

# Arundo Headwaters Project Opportunity with Inland Empire Resource Conservation District

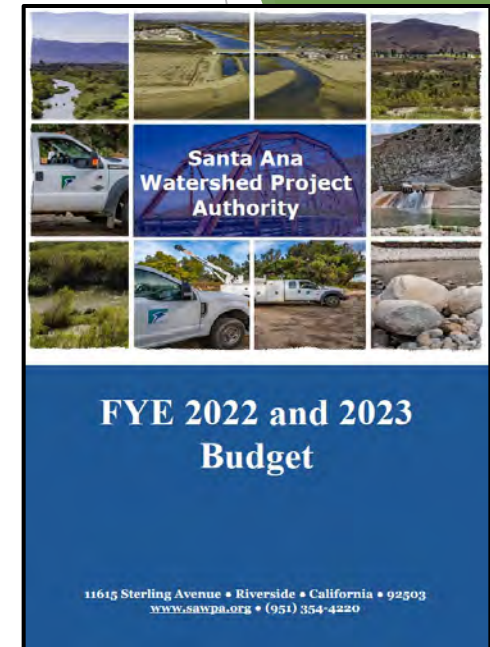


Ian Achimore | Senior Watershed Manager  
June 7, 2022 | Commission Meeting  
Item 6.A.



# Quick Stats on the Arundo Roundtable

- Arundo Management & Habitat Restoration Fund (Fund) in SAWPA Budget,
- Fund in Budget gains revenue from Santa Ana River Mitigation Bank credit sales,
- Per SAWPA Resolution No. 427, use of the Fund (like a task order) needs to be approved by Commission.



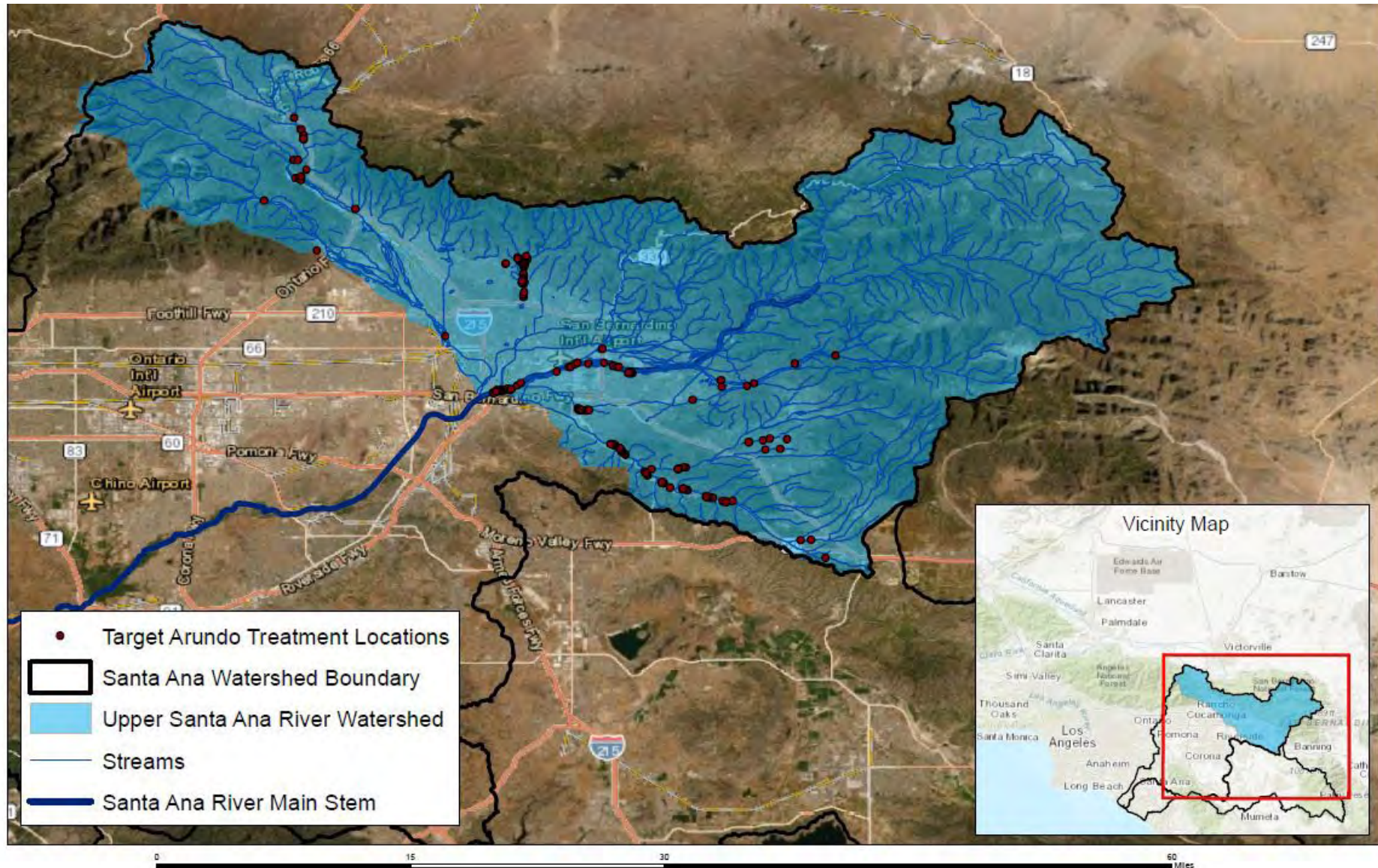
# What is Arundo donax?

- ▶ Invasive Plant (High Rating),
- ▶ Noxious Weed,
- ▶ Uses approx. 528 gallons of water per meter annually,
- ▶ Highly combustible,
- ▶ Survives fire and thrives,
- ▶ Causes flooding by altering flow regimes, and
- ▶ No known habitat benefit.





