



REGULAR MEETING OF THE BOARD OF DIRECTORS

IDYLLWILD WATER DISTRICT
25945 Highway 243
Idyllwild, CA 92549

December 15, 2021 – 6:00 P.M.

Pursuant to AB 361 and action taken by the Board pursuant to such, this meeting will be held in person and virtually.

Topic: Board of Directors Meeting

Time: Dec 15, 2021 06:00 PM Pacific Time (US and Canada)

Join Zoom Meeting

<https://us06web.zoom.us/j/89942415203?pwd=c1lvbm5YbUg1UzJqTWWhKd1h4ZFNIcz09>

Meeting ID: 899 4241 5203

Passcode: 604206

One tap mobile

+13462487799,,89942415203#,,,,*604206# US (Houston)

+17207072699,,89942415203#,,,,*604206# US (Denver)

Dial by your location

+1 346 248 7799 US (Houston)

+1 720 707 2699 US (Denver)

+1 253 215 8782 US (Tacoma)

+1 312 626 6799 US (Chicago)

+1 646 558 8656 US (New York)

+1 301 715 8592 US (Washington DC)

Meeting ID: 899 4241 5203

Passcode: 604206

Find your local number: <https://us06web.zoom.us/u/ki1Dwf2r>

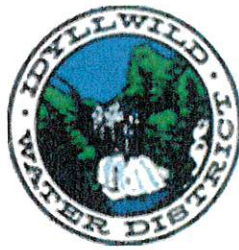
AGENDA

CALL TO ORDER

ROLL CALL

PUBLIC COMMENTS

Any person may address the Board at this time upon any subject not identified on this Agenda but within the jurisdiction of the District. Please note that for items not listed on the agenda, the Brown Act imposes limitations on what the Board may do at this time. The Board may not take action on the item at this meeting. As to matters on the Agenda, persons will be given an opportunity to address the Board when the matter is considered. Each speaker will be given four (4) minutes to address the Board. Comments should be directed to the Board as a whole and not directed to individual Board members.



1. **CONSENT CALENDAR** – 5 minutes

Consent Calendar items are expected to be routine and non-controversial, to be acted upon by the Board at one time without discussion. If any Board member, staff member, or interested person requests that an item be removed from the Consent Calendar, it shall be removed so that it may be acted upon separately.

A. **MINUTES**

Regular Board Meeting: November 17, 2021

B. **FINANCIAL REPORTS**

1. Income statement for the five-months ending November 30, 2021

2. District warrants for November 2021

Check #16870 - 16927 = \$ 244,532.57

Gross Payroll = \$ 66,235

Federal/State PR taxes = \$ 6,023

LAIF Transfers = \$ 0.00

Transfers/charges = \$ 393.00

C. **OPERATIONS REPORT**

D. **CONSIDER CONTINUATION OF REMOTE MEETINGS PURSUANT TO AB 361 AND MAKE REQUIRED FINDINGS**

Board of Directors will consider continuing remote meetings pursuant to AB 361

2. **GENERAL MANAGER REPORT** – 5 minutes

ACTION ITEMS

3. **APPOINT GENERAL MANAGER HAVENER AS BOARD SECRETARY** – 5 minutes

Board of Directors will consider appointing General Manager Leo Havener as Secretary to the Board of Directors.

4. **SANTA ANA RIVER WATERSHED WEATHER MODIFICATION PILOT PROGRAM** – 15 minutes

Board of Directors will consider approving a request from Santa Ana Watershed Project Authority (SAWPA) for a total of \$20,000.00 for Santa Ana River Watershed Weather Modification Pilot Program.

5. **ELECTION OF OFFICER:** - 5 minutes

Board of Directors will elect a President and Vice President.



6. DISCUSS AND POTENTIALLY MODIFY EXISTING COVID-19 POLICY -5 minutes

Board of Directors will consider modifying the District existing COVID-19 policy.

DIRECTORS COMMENTS

ADJOURNMENT

The next Board meeting is a Regular Meeting scheduled for January 19, 2022, at 6:00 p.m., to be held at the Idyllwild Water District Boardroom, 25945 Hwy. 243, Idyllwild, CA 92549.

Americans with Disabilities Act: In compliance with the ADA, if you need special assistance to participate in a District meeting or other services offered by this District, please contact the District office @ 951-659-2143 or email: office@idyllwildwater.com. Upon request, the agenda and documents in the agenda packet can be made available in appropriate alternative formats to persons with a disability. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the District staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting.

**IDYLLWILD WATER DISTRICT
 WATER FUND CONDENSED INCOME STATEMENT
 FOR FISCAL MONTH ENDING NOVEMBER, 2021**

CONDENSED CATEGORY	FOR THE MONTH OF		VARIANCE	November 2021
	ACTUAL 2021	BUDGET 2020		
OPERATING REVENUES:				
BASE-RESIDENTIAL/COMMERCIAL	77,357	77,357	0	0.00%
SALES-RESIDENTIAL/COMMERCIAL	49,326	58,000	-8,674	-14.96%
OTHER OPERATING REVENUE	0	0	0	0.00%
OTHER NON-OPERATING REVENUE*	0	0	0	
TOTAL OPERATING REVENUES	126,683	135,357	-8,674	-6.41%
OPERATING REVENUE BY CATEGORY	FOR THE MONTH OF		November F (U)	2021
	ACTUAL 2021	BUDGET 2020		
BASE RATE - RESIDENTIAL	57,549	57,549	0	0.00%
BASE RATE - COMMERCIAL	19,808	19,808	0	0.00%
SALES-RESIDENTIAL	26,625	30,000	-3,375	-11.25%
SALES-COMMERCIAL	22,701	28,000	-5,299	-18.93%
SALES-SEWER	0	0	0	0.00%
SALES-CONSTRUCTION/OTHER	0	0	0	0.00%
TRANSFER FEES	0	0	0	0.00%
TURN ON/OFF FEES	0	0	0	0.00%
LIEN & LIEN RELEASE FEES	0	0	0	0.00%
DELINQUENCY FEES	0	0	0	0.00%
WILL SERVE LETTER FEES	0	0	0	0.00%
OTHER MISCELLANEOUS	0	0	0	0.00%
INSTALLATION FEES	0	0	0	0.00%
CAPACITY FEES	0	0	0	0.00%
TOTAL OPERATING REVENUES	126,683	135,357	-8,674	-6.41%

**IDYLLWILD WATER DISTRICT
WATER FUND CONDENSED INCOME STATEMENT
FOR FISCAL MONTH ENDING NOVEMBER, 2021**

FOR THE MONTH OF NOVEMBER 2021

CUBIC FEET OF SALES:

