



SAWPA

SANTA ANA WATERSHED PROJECT AUTHORITY
11615 Sterling Avenue, Riverside, California 92503 • (951) 354-4220

This meeting will be conducted in person at the addresses listed below. As a convenience to the public, members of the public may also participate virtually using one of the options set forth below. Any member of the public may listen to the meeting or make comments to the Commission using the call-in number or Zoom link. However, in the event there is a disruption of service which prevents the Authority from broadcasting the meeting to members of the public, the meeting will not be postponed or rescheduled but will continue without remote participation. The remote participation option is provided as a convenience to the public and is not required. Members of the public are welcome to attend the meeting in-person.

Meeting Access Via Computer (Zoom):	Meeting Access Via Telephone:
<ul style="list-style-type: none"> • https://sawpa.zoom.us/j/81451581333 	<ul style="list-style-type: none"> • 1 (669) 900-6833
<ul style="list-style-type: none"> • Meeting ID: 814 5158 1333 	<ul style="list-style-type: none"> • Meeting ID: 814 5158 1333

REGULAR COMMISSION MEETING TUESDAY, AUGUST 6, 2024 – 9:30 A.M.

Santa Ana Watershed Project Authority
11615 Sterling Avenue
Riverside, CA 92503

and

Hotel La Jolla, Curio Collection
By Hilton, Room #510
7955 La Jolla Shores Drive
La Jolla, CA 92037

AGENDA

1. **CALL TO ORDER/PLEDGE OF ALLEGIANCE (Bruce Whitaker, Chair)**
2. **ROLL CALL**
3. **PUBLIC COMMENTS**

Members of the public may address the Commission on items within the jurisdiction of the Commission; however, no action may be taken on an item not appearing on the agenda unless the action is otherwise authorized by Government Code §54954.2(b).

Members of the public may make comments in-person or electronically for the Commissions' consideration by sending them to publiccomment@sawpa.gov with the subject line "Public Comment". Submit your electronic comments by 5:00 p.m. on Monday, August 5, 2024. All public comments will be provided to the Chair and may be read into the record or compiled as part of the record. Individuals have a limit of three (3) minutes to make comments and will have the opportunity when called upon by the Commission.

4. **ITEMS TO BE ADDED OR DELETED**

Pursuant to Government Code §54954.2(b), items may be added on which there is a need to take immediate action and the need for action came to the attention of the SAWPA Commission subsequent to the posting of the agenda.

5. CONSENT CALENDAR

All matters listed on the Consent Calendar are considered routine and non-controversial and will be acted upon by the Commission by one motion as listed below.

- A. **APPROVAL OF MEETING MINUTES: JULY 16, 2024**.....7
Recommendation: Approve as posted.
- B. **TREASURER’S REPORT: JUNE 2024**.....11
Recommendation: Approve as posted.

6. NEW BUSINESS

- A. **SANTA ANA RIVER WATERSHED CLOUD SEEDING PILOT PROGRAM: YEAR 1 SUMMARY (CM#2024.42)**.....17
Presenter: Rachel Gray
Recommendation: Receive and file.
- B. **ENHANCEMENTS TO WATERSHED-WIDE WATER BUDGET DECISION SUPPORT TOOL PROJECT UPDATE (CM#2024.43)**.....41
Presenter: Rick Whetsel
Recommendation: Receive and file.

7. INFORMATIONAL REPORTS

Recommendation: Receive for information.

- A. **OWOW QUARTERLY STATUS REPORT: APRIL – JUNE 2024**67
Presenter: Rachel Gray
- B. **ROUNDTABLES QUARTERLY STATUS REPORT: APRIL – JUNE 2024**73
Presenter: Rachel Gray
- C. **GENERAL MANAGER REPORT**.....87
Presenter: Jeff Mosher
- D. **COMMUNICATIONS REPORT – JULY 2024**93
Presenter: Jeff Mosher
- E. **CHAIR’S COMMENTS/REPORT**
- F. **COMMISSIONERS’ COMMENTS**
- G. **COMMISSIONERS’ REQUEST FOR FUTURE AGENDA ITEMS**

8. CLOSED SESSION

There were no Closed Session items anticipated at the time of the posting of this agenda.

9. ADJOURNMENT

PLEASE NOTE:

Americans with Disabilities Act: If you require any special disability related accommodations to participate in this meeting, call (951) 354-4220 or email svilla@sawpa.gov 48-hour notification prior to the meeting will enable staff to make reasonable arrangements to ensure accessibility for this meeting. Requests should specify the nature of the disability and the type of accommodation requested.

Materials related to an item on this agenda submitted to the Commission after distribution of the agenda packet are available for public inspection during normal business hours at the SAWPA office, 11615 Sterling Avenue, Riverside, and available at www.sawpa.gov, subject to staff's ability to post documents prior to the meeting.

Declaration of Posting

I, Sara Villa, Clerk of the Board of the Santa Ana Watershed Project Authority declare that on August 1, 2024, a copy of this agenda has been uploaded to the SAWPA website at www.sawpa.gov and posted at SAWPA's office at 11615 Sterling Avenue, Riverside, California.

2024 SAWPA Commission Meetings/Events

First and Third Tuesday of the Month

(NOTE: All meetings begin at 9:30 a.m., unless otherwise noticed, and are held at SAWPA.)

January	February
1/2/24 Commission Workshop [cancelled]	2/6/24 Commission Workshop
1/16/24 Regular Commission Meeting	2/20/24 Regular Commission Meeting
March	April
3/5/24 Commission Workshop [cancelled]	4/2/24 Commission Workshop
3/19/24 Regular Commission Meeting	4/16/24 Regular Commission Meeting [cancelled]
May	June
5/7/24 Commission Workshop [cancelled]	6/4/24 Commission Workshop
5/21/24 Regular Commission Meeting	6/18/24 Regular Commission Meeting
5/7 – 5/9/24 ACWA Spring Conference, Sacramento, CA	
July	August
7/2/24 Commission Workshop	8/6/24 Commission Workshop
7/16/24 Regular Commission Meeting	8/20/24 Regular Commission Meeting
September	October
9/3/24 Commission Workshop	10/1/24 Commission Workshop
9/17/24 Regular Commission Meeting	10/15/24 Regular Commission Meeting
November	December
11/5/24 Commission Workshop	12/3/24 Commission Workshop
11/19/24 Regular Commission Meeting	12/17/24 Regular Commission Meeting
	12/3 – 12/5/24 ACWA Fall Conference, Palm Springs, CA

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SAWPA COMPENSABLE MEETINGS

In addition to Commission meetings, Commissioners and Alternate Commissioners will receive compensation for attending the meetings listed below, pursuant to the Commission Compensation, Expense Reimbursement, and Ethics Training Policy.

IMPORTANT NOTE: These meetings are subject to change. Prior to attending any meetings listed below, please confirm meeting details by viewing the website calendar using the following link:

<https://sawpa.gov/sawpa-calendar/>

MONTH OF: AUGUST 2024

DATE	TIME	MEETING DESCRIPTION	LOCATION
8/6/24	8:30 AM	PA 23 Committee Mtg	CANCELLED
8/6/24	10:00 AM	PA 24 Committee Mtg	Hybrid (SAWPA & Virtual/Teleconference)
8/14/24	9:30 AM	MSAR TMDL Task Force Mtg	Virtual/Teleconference
8/15/24	3:00 PM	LESJWA Board of Directors Mtg	Hybrid (SAWPA & Virtual/Teleconference)
8/27/24	9:30 AM	Lake Elsinore/Canyon Lake TMDL Task Force Mtg	Virtual/Teleconference

MONTH OF: SEPTEMBER 2024

DATE	TIME	MEETING DESCRIPTION	LOCATION
9/3/24	10:00 AM	PA 24 Committee Mtg	Hybrid (SAWPA & Virtual/Teleconference)
9/10/24	8:30 AM	PA 22 Committee Mtg	Hybrid (SAWPA & Virtual/Teleconference)
9/26/24	11:00 AM	OWOW Steering Committee Mtg	Hybrid (SAWPA & Virtual/Teleconference)

Please Note : We strive to ensure the list of Compensable Meetings set forth above is accurate and up-to-date; the list is compiled based on input from SAWPA staff and Department Managers regarding meeting purpose and content.

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**SAWPA COMMISSION
REGULAR MEETING MINUTES
JULY 16, 2024**

COMMISSIONERS PRESENT

Bruce Whitaker, Chair, Orange County Water District
Mike Gardner, Vice Chair, Western Municipal Water District
T. Milford Harrison, Secretary-Treasurer, San Bernardino Valley
Municipal Water District
David J. Slawson, Eastern Municipal Water District
Jasmin A. Hall, Inland Empire Utilities Agency

COMMISSIONERS ABSENT

None

**ALTERNATE COMMISSIONERS
PRESENT; NON-VOTING**

Gil Botello, San Bernardino Valley Municipal Water District

STAFF PRESENT

Jeff Mosher, Karen Williams, David Ruhl, Rachel Gray, Shavonne
Turner, Rick Whetsel, Ian Achimore, Sara Villa, Melissa Bustamonte,
Dean Unger, John Leete, Alison Lewis, Marie Jauregui, Zyanya
Ramirez

OTHERS PRESENT

Andrew Turner, Lagerlof, LLP; Joe Mouawad, Eastern Municipal
Water District; Nick Kanetis, Eastern Municipal Water District; Ken
Tam, Inland Empire Utilities Agency; John Kennedy, Orange County
Water District; Lisa Haney, Orange County Water District; Sheryl
Parsons, Orange County Water District; Adekunle Ojo, San
Bernardino Valley Municipal Water District; Mallory O’Conor,
Western Municipal Water District; Melissa Matlock; Western
Municipal Water District; Robert Enis, Riverside Public Utilities
Agency; Tom Lindsey; Yorba Linda Water District; Gene Hernandez,
Yorba Linda Water District; Doug Johnson, Ralph Andersen &
Associates

The Regular Meeting of the Santa Ana Watershed Project Authority Commission was called to order at 9:32 a.m. by Chair Bruce Whitaker on behalf of the Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, California.

1. CALL TO ORDER

2. ROLL CALL

An oral roll call was duly noted and recorded by the Clerk of the Board.

3. PUBLIC COMMENTS

There were no public comments; there were no public comments received via email.

4. ITEMS TO BE ADDED OR DELETED

There were no items to be added or deleted.

5. CONSENT CALENDAR

A. APPROVAL OF MEETING MINUTES: JULY 2, 2024

Recommendation: Approve as posted.

MOVED, to approve the Consent Calendar as posted.

Result:	Adopted by Roll Call Vote
Motion/Second:	Harrison/Gardner
Ayes:	Gardner, Hall, Harrison, Slawson, Whitaker
Nays:	None
Abstentions:	None
Absent:	None

6. **NEW BUSINESS**

A. **CLASSIFICATION AND COMPENSATION STUDY (CM#2024.38)**

Jeff Mosher introduced Doug Johnson of Ralph Andersen & Associates and he provided a presentation on the Santa Ana Watershed Project Authority Compensation Study, contained in the agenda packet on pages 23-33. Mr. Johnson highlighted the purpose of doing compensation surveys and noted they are a necessary part of assessing and updating an organization's compensation plan to help anticipate and understand what the labor market is doing. The survey data informs decision-makers and provides a data-driven framework for allocating resources to wages and benefits. It also provides defensibility and public accountability for employee compensation and optimizes the Authority's ability to recruit and retain employees.

Mr. Johnson outlined the metrics utilized by surveying agencies, encompassing total revenues, expenditures, employee count, estimated driving distance proximity, and cost of living analysis. Reference was made to pages 27-28 of the agenda packet regarding the Market Summary – Base Salary and Cash Benefits slides, which cited the market median at the 50th percentile as the benchmark. Mr. Johnson emphasized the salary range and presented a summary of recommended job classifications, along with the rationale for internal alignment and salary setting, illustrating which positions were benchmarked against the market data. Per the report findings, Mr. Johnson provided his recommendations to adopt the salary range/equity adjustments based on the data collected for FY 2023-24, then further adjust salary ranges by 4.3% (approved COLA) for the FY 2024-25 and consider further review and adjustments for insurance benefits due to SAWPA being below market.

Commissioner Hall asked what SAWPA's current policy is for cash compensation and healthcare compensation. Mr. Johnson noted its longevity pay, some agencies pay a longevity amount that is above the maximum of the salary range, which is a retention mechanism, and some agencies have employer paid deferred compensation so essentially an additional contribution. Karen Williams noted that SAWPA does not have longevity pay and does not contribute to any 457 PERS, employees are paying 100%, and retiree medical benefits, as of 2005, was taken away for everyone, there are only four (4) employees that have retiree medical benefits. SAWPA does not have a current policy, if a benefit gets added or taken away it is brought to Commission for approval and then becomes part of the handbook listing of benefits.

Commissioner Slawson expressed that this was a fair exercise to go through, and asked if there was a policy in place for the General Manager to promote an employee or be moved up to the next level based on performance. Ms. Williams noted that there is a policy in place that gives the General Manager the ability to change positions without having to come back to the Commission as long as it is within the budget parameters. It was requested that the Policy be distributed to the Commission.

Ms. Williams informed the Commission that the report's findings by Ralph Andersen & Associates were provided to the General Managers and are provided today as a receive and

file item. She asked the Commission to review and provide any questions or comments, staff will then bring this item back to Commission with recommendations and approval.

This item is to receive and file; no action was taken on agenda item no. 6.A.

B. SUMMARY OF RIVERWALK DATA (CM#2024.39)

Ian Achimore provided a presentation on the Summary of Riverwalk Data, contained in the agenda packet on pages 147-165. Since 2006, SAWPA has led the annual implementation of the Santa Ana River Habitat Survey, also known as the “Riverwalk”. This work is lead by SAWPA as the administrator for the task force known as the Santa Ana Sucker Conservation Team. Watershed stakeholders use the data from the Riverwalk surveys to for their region-wide habitat planning and mitigation projects. The Riverwalk data has been collected at the same geo-located points each year, with each point labeled with a designating number (1-18). At each field point a transect line is drawn from bank to bank. To identify the area to monitor, a 4-meter-wide band is centered at the transect. The area within the band is then surveyed by visually identifying what type of material makes up the river bottom (mud, sand, gravel, cobble, or boulder).

