Proposition 1 Round 2 Integrated Regional Water Management Grant Competition Process Approval

Ian Achimore, Senior Watershed Manager

SAWPA Commission | October 19, 2021

Item No. 6.B

Purpose of Presentation

- Follow up with the Commission regarding OWOW after the October 4th staff update to the Commission, and
- Receive Commission approval of the OWOW Steering Committee's recommended updates to the rating and ranking criteria.

Rating and Ranking Criteria Changes for Commission Approval

- Benefit area clarification for inland water bodies to include a ten-mile buffer area,
- A replacement of Round 1's two competition pools of large and small projects, to two new pools for general implementation and disadvantaged community (DAC) projects,
  - The DAC benefit pool will also allow for single benefit and single jurisdictional projects to request grant funding. This update will require an update to OWOW Steering Committee's Proposition 1 IRWM Implementation Grant – OWOW Program Policy.
- Ranking formula updates including:
  - Combining of benefit categories and rounding of weighting factors,
  - Adding extra percentage point categories.

Disclaimer About the Recommendation Approved by the Steering Committee

- If the draft PSP is released in October, 2021 (as currently stated by DWR staff) and has **minimal changes** that impact the OWOW rating and ranking criteria updates, the OWOW Call for Projects would last from November 2021 to February 2022.
- If DWR makes **major changes** in the draft PSP, the call for projects would be delayed in order to gather further input from stakeholders and bring an updated recommendation of the OWOW rating and ranking criteria to the Steering Committee and SAWPA Commission at future meetings.

Example Projects for General Implementation Category

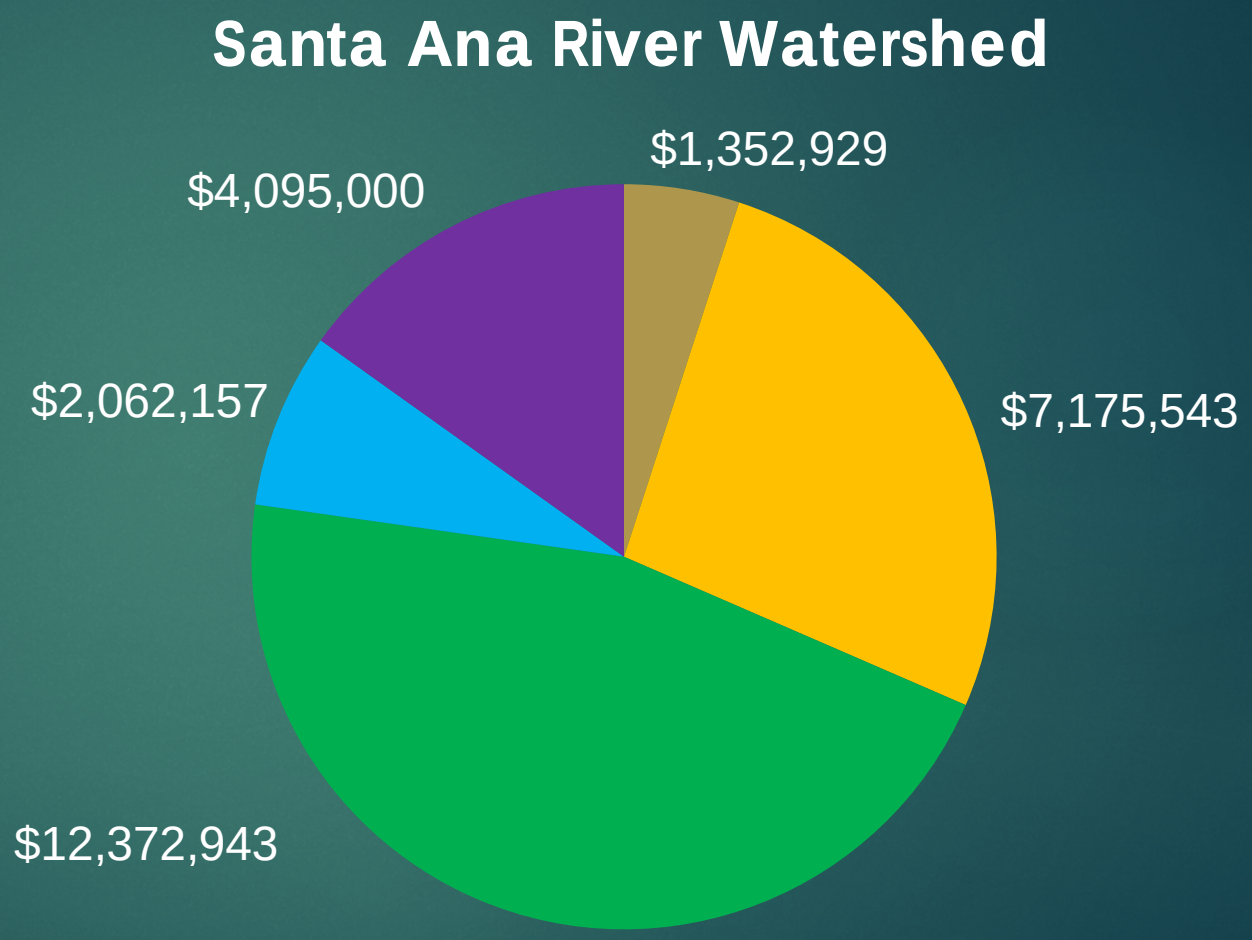
- *Integrated Regional Water Management* - what does it mean?
  - The first word “integrated” = multiple benefits
  - The second word “regional” = multiple partners, covers a larger area

Staff proposing a separate competition pool for DAC single benefit and jurisdictional projects

Prop 1 Round 2 Amounts by Category

Categories created by Agreement executed with North Orange County IRWM Group in 2019:

- Grant Admin
- North Orange County*
- Upper Watershed
- Watershed Wide
- DAC Implementation