	Residential C.F	Commercial C.F	Total C.F
R1 5/8	450,369	65,920	516,289
R2 3/4	12,040	14,800	26,840
R3 1"	4,887	89,700	94,587
R4 1.1/2"	0	28,470	28,470
R5 2"	0	14,430	14,430
R6 3"	0	11,900	11,900
IA 3"	0	79,910	79,910
NC-WWTP	0	1,890	1,890
TOTAL CUBIC FEET OF SALES	467,296	307,020	774,316

NUMBER OF CUSTOMER BILLS:

	R	C	Total
R1 5/8	1,433	104	1,537
R2 3/4	12	18	30
R3 1"	42	36	78
R4 1.1/2"	0	15	15
R5 2"	0	8	8
R6 3"	0	1	1
IA 3"	0	1	1
NC-WWTP	0	1	1
TOTAL NUMBER OF CUSTOMER BILLS	1,487	184	1,671

Sewer Acct	S
Fire Services F "2"	0
Fire Services F "3"	0
Fire Services F "4"	3

Total Idyllwild Customers

419	167	586
0	0	0
0	0	0
0	3	3
Total Idyllwild Customers		2,260

**IDYLLWILD WATER DISTRICT
WATER FUND CONDENSED INCOME STATEMENT
FOR FISCAL MONTH ENDING NOVEMBER, 2021**

FOR THE MONTH OF NOVEMBER 2021

BY CATEGORY	ACTUAL		BUDGET		VARIANCE		%
	2021	2021	2021	2021	F (U)		
WATER OPERATING EXPENSES:							
1-WAGES AND SALARIES EXPENSES	53,229	54,979	1,750	3.18%			
2-RETIREMENT PLAN AND LIFE INSURANCE	3,370	3,370	0	0.00%			
3-MEDICAL INSURANCE	11,132	9,888	-1,244	-12.58%			
4-UNIFORM EXPENSES	0	107	107	100.00%			
5-WORKER'S COMP INSURANCE	1,065	1,800	735	40.83%			
6-RETIREMENT MEDICAL INSURANCE	0	1,000	1,000	100.00%			
7-BOARD REIMBURSEMENT	100	300	200	66.67%			
8-OFFICE SUPPLIES	99	391	292	74.68%			
9-OFFICE CLEANING SERVICE	70	210	140	66.67%			
10-POSTAGE AND MAILING FEE	1,396	900	-496	-55.11%			
11-TRAINING AND EDUCATION	0	0	0	0.00%			
12-TRAVELING , MILEAGE, MEALS REIMBURSMET	0	0	0	0.00%			
13-DUES ,FEES , SUBSCRIPTIONS	2,667	1,900	-767	-40.37%			
14-COMPUTER SERVICES	1,355	1,500	145	9.67%			
15-LEGAL SERVICES	1,252	2,000	748	37.40%			
16-ENGINEERING AND CONSULTING	900	100	-800	-800.00%			
17-UTILITIES - ELECTRICITY	6,200	8,900	2,700	30.34%			
18-UTILITIES - GAS& FUEL	780	620	-160	-25.81%			
19-UTILITIES - PROPANE	30	100	70	70.00%			
20-UTILITIES - TELEPHONE INTERNET	935	1,189	254	21.36%			
21-UTILITIES - WASTE MANAGEMENT FEE	221	200	-21	-10.50%			
22-AUTO AND PROPERTY INSURANCE	0	0	0	0.00%			
21-STATE-COUNTY WATER SYSTEM FEES	0	0	0	0.00%			
22-GENERAL PLANT & TREATMENT SERVICES	13,909	12,000	-1,909	-15.91%			
23- VEHICLES REPAIRS AND MAINTENANCE	868	1,500	632	42.13%			
25-LABORATORY SERVICES	2,632	1,800	-832	-46.22%			
26-WATER SECURITY SYSTEM	0	0	0	0.00%			
27-ADVERTISING AND PUBLISHING	0	0	0	0.00%			
28-BANK FEE CHARGE	0	228	228	100.00%			
29-WATER MAINTENANCE AND SUPPLIES	4,685	4,000	-685	-17.13%			
30-ACCOUNTING AND AUDITING FEE	6,562	9,000	2,438	27.09%			
31-LIABILITY &PRPOERTY AND Auto INSURANCE	3,450	4,000	550				
TOTAL OPERATING EXPENSES:	116,907	123,468	6,561	5.31%			
TOTAL INCOME AND (LOSS)	9,776	11,889	2,113				

**IDYLLWILD WATER DISTRICT
SEWER FUND CONDENSED INCOME STATEMENT
FOR FISCAL MONTH ENDING NOVEMBER 2021**

FOR THE MONTH OF NOVEMBER 2021

CONDENSED BY CATEGORY	2021	2021	VARIANCE	%
	Actual	Budget		
OPERATING REVENUES:				
BASE-RESIDENTIAL/COMMERCIAL	59,853	59,853	0	0.00%
OTHER OPERATING	0	0	0	0.00%
TOTAL OPERATING REVENUES	59,853	59,853	0	0.00%
OPERATING EXPENSES:				
1- WAGES AND SALARIES	12,220	13,000	780	6.00%
2- RETIREMENT AND LIFE INSURANCE	1,220	1,220	0	0.00%
3- MEDICAL INSURANCE	3,710	3,296	-414	-12.56%
4- UNIFORM EXPENSE	0	353	353	100.00%
5- WORKERS COMPENSATION INSURANCE	355	580	225	38.79%
6- RETIREMENT MEDICAL INSURANCE	0	850	850	100.00%
7- BOARD REIMBURSEMENT	0	0	0	0.00%
8- OFFICE SUPPLIES	98	590	492	83.39%
9- OFFICE CLEANING SERVICES	70	70	0	0.00%
10- POSTAGE AND MAIL FEE	465	75	-390	-520.00%
11- EDUCATION AND TRAINING	0	0	0	0.00%
12- TRAVELING, MILEAGE, MEAL REIMBURSEMENT	0	110	110	100.00%
13- DUE AND SUBSCRIPTION FEE	889	3,534	2,645	74.84%
14- COMPUTER SERVICES	451	146	-305	-208.90%
15- LEGAL SERVICES	417	285	-132	-46.32%
16- UTILITIES - ELECTRICITY	0	3,950	3,950	100.00%
17- UTILITIES - GAS & FUEL	125	213	88	41.31%
18- UTILITIES - PROPANE	0	0	0	0.00%
19- UTILITIES - TELEPHONE&INTERNET	305	310	5	1.61%
20- UTILITIES - WASTE MANAGEMENT FEE	73	66	-7	-10.61%
21- VEHICLES REPAIRS AND MAINTENANCE	251	500	249	49.80%
22- ENGINEERING SERVICES	300	200	-100	-50.00%
22- MAINTENANCE AND SUPPLIES	0	100	100	100.00%
23- GENERAL PLANT SERVICES	12,740	2,089	-10,651	-509.86%
24- SEWER PERMIT AND LICENSE(State Fee)	0	500	500	100.00%
25- MINOR EQUIPMENT AND SUPPLIES	0	0	0	0.00%
26- SEWER LEASE	0	0	0	0.00%
27- ADVERTISING AND PUBLISHING	0	0	0	0.00%
28- LABORATORY SERVICES	877	1,239	362	29.22%
29- SECURITY SYSTEM (ADT)	280	300	20	6.67%
30- ACCOUNTING & AUDITING FEE	1,812	3,000	1,188	39.60%
31- LIBILITY & PROPERTY AND AUTO INS	1,150	1,500	350	23.33%
32- WASTE DISPOSAL FEES	4,275	5,000	725	14.50%
Total Expenses	42,083	43,076	993	2.31%
Total INCOME OR (LOSS)	17,770	16,777		