Mr. Achimore noted that native fish habitat projects have been implemented in areas such as the Santa Ana River mainstem and tributaries, such as the SBVMWD Santa Ana Sucker Conservation and Conjunctive Use Tributaries projects, and OCWD maintenance of Sunnyslope Creek. Mr. Achimore referenced the Riverwalk Atlas document, which summarizes the data collected annually from 2006-2023. The purpose of the Atlas is to share results of the Riverwalk for experts and the public. The draft conclusions of recent data show poor transect were at first related to more precipitation in a sequential year due to storms flushing sand (poor habitat) downstream. For 2023, there was a lot of data not collected due to lack of volunteers and also safety was an issue particularly from dogs at homeless encampments in the upstream areas.

The next steps are to incorporate timing of flows and precipitation overlaid on Riverwalk ranking data. The annual average of precipitation is not granular enough. The Santa Ana Sucker Team finalizes the Atlas, and discusses updating the Riverwalk data collection process, as well as enhancing the type of data collected. The new data collected can include suspended sediment concentrations, streamflow, algae detection, and overall size of riverbed at monitoring points.

Commissioner Hall asked if the member agency contribution is enough to help set the cost to provide more data. Mr. Achimore noted that the task force is going to do a cost benefit analysis to weigh in on the costs and benefits of collecting and surveying the data and anticipates bringing it back as part of the budget discussion in November. Commissioner Gardner noted that between both Chino Desalter 1 and 2 they are pumping about 35,000-acre feet a year and have achieved hydraulic control so that groundwater is not rising any longer downstream from the desalter wells, have we looked to see if that is having any impact from the data results that are seen. Mr. Achimore noted that they can look into the existing data and put it in context.

This item is to receive and file; no action was taken on agenda item no. 6.B.

7. INFORMATIONAL REPORTS

Recommendation: Receive for Information.

A. CASH TRANSACTIONS REPORT – MAY 2024

B. INTER-FUND BORROWING – MAY 2024 (CM#2024.40)

- C. **PERFORMANCE INDICATORS/FINANCIAL REPORTING – MAY 2024 (CM#2024.41)**
- D. **PROJECT AGREEMENT 25 – OWOW FUND – FINANCIAL REPORT, APRIL 2024**
- E. **PROJECT AGREEMENT 26 – ROUNDTABLE FUND – FINANCIAL REPORT, APRIL 2024**
- F. **STATE LEGISLATIVE REPORT**
- G. **GENERAL MANAGER REPORT**
Jeff Mosher informed the Commission that the Climate Bond was passed and signed, and it will appear on the November Ballot as Proposition 4. There is \$100 million for IRWM in categories related to watershed resilience and climate resilience.
- H. **CHAIR’S COMMENTS/REPORT**
There were no comments/reports from the Chair.
- I. **COMMISSIONERS’ COMMENTS**
Commissioner Hall commended staff for their presentations and noted she looks forward to the Classification and Compensation Study to help support staff and the General Manager on making decisions for the future recruitment of employees and retention of the current employees.
- J. **COMMISSIONERS’ REQUEST FOR FUTURE AGENDA ITEMS**
Commissioner Hall requested an update on the Santa Ana River Trail.

Chair Whitaker recessed the meeting at 10:41 a.m. for Closed Session.

8. CLOSED SESSION

- A. **CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION**
Government Code Section 54956.9(d)(4) | One Case

9. CLOSED SESSION REPORT

Chair Whitaker resumed Open Session at 11:06 a.m. and Legal Counsel, Andy Turner announced that the Commission received a report from SAWPA staff and Counsel; no action was taken on Agenda Item No. 8.A.

10. ADJOURNMENT

There being no further business for review, Chair Bruce Whitaker adjourned the meeting at 11:07 a.m.

Approved at a Regular Meeting of the Santa Ana Watershed Project Authority Commission on Tuesday, August 6, 2024.

Bruce Whitaker, Chair

Attest:

Sara Villa, Clerk of the Board

*Santa Ana Watershed
Project Authority*



Finance Department

Santa Ana Watershed Project Authority
TREASURER'S REPORT

June 2024

During the month of June 2024, the Agency's actively managed temporary idle cash earned a return of 3.504%, representing interest earnings of \$46,204. Additionally, the Agency's position in overnight funds L.A.I.F. generated \$181,844 in interest, resulting in \$228,048 of interest income from all sources. Please note that this data represents monthly earnings only and does not indicate actual interest received. There were zero (0) investment positions purchased, zero (0) positions sold, one (1) position matured, and zero (0) positions were called.

This Treasurer's Report is in compliance with SAWPA's Statement of Investment Policy. Based upon the liquidity of the Agency's investments, this report demonstrates the ability to meet customary expenditures during the next six months.

July 11, 2024

Prepared and submitted by:

A handwritten signature in black ink that reads 'Karen Williams'.

Karen L. Williams, Deputy GM/Chief Financial Officer

Santa Ana Watershed Project Authority

INVESTMENT PORTFOLIO - MARKED TO MARKET - UNREALIZED GAINS & LOSSES

June 30, 2024

SAWPA primarily maintains a 'Buy and Hold' investment philosophy, with all investments held by US Bank via a third-party safekeeping contract.

Investment Type	Security Type	CUSIP	Dealer	Purchase Date	Maturity Date	Call Date (if appl)	Par Value	Yield To Maturity	Investment Cost	Market Value Current Month	Unrealized Gain/(Loss)	Coupon Rate	Interest Earned
Agency	FHLB	3130A3GE8	MBS	02-04-20	12-13-24	No Call	\$ 500,000.00	1.414%	\$ 531,250.00	\$ 493,065.00	\$ (38,185)	2.750%	\$ 581.14
Agency	FHLB	3130ASD55	MBS	06-21-22	06-28-24	No Call	\$ -	0.000%	\$ -	\$ -	\$ -	2.750%	\$ 2,633.31
Agency	FHLB	3130ASW00	MBS	08-30-22	11-27-24	No Call	\$ 1,000,000.00	3.652%	\$ 1,000,000.00	\$ 991,238.67	\$ (8,761)	3.850%	\$ 3,001.64
Agency	FHLB	3130ATT31	MBS	10-28-22	10-03-24	No Call	\$ 1,000,000.00	4.500%	\$ 998,910.00	\$ 996,671.55	\$ (2,238)	4.500%	\$ 3,698.63
Agency	FHLB	3130ATHW0	WMS	11-04-22	09-10-27	No Call	\$ 1,000,000.00	4.125%	\$ 991,965.00	\$ 981,495.44	\$ (10,470)	4.125%	\$ 3,390.41
Agency	FHLB	3130ATUR6	MBS	06-06-23	12-13-24	No Call	\$ 500,000.00	4.629%	\$ 499,966.50	\$ 497,523.58	\$ (2,443)	4.625%	\$ 1,902.33
Agency	FHLB	3130AWC24	MBS	06-06-23	06-09-28	No Call	\$ 500,000.00	3.889%	\$ 502,505.00	\$ 489,100.55	\$ (13,404)	4.000%	\$ 1,278.58
Agency	FHLB	3130AWN63	WMS	01-25-24	06-30-28	No Call	\$ 1,000,000.00	4.020%	\$ 999,170.00	\$ 976,120.81	\$ (23,049)	4.000%	\$ 1,278.58
Agency	FNMA	3135G0X24	MBS	02-04-20	01-07-25	No Call	\$ 500,000.00	1.398%	\$ 505,380.00	\$ 489,086.01	\$ (16,294)	1.625%	\$ 574.56
Agency	FNMA	3135G05X7	WMS	10-30-20	08-25-25	No Call	\$ 1,000,000.00	0.460%	\$ 995,952.00	\$ 943,198.92	\$ (52,753)	0.375%	\$ 378.08
Agency	USTN	91282CAZ4	WMS	04-19-21	11-30-25	No Call	\$ 1,000,000.00	0.761%	\$ 982,500.00	\$ 932,734.38	\$ (49,766)	0.375%	\$ 625.20
Agency	USTN	91282ZTO	WMS	09-15-21	05-31-25	No Call	\$ 1,000,000.00	0.530%	\$ 989,726.56	\$ 952,011.72	\$ (37,715)	0.250%	\$ 435.76
CD	American Express Natl Bank	02589AD58	MBS	08-17-22	08-19-24	No Call	\$ 245,000.00	3.350%	\$ 245,000.00	\$ 243,898.54	\$ (1,101)	3.350%	\$ 674.59
CD	Beal Bank USA	07371DEV5	MBS	08-17-22	08-12-26	No Call	\$ 245,000.00	3.200%	\$ 245,000.00	\$ 235,792.93	\$ (9,207)	3.200%	\$ 644.38
CD	Synchrony Bank	87164XP34	MBS	08-12-22	08-12-25	No Call	\$ 245,000.00	3.350%	\$ 245,000.00	\$ 239,569.50	\$ (5,431)	3.350%	\$ 74.44
CD	Capital One Bank USA NA	14042TGJ0	MBS	05-25-22	05-25-27	No Call	\$ 246,000.00	3.200%	\$ 246,000.00	\$ 234,728.92	\$ (11,271)	3.200%	\$ 647.01
CD	Morgan Stanley Private Bank	61768UAT4	MBS	11-15-22	11-15-27	11-15-23	\$ 248,000.00	5.000%	\$ 248,000.00	\$ 248,097.61	\$ 98	5.000%	\$ 1,019.18
CD	Prime Alliance Bank	74160NJF8	MBS	11-17-22	11-17-27	05-17-23	\$ 248,000.00	4.950%	\$ 248,000.00	\$ 247,985.34	\$ (15)	4.950%	\$ 1,008.99
CD	Cooperative Center FSU	21686MAA6	MBS	12-29-22	12-29-25	No Call	\$ 249,000.00	4.650%	\$ 249,000.00	\$ 247,077.61	\$ (1,922)	4.650%	\$ 951.66
CD	Affinity Bank	00833JJAQ4	MBS	03-17-23	03-17-28	No Call	\$ 248,000.00	4.900%	\$ 248,000.00	\$ 249,265.43	\$ 1,265	4.900%	\$ 998.79
CD	Discover Bank	254673ZV7	MBS	03-22-23	03-23-27	No Call	\$ 243,000.00	5.050%	\$ 243,000.00	\$ 243,924.99	\$ 925	5.050%	\$ 1,008.62
CD	Global Fed CR UN Alaska	37892MAF1	MBS	05-12-23	05-12-27	No Call	\$ 249,000.00	4.600%	\$ 249,000.00	\$ 247,221.21	\$ (1,779)	4.600%	\$ 941.42
CD	UBS Bank USA	90355GDJ2	MBS	05-17-23	05-17-27	No Call	\$ 249,000.00	4.550%	\$ 249,000.00	\$ 246,890.45	\$ (2,110)	4.550%	\$ 931.19
CD	BMW Bank of North Americ	05580A2G8	MBS	06-16-23	06-16-26	No Call	\$ 244,000.00	4.600%	\$ 244,000.00	\$ 241,803.50	\$ (2,197)	4.600%	\$ 922.52
CD	Barclays Bank Delaware	06740KRW9	MBS	07-26-23	07-28-25	No Call	\$ 243,000.00	5.100%	\$ 243,000.00	\$ 242,511.35	\$ (489)	5.100%	\$ 1,018.60
CD	Farmers Insurance Group	30960QAS6	MBS	07-26-23	07-27-26	No Call	\$ 248,000.00	5.100%	\$ 248,000.00	\$ 248,354.32	\$ 354	5.100%	\$ 1,039.56
CD	Chartway Federal Credit Union	16141BAQ4	MBS	09-08-23	09-08-27	No Call	\$ 248,000.00	5.000%	\$ 248,000.00	\$ 249,376.76	\$ 1,377	5.000%	\$ 1,019.18
CD	Greentate Credit Union	39573LEM6	MBS	09-26-23	09-26-28	No Call	\$ 248,000.00	5.000%	\$ 248,000.00	\$ 250,965.21	\$ 2,965	5.000%	\$ 1,019.18
CD	Empower Fed Credit Union	291916AA2	MBS	09-29-23	09-29-27	No Call	\$ 248,000.00	5.100%	\$ 248,000.00	\$ 250,214.88	\$ 2,215	5.100%	\$ 1,039.56
CD	US Alliance Fed Credit Union	90352RDF9	MBS	09-29-23	09-29-28	No Call	\$ 248,000.00	5.100%	\$ 248,000.00	\$ 251,948.84	\$ 3,949	5.100%	\$ 1,039.56
CD	Numerica Credit Union	67054BNB2	MBS	11-10-23	11-10-26	No Call	\$ 248,000.00	5.550%	\$ 248,000.00	\$ 251,316.64	\$ 3,317	5.550%	\$ 1,131.29
CD	Heritage Community Cr Un	42728MAB0	MBS	11-15-23	11-16-26	No Call	\$ 248,000.00	5.450%	\$ 248,000.00	\$ 250,818.02	\$ 2,818	5.450%	\$ 1,110.90
CD	Members Trust of SW FCU	585899AG2	MBS	01-19-24	01-19-29	No Call	\$ 249,000.00	4.000%	\$ 249,000.00	\$ 242,154.61	\$ (6,845)	4.000%	\$ 818.63
CD	Hughes FCU	444425AL6	MBS	01-29-24	01-29-27	No Call	\$ 249,000.00	4.400%	\$ 249,000.00	\$ 245,796.93	\$ (3,203)	4.400%	\$ 900.49
CD	Farmers & Merchants TR	308693BG4	MBS	01-30-24	02-01-27	No Call	\$ 249,000.00	4.150%	\$ 249,000.00	\$ 244,242.28	\$ (4,758)	4.150%	\$ 849.33
CD	Nicolet National Bank	654062LP1	MBS	03-08-24	03-08-29	No Call	\$ 249,000.00	4.250%	\$ 249,000.00	\$ 244,780.31	\$ (4,220)	4.250%	\$ 869.79
CD	Medallion Bank	58404DUP4	MBS	03-13-24	03-15-27	No Call	\$ 249,000.00	4.600%	\$ 249,000.00	\$ 247,037.02	\$ (1,963)	4.600%	\$ 941.42
CD	Wells Fargo Bank	949764MZ4	MBS	03-12-24	03-12-27	No Call	\$ 249,000.00	4.500%	\$ 249,000.00	\$ 246,438.13	\$ (2,562)	4.500%	\$ 920.96
CD	Toyota Financial SGS Bank	89235MPN5	MBS	05-24-24	05-24-29	No Call	\$ 244,000.00	4.600%	\$ 244,000.00	\$ 243,643.65	\$ (356)	4.600%	\$ 922.52
CD	First Foundation Bank	32026U5U6	MBS	05-22-24	05-22-29	No Call	\$ 244,000.00	4.600%	\$ 244,000.00	\$ 243,637.01	\$ (363)	4.600%	\$ 922.52
CD	Alliant Credit Union	01882MAD4	MBS	12-30-22	12-30-25	No Call	\$ 248,000.00	5.100%	\$ 248,000.00	\$ 247,783.53	\$ (216)	5.100%	\$ 1,039.56