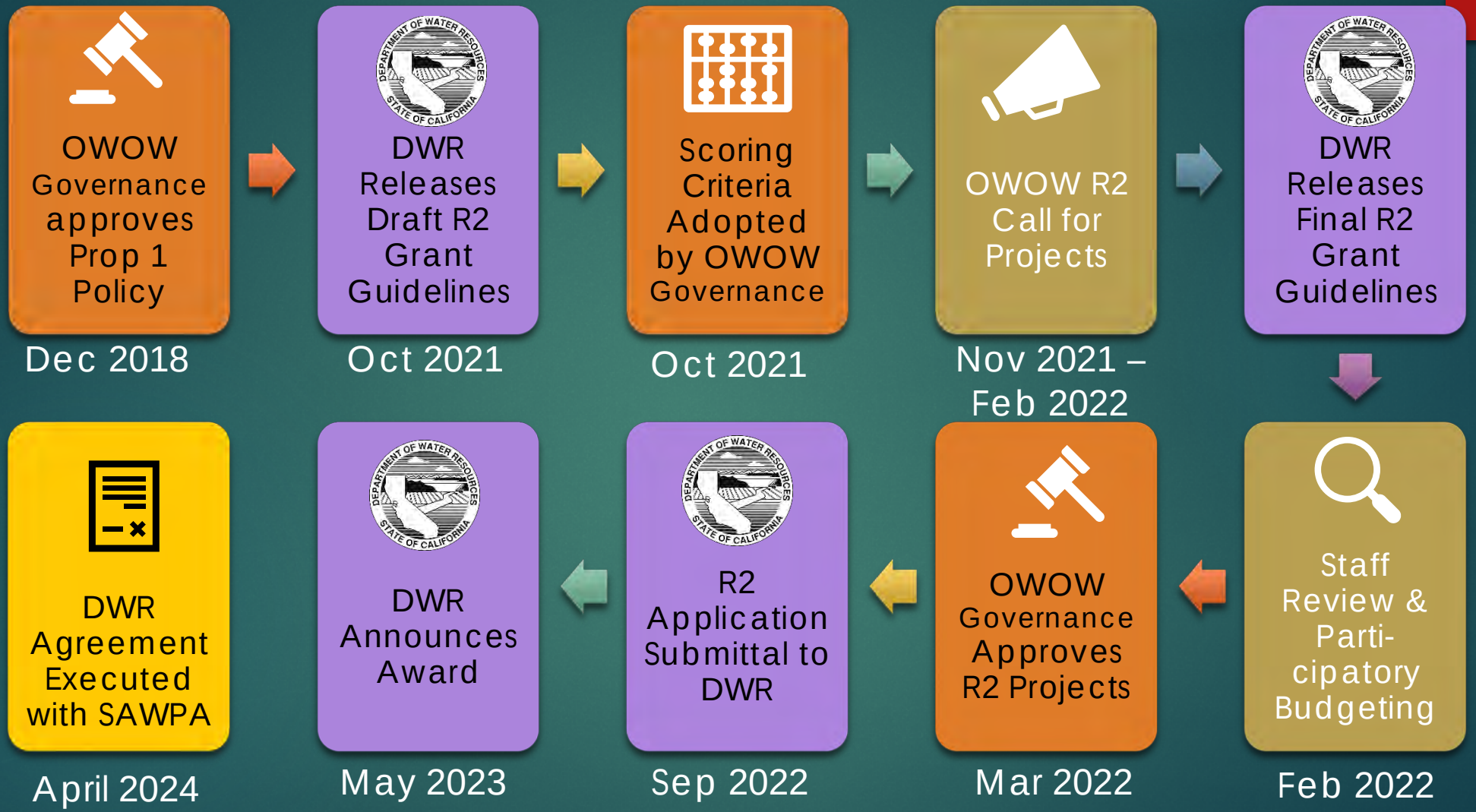


Total = $27,058,572

*Includes $989,072 carry over from Round 1

High-Level Draft* Round 2 (R2) Schedule

Jan 2022



*Schedule assumes DWR will release draft Proposal Solicitation Package (PSP) by October 2021, and all other Round 2 deadlines will reflect the same timing of the Round 1 schedule of events.

Competition Pool Draft Update for Round 2

Round 1:

Small Project Large Project

Round 2 DRAFT:

DAC General Implementation

Note: Small/Large Project cutoff was $500k grant request.

Recommended Round 2 Competition Pools (Not including North OC)

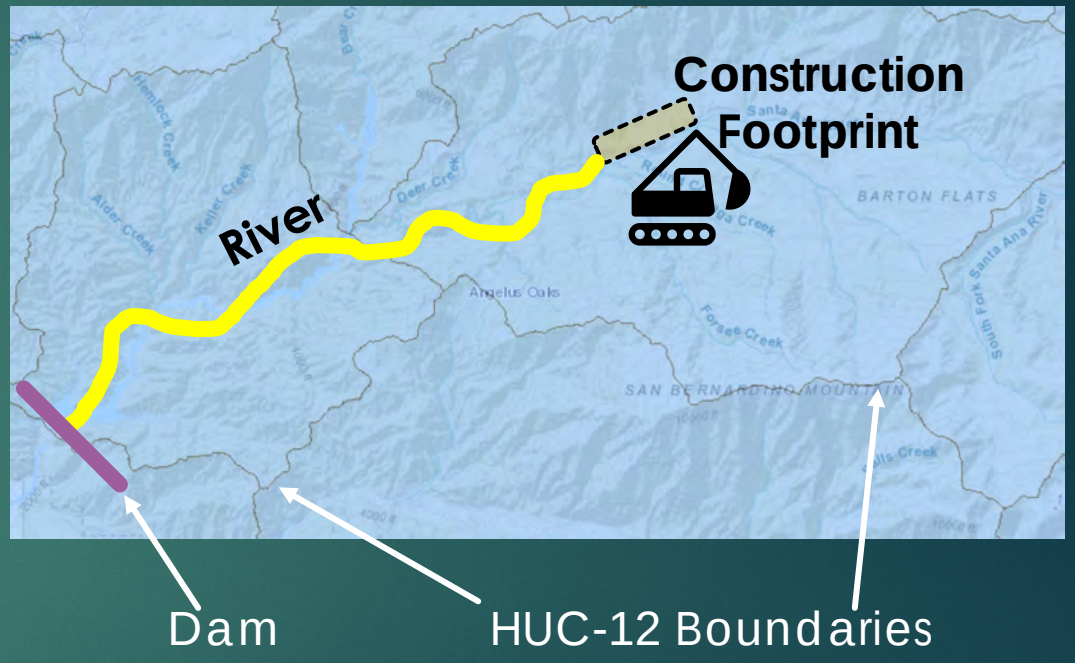
Competition Pools	Grant Amount
DAC	$4,095,000
General Implementation	$14,435,100
Upper Watershed*	$12,372,9423
Watershed Wide*	$2,062,157
DAC and General Total	**$18,530,100**