**IDYLLWILD WATER DISTRICT
SEWER FUND CONDENSED INCOME STATEMENT
FOR FISCAL MONTH ENDING NOVEMBER 2021**

FOR THE MONTH OF NOVEMBER 2021

SEWER FUND OPERATING REVENUES	F (U)			
	ACTUAL	BUDGET	VARIANCE	%
BASE RATE-COMMERCIAL	40,157	40,157	0	0.00%
BASE RATE- RESIDENTIAL	19,696	19,696	43	0.22%
TRANSFER FEE	0	0	0	0.00%
FACILITY CHARGE FROM IAF	0	0	0	0.00%
INSPECTION FEE	0	0	0	0.00%
OTHER MISCE	0	0	0	0.00%
TOTAL OPERATING REVENUE	59,853	59,853	43	0.07%
EQUIVALENT DWELLING UNITS (E.D.U'S)				
RESIDENTIAL	457	457	0.0	0.00%
COMMERCIAL	932	932	0.0	0.00%
TOTAL E.D.U'S	1,389	1,389	0.0	0.00%
TOTAL Customers	422	164	586	

**IDYLLWILD WATER DISTRICT
DISTRICT WARRANTS AND OTHER DISBURSEMENTS
FOR THE MONTH ENDED November 30, 2021**

DATE	CHECK NUMBER	PAYEE	DESCRIPTION	AMOUNT
11/01/2021	16870	ACWA/JPIA	Health Insurance for November 2021	14,842.80
11/01/2021	16871	Aqua-Metric Sales Company	Reading Gun Meter Repair	486.53
11/01/2021	16872	California Special Districts Association	Renewal Fee for Membership dues Member	3,154.00
11/01/2021	16873	CR&R Incorporated	Monthly Services for Trash Fee	295.92
11/01/2021	16874	Forest Lumber	Supplies for Water+Sewer	1,834.63
11/01/2021	16875	Infosend . Inc	Postage and Mail Services	918.91
11/01/2021	16876	Kenyon Electric	Installing Light for the New Building	2,860.00
11/01/2021	16877	Riverside County Treasurer	1st Property Tax Installment	451.50
11/01/2021	16878	US Bank Corporate Payment System	General & Water Expenses	7,582.80
11/01/2021	16879	USA Bluebook	Supplies for Sewer	2,565.07
11/01/2021	16880	Eric Townsend Construction Company	Payment for Board Room Construction	8,000.00
11/01/2021	16881	All State Insurance	Monthly Charge	306.45
11/01/2021	16882	Binge	Payment for Audio and Visual Board Room	12,449.52
11/03/2021	16883	A.C. Byers Trucking, Inc.	Sludge Hauling Fee 20 tons	2,200.00
11/03/2021	16884	California Computer Options , Inc	IT Monthly Sevices	1,607.51
11/03/2021	16885	Frontier	Phone and internet Charge	491.35
11/03/2021	16886	Home Depot Credit Services	Purchase Washer& Dryer Tools and Supplies	3,112.98
11/03/2021	16887	Idyllwild Garage	Fixing the Jeep for reading meter	270.00
11/03/2021	16888	Infosend . Inc	Printing and Processing Bills Fees	942.45
11/03/2021	16889	Pacific Slope Tree Coop., Inc.	Removed total 14 Trees around the sewer plant	6,850.00
11/03/2021	16890	Streamline	Monthly Charge For Idyllwild Website	200.00
11/03/2021	16891	Time Warner Cable	Phone &Internet Monthly Charges	526.28
11/03/2021	16892	Underground Service Alert/SC	New Tickets Charges	117.07
11/03/2021	16893	USA Bluebook	Supplies for Water&Sewer	292.36
11/03/2021	16894	Verizon Wireless	Monthly Charge	202.49
11/03/2021	16895	Idyllwild Water District	To be Deposit at Hemet Bank For Payroll	38,000.00
11/03/2021	16896	Genuine Auto Parts/ Napa Riverside	Auto Parts For Water & Sewer	551.04
11/03/2021	16897	One Stop Landscape Supply, Inc.	Sludge From IWD Customer	2,075.45
11/03/2021	16898	Village Hardware	Supplies For Water and Sewer	523.32
11/04/2021	16899-901		Void check	0.00
11/10/2021	16902	Central Communications	Monthly Answering Services	269.78
11/10/2021	16903	Eric Townsend Construction Company	Payment for Board Room Construction	5,016.30
11/10/2021	16904	Forshock	Repair The Scada System	650.00
11/10/2021	16905	Gosch Toyota	Repair order for unit#27	113.88
11/10/2021	16906	John Lisee Pumps, Inc.	Repair Aurora Model 341A-BF Pump For Treatment Plant	4,685.63
11/10/2021	16907	S.C.E.	Monthly Charge	4,633.04
11/10/2021	16908	SUSP, INC	Sewer Consulting for the Newest Plant	4,748.75
11/10/2021	16909	Tierra West , Inc	The Appraisal Fees	1,200.00
11/10/2021	16910	USA Bluebook	Supplies for Water&Sewer	2,990.90
11/10/2021	16911	S.C.E.	Monthly Charge	717.81
11/17/2021	16912	Babcock Laboratories, Inc	Monthly Charge	3,509.74
11/17/2021	16913	BEST BEST & KRIEGER	Monthly Legal Services	1,670.00
11/17/2021	16914	Four Seasons Cleaning Services	Cleaning Services to the office Month Of August 2021	280.00
11/17/2021	16915	Idyllwild Water District	To be Deposit at Hemet Bank For Payroll	34,000.00
11/17/2021	16916	Rogers, Anderson, Malody & Scott, LLP	First Payment for Audit Fee	8,750.00
11/17/2021	16917	Idyllwild Garage	Fixing the Jeep for reading meter l	185.00
11/17/2021	16918	Staples Credit Plan	Purchage Office Supplies	395.68
11/17/2021	16919	T-Mobile	Monthly Charge For Solor Data Plan	20.00
11/30/2021	16920	All State Insurance	Monthly Charge	306.45
11/30/2021	16921	California Departement of Tax and Fee	Fees for the state of callfornia	302.97
11/30/2021	16922	Engineering Resources of So. Ca., Inc.	Engineering Services for the Strawberry Divirson Pipeline	2,267.44
11/30/2021	16923	Eric Townsend Construction Company	Payment for Board Room Construction	17,424.06
11/30/2021	16924	Evoqua Water Technologies LLC	Purchasing Media for Carbon	29,425.33
11/30/2021	16925	Pape Material Handling	GenartorS for Repairs for IWD	3,533.42
11/30/2021	16926	Quinn Company	Purchase Parts for the Tractor Sewer	989.68
11/30/2021	16927	US Bank Corporate Payment System	General & Water Expenses	2,736.28