# Map of Planned Project Sites

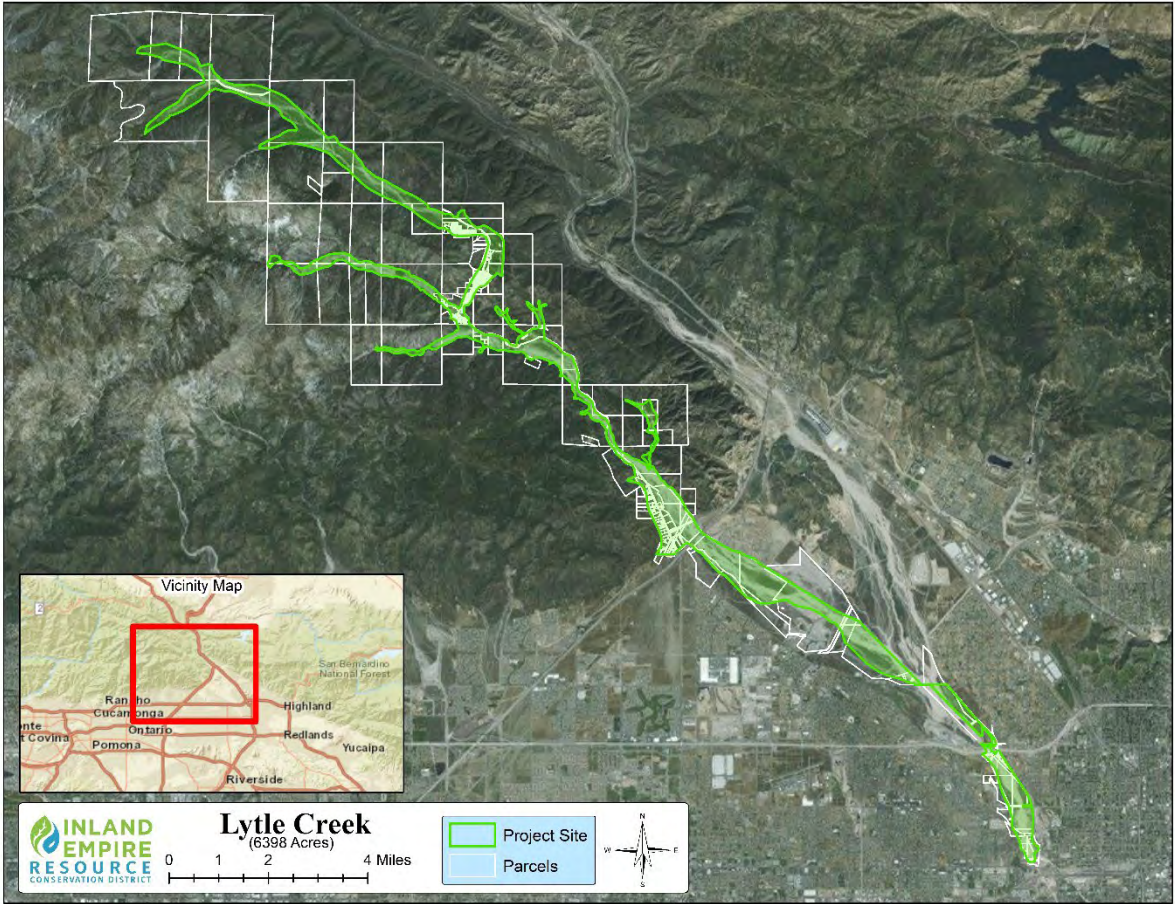
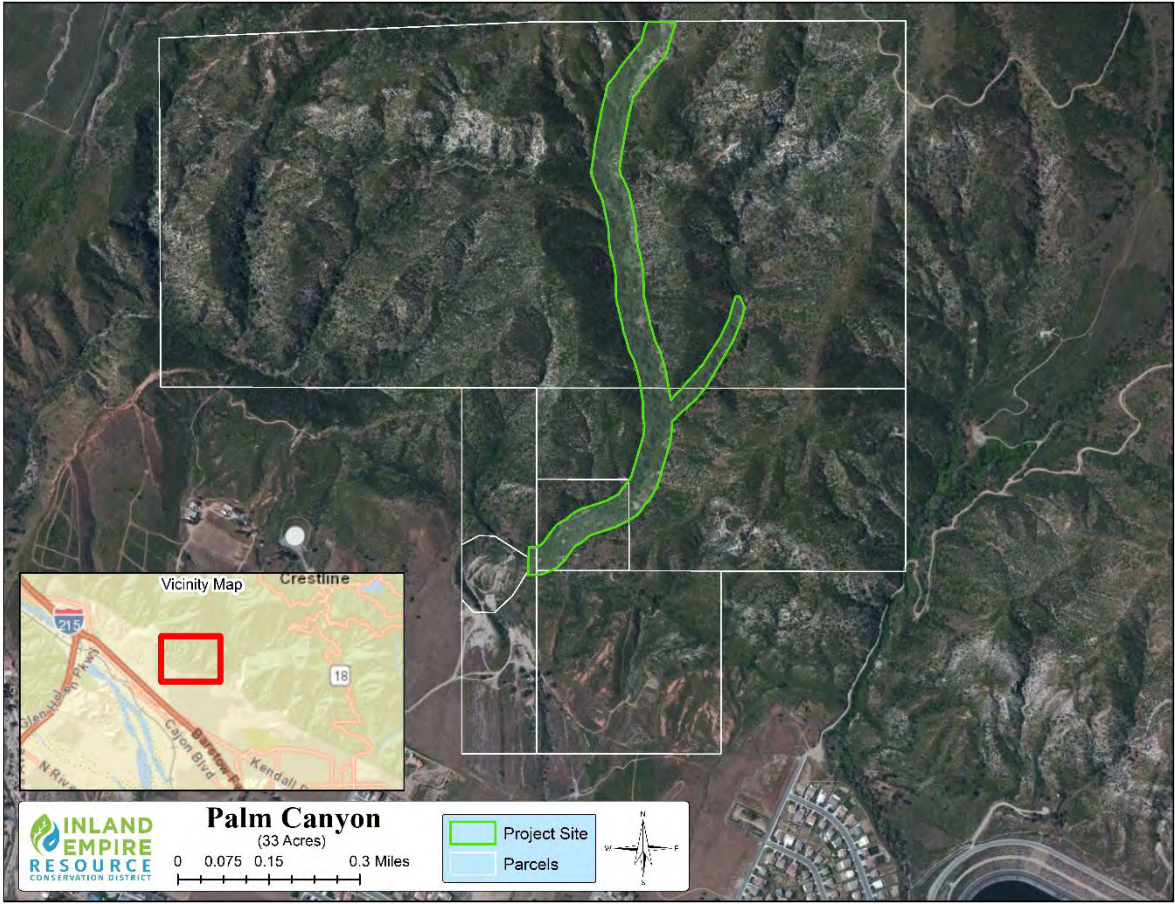