Total Actively Invested Funds		\$ 16,168,000.00	\$ 16,165,325.06	\$ 15,869,522.15	\$ (295,803)	3.504%	\$ 46,204.09
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Total Local Agency Investment Fund			\$ 49,384,811.48			4.480%	\$ 181,844.35
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Total Invested Cash		\$ 16,168,000.00	\$ 65,550,136.54			4.239%	\$ 228,048.44
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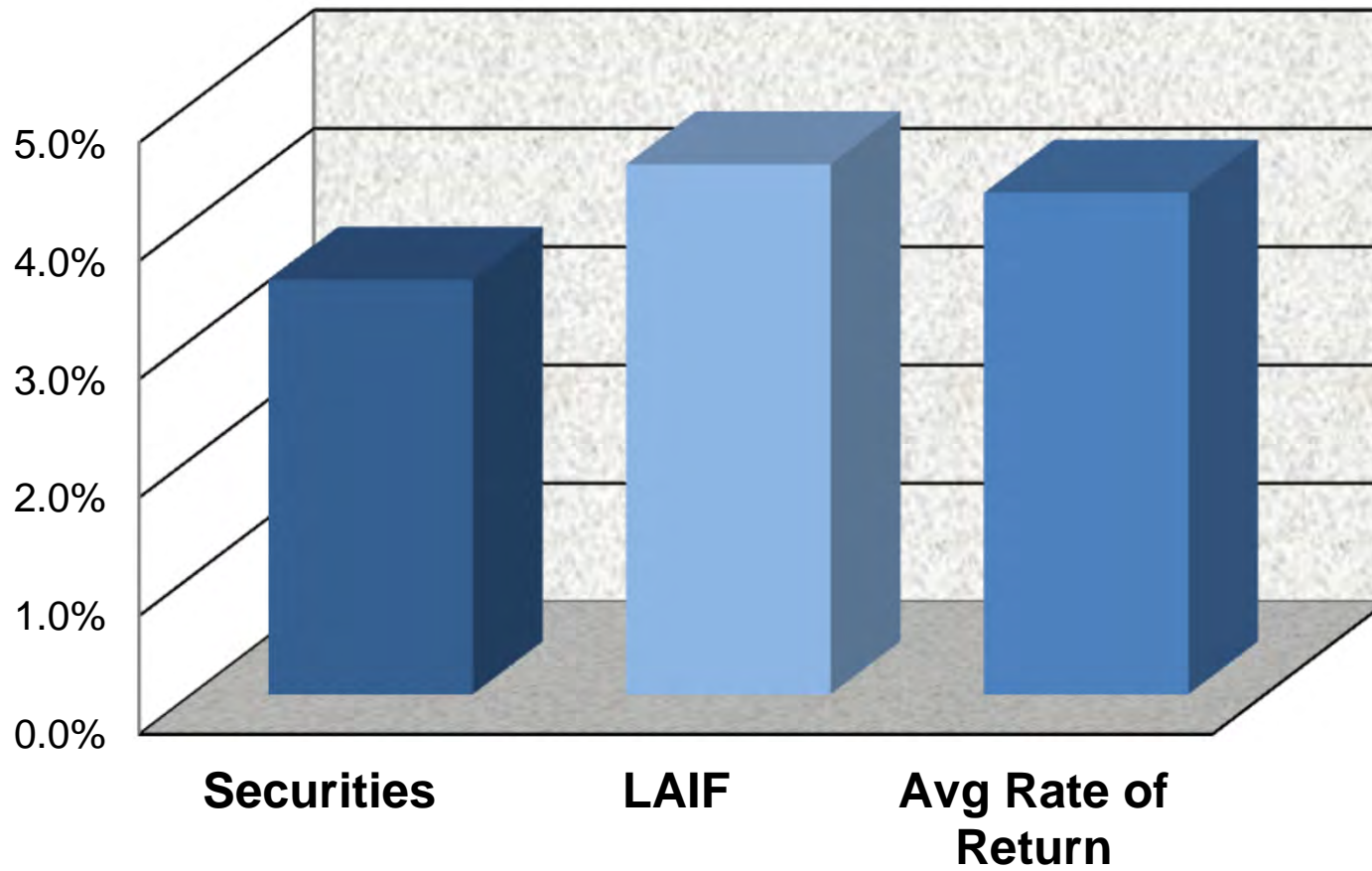
Key to Security Type:

FHLB	= Federal Home Loan Bank
FHLMC	= Federal Home Loan Mortgage Corporation
FNMA	= Federal National Mortgage Association
USTN	= US Treasury Note
CORP	= Corporate Note
CD	= Certificate of Deposit
GDB	= Goldman Sachs Bank
AEC	= American Express Centurion

Key to Dealers:

FCS	= FinaCorp Securities
MBS	= Multi-Bank Securities
MS	= Mutual Securities
RCB	= RBC Dain Rauscher
SA	= Securities America
TVI	= Time Value Investments
WMS	= Wedbush Morgan Securities

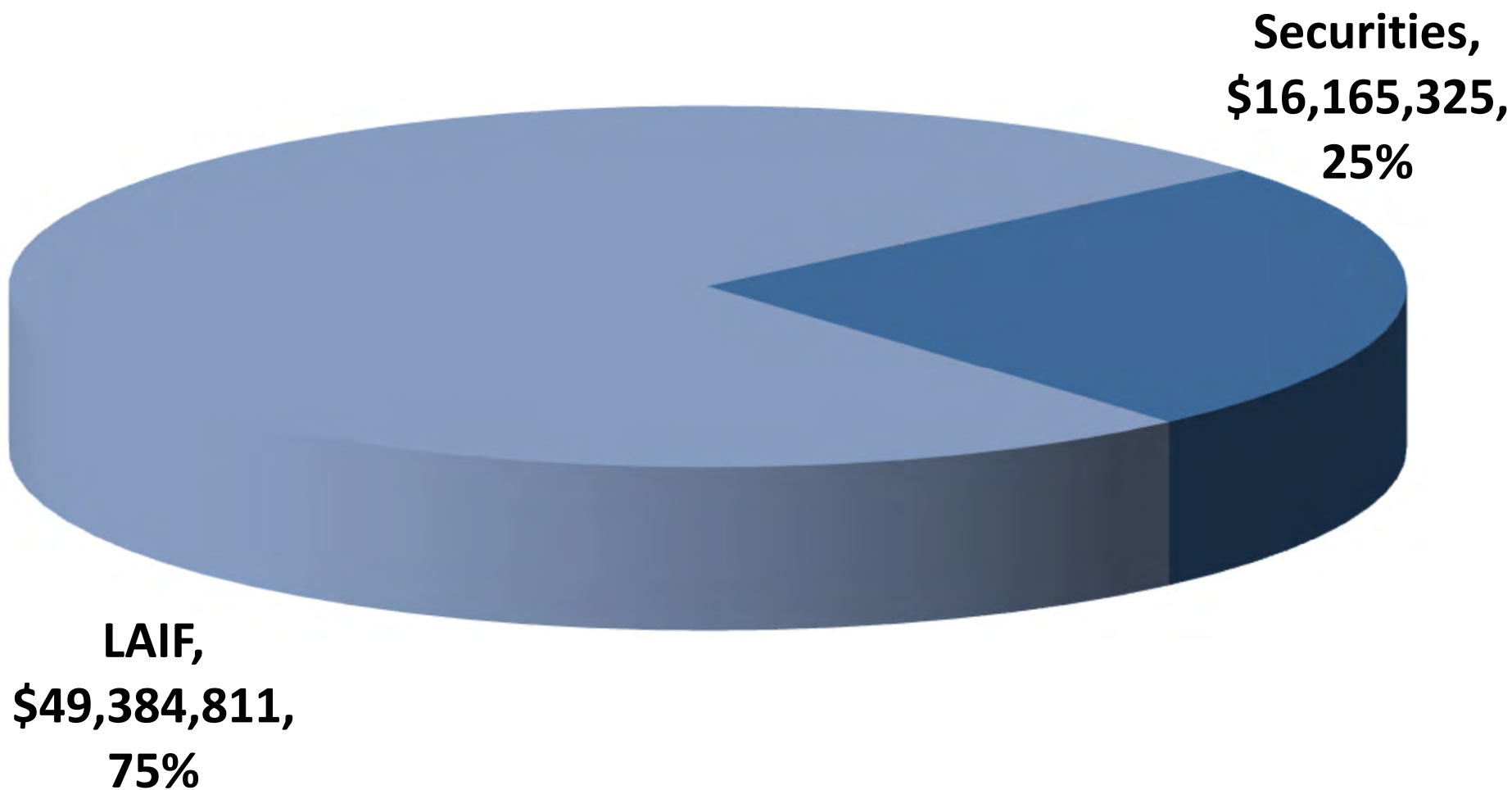
Interest Rate Analysis

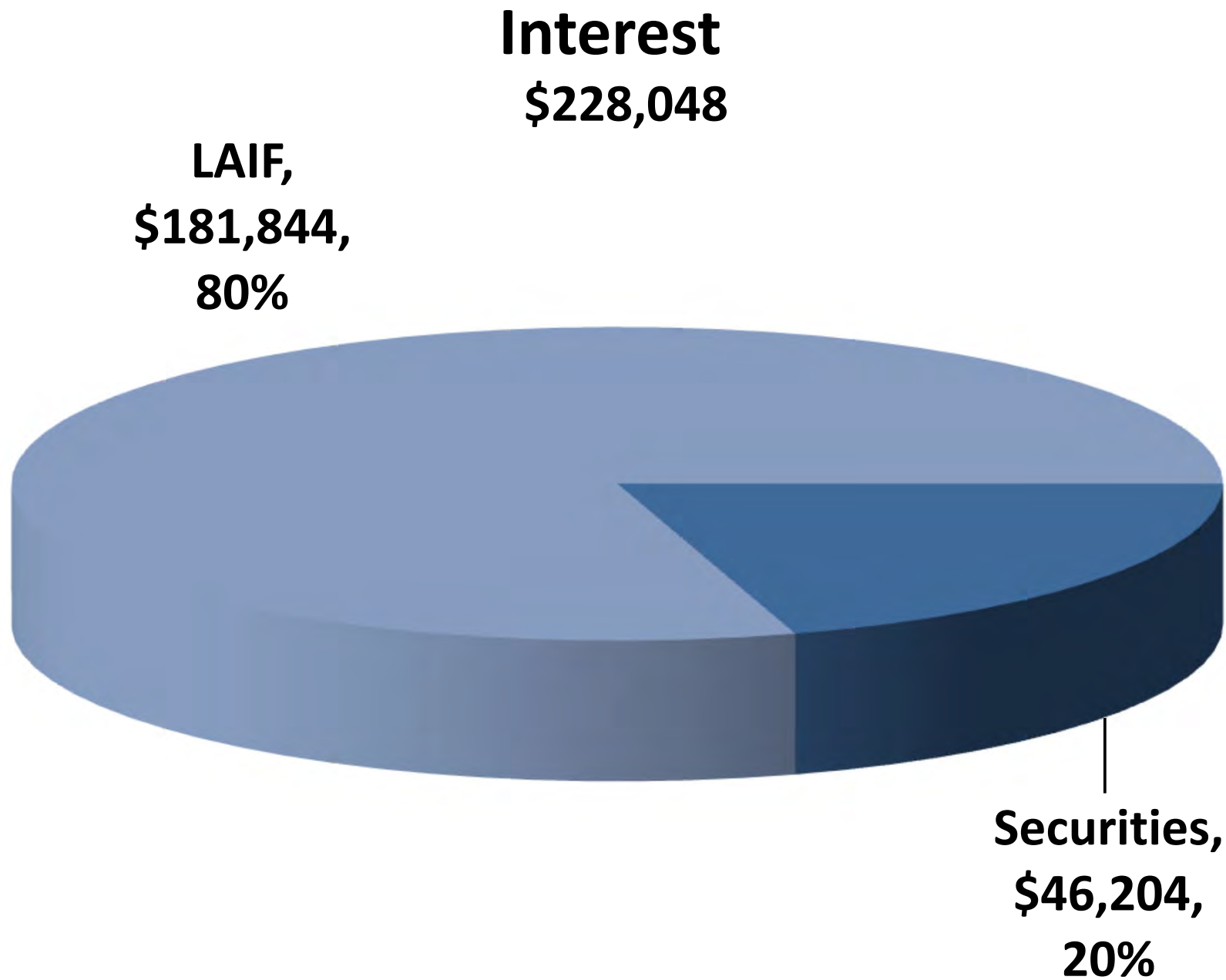


Jun'24

Investments

\$65,550,137





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COMMISSION MEMORANDUM NO. 2024.42

DATE: August 6, 2024

TO: SAWPA Commission

SUBJECT: Santa Ana River Watershed Cloud Seeding Pilot Program: Year 1 Summary

PREPARED BY: Rachel Gray, Water Resources and Planning Manager

RECOMMENDATION

Receive and file.

DISCUSSION

On July 19, 2022, the SAWPA Commission authorized an award of contract with North American Weather Consultants, Inc. (NAWC) to conduct the Santa Ana River Watershed Cloud Seeding Pilot Program operations. Subsequently, the SAWPA Commission authorized an award to the Board of Regents of the Nevada System of Higher Education on behalf of the Desert Research Institute (DRI) for the independent validation of the Santa Ana River Watershed Cloud Seeding Pilot Project.

The Pilot Program is a four-year project spanning the four winter seasons starting in 2023 and running between November 15 and April 15 for each season. The operations are based on past work described in the SAWPA feasibility study published in 2020, updated seeding site analysis, and reflects requirements from CEQA, and comments from SAWPA member agency staff and other stakeholders. The focus of the Pilot Program will be on seeding the four higher elevation target areas identified in the feasibility study surrounding the watershed with an emphasis on increasing precipitation in the form of snow.