TOTAL DISTRICT WARRANTS \$244,532.57

OTHER DISBURSEMENTS:

TOTAL PAYROLL	\$66,235.00
L.A.I.F. ELECTRONIC TRANSFERS	\$0.00
BANK SERVICE CHARGES AND FEES	\$393.00

TOTAL DISTRICT WARRANTS & OTHER DISBURSEMENTS \$311,160.57

Number of Wells Available 14 333 GPM Available
 Water Sales 774,316 CF 2890 CF Non-Water Sales
 Total Water/Non-Water Sales 777,206 CF 51 Loss

Full-Time	<u>FV1A</u>
Part-Time	<u>FV2, H3, 1, 4, 13, 15, 23, 24, GR, 28</u>

Strawberry Creek Diversion ∅ CF ∅ AF
 Lilly Creek Flow ∅ CF ∅ AF
 Foster Lake Level (Max. 18') ∅ Feet ∅ Inches

Non-Water Sales	Gallons	CF
WTP Backwash	<u>100,000</u>	<u>13,368</u>
IWD Flushing		
Main Line Leaks		
Distribution Line Leaks		
Fire Dept. Usage	<u>14,960</u>	<u>2,000</u>
Hydrant Sales		
Wastewater Plant	<u>14,137</u>	<u>1890</u>
Total	<u>129,097</u>	<u>17,258</u>

Well Statics - In Feet, Pumping Level (PL) / Static Level (SL)

Foster Lake Area SL #3 26' SL #7 25' SL #14 36' FL Avg. 29'
 Creek Area SL #23 12' SL #24 27'
 Nature Center SL #26 40' SL #27 39' SL #28 224'
 Fern Valley PL FV1A 407' PL FV#2 66'

Storage Tanks

Location	CF/FT	Level	Volume
Foster Lake	11,698	<u>21.1</u>	<u>246,827</u>
Rock Dale Tank	2,718	<u>21.3</u>	<u>57,893</u>
Delano Tank	1,337	<u>17.1</u>	<u>22,862</u>
South Ridge Tank	3,509	<u>18.2</u>	<u>63,863</u>
Wild Wood Tank	919	<u>12.0</u>	<u>11,028</u>
Golden Rod Tank	891	<u>21.1</u>	<u>18,800</u>

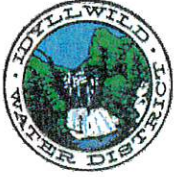
Total 421,273 CF Storage Supplies Max. 3.702 MGD 85%
 Storage in MGD 3.15
 Production Days 28 Production Minutes 40,320 Average GPM 152

1	Horizontal	44,860	1	PT	OFF	14.3
2	Foster Lake					
4	Foster Lake	193,220	4.4	PT	ON	36.7
10	Foster Lake					
11	Foster Lake					
12	Foster Lake					
13	Foster Lake	207,890	4.7	PT	ON	41.0
15	Foster Lake	63,699	1.46	PT	OFF	16.3
16	Foster Lake					
23	Stratton					
24	Curtis					
25	Donahoo					
26	Nature Center					
27	Nature Center					
28	Rock Dale	51,090	1.1	PT	OFF	23.2
1A	Fern Valley	164,430	3.8	FT	ON	38.6
2	Fern Valley	82,809	1.9	PT	OFF	38.4
	Golden Rod	17,960	0.41	PT	OFF	18.2
	Oakwood					
	Total	912,788	18.7			

Cedar Glen Meter	<u>413,850</u>	CF	<u>9.5</u>	AF
District Production	<u>403,119</u>	CF	<u>9.25</u>	AF
← Total Supplies to System	<u>816,969</u>	CF	<u>18.75</u>	AF

Days of Production	<u>28</u>	Minutes of Production	<u>40,320</u>
Average System GPM	<u>152</u>		

3	CB	26'	SL	
7	"	25'	SL	
14	"	36'	SL	Foster Lake Average = 29'
23	"	12'	SL	
24	"	27'	SL	
26	"	40'	SL	
27	"	39'	SL	
28	"	224'	SL	
FV1A	"	407'	PL	
FV2	"	66'	SL	



IDYLLWILD WATER DISTRICT

Memo

To: Board of Directors
From: Leo Havener, General Manager
Date: December 15, 2021
Subject: Item 3 – Appoint Leo Havener As Secretary To The Board Of Directors

Recommendation:

Board of Directors will consider appointing General Manager Leo Havener as Secretary to the Board of Directors.

Procedure:

- Board votes to appoint General Manager Leo Havener as Secretary to the Board of Directors.
- Board President Schelly performs the Oath of Office for Leo Havener.

Background:

Leo Havener is General Manager for the District and has been employed with the District since March 2020. Leo has completed California Special Districts Association Board Secretary Advance Coursework and received a Certificate of Completion.

Attachment:

- CSDA Certificate of Completion - 2021 Board Secretary / Clerk Program Advance Coursework

Certificate of Completion



2021 Board Secretary / Clerk Program Advanced Coursework

Garden Grove, CA – October 25 – 27, 2021

Leo Havener

Idyllwild Water District


Neil C. McCormick, CSDA Chief Executive Officer


Ryan Clausnitzer, CSDA Board President

Cosponsored By





IDYLLWILD WATER DISTRICT

Memo

To: Board of Directors

From: Leo Havener, General Manager

Date: December 15, 2021

Subject: Item 4 – Santa Ana River Watershed Weather Modification Pilot Program

Recommendation:

Board of Directors will consider approving a request from Santa Ana Watershed Project Authority (SAWPA) for a total of \$20,000.00 for Santa Ana River Watershed Weather Modification Pilot Program.