# Headwaters Project Area Stats

Project Site	Project Site Size (Acres)
Cajon Creek	1,285
Coopers Creek	108
Live Oak Canyon	44
Lytle Creek	6,398
Mill Creek	6
Morey Arroyo	13
Noble Creek	244
Palm Canyon	33
San Timoteo Canyon	511
Santa Ana River Main Stem	1,217
The Zanja	42
Waterman Canyon and East Twin Creek	206
Yucaipa Waterways	61
<b>TOTAL</b>	<b>10,168</b>



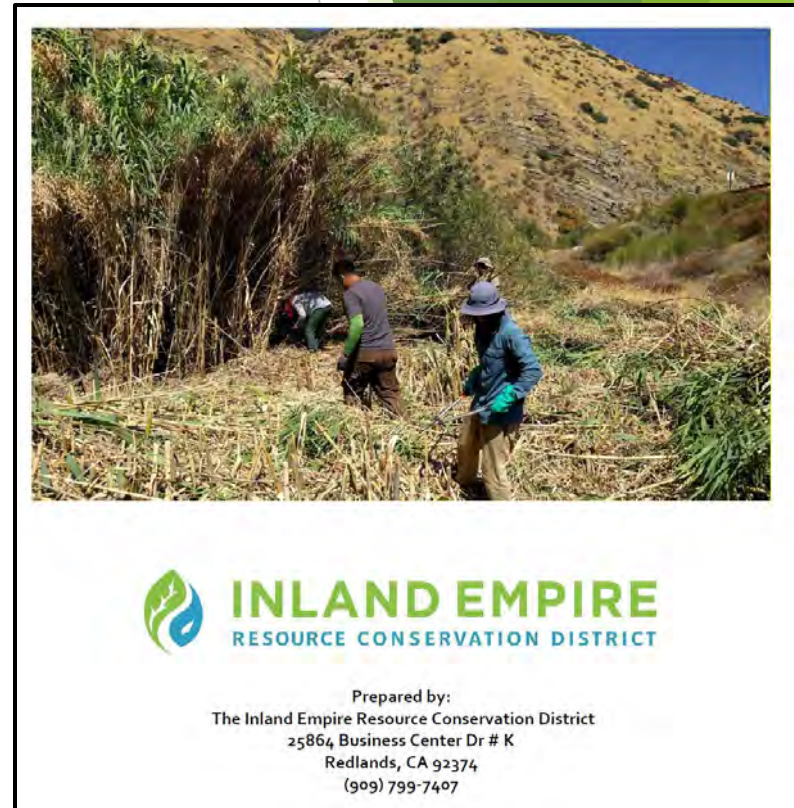
# Example of Project Sites





# About Inland Empire Resource Conservation District (IERCD)

- ▶ One of four RCDs in the Santa Ana River Watershed (SARW),
  - ▶ Their service area covers the upper SARW,
- ▶ SAWPA and IERCD first started coordinating about upper watershed issues as both agencies attend SARW Weed Management Area meetings,
- ▶ Similar projects IERCD has implemented include:
  - ▶ Mill Creek Spanish Broom Control Project
  - ▶ Cajon Pass Invasive Species Control Project
- ▶ IERCD has a detailed invasive species removal plan for their team of field technicians.



# Why Headwaters Are An Important Focus-Area for Arundo Removal

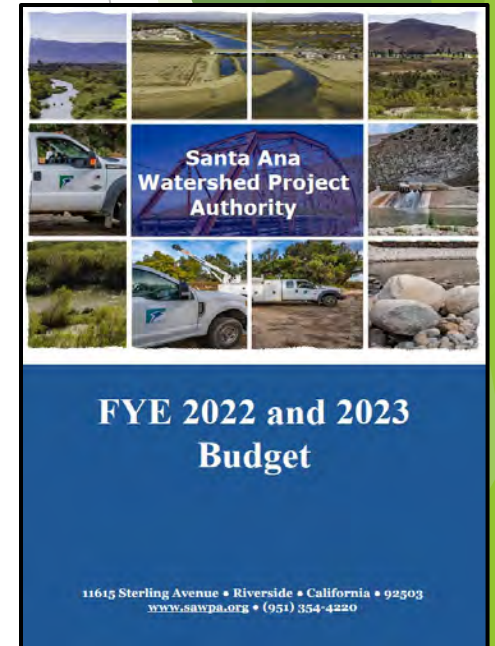
- ▶ Arundo seedlings can wash down waterways during rain events,
- ▶ Starting at top of watershed and working down is economical.
  
- ▶ Estimated costs for this five-year project is approximately \$150,000
  - ▶ Two years of parcel owner outreach and initial treatment with hand-held equipment, and
  - ▶ Three years of follow up treatment with EPA-approved herbicide.