Kickoff of the four-year Pilot Program began in August 2022, the following tasks occurred in preparation for the start of Year 1 Operations (November 15, 2023 – April 15, 2024):

Task	Date
Site Access Agreements (11 proponents/ 15 units)	August 2022 – August 2023
Operations Plan (project communication, operational criteria, and suspension criteria)	January – October 2023
Communications Plan	July – November 2023
Preliminary Biological Surveys	July 31, 2023
45-Day Public Notice Submission	September 28, 2023
Final Biological Surveys (10 days before construction)	October 5 – 9, 2023
Equipment Set Up, Propane Tank Delivery, and Equipment Testing	October 9 – 20, 2023
Operator Training	October 23 – 27, 2023

Task	Date
Program Kick Off Meeting	November 1, 2023
FY23-24 Program Start	November 15, 2023
Notification to Local Fire Departments	December 2023 – January 2024
FY23-24 Program End	April 15, 2024
Equipment Collected (summer storage)	May 30, 2024

Year 1 Annual Operations Report for the period November 15, 2023 – April 15, 2024, is attached for your review, a summary of the findings is listed below:

- Sites were selected that were as close to locations from the feasibility study (SAWPA, 2020). In several instances, project sponsors located close to the feasibility study’s proposed site locations were selected for installation of the ground-based cloud seeding units.
- Two changes that were made for the Pilot Program that were different than what was presented in the feasibility study (SAWPA, 2020) included the addition of another CNG unit for the Northwest (NW) Target Area, and the switch of one of the CNG sites for the Southeast (SE) Target Area to an AHOGS site, as it was determined that this area may benefit from convective lines pushing in from the coast. This increased the total number of seeding units from 14 to 15, with 12 CNG units and three AHOGS units.
- Meteorological data and models used in seeding operations are acquired from a wide variety of sources, including some subscriber services. This information includes radar data, satellite data (e.g., visible, infrared, water vapor) weather forecast model data, surface observations, rawinsonde (weather balloon) upper-air soundings, and weather cameras. NAWC’s meteorologists have access to all meteorological products on a 24-hour basis, allowing for continued monitoring so that seeding operations can be performed at any time of the day or night. The wide variety of available meteorological data products and information provides the data necessary for meteorologists to determine when conditions are appropriate for cloud seeding.
- The 2023-2024 season was active, with 20 storm event periods. Of these, operations of cloud seeding occurred for 13 storm events. Seasonal precipitation is presented in Table 4-2 for selected precipitation gauges within the target areas.
- A total of 13 seeded storm events occurred over a combined period of 22 days. CNG hours and flare usage are documented for each unit during each storm event (Tables 4-1a, b, NAWC, July 2024).
- A total of 2135.25 hours of seeding time from all CNG units was recorded, amounting to 17,092 g of silver iodide (AgI) used for seeding for the season.
- A total of 32 AgI flares were used from the AHOGS units, totaling 640 g of AgI.
- One suspension period occurred during the season; from February 3-8, 2024, as a significant Atmospheric River event affected much of California bringing abundant mountain snow and heavy lower elevation rainfall resulting in significant flooding in some areas.
- A second period of active weather in mid-March 2024 also saw no seeding activity; this was not due to suspension criteria being enacted, but instead due to a wind flow pattern

that the Pilot Program was not set up for as earlier studies showed the pattern to be a rare occurrence.

- Summary of materials used for each unit for each storm event is documented and includes CNG runtime hours and number of flares, AgI used in grams, and acetone used in gallons.

The Pilot Program began on November 15, 2023, and ended on April 15, 2024, for the first operational year. Recommendations based on lessons learned during the first year of operations include:

- Send notices to fire departments in advance of the start of Year 2 Operations.
- Field technician local to the project area is identified and trained to be able to service CNGs and AHOHS units.
- Regularly troubleshoot cloud seeding units for optimal equipment operation.
- Consideration should be given to moving one of the NW1 and NW2 sites further northwest closer to the NW Target area.
- Considerations should be given to the possibility of installing seeding sites on the east and northeast sides of the NE and SE target areas to account for this pattern, with the understanding that these sites may rarely be activated.
- Be transparent with the public about technical studies conducted for cloud seeding.
- Maintain effective communication with sponsors to mitigate site access issues.
- Train backup site operators for continuous unit operations.
- Collaborate with Flood Control Districts for environmental insights.
- Understand the impact of successive storms on infrastructure.

SAWPA is also coordinating the Pilot Program planning with Desert Research Institute (DRI) on the validation competent of the project. DRI is conducting an independent review of the cloud seeding pilot operations and validating the increases in precipitation and stream flows. Results will be presented in late August 2024. Validation tasks include the following:

1. Task 1: Evaluate NAWC Operations
2. Task 2: Snow Chemistry – collect baseline and seeded snow samples
3. Task 3: Calculating the Seeding Snow-Water Equivalent: Assessing precipitation as rainfall and snowfall
4. Task 4: Target/Control Statistical Analysis
5. Task 5: Stream Flow Analysis

Tentative schedule for completion of Year 1 activities and implementation of Year 2 activities is outlined below:

Calendar Years	2024										2025			
	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Project Validation:														
Review NAWC Operations														
Snow Chemistry: Lab Analysis and Report														
Snow Water Equivalent														
Target-Control Evaluation														

Calendar Years	2024										2025			
Task	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Stream Flow Analysis														
Draft Validation Report														
Surface Water Modeling Contract Award														
Project Operations:														
Annual Report														
Mobilization														
Operator Site Training														
Year 2 Operations														

CRITICAL SUCCESS FACTORS

- Successful implementation of an integrated regional water resource plan that reflects the watershed management needs of the public and the environment.
- Data and information needed for decision-making is available to all.

RESOURCE IMPACTS

In April 2023, SAWPA was notified by the Department of Water Resources (DWR) that the SAWPA Santa Ana River Weather Modification Pilot Program will receive a grant valued at \$861,400 under the Proposition 1 Round 2 funding program. Local funding has been secured totaling \$94,000. Project operations and validation study costs are budgeted and reflected in the FYE 23-24, FYE 24-25, FYE 25-26 and FYE 26-27 SAWPA Budgets.

Attachments:

1. PowerPoint Presentation
2. Annual Cloud Seeding Report



Santa Ana River Watershed Cloud Seeding Pilot Program: Year 1 Summary

Agenda Item No. 6.A

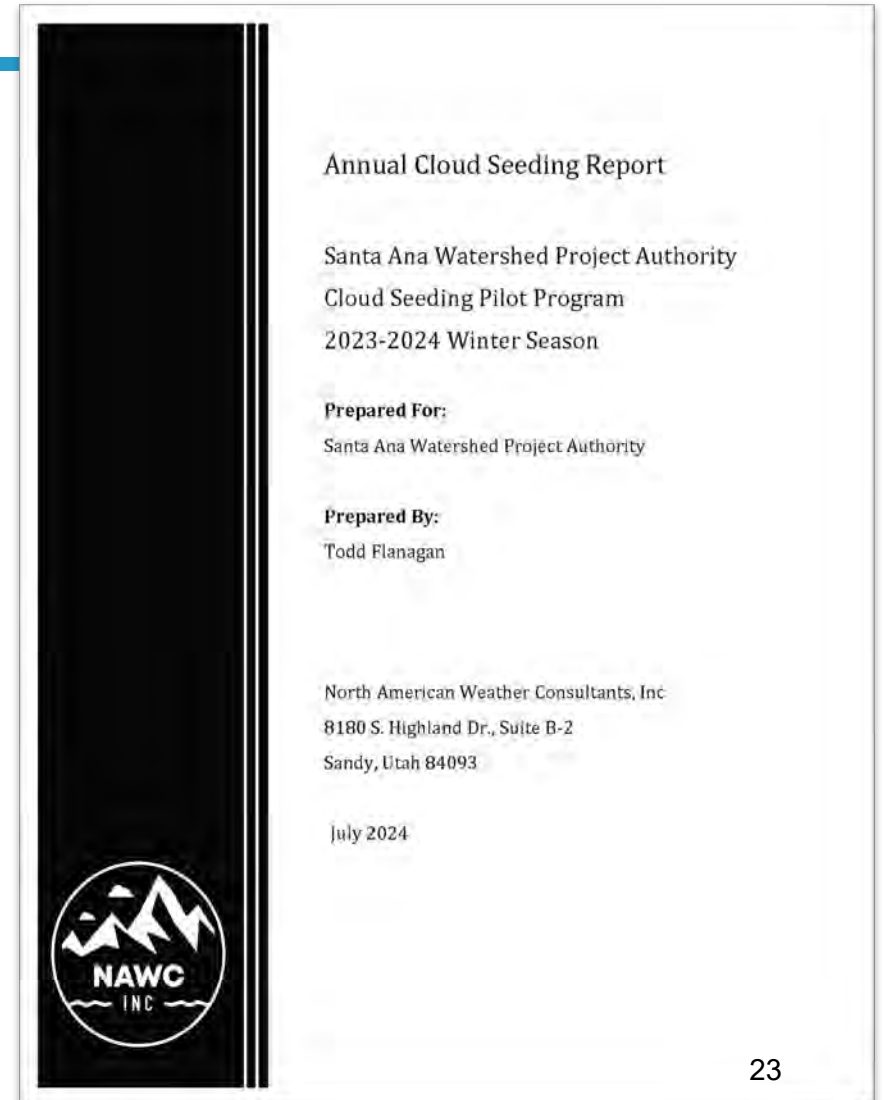
Rachel Gray
Water Resources and Planning Manager
August 6, 2024

Recommendation

- Staff recommendation is that the Commission receive and file the Santa Ana River Watershed Annual Cloud Seeding Report for the 2023-2024 Operational Season.

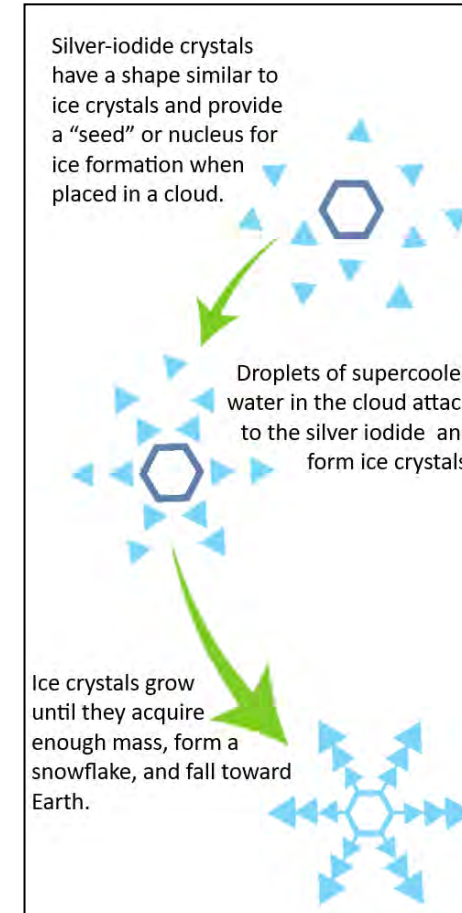
First Year Annual Cloud Seeding Report Outline

1. The Science Behind Cloud Seeding
2. Program Design and Implementation
 - Differences between the feasibility study and actual project design
3. 2023-2024 Season Operations
 - Seeded Storms: occurrence and justification
 - Unseeded Storms: occurrence and justification
 - Storms project design unable to capture
 - Operational issues encountered
4. Implementation of Suspension Criteria
5. Findings and Recommendations for Future Operational Seeding Years



The Science Behind Cloud Seeding

- The cloud-seeding process aids precipitation formation by enhancing ice crystal production in clouds. When the ice crystals grow sufficiently, they become snowflakes and fall to the ground.
- Silver iodide (AgI) has been selected for its environmental safety and efficiency in producing ice in clouds because of its structural similarity to natural ice crystals.
- Based on decades of experience, the use of silver iodide for the purpose of cloud seeding has been shown to be safe for people and the environment. The potential environmental impacts of silver iodide have been studied extensively and represents a negligible risk to the environment.



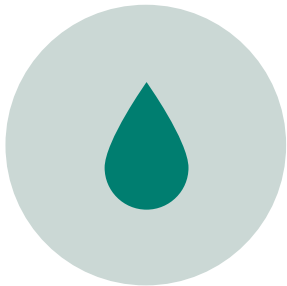
Benefits of Cloud Seeding



Increase of 5% to 15% in precipitation, increasing runoff/streamflow in the Santa Ana River, mitigating the negative effects of climate change.



Increase in water supply for the region, enhancing groundwater recharge, and reducing reliability on imported water.



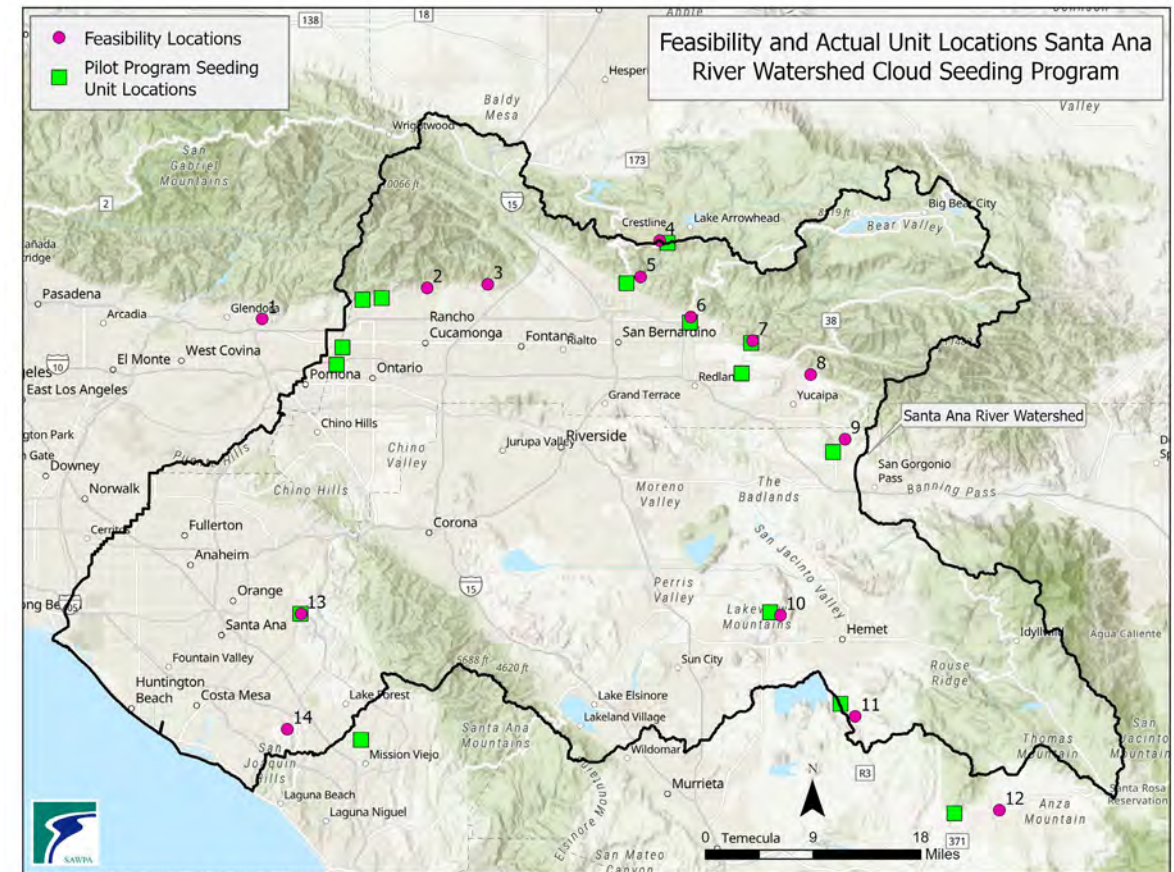
Increase in snowpack for snow season recreational activities.