Background:

SAWPA are reaching out to water agencies across the watershed to request their support and a funding commitment to the program. Funding would not be needed until FY 22-23 and this local share of funding would be used to provide match to a grant fund that SAWPA is seeking from the State. For the local share, SAWPA requests a commitment for \$20,000 from your agency or (\$5K per year for each of four years of the pilot program).

Fiscal Impact:

If the Board approves SAWPA funding request, staff will include the funding of \$20,000.00 in the Fiscal Year 2022-2023 Budget Water Capital Improvement Projects. The other option is for the District to provide \$5,000.00 in each of the next four Fiscal Year Budgets for Water Capital Improvement Projects.

Conclusion:

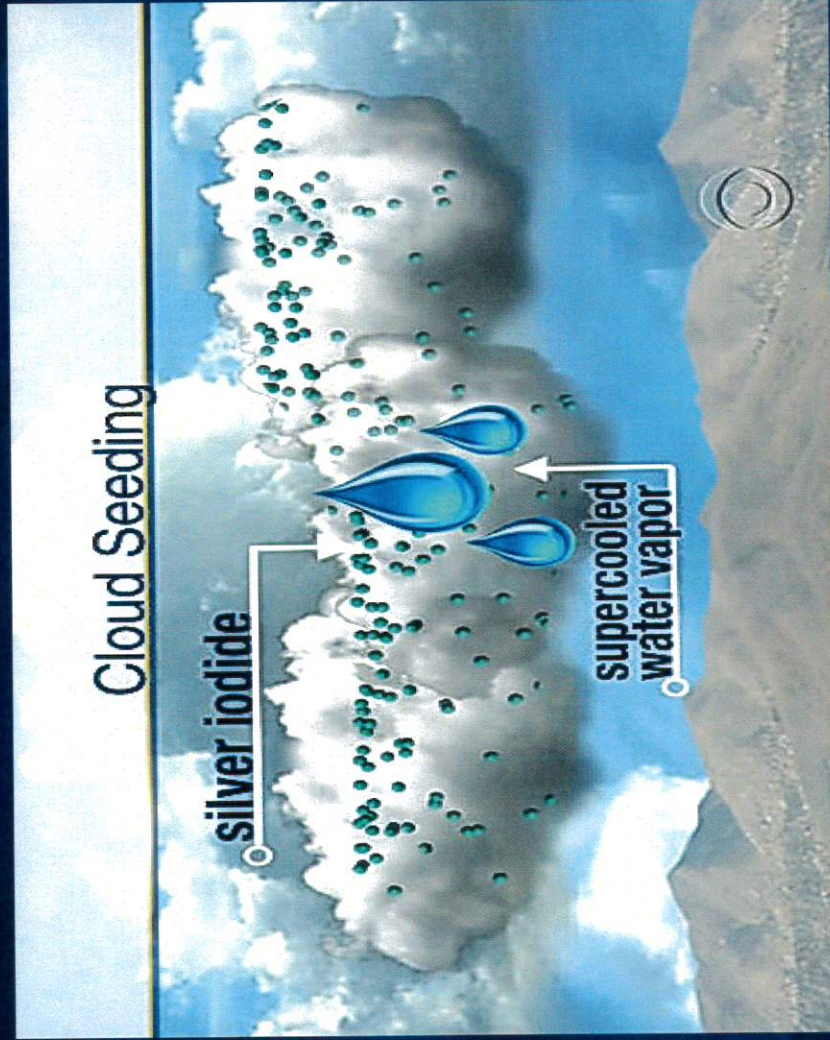
Staff believes the SAWPA Weather Modification Pilot Program is a financially worthy project that may yield benefits to the watershed and groundwater aquifer.

Attachments:

- Santa Ana River Watershed Weather Modification Pilot Program Presentation

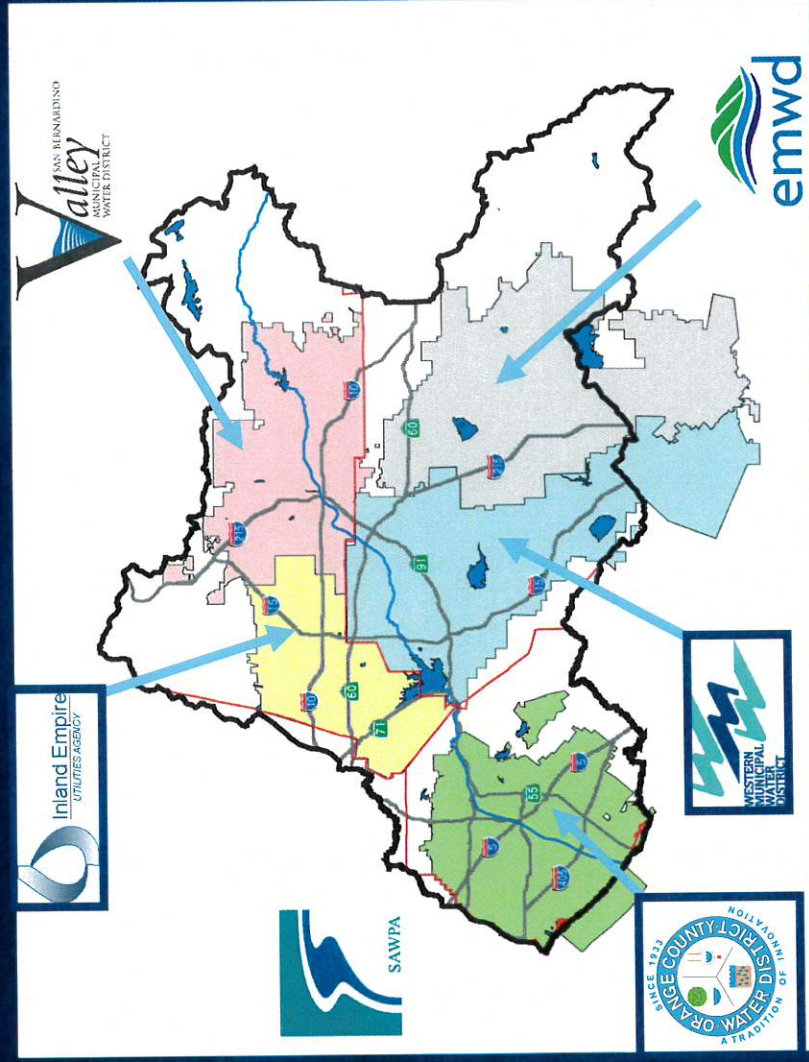
Santa Ana River Watershed Weather Modification Pilot Program

Mark Norton, PE, Water Resources &
Planning Manager
Santa Ana Watershed Project Authority



Who is SAWPA?