# Important Considerations for Working in the Headwaters

- ▶ SAWPA is not required to remove *Arundo donax* in these portions of the watershed (i.e. this is not “mitigation” for another project or activity),
- ▶ Approximately \$864,000 in funding is available in SAWPA’s Arundo Fund budget for this work,
- ▶ Some of the other downstream *Arundo* “hot spots” in the watershed are being treated by other entities, and
- ▶ IERCD and SAWPA coordinate with these entities through various methods such as Weed Management Area meetings.



# Next Steps

- ▶ Receive feedback from Commission during this meeting,
- ▶ Present final task order with IERCDC for approval at upcoming Commission meeting.



# Recommendation

Receive and file.

**Further Background if Needed**

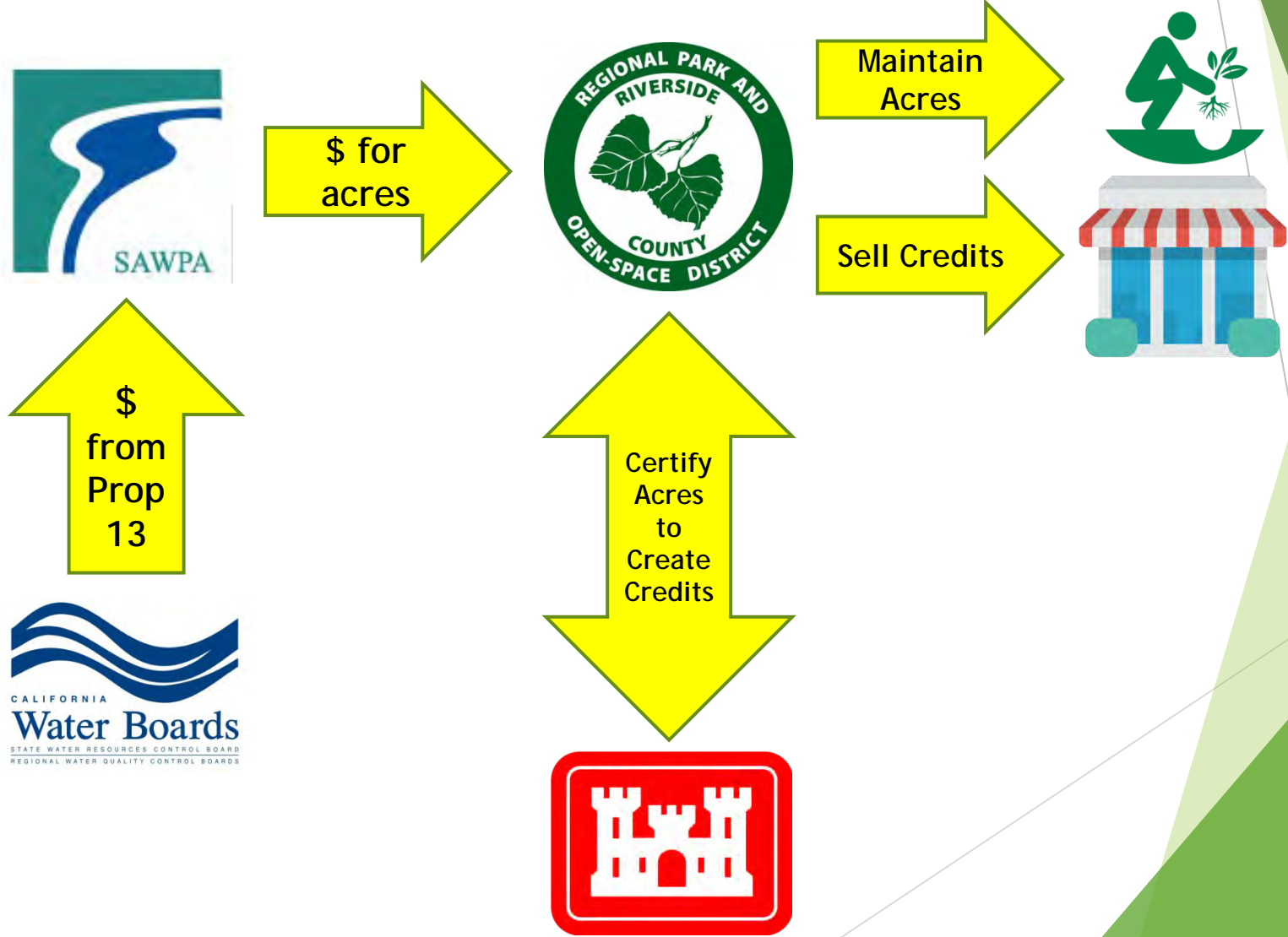


# How the Mitigation Bank Works

- ▶ Operated by Riverside County Regional Park and Open-Space District,
- ▶ Created in 1996 with Army Corps of Engineers, and
- ▶ SAWPA purchased 100 units in 2002 as part of Proposition 13 (2000 Water Bond)



# SAWPA's Funding Initially Provided to Bank





# Bank Revenue Provided to SAWPA



# **Disadvantaged Community Involvement Program DWR DACI Program Set-Aside Funding, 2021 Urban and Multibenefit Drought Relief Grant Program SAWPA Resolution**

**Mark Norton, Water Resources & Planning  
Manager**

**SAWPA Commission | June 7, 2022**

**Item No. 6.B.**



# Recommendation

That the Commission adopt Resolution No. 2022-10, to authorize the application for a grant under the 2021 Urban and Multibenefit Drought Relief Grant Program for Disadvantaged Community Involvement Set-Aside Funding that designates a representative to sign the application, and in the event of an award of grant funds, a representative to execute the funding agreement and all necessary documentation.