Provide new source of water

Program Design: Update from Feasibility Study

- Sites were selected that were as close to locations from the feasibility study (SAWPA, 2020).
- Two changes that were made for the Pilot Program that were different than what was presented in the feasibility study (SAWPA, 2020) included:
 - The addition of one CNG unit for the Northwest (NW) Target Area
 - The switch of one of the CNG sites for the Southeast (SE) Target Area to an AHOGS unit, as it was determined that this area may benefit from convective lines pushing in from the coast.
- This increased the total number of seeding units from 14 to 15, with 12 CNG units and 3 AHOGS units.

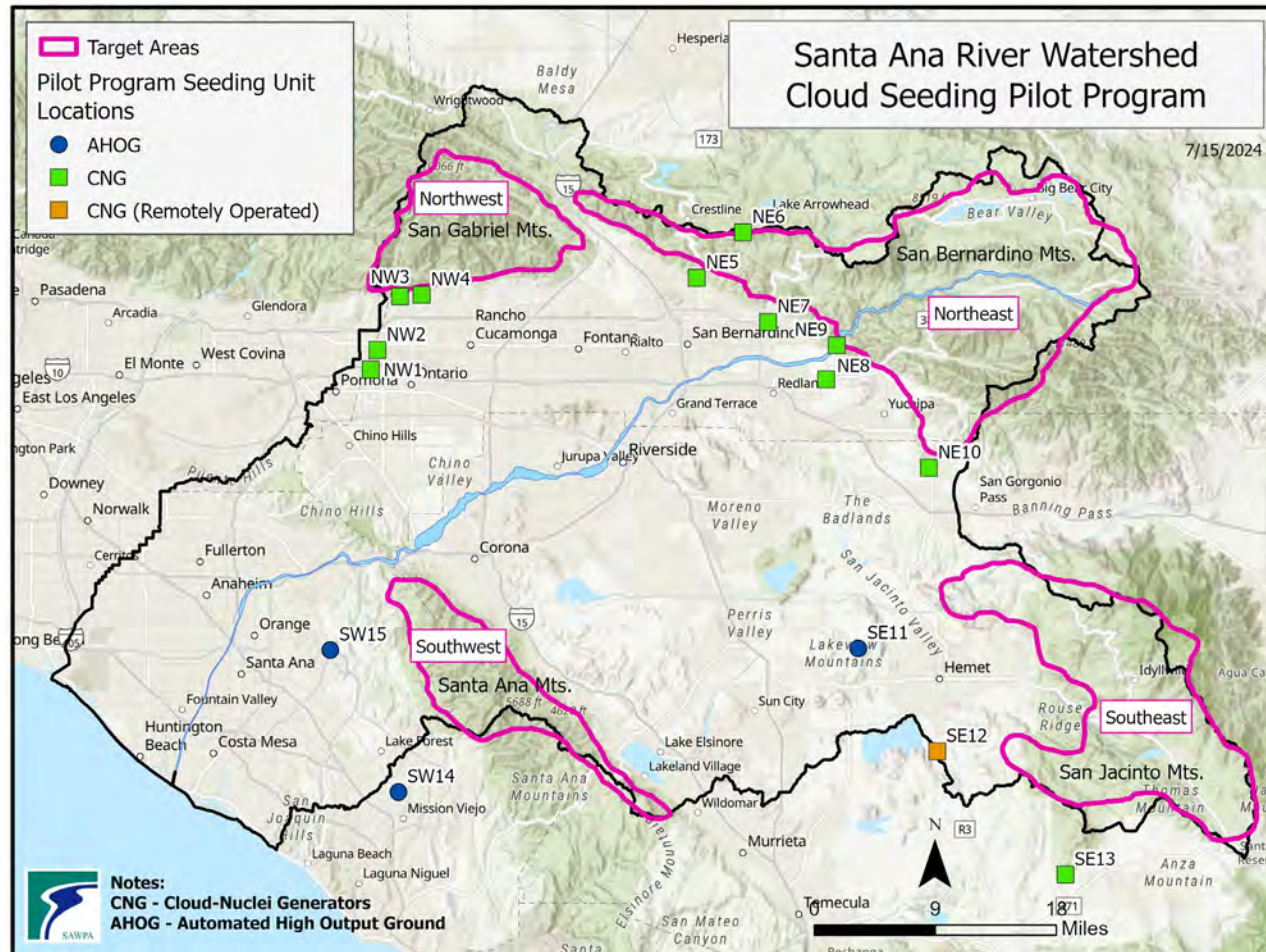


Program Implementation Tasks

These tasks occurred in preparation, during operations, and post-operations for Year 1

Task	Date
Site Access Agreements (11 proponents / 15 units)	August 2022 – August 2023
Operations Plan (project communication, operational criteria, and suspension criteria)	January – October 2023
Communications Plan	July – November 2023
Preliminary Biological Surveys	July 31, 2023
45-Day Public Notice Submission	September 28, 2023
Final Biological Surveys (10 days before construction)	October 5 – 9, 2023
Equipment Set Up, Propane Tank Delivery, and Equipment Testing	October 9 – 20, 2023
Operator Training	October 23 – 27, 2023
Program Kick Off Meeting	November 1, 2023
FY23-24 Program Start	November 15, 2023
Notification to Local Fire Departments	December 2023 – January 2024
FY23-24 Program End	April 15, 2024
Equipment Collected (summer storage)	May 30, 2024

Program Implementation



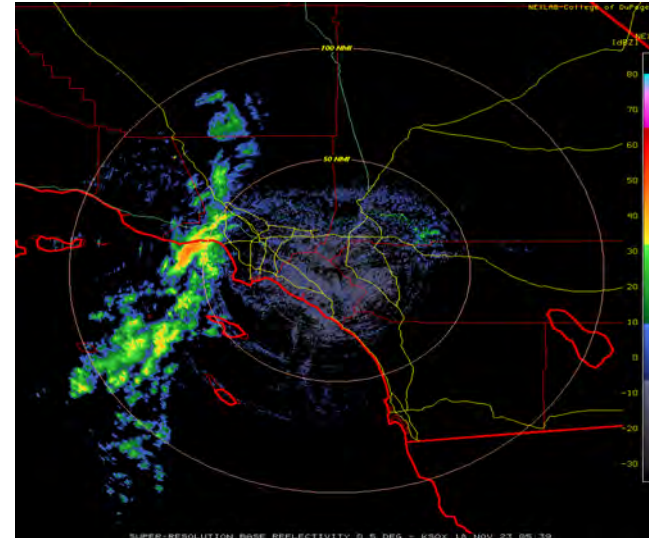
AHOGS unit located at site SW14



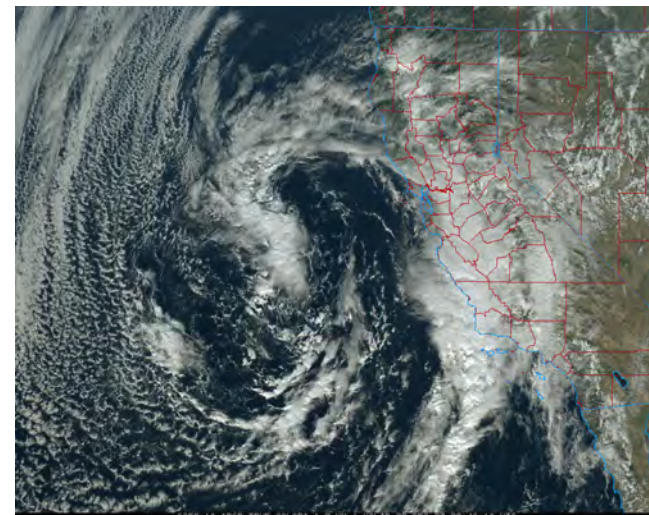
CNG unit with propane tank at site NE10

Weather Data and Models

- Radar data
- Satellite data (e.g., visible, infrared, water vapor)
- Weather forecast model data
- Surface observations
- Rawinsonde (weather balloon) upper-air soundings
- Weather cameras



Weather radar image from Santa Ana (KSOX) during a storm event on November 18, 2023, at 2139 PST (0539 UTC). The scale on the right shows reflectivity (power of returned echoes from reflecting off hydrometeors), which indicates precipitation intensity.



Visible spectrum satellite image on December 20, 2022, at 1246 PST (2046 UTC) showing an area of low pressure centered off the California coast with an area of enhanced cloudiness, the frontal boundary, pushing into southern California around Point Conception.

2023-2024 Operations Summary

- Program design worked well with the weather patterns observed during the season
- The 2023-2024 season was active, with **20 storm event periods**
- **13 seeded storm events** over a total of 22 days
- A total of 2135.25 hours of seeding time from CNG units was recorded, amounting to **17,092 g** of silver iodide (AgI) used
- A total of **32 AgI flares** were used from the AHOGS units, totaling **640 g of AgI**

Date	Number of Seeded Storms	Duration of Storms	Total Duration (days)
November 2023	1	Two consecutive days	2
December 2023	2	Two two-day storm events	4
January 2024	3	<ul style="list-style-type: none"> • One one-day storm event & • Two two-day storm events overlapping 	4
February 2024	2	<ul style="list-style-type: none"> • One one-day storm event & • One two-day storm event 	3
March 2024	3	Three two-day storm events	6
April 2024	2	<ul style="list-style-type: none"> • One one-day storm event & • One two-day storm event 	3

2023-2024 Operations Summary

Units	Storm Periods	Nov 17-18	Dec 21-22	Dec 29-30	Jan 3	Jan 20-21	Jan 21-22	Feb 1	Feb 20-21	Mar 6-7	Mar 23-24	Mar 30-31	Apr 5	Apr 13-14
CNGs (Hours of Generator Runtime)	NW1			23	6.5		*	10	16.75	16	22	30	12.75	7*
	NW2			23	7		*	9	16.25	*	20.25	*	9.25	7*
	NW3	11.25	22	21	5.75	*	*	23.5	19.5	14	22.5	26.75	8.5	24.75
	NW4	13.25	20.75	22		*	*	23	19.75	14	22.5	27.75	8.5	25
	NE5		26.5	21.25	8.75	17.25	24.5	*	*	17	22.75	31.25	12.25	25.5
	NE6		21.5	9	12.25	17	14.25	11.75	18.25	14	18	31.25	14	20.25
	NE7		22.75	21	9	17	*	*	23	17.75	22.75	31.25	12.5	25.5
	NE8		22.25	18.75	9.75	18.5	23.25	7.75	*	15	20.5	*	13	25
	NE9		23	18.75	9.5	18.25	23.25	8	20.5	*	20.25	32.25	12.75	25.5
	NE10		24.25	21.25	9.25	17.75	24.75	23.5	24.25	18.75	22.5	31.25	12.25	25.25
	SE12		8.75	5.5	9.75	*	*	14		17	4.75*	33	9	
SE13		19	6.5	8	15.25	24.5	12.25		12.75	18.25	32.75	12.75		
AHOGS (Flares)	SE11		5		2		4	1				1	1	
	SW14		1	3		1	3			1		2	2	
	SW15						*			2			1	2

* Units were not operated or operated at a reduced level due to operational issues.

2023-2024 Storm Summary (1/2)

Storm Period	Seeded/Not Seeded	Justification
November 15, 2023	Not Seeded	Airmass accompanying the storm system was warm
November 17-18, 2023	Seeded	Moisture was confined primarily to the western parts of the NW target area. Temperatures cooled but not enough for seeding efforts to be effective.
November 30, 2023	Not Seeded	Presence of low-level stable layer prevent seeding plumes from rising above it.
December 19-22, 2023	Seeded	Fair Seedability
December 29-20, 2023	Seeded	Good Seedability
January 3, 2024	Seeded	Good Seedability
January 7, 2024	Not Seeded	Poor Seedability: strong winds would produce long and narrow seeding plumes that were not likely to nucleate before passing the target areas
January 20-22, 2024	Seeded	Fair to Good Seedability

2023-2024 Storm Summary (2/2)

Storm Period	Seeded/Not Seeded	Justification
February 1, 2024	Seeded	Very Good Seedability
February 3-8, 2024	Not Seeded	Suspension Criteria Enacted: Poor to Good Seedability
February 19-21, 2024	Seeded	Good Seedability
February 26, 2024	Not Seeded	Poor Seedability: water temperatures and shallow moisture
March 2-3, 2024	Not Seeded	Poor Seedability: stable layer, warmer temperatures, strong winds
March 6-7, 2024	Seeded	Fair becoming Excellent Seedability
March 14-18, 2024	Not Seeded	Poor Seedability: north to northeast winds
March 23-24, 2024	Seeded	Good Seedability
March 30-31, 2024	Seeded	Good Seedability
April 5, 2024	Seeded	Excellent Seedability
April 13-14, 2024	Seeded	Poor to Fair, then Fair to Good Seedability

2023-2024 Suspension Criteria

- One suspension period was enacted due to a significant Atmospheric River event
- February 3 through February 8, 2024
- Over 15 inches of rainfall in some locations
- Over seven feet of snow in some locations
- Conditions resulted in abundant mountain snow and heavy lower elevation rainfall resulting in significant flooding in some areas.