Santa Ana Watershed Project Authority is a joint powers authority with five Member Agencies



Other Stakeholders

97 Water-related Agencies

4 Counties

63 Cities

State water, environmental, and regulatory agencies

Federal Agencies

Other Special Districts

Special Interest Groups

How cloud seeding works

1

Silver iodide mixed with acetone is vaporized, releasing particles into the atmosphere.

2

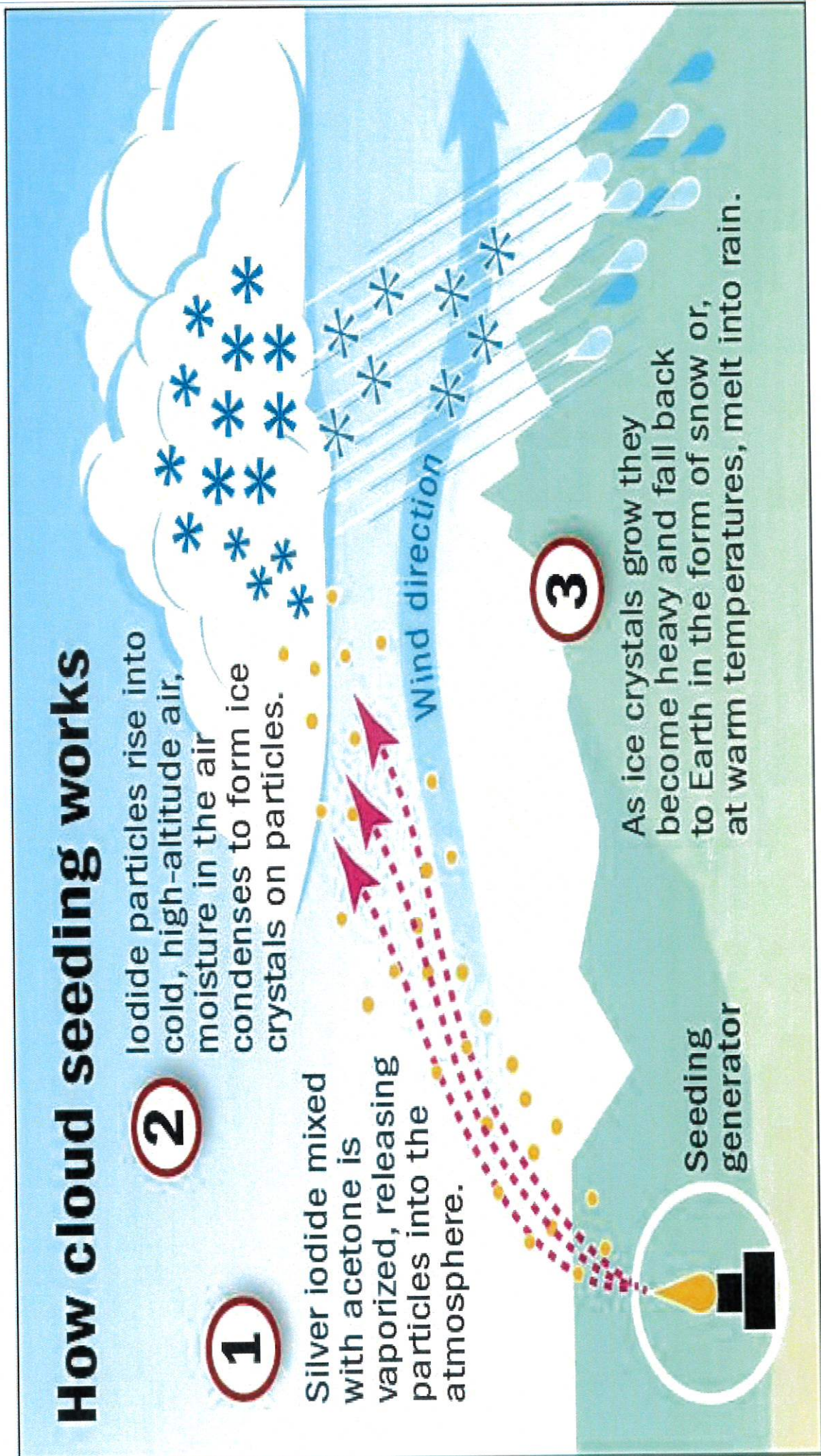
Iodide particles rise into cold, high-altitude air, moisture in the air condenses to form ice crystals on particles.

3

As ice crystals grow they become heavy and fall back to Earth in the form of snow or, at warm temperatures, melt into rain.

Seeding generator

Wind direction



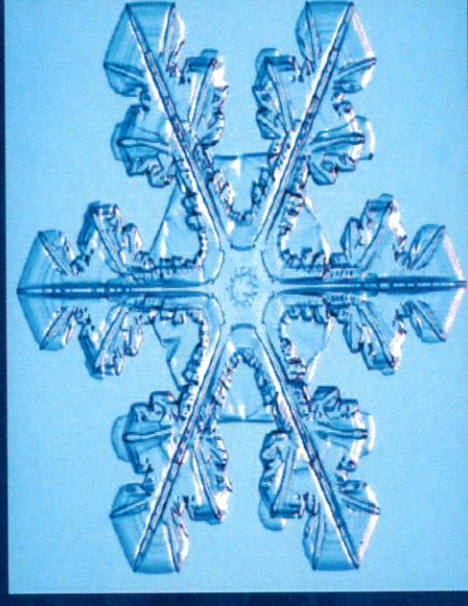
Weather Modification (Cloud Seeding) History

Background

- Started in the U.S. in the 1940s
- Overselling, minimal science
- Misconceptions remain

Advances since the 1940s

- Forecasting
- Measurement
- Computing
- Seeding methods
- Scientific long term validation studies