*Not a competition pool, funding gets distributed after projects are submitted and highest scoring projects are determined.

Benefit Area **Change Previously Discussed**

- Benefit Area limits include the following (listed by project benefit type):
  - **Ecosystem Projects:** US Geological Survey designated HUC-12* level watersheds,
  - **Surface Water Quality and Groundwater Quality:** HUC-12s and DWR-118 Groundwater Basins,
  - **Coastal water quality/recreation:** 10-mile buffer areas, and
  - **Inland water body open to public:** 10-mile buffer areas.
    - Was previously 1/2-mile buffer area, and
    - Found literature on water quality and recreation that uses 10-mile benefit area.

Benefit Area Limit Example



*HUC = Hydraulic Unit Code (more info: https://water.usgs.gov/GIS/huc.html)

Comparison Between Ranking Formulas

Round 1:

$$\left(\sum_{12\ \text{categories}} \left[\left(\frac{x\ benefit}{X\ Benefit} \times 20 \right) \times \text{WF} \right] \right)$$

WF = Weighting Factor
NGO = Non-Governmental Organization

Round 2*:

$$\left(\sum_{6\ \text{categories}} \left(\frac{x\ benefit}{X\ Benefit} \times \text{WF} \right) \right) + \text{If Tribe Lead: x 10\% of } \sum \text{ in ( )} + \text{If Regional: x 15\% of } \sum \text{ in ( )} + \text{If New and Innovative: x 5\% of } \sum \text{ in ( )} + \text{If Non-Profit Partner: x 5\% of } \sum \text{ in ( )}$$

*DAC competition pool has just 3 categories and the Tribal/NGO extra %. DAC also has 10% extra for an NGO that is the project lead (and not just a partner).

Detailed General Implementation Categories **(New clarification in purple)**

Benefit Category	Weight	Category Information	Unit
Water Supply	9	Amount of water supply provided through innovation and optimization. *Can be recycled water.*	Acre Feet
Water Quality Improvement	8	Amount of water quality improved for people or the environment. *Can be wastewater.*	Million Gallons Per Day
Stormwater Protection	8	Amount of acres protected from flooding	Acres
Habitat Improvement	7	Amount of preserved or enhanced natural habitat	Acres
Percentage of DAC/EDA Area	6	Share of Benefit Area that is DAC/EDA (from +0% to 100%)	Percentage
Climate Change Adaptation/Mitigation	7	Amount of greenhouse gases removed/avoided from project implementation	Tons of CO_2
Tribal Benefit	NA - Extra 10%	Lead applicant is federally recognized Indian Tribe or CA State Indian Tribe listed on the Native American Heritage Commission's CA Tribal Consultation List	Yes/No
Regional Benefit	NA - Extra 15%	Benefit area **(or equivalent impact)** covers approximately 75% or more of IRWM Funding Area, including adjacent IRWM Regions	Yes/No
New and Innovative Decision Support Tools	NA - Extra 5%	Project employs new or innovative technology or practice, or is a pilot project.	Yes/No
Non-Profit Partner or Lead (501c3)	NA – Extra 5%	Non-profit provides labor, land value, and/or resources, toward implementation of the project. If they are the lead (and not just a partner), project is also eligible for this 5%.	Yes/No

Detailed DAC Categories

Benefit Category*	Weight	Category Information	Unit
Water Supply	9	Amount of water supply provided	Acre Feet
Water Quality Improvement	8	Amount of water quality improved	Million Gallons Per Day
Stormwater Protection	8	Amount of acres protected from flooding	Acres
Tribal Benefit	NA – Extra 10%	Lead applicant is federally recognized Indian Tribe or CA State Indian Tribe listed on the Native American Heritage Commission's CA Tribal Consultation List	Yes/No
Non-Profit Partner or Lead (501c3)	NA – Extra 5% (or 10%)	Non-profit provides work, land value, and/or resources toward implementation of the project. If they are the lead, project receives 10% total	Yes/No

*No DAC-related weight; instead DAC tract will have a DAC-related gate whereby at least 75% of the benefit area must be DAC.

After Ranking Process ➡ OWOW Participatory Budgeting Process

- After rankings, OWOW workshops were part of the “Participatory Budgeting” the OWOW Stakeholders and Governance Approved
  - Developed with the goals of **transparency**, objectivity, and deliberation.
- Purpose was to receive input on the projects proposed in the OWOW process
  - Is the project eligible for OWOW/Prop 1?
  - Are the benefits claimed realistic?
  - Is watershed improved without unreasonable expense/detriment to others?
  - Includes active participation of multiple agencies?

After Participatory Budgeting ➡ Grant Funding Allocation Process

- In Prop 1 Round 1, OWOW allocated funding to those top projects based on those top projects share of the sum of the weighted scores, and
- Any State priority projects near threshold were included.