# 2021 Urban and Multi-benefit Drought Relief Grant Program (DWR)

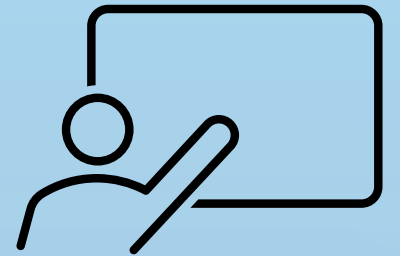
- Grant Program:
  - September 2021 – Draft Guidelines and Proposal Solicitation Package (PSP) released
  - October 2021 – Final Guidelines and Proposal Solicitation Package released
  - Provides at least \$190 million in drought relief funding
- Fund projects that respond to drought, including:
  - Loss or contamination of water supplies
  - Impacts on human health and safety
  - Protect fish and wildlife resources
- Set-Aside:
  - \$50 million statewide
  - Support Underrepresented Communities and Native American Tribes
  - Use Prop 1 IRWM DCI Program





# 2021 Urban and Multi-benefit Drought Relief Grant Program - \$5 million Set-Aside for SAWPA

- SAWPA:
  - Grantee of the DACI Program for our IRWM region
  - Eligible for up to **\$5 million** (use of existing DACI grant agreement)
- Program details:
  - Fund eligible drought relief projects
  - Benefits to Underrepresented Communities or Tribes
  - No local cost share match required for grant
  - Projects to be bundled together in a single application
  - Deadline for application: February 2022



# SAWPA: Application to DWR

- January 2022 - on-line “Call For Project Applications”
  - Project proposals were scored based upon:
    - DWR Grant Requirements
      - Respond to drought emergency
      - Two quantifiable benefits
    - SAWPA DCI Program Goals
      - Technical Assistance Criteria for rating and ranking projects
  - Target projects previously awarded “Technical Assistance Funding” under SAWPA DCI program
- February 2022 – SAWPA Commission approved a suite of projects to be included in an application to be submitted to DWR
- Application currently under DWR review.



# Funding Recommendation

Project Proponent:	Project Title:	Total Prj Cost	Grant Award
City of Colton	Production Well 32	\$ 4,973,000	\$ 885,000
Box Springs Mutual Water Company	Reservoir Improvement	\$ 1,590,000	\$ 1,590,000
Marygold Mutual Water Company	Well 7 Rehabilitation and Systems Upgrade	\$ 1,448,000	\$ 1,448,000
City of Fullerton	Well 6 Rehabilitation	\$ 505,000	\$ 505,000
Devore Water Company	Booster Pump Station and Valve Vault	\$ 472,000	\$ 472,000
SAWPA	Program Administration		\$ 100,000
	<b>Total Request:</b>	<b>\$ 8,988,000</b>	<b>\$ 5,000,000</b>



# Next Steps

- Decision by DWR regarding SAWPA Application
- Amend existing DCI Program Grant Agreement to incorporate additional projects and SAWPA Project Administration
- Prepare DCI Grant sub-agreements with each of the project proponents.






# Recommendation

That the Commission adopt Resolution No. 2022-10, to authorize the application for a grant under the 2021 Urban and Multibenefit Drought Relief Grant Program for Disadvantaged Community Involvement Set-Aside Funding that designates a representative to sign the application, and in the event of an award of grant funds, a representative to execute the funding agreement and all necessary documentation.



# Backup Project Slides if needed





# Santa Ana Weather Modification Pilot Program Operations Request for Proposals

Mark Norton, Water Resources & Planning Mgr.  
Santa Ana Watershed Project Authority  
Item No. 6.C.