Weather Modification Users and Costs

150 programs in 40 countries and 11 states

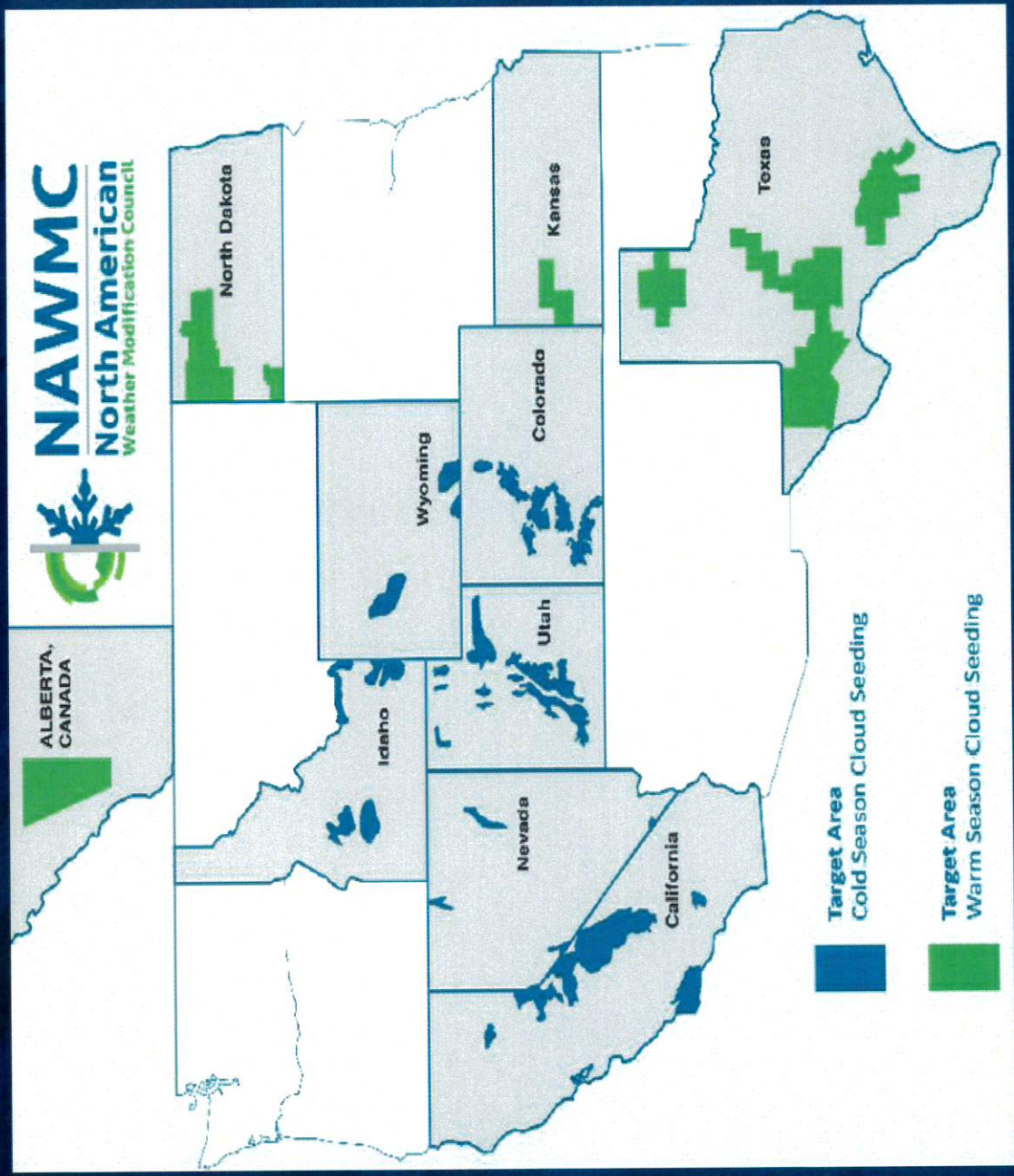
- Ski areas, Power Utilities
- Water Resource Agencies
- Conservation and irrigation districts
- Research institutes

Average Costs

- \$4-\$40/AF, including planning

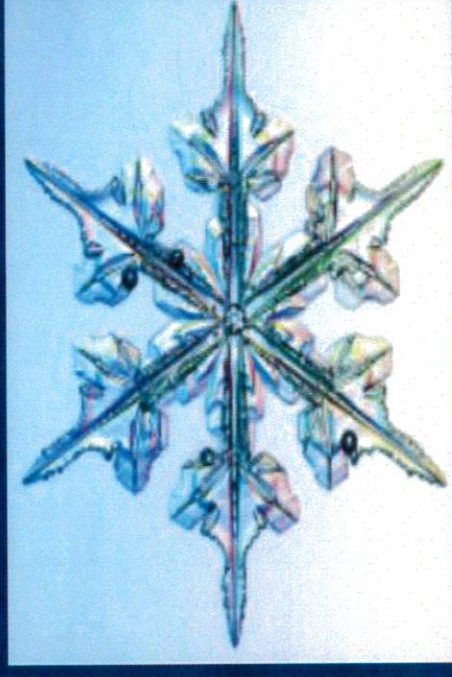


North American Projects



Licensing and Permitting

- Operators are licensed and carry liability insurance
- Suspension criteria turns off program during high precip/flood conditions
- Though no CA state permit required, CEQA mitigated negative declaration will be conducted
- There have been no successful legal challenges to any operation in US for over 50 years



Potential Environmental Effects

- Silver iodide is not soluble or biologically available
- 50 years of physical, biological, aquatic, soils and vegetation studies found:
 - Subtle or indiscernible effects
 - Potentially beneficial (more runoff)
- Strong studies with credible results and regulations reflect recent research



Potential Health Effects

- Silver Iodide (AgI)
 - Not been measured above background
- Human effects
 - No effects found in 50 years
 - More silver exposure in tooth fillings
 - More iodine in table salt on food
- Concentrations
 - EPA drinking water quality 0.1 mg/L
 - U.S. Public Health Service level 0.05 mg/L
 - Seeded rainfall is 0.1 mcg/L or 1000 times less than EPA standard



Ground Based Seeding Methods

CNG's (Cloud Nuclei Generators)



- Ideal for orographic lift (winds caused by land barriers)
- Create a continuous plume
- Inexpensive to install and operate

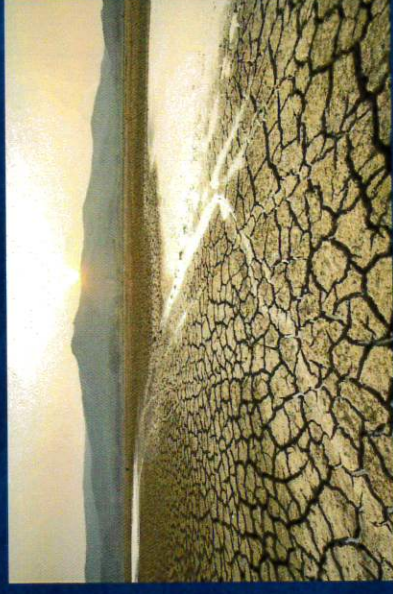
AHOGS (Automated High Output Ground Seeding) Systems