Project ID	Weighted Score
1	699.90
2	643.89
3	526.26
4	424.44
5	401.53
6	298.39
7	246.87
8	244.25
9	170.26
10	143.83
11	101.49
12	93.87

Top project threshold.

Grant Allocation Formula for Round 2*

Before Running Formula Each Project is "Capped" at Their Grant Request

$$\left(\frac{x\ Weighted\ Score\ of\ Your\ Top\ Project}{X\ Total\ Weighted\ Score\ of\ Top\ Projects} \times \text{Grant Available} \right) + \left(\text{Add More Grant To Your Project Via Formula in first ( )} \right)$$

Additional Stages of Allocation Formula Done if There is Left-Over Grant Due to Project Request "Caps"

*Same formula used in last Prop 1 round.

Summary of Changes for Feedback

- Benefit area clarification for inland water bodies to include a ten-mile buffer area,
- A replacement of Round 1's two competition pools of large and small projects, to two new pools for general implementation and disadvantaged community (DAC) projects,
  - The DAC benefit pool will also allow for single benefit and single jurisdictional projects to request grant funding. This update will require an update to OWOW Steering Committee's Proposition 1 IRWM Implementation Grant – OWOW Program Policy.
- Ranking formula updates including:
  - Combining of benefit categories and rounding of weighting factors,
  - Adding extra percentage point categories.

Recommendation

- The OWOW Steering Committee recommends adoption of the updated OWOW rating and ranking criteria and modifications to the *Proposition 1 IRWM Implementation Grant – OWOW Program Policy* subject to major revisions as a result of the scheduled October, 2021 Department of Water Resources draft Proposition 1 Round 2 Proposal Solicitation Package release.

Santa Ana River Watershed Weather Modification CEQA Consultant Support

Presented by Mark Norton P.E.,
Water Resources & Planning Manager

SAWPA Commission
October 19, 2021

SAWPA Commission Previously Approved Action (April 6, 2021)

1. Authorize proceeding with the ground seeding site selection analysis and CEQA Development in FY 21-22;
2. Authorize staff to prepare a watershed wide SAWPA project application for Prop 1 Round 2 seeking 50% grant funding for a multi-year pilot scale watershed weather modification program; and
3. Direct staff to perform outreach to seek additional funding partners

Scoping and RFP

- A Request for Proposals for the SAR Watershed Weather Modification Pilot Program CEQA was prepared and released on July 15, 2021
- A consultant review team was formed with SAWPA staff and CEQA experts from EMWD and OCWD
- Four proposals were received. The firm names, original cost estimate and review team evaluation scores are listed as follows based on the proposal ranking criteria defined in the RFP.

Firm Name	Cost Estimate	Evaluation Score
Aspen Environmental Group	$97,093.05	43.8
Catalyst Environmental Solutions	$97,386.74	53.1
Dudek	$145,281.90	45.7
Kinsinger Environmental Consulting	$67,500.00	34.8

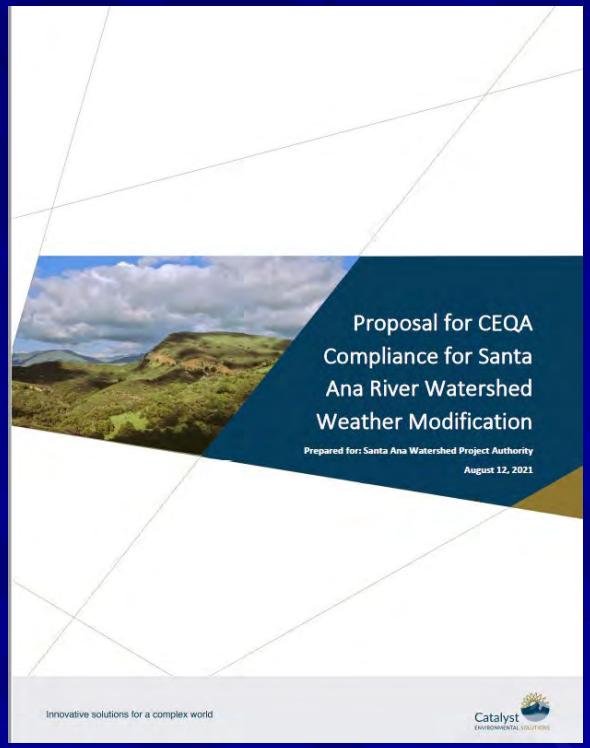
Interview Results

- Proposals were reviewed and three of the four firms were selected for an interview based on defined qualifications-based criteria
- The consultant and review team conducted Zoom meeting interviews on Sept. 28th and thereafter were unanimous in recommending the top firm, Catalyst Environmental Solutions (CES) based in Santa Monica, CA. to conduct the work.
- Thereafter SAWPA staff conducted negotiations with the firm to ensure work was meeting SAWPA's budget while still meeting all anticipated CEQA needs.

Catalyst
ENVIRONMENTAL SOLUTIONS

Scope of Work

- TASK 1 – Project Management and Administration
- TASK 2 – Collect and Review Existing Data
- TASK 3 – Refine Project Alternatives and Phasing
- TASK 4 – Prepare Initial Study and Notice of Preparation
- TASK 5 – Support Scoping Meeting
- TASK 6 – Draft Mitigated Negative Declaration
- TASK 7 – Support Public Meeting
- TASK 8 – Prepare Final Mitigated Negative Declaration and Findings



CES/SAWPA General Services Agreement and Task Order

- No changes to standard SAWPA GSA and Task Order were requested by consultant.
- Based on negotiation with SAWPA staff the revised cost for the work was agreed upon was a not-to-exceed value of $63,271.58.
- The proposed GSA and Task Order are shown as attachments to Commission Memo