Site	Name	Nov 2023	Dec 2023	Jan 2024	Feb 2024	Mar 2024	Apr 2024	Season Total
1	Upper Day Canyon	0.95	0.90	2.28	7.92	2.33	1.02	15.40
2	Deer Creek Dam	1.26	1.89	2.76	19.77	9.80	3.23	38.71
3	Cable Canyon	1.38	2.96	2.40	12.29	8.08	2.20	29.31
4	Oak Creek Canyon	1.41	1.70	2.24	13.07	6.14	2.44	27.00
5	Big Bear City Airport	0.66	0.53	1.38	7.44	1.78	2.14	13.93
6	Camp Angelus	0.99	1.57	2.91	12.32	4.65	1.50	23.94
7	Oak Glen Watershed	2.01	1.58	3.07	12.72	6.06	1.89	27.33
8	Idyllwild NWS	1.48	1.35	4.45	9.41	5.43	1.74	23.86
9	Hurkey Creek	0.98	0.54	2.65	5.49	3.16	1.14	13.96
10	Upper Silverado Canyon	0.24	1.94	1.02	4.96	7.25	1.34	16.75
11	Riverside Muni Airport	0.17	0.86	1.68	6.94	2.38	0.14	12.17
12	Hemet	0.87	0.80	1.94	4.33	1.69	0.67	10.30

2023-2024 Findings and Recommendations

A period of active weather in mid-March 2024 saw no seeding activity due to positioning of the storm system east of the area resulted in a prolonged period of north to northeast flow with precipitation, the project design did not account for these conditions and meteorological analysis during the feasibility study indicated this to be a rare occurrence.

Consider installing seeding sites on the east and northeast sides of the NE and SE target areas to account for this pattern, with the understanding that these sites may rarely be activated.



HYSPLIT modeling revealed that, at times, sites NW1 and NW2 produced seeding plumes that did not impact the nearby target areas

Consider moving one of the NW1 and NW2 sites further northwest closer to the NW Target area.

2023-2024 Findings and Recommendations

Mechanical Issues

Field technician local to the project area identified and trained to be able to service CNGs and AHOHS units.

Regularly troubleshoot cloud seeding units for optimal equipment operation.



Equipment Operators

Train backup site operators for continuous unit operations.



Logistical Issues

Maintain effective communication with sponsors to mitigate site access issues.

2023-2024 Findings and Recommendations

Obtain input on environmental conditions from Flood Control District and Watershed Agencies

Collaborate with Flood Control Districts for environmental insights.

Understand the impact of successive storms on infrastructure.



Communication

Be transparent with the public about technical studies conducted for cloud seeding.

Send notices to fire departments in advance of the start of Year 2 Operations.

Pilot Program Schedule

Pilot Program Schedule

- First Year Summary Report July 2024
- Project Validation Tasks August 2024
- Year 2 Equipment Mobilization October 2024
- Year 2 Operations – Start November 15, 2024

Questions

COMMISSION MEMORANDUM NO. 2024.43

DATE: August 6, 2024

TO: SAWPA Commission

SUBJECT: Enhancements to Watershed-Wide Water Budget Decision Support Tool Project Update

PREPARED BY: Rick Whetsel, Senior Watershed Manager

RECOMMENDATION

Receive and file.

BACKGROUND

The Enhancements to Watershed-Wide Water Budget Decision Support Tool Project (which is funded by a Proposition 1 IRWM Round 1 grant, in-kind staff time partnership with the Bureau of Reclamation (Reclamation), and cost share from the PA 22 agencies and the Municipal Water District of Orange County (MWDOC)) includes the following tasks:

- **Task 1 – Imagery:** Evaluate and acquire imagery to evaluate landscape for the entire urbanized Santa Ana River Watershed and South Orange County.
- **Task 2 – Landscape Analysis:** Measure landscapes to provide water budgets to retail agencies to support the achievement of water efficiency targets prescribed by the State.
- **Task 3 – Decision Support Tool:** Deploy tool to enable retail agencies to analyze customer water use data to assess customer efficiency, target water over use, and serve as a mechanism for customer outreach.

Recent updates to the Project include:

- Aerial imagery processing complete, orthophotos for project area of interest available upon request from SAWPA.
- Reclamation completed outdoor landscape modeling and an assessment of data accuracy for retail water agency service areas in Orange County, and is currently working to develop and calibrate an outdoor landscape model for retail water agency service areas in the upper Santa Ana River Watershed.
- SAWPA staff is working to support Reclamation with model development and data validation.

Next steps include:

- Reclamation to complete outdoor landscape modeling for retail water agency services areas in the upper Santa Ana River Watershed by December 31, 2024.
- SAWPA staff is working in coordination with MWDOC to prepare and submit a watershed level data validation report to DWR for consideration of the Alternative Landscape Data set.
- SAWPA staff to initiate efforts to design the web-based tool following approval of the data validation report by DWR.

CRITICAL SUCCESS FACTORS

The following OWOW critical success factors are addressed by this action:

1. Administration of the OWOW process and plan in a highly efficient and cost-effective manner.
2. Data and information needed for decision-making is available to all.

RESOURCE IMPACTS.

None.

Attachments:

1. PowerPoint Presentation



SANTA ANA WATERSHED
PROJECT AUTHORITY

Enhancements to Watershed-Wide Water Budget Decision Support Tool Project Update

Commission Meeting
Item No. 6.B
Rick Whetsel
Senior Watershed Manager
August 6, 2024

Meeting Objectives

- Overview of Project
- Reclamation Landscape Modeling/Methodology
- DWR Accuracy Assessment
- Next Steps

Enhancements to Watershed-Wide Water Budget Decision Support Tool: **Grant Awards**

- SAWPA concurrently awarded grants from California Department of Water Resources (DWR) and U.S. Bureau of Reclamation (Reclamation), with each grant serving as match for the other.
- DWR Prop 1 Grant (agreement executed May 2021):
 - **Key Element - upgraded SAWPA/ESRI data viewer.**
 - SAWPA awarded \$500,000 from DWR.
 - Completion date December 31, 2025.
- Reclamation WaterSMART Basin Study (agreement executed February 2021):
 - **Key Element – Reclamation proposed an “automated” method to classify land use.**
 - Reclamation grant with a 50% matching share requirement.
 - Amendment extending Term of the grant agreement to December 31, 2024.

Enhancements to Watershed-Wide Water Budget Decision Support Tool: **Project Objectives and Goals**

- **Goals:**
 - Produce a cost effective, consistent, and reproducible method to identify and measure outdoor landscape features.
 - Create parcel level outdoor landscape budget data that meets or exceeds quality and accuracy expectations of DWR.
 - Certify data as an Alternative Residential Landscape Area Data set to be used in place of the 2018 data provided by DWR.
- **Project Objectives:**
 - Acquire high resolution aerial imagery for the urbanized Santa Ana River Watershed, South Orange County, and a portion of the Upper Santa Margarita Watershed.
 - Identify and measure irrigated landscape and irrigable land to create parcel level water budgets for Retail Water Agencies.
 - Create online decision support tool for Retail Water Agencies to access water budgets and associated data.

Task 1 - Aerial Imagery (completed)

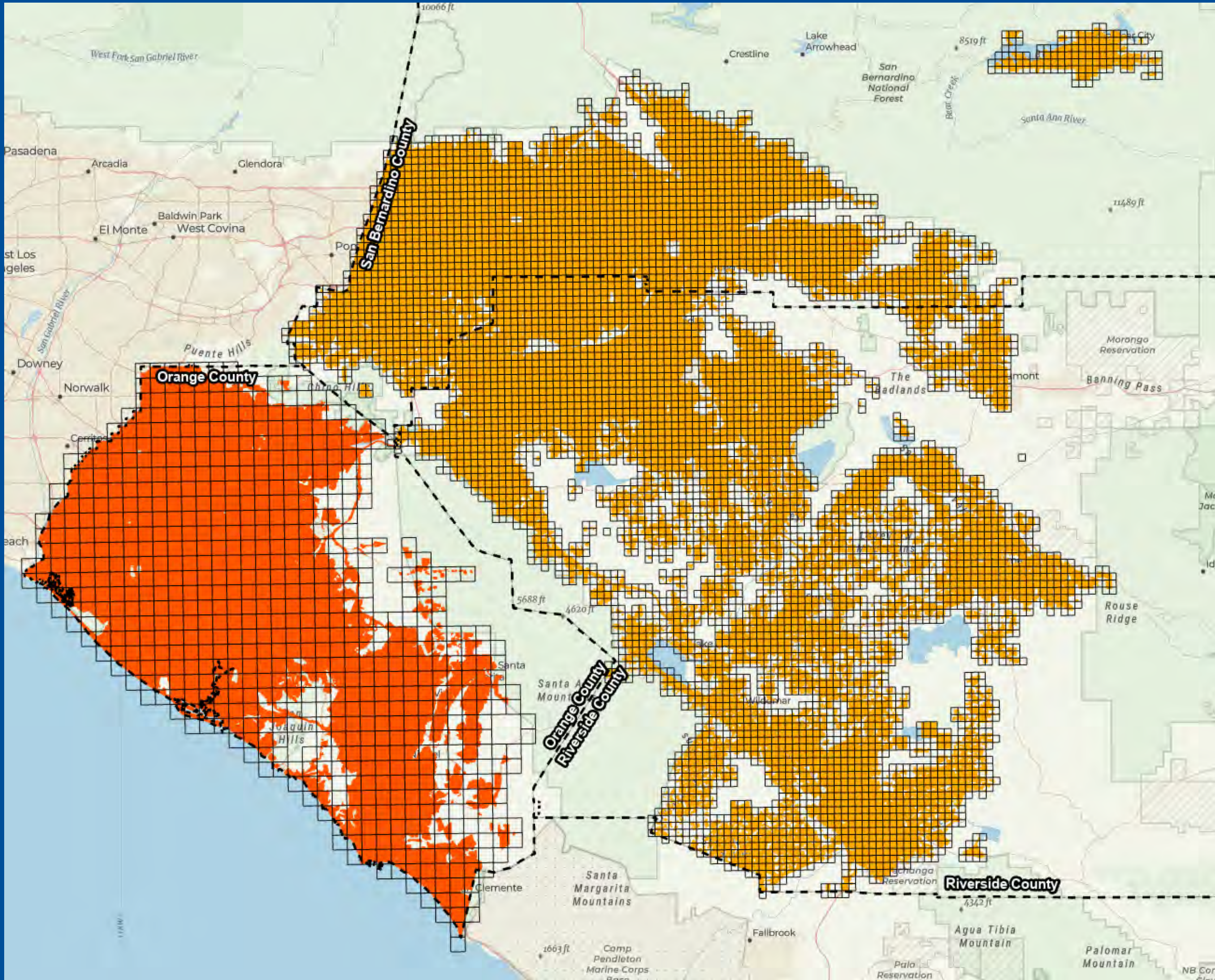
- Objective: SAWPA will acquire high resolution 3-inch RGBN (red, green, blue, near infrared) imagery for the entire urbanized Santa Ana River Watershed, South Orange County including portions of the Upper Santa Margarita Watershed.
- Acquisition of Imagery - Complete
 - Orange County Imagery (2020)
 - The Southern California Association of Governments 3 inch, 4-band (red, green, blue, and near infrared) imagery acquired through an agreement with the Municipal Water District of Orange County.
 - Imagery delivered to SAWPA August 2021
 - Upper Watershed (2021)
 - SAWPA acquired 3 inch, 4-band (red, green, blue, and near infrared) imagery for the upper Santa Ana River Watershed including portions of the Santa Margarita Watershed.
 - Upper watershed area flown between May – August 2021
 - Upper watershed orthophotos delivered to SAWPA in March 2022



Project Study Area

Orange County (948 mi²)

**Upper Santa Ana River
Watershed (2,032 mi²)**

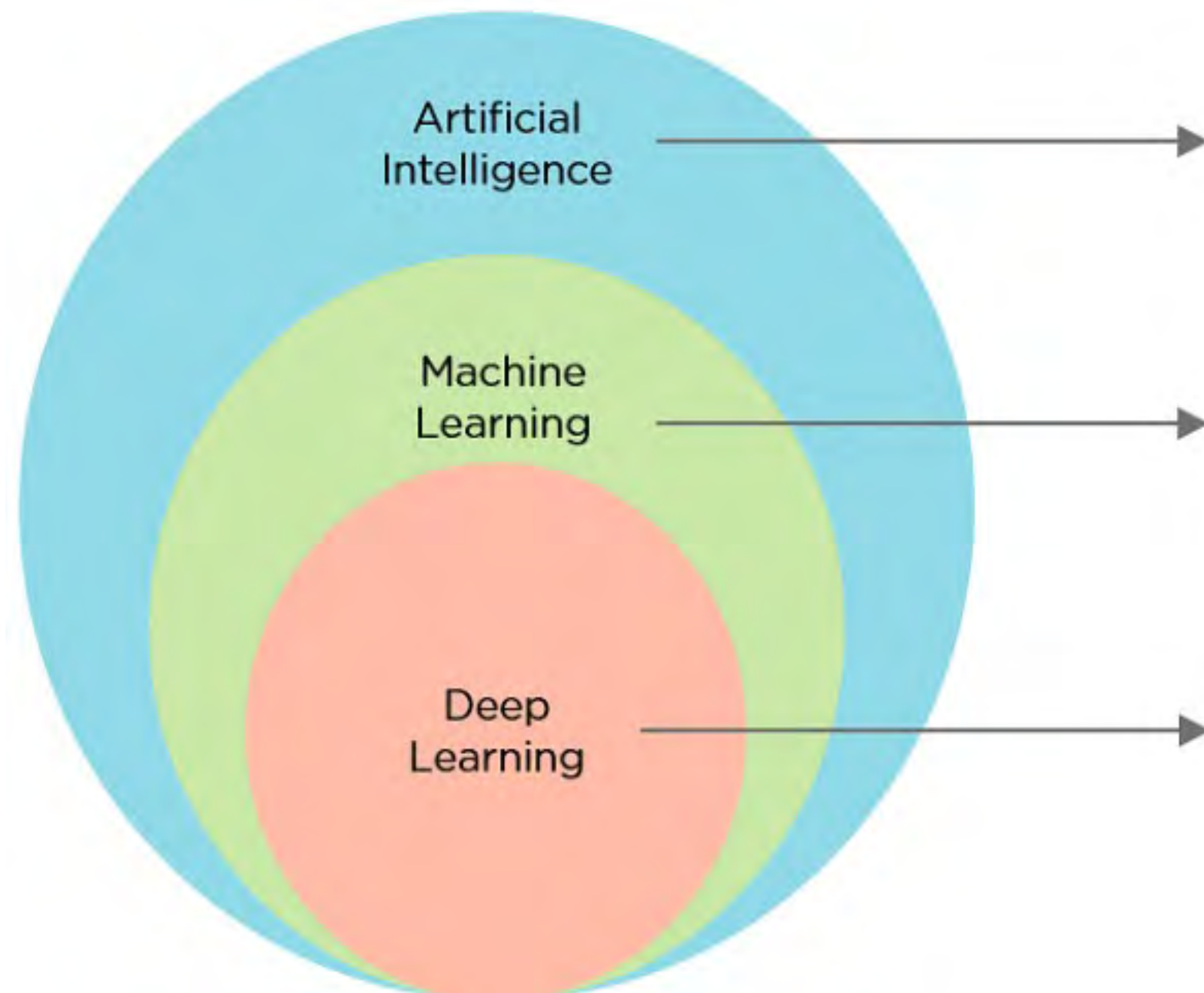


Task 2 – Imagery Analysis (ongoing)