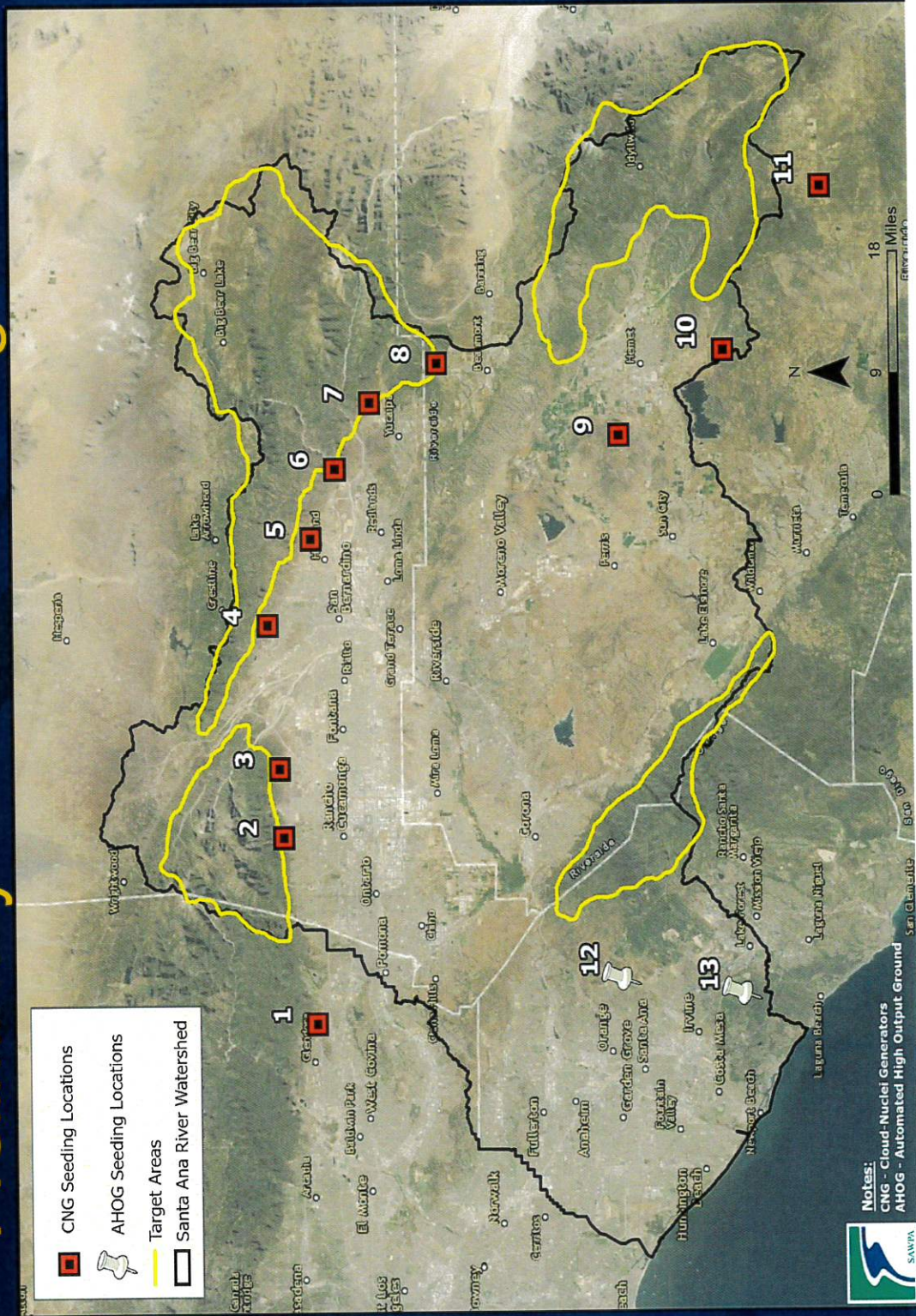
- Ideal for strong convective storm attributes (turbulence)
- Delivers higher concentration of AgL
- Operated remotely – rapid release

Why consider pilot program now?

- Drought conditions continuing – New Normal?
- Costs for 8-11% increase in precipitation and streamflow is less than 1/10th the cost of imported water
- Local water storage has been effective, but more can be done – Tree rings show historical CA 40-50 year drought periods
- Four-year pilot program with validation evaluation would ensure effectiveness in Santa Ana River Watershed



Preliminary Ground Seeding Sites



Total Projected Increases

Ground Only Seeding

Target Area	Seasonal Precip. Increase (inches)	Percent Increase	Avg. Natural Streamflow (AF)	Streamflow Increase (AF)	Percent Increase
NW	0.41	3.5%	25,000	2,043	8.2%
NE	0.49	4.1%	65,000	4,330	6.7%
SW	0.59	3.7%	5,000	447	9.0%
SE	0.49	4.5%	10,000	1,373	13.7%
TOTAL w/ Ground Only			105,000	8,193	7.8%

With Aerial Support in the NE Target

Target Area	Seasonal Precip. Increase (inches)	Percent Increase	Avg. Natural Streamflow (AF)	Streamflow Increase (AF)	Percent Increase
NW	0.41	3.5%	25,000	2,043	8.2%
NE	0.89	7.3%	65,000	7,772	12%
SW	0.59	3.7%	5,000	447	9.0%
SE	0.49	4.5%	10,000	1,373	13.7%
TOTAL			105,000	11,635	11.1%

Estimate for Pilot – Ground Based

	Rate	Frequency	
Annual Operations			
Set Up	\$ 33,500	1	\$ 33,500
Take Down	\$ 24,000	1	\$ 24,000
Reporting	\$ 10,000	1	\$ 10,000
Monthly Operations			
Fixed Services	\$ 24,500	5	\$ 122,500
Variable Items (timed expenses are billed on a per hour basis)			
Ground Flares	\$ 110	60	\$ 6,600
Generator Run Time	\$ 19.50	600	\$ 11,700
Flight Time	\$ 375	N/A	-
Aerial Flares	\$ 110	N/A	-
TOTAL	\$	208,300	
COST PER ACRE-FOOT	\$	25.42	
Benefit to Cost		10.03	

Cost per acre-foot (AF) =
Total Program Cost / Estimated AF
produced

\$208,300 / 8,193 AF = \$25.42 per AF

Benefit to Cost Ratio =

Cost of Untreated Imported Water per
AF / Cost of Cloud Seeding per AF

\$255 per AF / \$25.42 = 10.03

Next Steps

- Continue briefings to interested governing bodies and agencies in watershed
- SAWPA Commission authorized the following:
 - Study of Ground Based Seeding Unit Sites and Access
 - CEQA Mitigated Negative Declaration
 - Seek DWR grant to cover 50% of pilot program
- Potential cost share partner agencies and companies who may benefit are being approached by SAWPA



Questions?