Recommendation

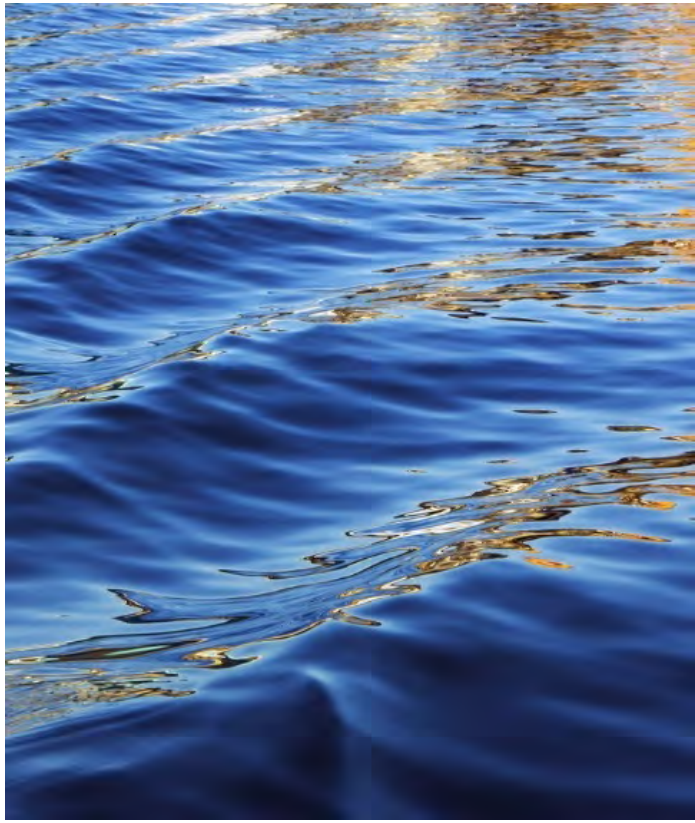
That the Commission:

- Authorize the General Manager to execute a General Services Agreement and Task Order CES370-01 for an amount not-to-exceed $63,271.58 with Catalyst Environmental Solutions to conduct the Santa Ana River Watershed Weather Modification Pilot Program CEQA

Santa Ana River Watershed Weather Modification Pilot Program Outreach

Mark Norton, Water Resources & Planning Mgr.
Santa Ana Watershed Project Authority

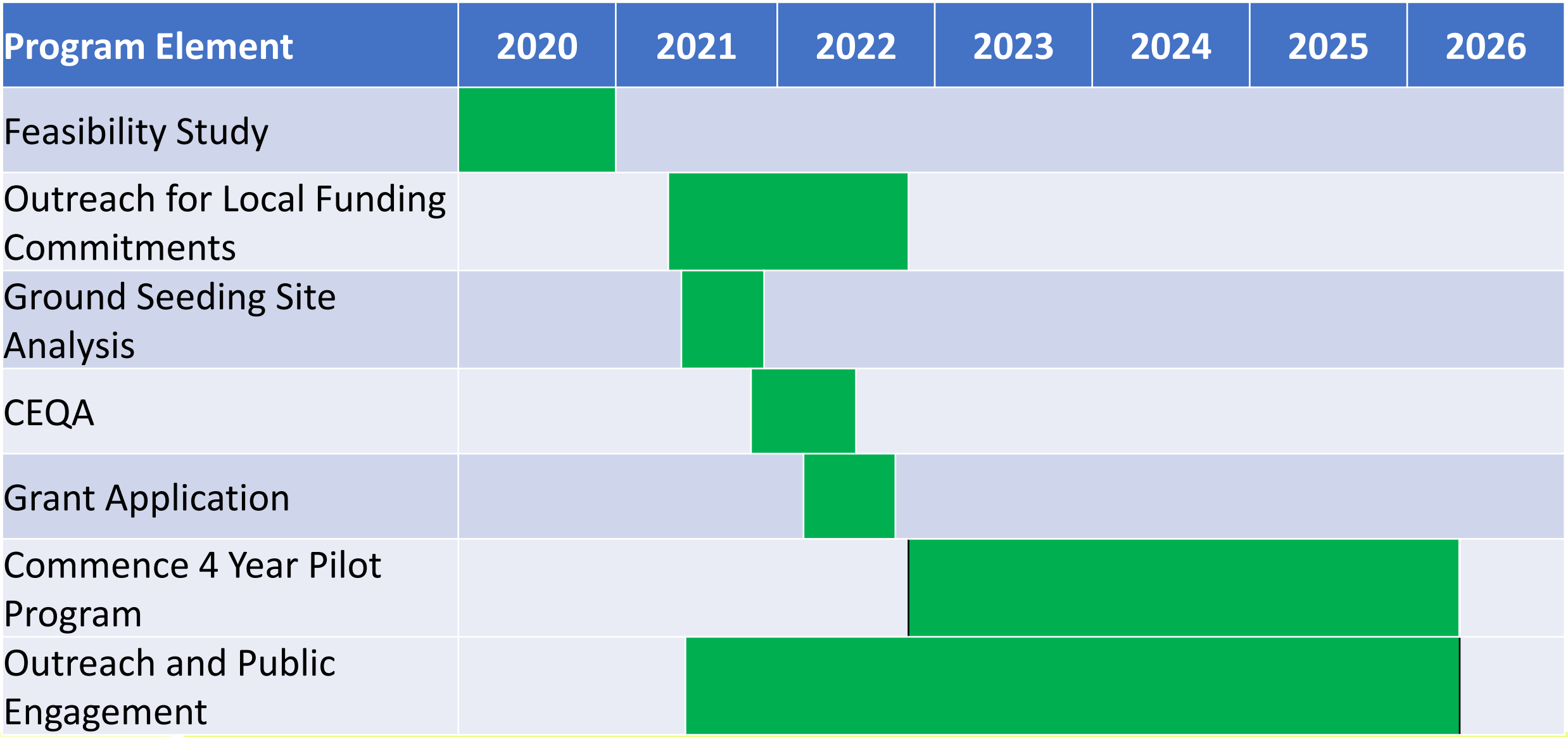
Item No. 6.D



SAWPA Commission Previously Approved Action (April 6, 2021)

