.



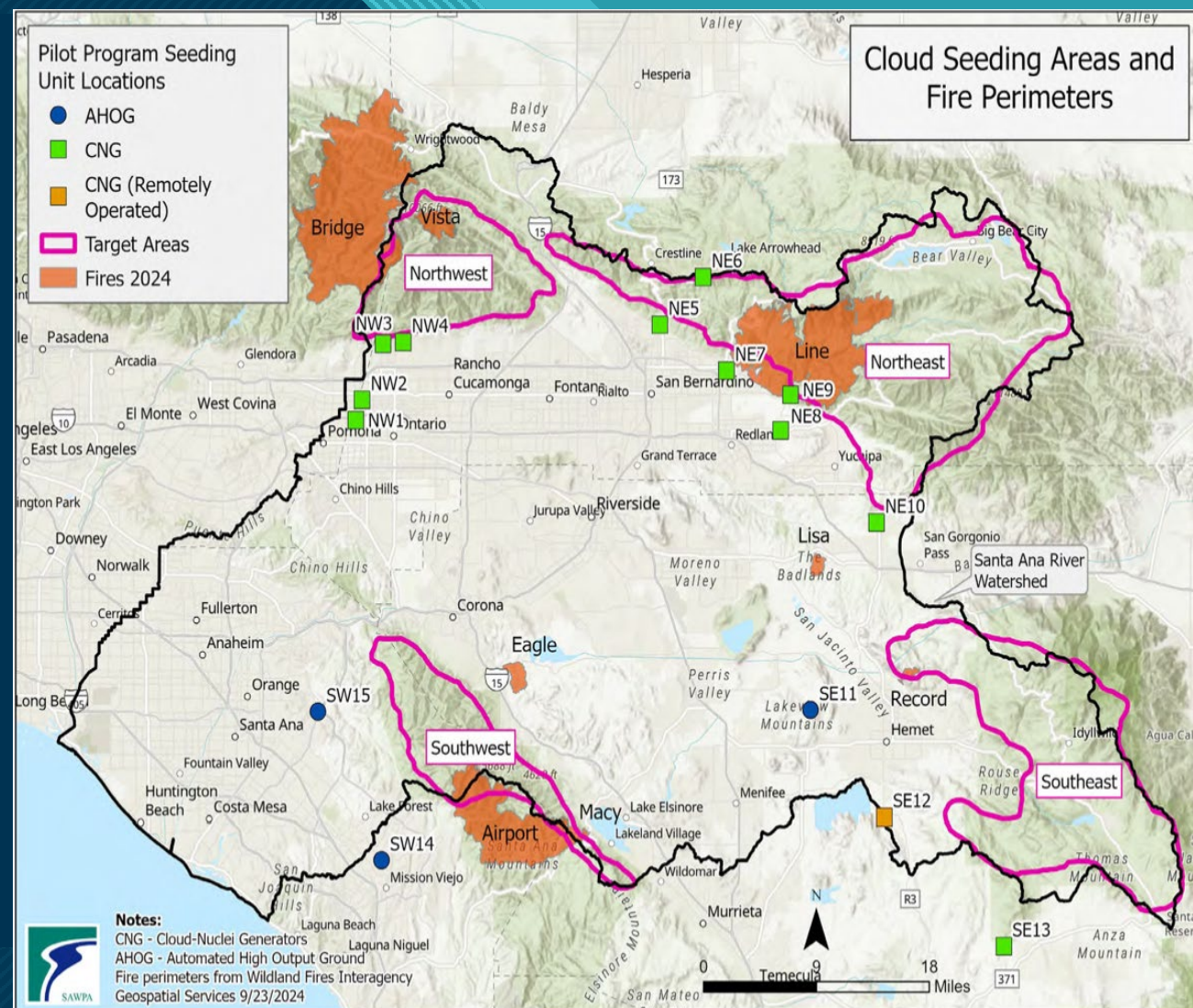
4 By freezing of droplets and deposition of vapor, ice crystals form and grow progressively larger, forming snowflakes large enough to precipitate to the ground.

Summary of First Year of Cloud Seeding (2024)

- 13 storms were seeded, with 1,703 generator-hours and 22 flares.
- All time periods with favorable conditions were seeded (outside the early Feb atmos. River).
- The snow chemistry showed mostly low values of seeding material in the assessed snowpack.
- If all seeding time periods were successfully seeded, as much as 29,000 acre-feet of additional precipitation was possible.
- If all seeding time periods where precipitation was measured were successfully seeded, as much as 11,000 acre-feet of additional precipitation was possible.
- The precipitation target and upstream control analysis of the seasonal snowpack suggested, the target area gauges had more precipitation than climatologically expected for the most locations.
- There was no evidence of a decrease in precipitation downwind of the project area.

Postponement of 2nd year of Cloud Seeding

- SAWPA Staff will be postponing Year 2 Operations (November 15, 2024 - April 15, 2025) of the Santa Ana River Watershed Cloud Seeding Pilot Program
- The decision was based on:
 - The potential for debris flows from the burn scars from recent wildfires in the watershed
 - Input received from the three Flood Control Districts
 - Program's Suspension Criteria





Thank You