- Objective: U.S. Bureau of Reclamation will analyze imagery to identify and measure irrigated landscape and irrigable land with sufficient detail to provide customer parcel-level outdoor water budgets to water retail agencies to support the achievement of water efficiency requirements prescribed by the state.
- Conduct analysis of over 2,500 mi² of urbanized outdoor landscape:
 - Orange County (948 mi²)
 - Upper Santa Ana River Watershed (2,032 mi²)
- Identify and label landscape features:
 - Irrigated
 - Irrigable but not irrigated
 - Non-irrigable
- Modeling Process:
 - Reproducible
 - Efficient
- Assess accuracy of model in identifying key landscape features.
 - Support achievement of water efficiency regulations prescribed by the state.



Deep Learning



The ability of a digital machine to imitate intelligent human behavior

The application of AI that allows a system to automatically learn and improve from experience.

The utilization of Machine Learning involves leveraging sophisticated algorithms and deep neural networks to effectively train a model.

Deep Learning

Deep learning is a type of machine learning that involves teaching a computer to recognize patterns, like rooftops in images, by showing it examples. The computer model learns from these training samples and scans the image to identify similar features.

- ESRI, Rami Alouta, Kate Hess



Deep Learning Benefits

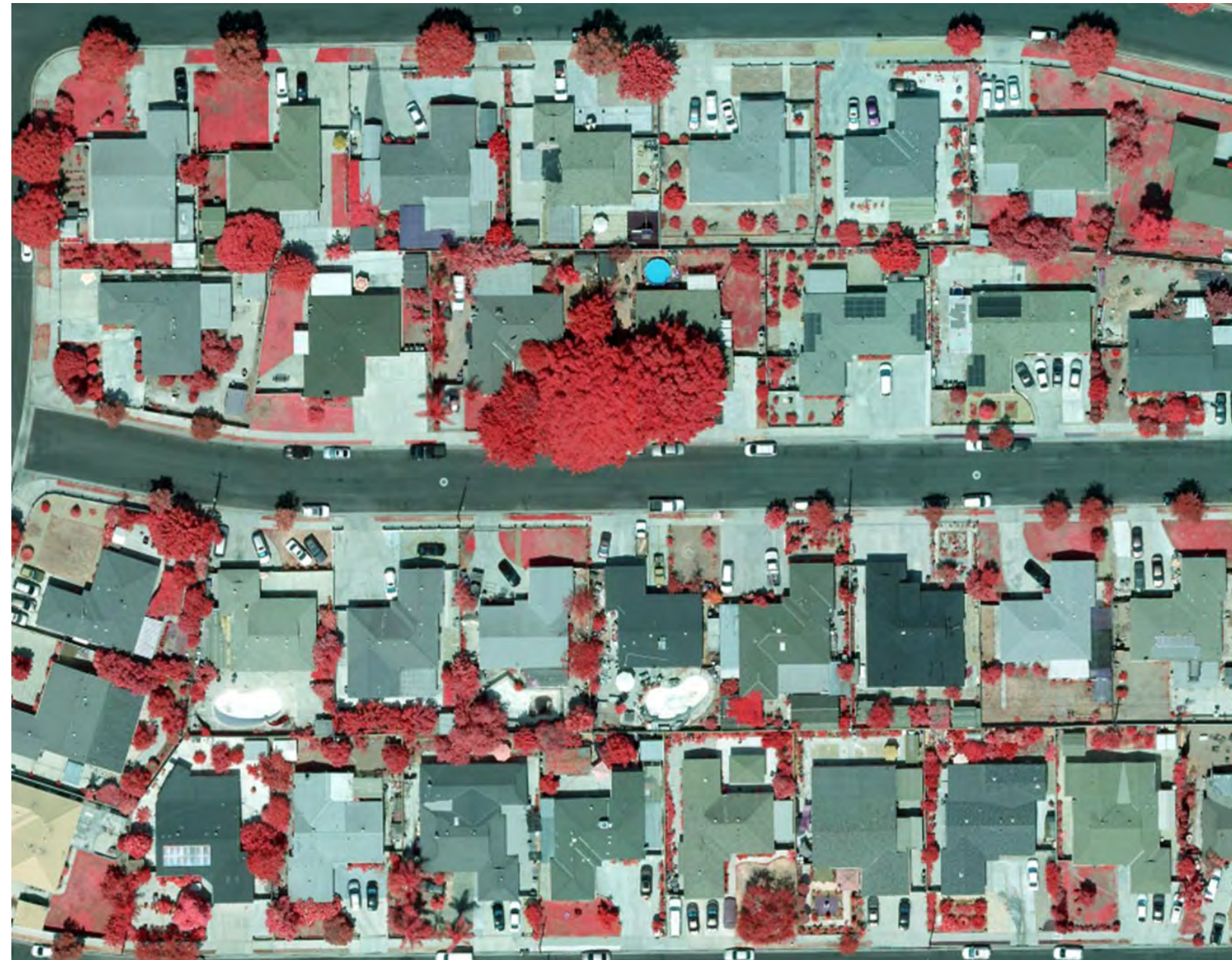
- Excels in high-dimensional data (i.e., images, audio, text)
- Scalability
- Versatility
- Adaptability



Raster Data

Imagery

- 3 inches per pixel
- 4-band color-infrared



Land Cover Classes

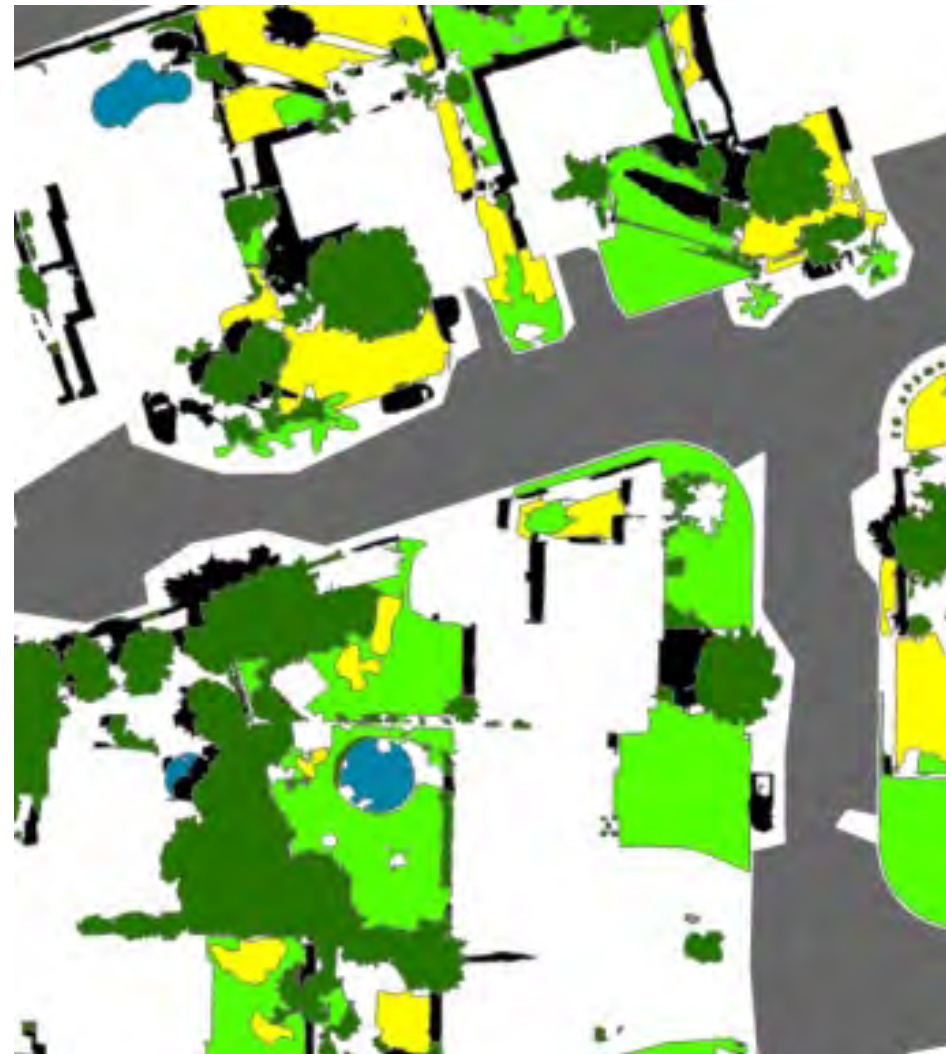
Child Classes	Parent Classes
Land Cover Class	Class Category
Lawn and Turf	Irrigated
Shrubs and Trees	Irrigated
Swimming pools and constructed water features	Irrigated
Lawn and Turf INI	Irrigable, not irrigated
Bare Earth INI	Irrigable, not irrigated
Bare Earth NI	Not irrigable
Undeveloped Land	Not irrigable
Open Water	Not irrigable
Buildings, shelters, detached structures and utilities	Not irrigable
Roads and driveways	Not irrigable

Training Data For Deep Learning Model



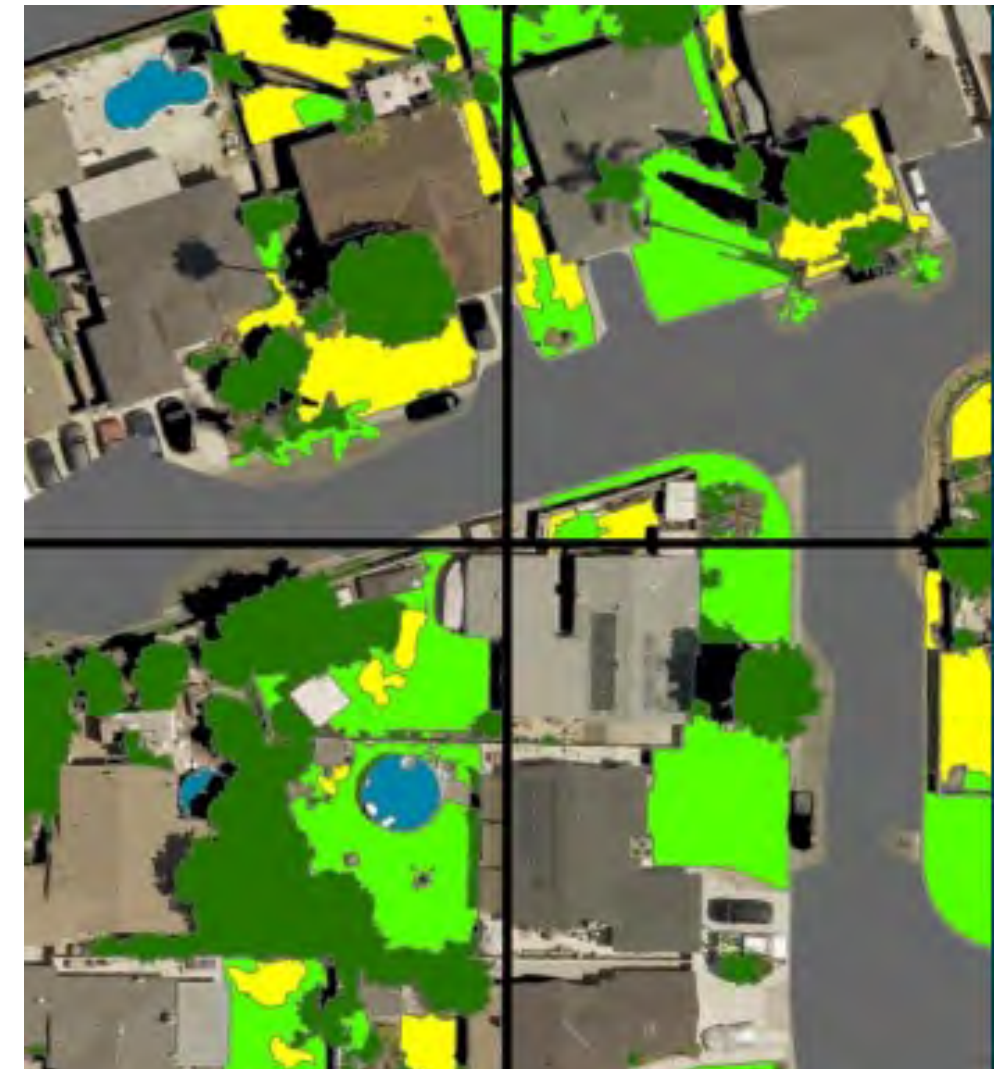
Features
(raw aerial imagery)