1. Authorized proceeding with the ground seeding site selection analysis and CEQA Development in FY 21-22;
2. Authorized staff to prepare a watershed wide SAWPA project application for Prop 1 Round 2 seeking 50% grant funding for a multi-year pilot scale watershed weather modification program; and
3. Directed staff to perform outreach to seek additional funding partners

Pilot Program Schedule

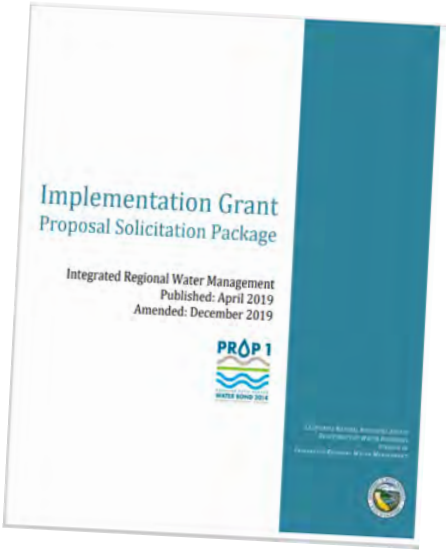


Proposition 1 Round 2 IRWM Implementation Grant Application - Status

- SAWPA staff is waiting for Proposal Solicitation Package (PSP) for this round of grant funding from DWR
- Next Steps:
  1. OWOW Steering Committee and SAWPA Commission approves selection criteria for Grant program
  2. SAWPA completes Call for Projects info form submittal for Weather Modification Pilot.
  3. Seek 50% local share commitment to match 50% grant request by Feb. 2022
- Typically, DWR does not require completion of pilot CEQA until 18 months after grant

PROP 1

GOVERNOR GAVIN NEWSOM
WATER BOND 2014
RELIABILITY | RESTORATION | RESILIENCE



Local Funding Commitment for Pilot Program

Phased Approach for Funding Request

- **Feb. 2021 – Oct. 2021** - Education and Outreach to local agencies
- **Oct. 2021 – Feb. 2022** - Seek local agency support for funding to support Pilot Program
  - Request will range from $20,000 to $40,000 ($5K-$10K/yr for 4-year pilot) depending on size of agency and potential benefit
- **Mar. 2022** - Seek SAWPA support for additional local funding for pilot program to supplement local share
- **Sep. 2022** - SAWPA Prop 1 Round 2 IRWM Grant Application due to DWR
- **Oct. 2022** - DWR announces Prop 1 Round 2 Grant Awards
- **Oct. 2022** - Potential start of SAR Watershed Pilot Program using local funding share
- **Mar. 2023** - Grant funding agreement between SAWPA and DWR executed and grant funding starts

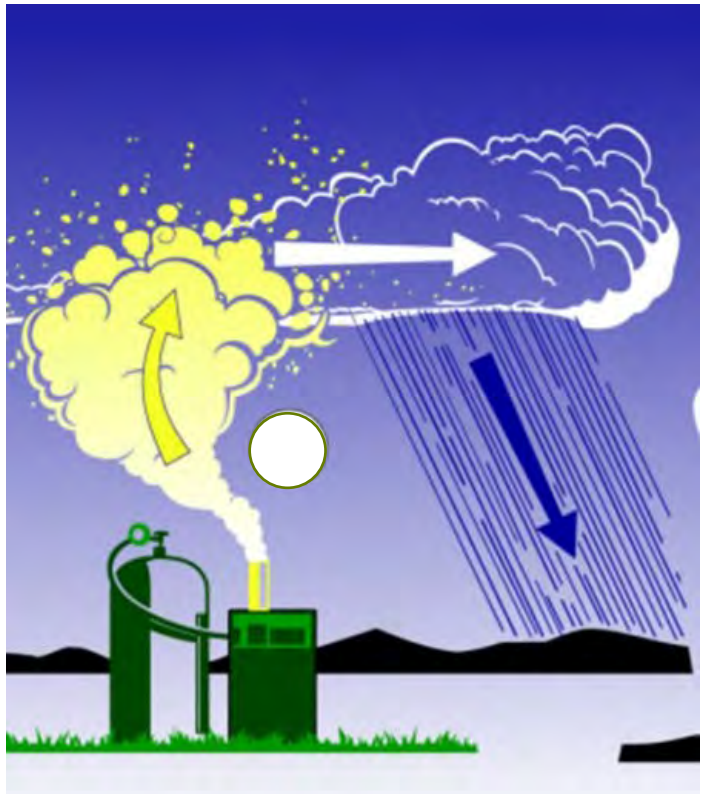
Ground Seeding Locations Analysis Status - Ongoing

Consultant: North American Weather Consultants

Cost: $15,400

Providing all personnel, equipment, and services to:

- Select locations for ~13 ground seeding sites
- Contact public water agencies to ensure that operations from the location are feasible
- If a site cannot be located within a 2-mile radius of the designated location in feasibility study, consultant will identify replacement sites
- Prepare a project summary report detailing the locations identified by consultant



California Environmental Quality Act – Mitigated Negative Declaration Analysis - Status