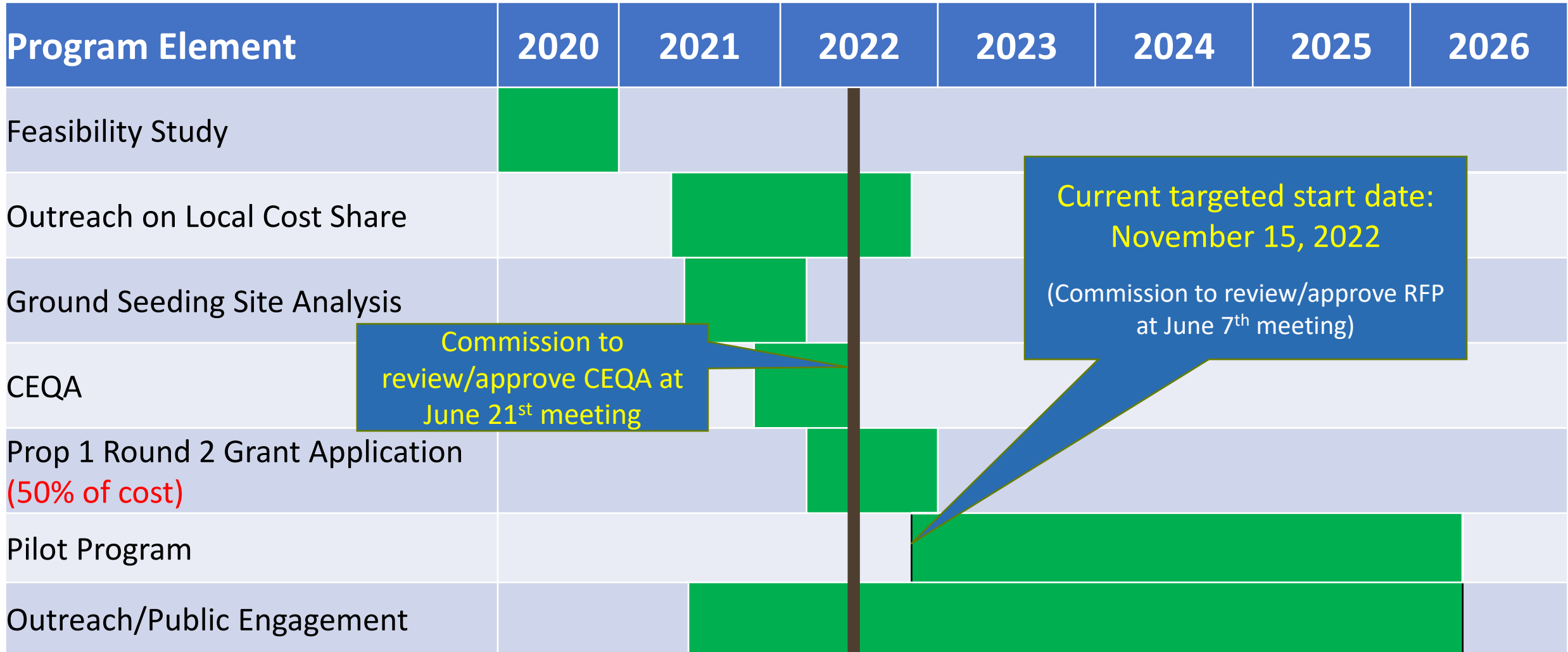


# Recommendation

- Staff recommends that the SAWPA Commission authorize staff to issue a Request for Proposals for the Santa Ana River Watershed Weather Modification Pilot Program Operations services



# Santa Ana River Weather Modification Pilot Program



# Ground Seeding Locations Analysis Status - Completed

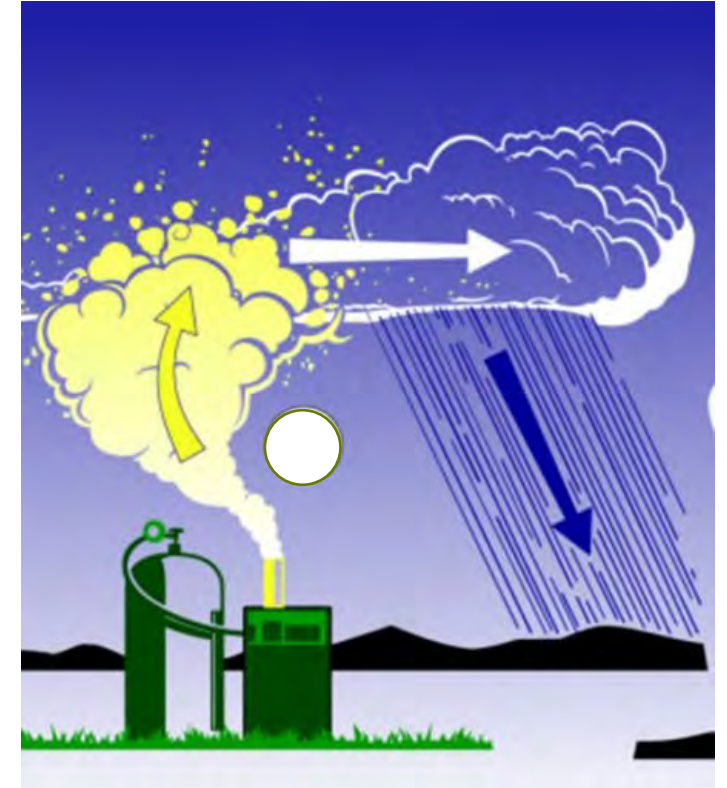
Consultant: North American Weather Consultants

Scope:

- Select locations for ~15 ground seeding sites
- Contact public water agencies to ensure that operations from the locations are feasible
- Work with public water agencies to plan operation of units based on future agreements with a licensed weather modification operator

Status:

- Project summary report detailing the locations identified by consultant submitted to SAWPA on Feb. 7, 2022.



# California Environmental Quality Act – Mitigated Negative Declaration Analysis - Status

- **Nov. 1, 2021:** Held kickoff meeting with Catalyst Environmental Solutions
- **Dec. 15, 2021** Project Description, alternatives and phasing is completed
- **Mar. 31, 2022** Draft Initial Study is completed
- **Apr. 19, 2022** Public Comment Meeting
- **May 6, 2022** Public Comment Period Closed – no significant comments or objections received
- **Jun. 21, 2022** SAWPA Commission ratifies CEQA Mitigated Negative Declaration
- **North American Weather Consultants** is assisting CEQA consultant to provide context, feedback, and assistance.



# Outreach Presentations and Funding Support

## Approach:

- Contacted 60+ water agencies/departments and other organizations.

## Status:

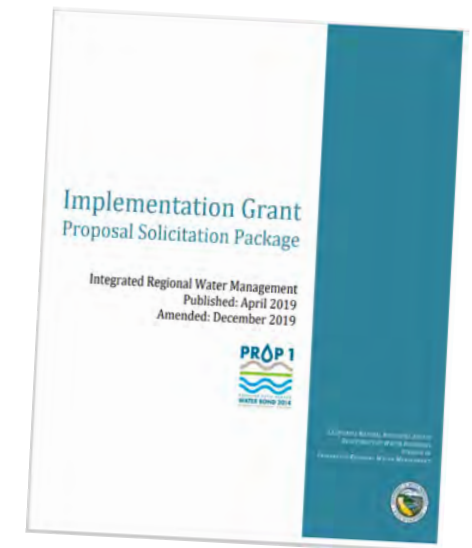
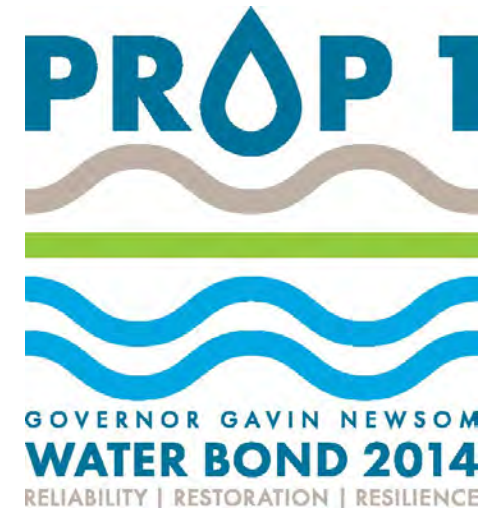
- 45+ Outreach presentations since Dec 2019
- Funding commitments for weather modification pilot:
  - Chino Basin Water Conservation District \$20,000
  - San Geronio Pass Water Agency \$20,000
  - Big Bear Lake Dept of Water & Power \$12,000
  - Big Bear City Community Services District \$12,000
  - Lake Elsinore & San Jacinto Watersheds Authority \$10,000
  - City of Santa Ana \$10,000
  - San Antonio Water Company \$5,000
  - City of Corona \$5,000
  - Total \$94,000