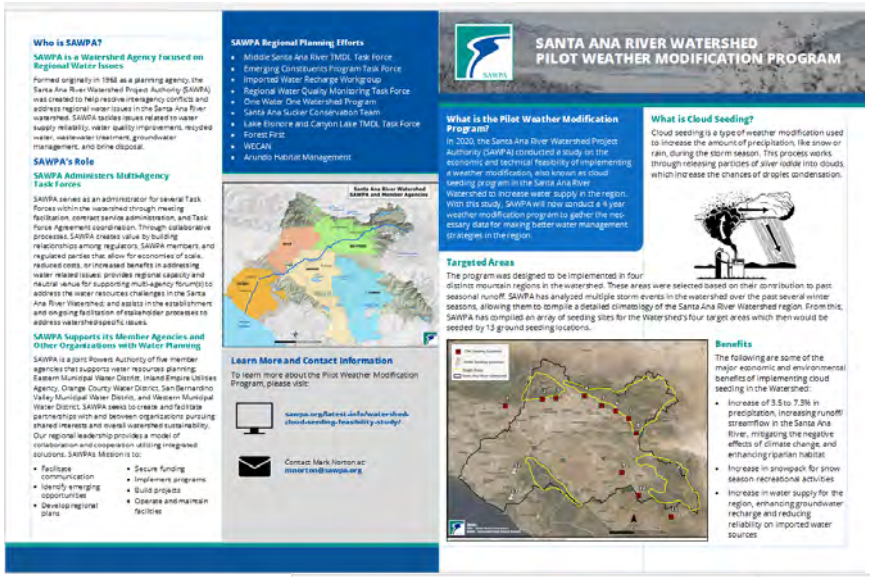
- **July 15, 2021:** Request for Proposals released
- **August 26, 2021:** Four proposals received
  - Consultant Proposal Review Panel composed of:
    - SAWPA staff
    - OCWD CEQA expert
    - EMWD CEQA expert
- **September 28, 2021:** Interviews held with consultant firms by SAWPA staff and review panel via Zoom
- **October 19, 2021:** General Services Agreement and Task Order will be brought to the SAWPA Commission
- **North American Weather Consultants** will assist CEQA consultant to provide context, feedback, and assistance.

Funding Support Outreach Presentations

- 20+ water agencies and other organizations contacted and provided initial information
- Several water agencies have requested more information and presentations to their governing boards
- SAWPA member agency GMs suggested more informational meetings with water agency staff and governing board members across the watershed
- October 14. 2021:
  - Informational Zoom meeting on Pilot Program:
    - SAWPA staff
    - North American Weather Consultants (guest speaker)

Brochure

- Electronic Brochure
  - Transmitted interested parties including:
    - Stakeholders
    - General public
  - Post on SAWPA website
- Hard copies
  - Share at in-person meetings
- Brochure is attached to Commission memo



Frequently Asked Questions (FAQ) document

- Targeted FAQ:
  - 2-pager on pilot program for stakeholders and general public
  - Can be electronically transmitted or handed out in-person
  - Post online on SAWPA website
- Extended FAQ:
  - Longer list of questions and answers on a wide range of topics
  - Can be used as a reference for responding to comments from stakeholders and the public
  - Add to this FAQ as questions arise.

SANTA ANA RIVER WATERSHED
WEATHER MODIFICATION PILOT PROGRAM

For more info, contact Mark Norton at mnorton@sawpa.org or visit us at https://sawpa.org/

Frequently Asked Questions

What is cloud seeding?

Cloud seeding is a weather modification technique that improves a cloud's ability to produce rain or snow by artificially adding condensation nuclei to the atmosphere, providing a base for snowflakes or raindrops to form. Though cloud seeding is often reflective of both ground based seeding and aerial seeding of storms, the pilot program will only include ground based seeding units.

Is cloud seeding safe?

Yes. From 50 years of research, there have been no human effects caused by the cloud seeding agent, silver iodide. The concentration of silver in rainwater or snow from a seeded cloud is much less than the U.S. EPA's standard for silver in drinking water. The potential environmental impacts of silver iodide have been studied extensively and represents a negligible risk to the environment. Cloud seeding operation would not result in any significant increase in silver concentrations in targeted watersheds.

Will suspension criteria impact the effectiveness of the seeding program?

No. In our region, a cloud seeding program would only miss one weather event every two years due to program design to avoid flooding concerns in the downwind areas, which would have only a marginal impact on the overall program effectiveness.

Will increasing snowpack in the upper headwaters benefit the water supply downstream of the Santa Ana River?

Yes. Increases in precipitation in the Santa Ana River Watershed yield a roughly 1.15 multiplicative factor on stream flow. For example, a 10% increase in precipitation will yield a 15% increase in streamflow. Our tributaries and streams are generally more efficient when more runoff is present, as a smaller percentage of the augmented runoff is lost to soil absorption. As a result, a positive impact down the entire stream and river network in the Santa Ana Watershed can be estimated.

Are the estimated increases calculated from assumptions of average rainfall ?

No, the average projected rainfall was not based on the most recent five seasons. Instead, the program was designed to be cost effective even if there were dry years mixed in with average years. Therefore, five seasons from the past 10 historic years were evaluated. These five seasons were selected to represent a modified average that would more accurately represent the benefits of seeding during naturally occurring "dry," "normal" and "wetter" years.

Is there any chance that the seeding methods can cause wildfires?

The cloud seeding process uses ground based "burn-in-place" flares, meaning the flare never leaves its point of origin. The cloud nuclei generators (CNG) and the Automated High Output Ground Seeding (AHOGS) systems use specialized spark arrestors to catch embers and prevent them from hitting the ground around the installations. In addition, weed reduction is performed to prevent weeds from encroaching on the seeding stations. The AHOGS are also equipped with cameras during the seeding process. These systems have been in use for almost 30 years without any issues in California.

CNG AHOGS

How much increase in precipitation would be expected in densely populated valleys where seasonal rainfall is lower?

The expected increase over populated areas is projected to be dramatically lower, as they are not a primary target for any of the generators. The largest increases would be for areas downwind from the AHOGS in the SW area.

How are operations handled in areas where recent wildfires risk abnormally high debris flows?

When large fires occur, an experienced weather modification contractor will work closely with flood control districts to determine the best approach for the season or seasons following the fire. Fires can result in some adjustments to the suspension criteria in affected areas of the program. The Santa Ana River Watershed's target areas are fairly well isolated from each other and are operated during different wind regimes.

Response to Commission Questions (1/2)

1. **For the ground seeding units, is the cost reflective of owning or leasing the units by SAWPA?**

   Most contractors retain ownership of the seeding equipment. It would cost substantially more if the equipment were to be fabricated specifically for SAWPA, and SAWPA would then be responsible for the repairs, off-season storage etc.

2. **How is security handled for the ground seeding units since a regular chain link fence may not be adequate in light of the urban environment of the seeding locations. What security issues have other cloud seeding programs experienced*?***

   Since all the seeding units will be located on private property, security measures will be enforced. For past weather modification operating programs, security has not been an issue. Increased security will be recommended by SAWPA due to proximity to urban environment.

Response to Commission Questions (2/2)

3. **If damage does occur to the ground seeding units, who is liable for their replacement or repair?**

   Contractors would generally be responsible for all damages that occur. The contractor should have insurance on equipment. For general wear and tear and unavoidable incidentals, the contractor would be responsible.

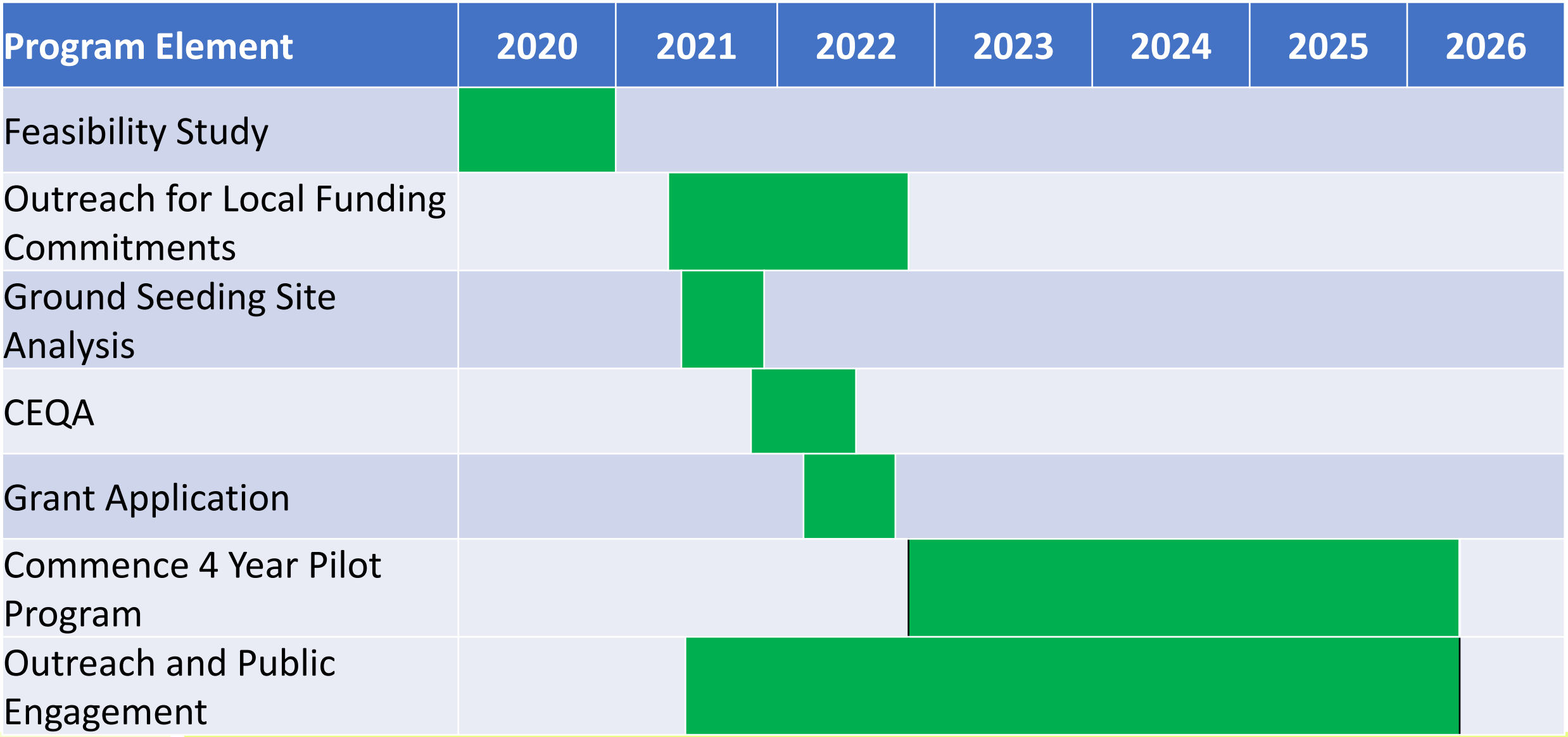
4. **Southern California Edison (SCE) used to operate cloud seeding programs in the 1960s but stopped doing this in 1970's. Do you know anything about their program or why they chose to discontinue operations?**

   SCE was a funding partner to the San Joaquin Cloud Seeding Project for six seasons from 2009 through 2015. Project ended in 2015 not due to any issues with cloud seeding performance. Rather, the project ended due to disputes among water rights holders in San Joaquin Valley and US Bureau of Reclamation who could not agree on funding the cloud seeding program when water transfers among the parties ceased due to the 2015 drought. SCE is still supportive of programs.

Cloud Seeding Video – News release about Santa Barbara County Water Agency Cloud Seeding program

- Weather modification tech: How cloud seeding increases rainfall - YouTube

Pilot Program Schedule



Recommendation

- Staff recommends that the SAWPA Commission receive and file this status report on ongoing outreach materials and activities associated with the Santa Ana River Watershed Weather Modification Pilot Program