# Proposition 1 Round 2 IRWM Implementation Grant Application - Status

- SAWPA staff prepared project grant application for OWOW Call for Projects for Prop 1 Round 2 IRWM grant funding
- Next Steps:
  1. SAWPA staff submitted Weather Modification Pilot Project grant application on May 31, 2022
  2. Continue seeking local cost share commitments from agencies in the watershed through Aug. 2022
  3. Support grant application through OWOW Prop 1 Round 2 IRWM grant stakeholder budgeting and ranking process with presentations and justification of benefits as needed

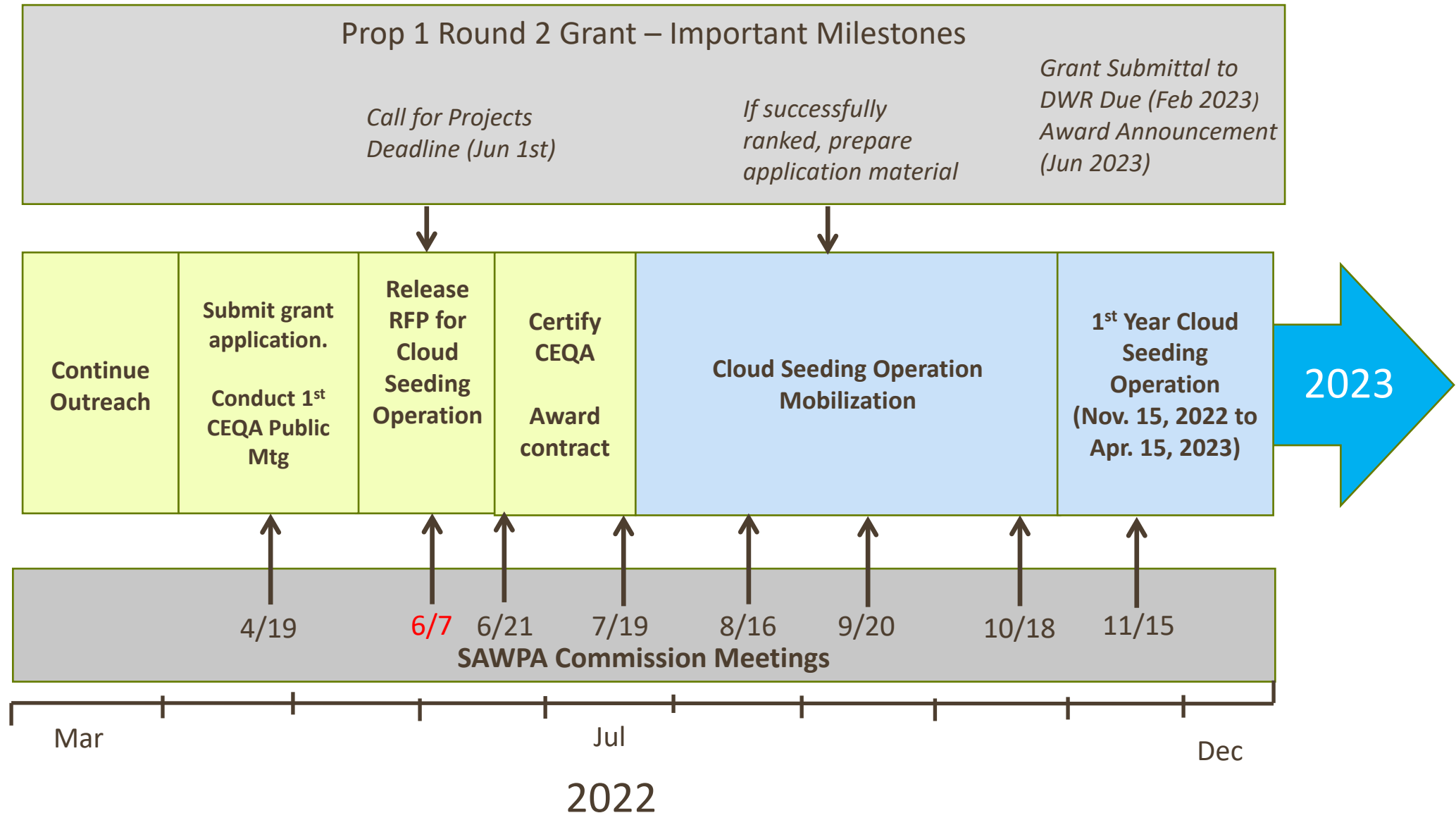


# Pilot Program 4-Year Budget Estimate

Updated 6-1-22

Year	Task	Consultant/Staff Lead	Estimated Cost
1 <sup>st</sup>	Ground Seeding set up & operation	NAWC estimate	\$250,000
	Validation	Desert Research Institute	\$50,000
	Project Adm/Mgt	SAWPA Staff	\$50,000
		<b>1<sup>st</sup> Year Subtotal w/15% contingency</b>	<b>\$403,000</b>
2 <sup>nd</sup>	Ground Seeding site operation	NAWC estimate	\$220,000
	Validation	Desert Research Institute	\$35,000
	Stormwater Capture Analysis	West Yost/Geoscience	\$120,000
	Project Adm/Mgt	SAWPA Staff	\$30,000
		<b>2<sup>nd</sup> Year Subtotal w/15% contingency</b>	<b>\$466,000</b>
3 <sup>rd</sup>	Ground Seeding sites & operation	NAWC estimate	\$230,000
	Validation	Desert Research Institute	\$35,000
	Project Adm/Mgt	SAWPA Staff	\$30,000
		<b>3<sup>rd</sup> Year Subtotal w/15% contingency</b>	<b>\$339,000</b>
4 <sup>th</sup>	Ground Seeding sites & operation	NAWC estimate	\$240,000
	Validation	Desert Research Institute	\$35,000
	Project Adm/Mgt	SAWPA Staff	\$40,000
		<b>4<sup>th</sup> Year Subtotal w/15% contingency</b>	<b>\$362,000</b>
		<b>Total</b>	<b>\$1,570,000</b>
	<b>SAWPA Total Cost Reduced by Local Agency Funding (\$94K) &amp; Prop 1 Grant</b>		<b>\$ 691,000</b>
	<b>Average SAWPA Member Agency Cost/Year</b>		<b>\$34,550</b>

# Proposed Pilot Program Implementation with Nov. 2022 Start



# Draft Cloud Seeding Operations RFP – Scope of Work

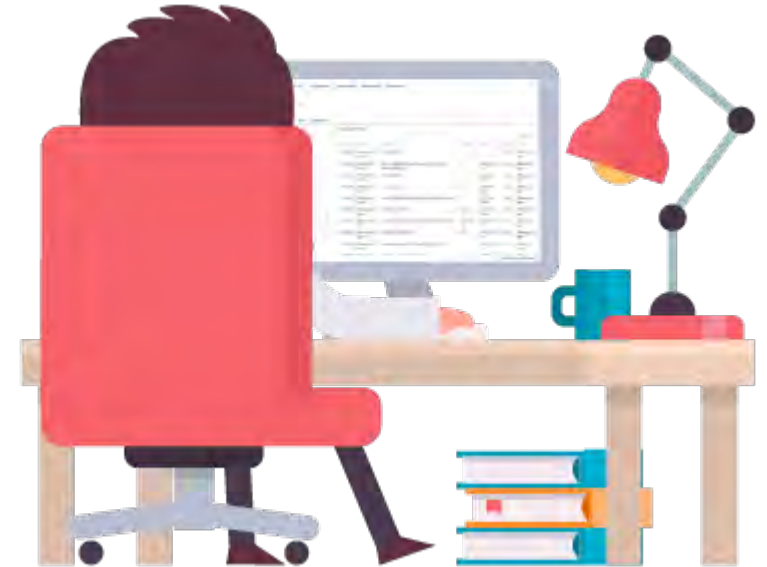
- Task 1 – Project Management and Administration
- Task 2 – Program Personnel
- Task 3 – Installation
- Task 4 – Land Lease/Operation Agreements
- Task 5 – Operations
- Task 6 – Equipment Maintenance
- Task 7 – Reporting & Invoicing
- Task 8 - Schedule

Duration: Four years over annual winter periods  
(Nov. 15 – Apr. 15)



# RFP Firms To Be Contacted

- North American Weather Consultants, Orem, UT – Garrett Cammans
- Weather Modification International, Fargo ND – Bruce Boe
- Western Weather Consultants, Durango, CO – Eric Hjermstad
- Seeding Operations and Atmospheric Research, Wichita Falls, TX – Gary Walker



RFP will also be posted on the SAWPA website.

Proposals will be due on July 1, 2022 through SAWPA's PlanetBids proposal submittal process

Anticipated SAWPA Commission future contract award – July 19, 2022



# SAWPA Santa Ana River Watershed Weather Modification Pilot Program

5/10/2022

Task #	Name	2022										2023			
		Apr	May	Jun	Jly	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
<b>1</b>	<b>CEQA</b>														
1.1	CEQA Public Meeting	• April 19th													
1.2	Conduct - CEQA	[Bar: May]													
1.3	Approve - CEQA	• June 21st													
<b>2</b>	<b>Contracting</b>														
2.1a	Review - Project Scope of work and RFP	[Bar: May]													
2.1b	Approve - Project Scope of work and RFP	• June 7th													
2.1c	Release - Cloud Seeding Operations RFP	• June 8th													
2.1d	Award - Contract for Pilot Program Cloud Seeding Operator	• July 19th													
2.2a	Review - Independent Validation Research firm scope of work	[Bar: May]													
2.2b	Approve - Project Scope of work for Validation Research firm	[Bar: July]													
2.2c	Award - Independent Validation Research firm scope of work	• October 4th													
<b>3</b>	<b>Project Implementation</b>														
3.1	Invoice - Member Agency and Local Agency Contributors	• July 19th													
3.2	Mobilize - Cloud Seeding Operations	• July 20th													
3.3	Develop Seeding Unit Land Lease/Operations Agreements	[Bar: July]													
3.4	Obtain Board Approvals for Seeding Unit Agreements	[Bar: August]													
3.5	Setup - Seeding Units	[Bar: July]													
3.6	Confirm - Operations Readiness	• October 15th													
3.7	Conduct - 1st Year of Cloud Seeding Pilot Program Operations	[Bar: Nov]													
3.8	Conduct - Validation of Cloud Seeding Pilot Program	[Bar: Nov]													

**Critical Path:**  
Commission to approve RFP

Commission to adopt CEQA Report

**Critical Path:**  
Award to Operator required to meet Nov. 15 start

Commission to approve award to Validation Consultant

Commission to approve funding

Nov. 15 Start

**Critical Path:**  
Confirm Operations Readiness

# Recommendation

- Staff recommends that the SAWPA Commission authorize staff to issue a Request for Proposals for the Santa Ana River Watershed Weather Modification Pilot Program Operations services