+



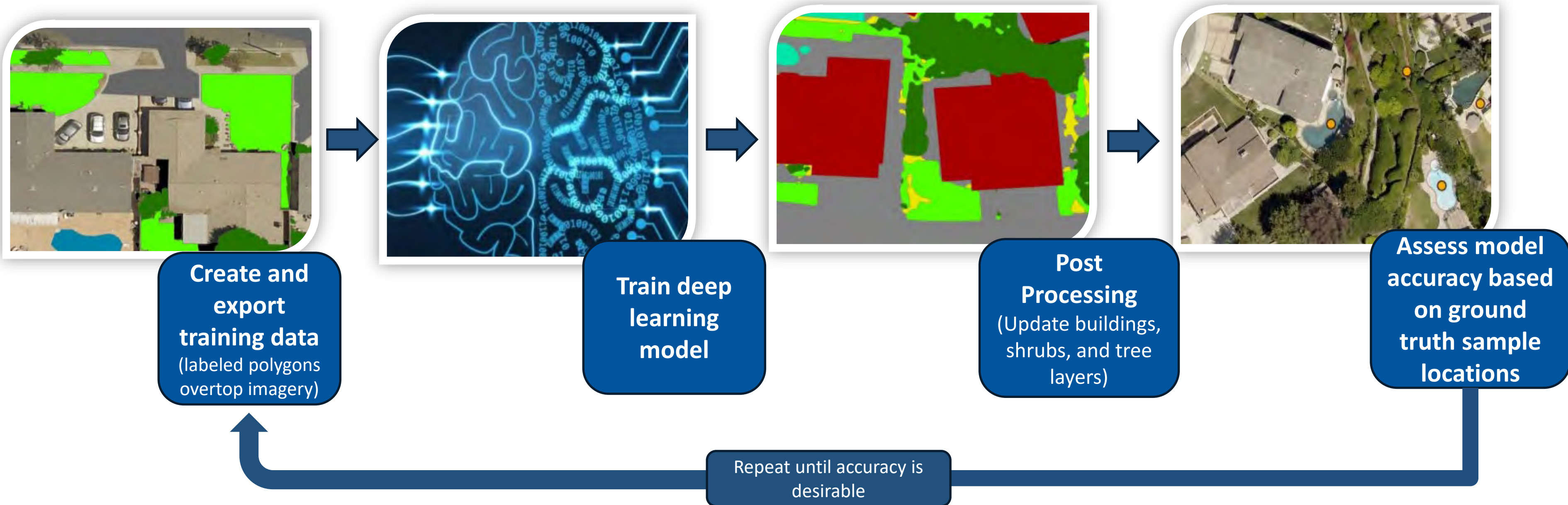
Labels
(polygons with child
class label)

=



**Image chips fed
to DL model**

Model Development

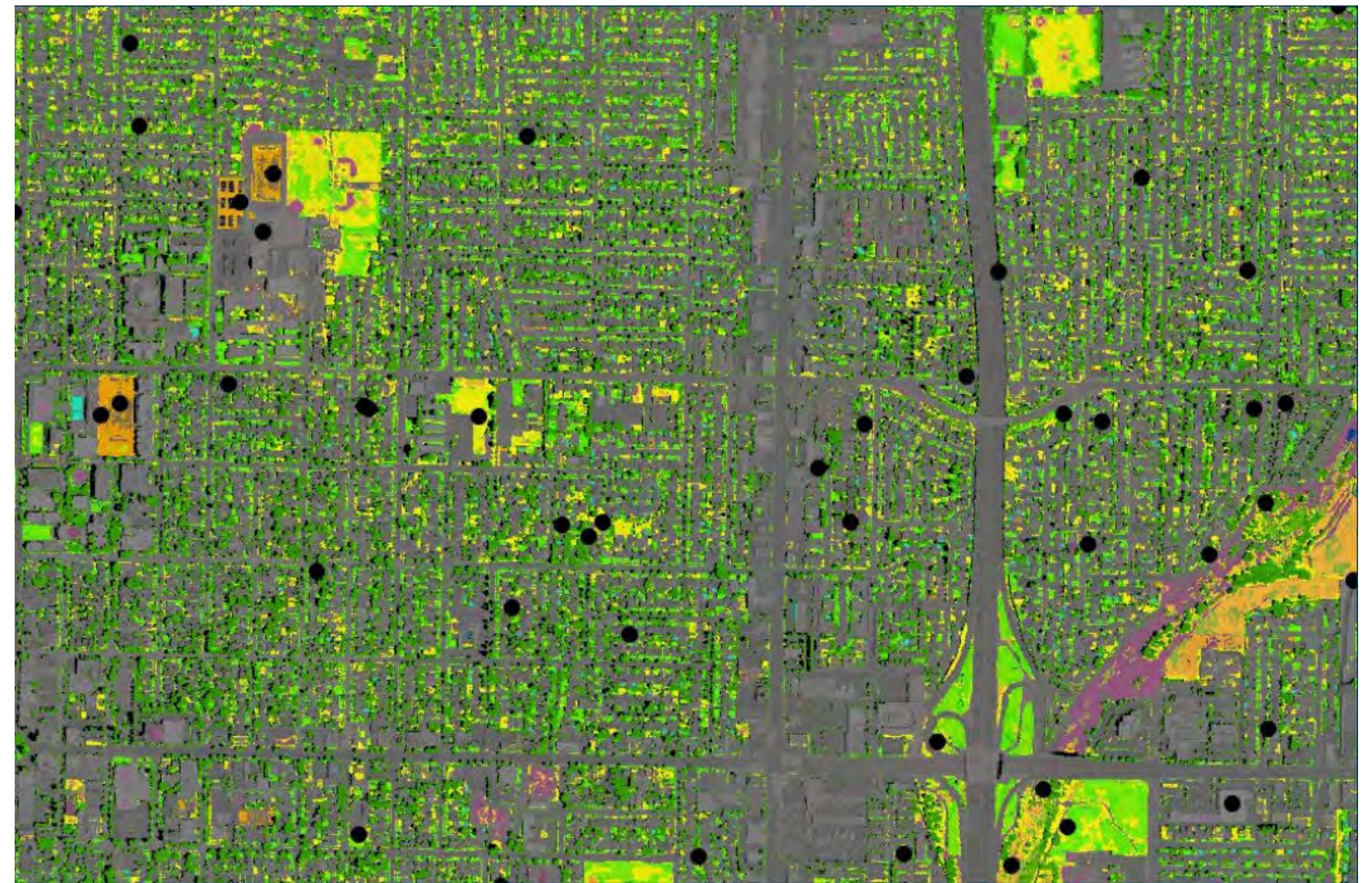


Accuracy Assessment (Reclamation)

SAWPA's goals of this project include applying the results of the work by Reclamation to create parcel level outdoor landscape budget data that meets or exceeds quality and accuracy expectations of DWR, so that these data can be used as an Alternative Residential Landscape Area Data set in place of the 2018 data provided by DWR.

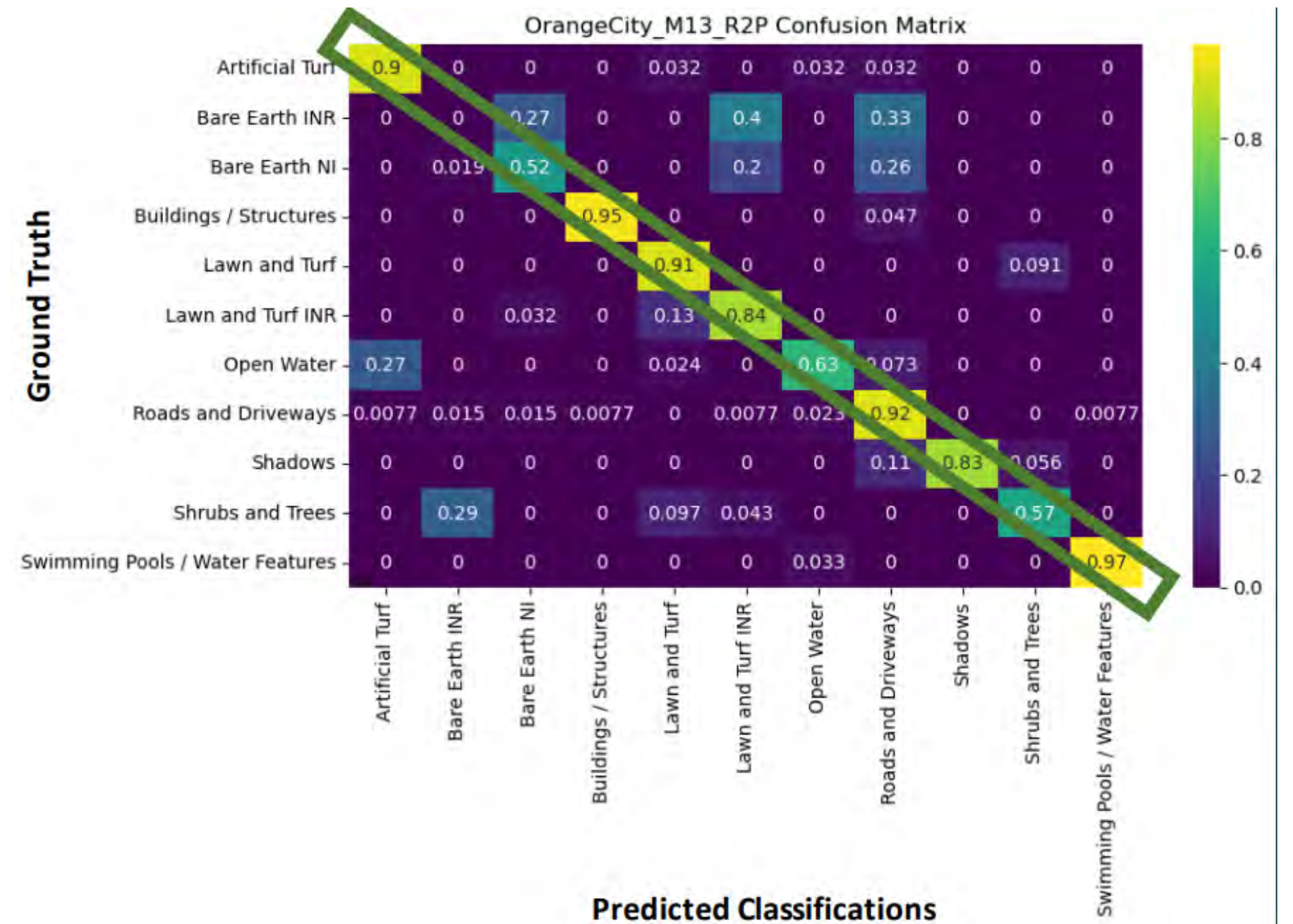
Model Performance Evaluation

- **Assessment Points** used for **confusion matrix**
- **Assessment Polygons** used for **Jaccard Index**
- 10 points/polygons per child class
- Randomly placed across district
- Visual inspection against raw imagery and verified class assignment
- Pull model output value at exact point/polygon location
- Compare verified classifications against model predicted classifications



Confusion Matrix Explanation

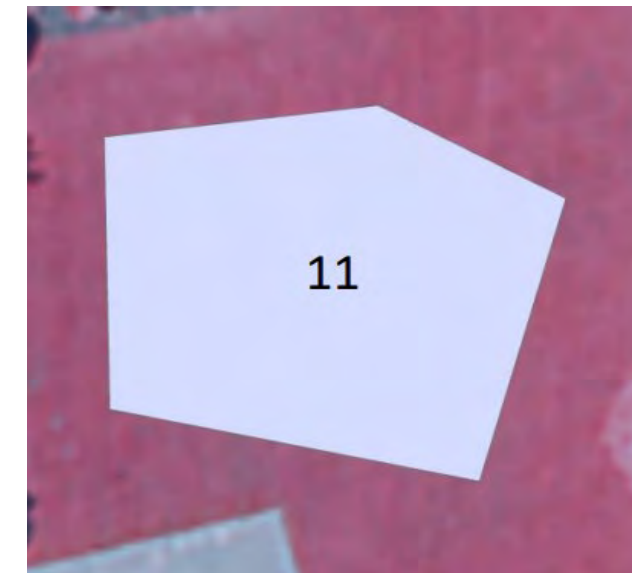
- Y-axis represents Ground Truth
- X-Axis represents Predicted Class
- Values are normalized between 0 and 1 across X-axis
- Diagonal entries indicate accurately predicted classes
- Non-diagonal boxes in each row highlight incorrect predictions



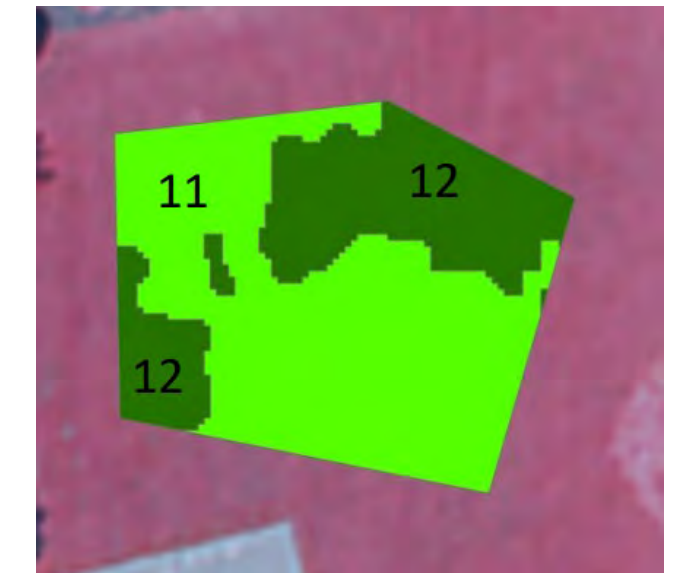
Jaccard Index Explanation

- Jaccard Similarity Index:
A measure of similarity between two sets of data
 - Verified Polygons
 - Model Output
- Percent of area classified correctly against total area in polygons
- 10 polygons per child class per water retailer district

Verified Polygon



Model Output



	Class Value	Total Area (SQFT)	Correct Area (SQFT)	Percent Correct
Buildings / Structures	39	45168	45168	100
Swimming Pools / Water Features	17	5471	5470	99
Roads and Driveways	391	21857	21846	99
Artificial Turf	38	4955	4891	98
Lawn and Turf	11	1863	1780	95
Lawn and Turf INR	21	3118	2840	91
Shrubs and Trees	12	12459	10804	86
Bare Earth NI	33	9471	8166	86
Shadows	99	2663	2092	78
Bare Earth INR	24	624	0	0

$$J(A, B) = \frac{|A \cap B|}{|A \cup B|}$$

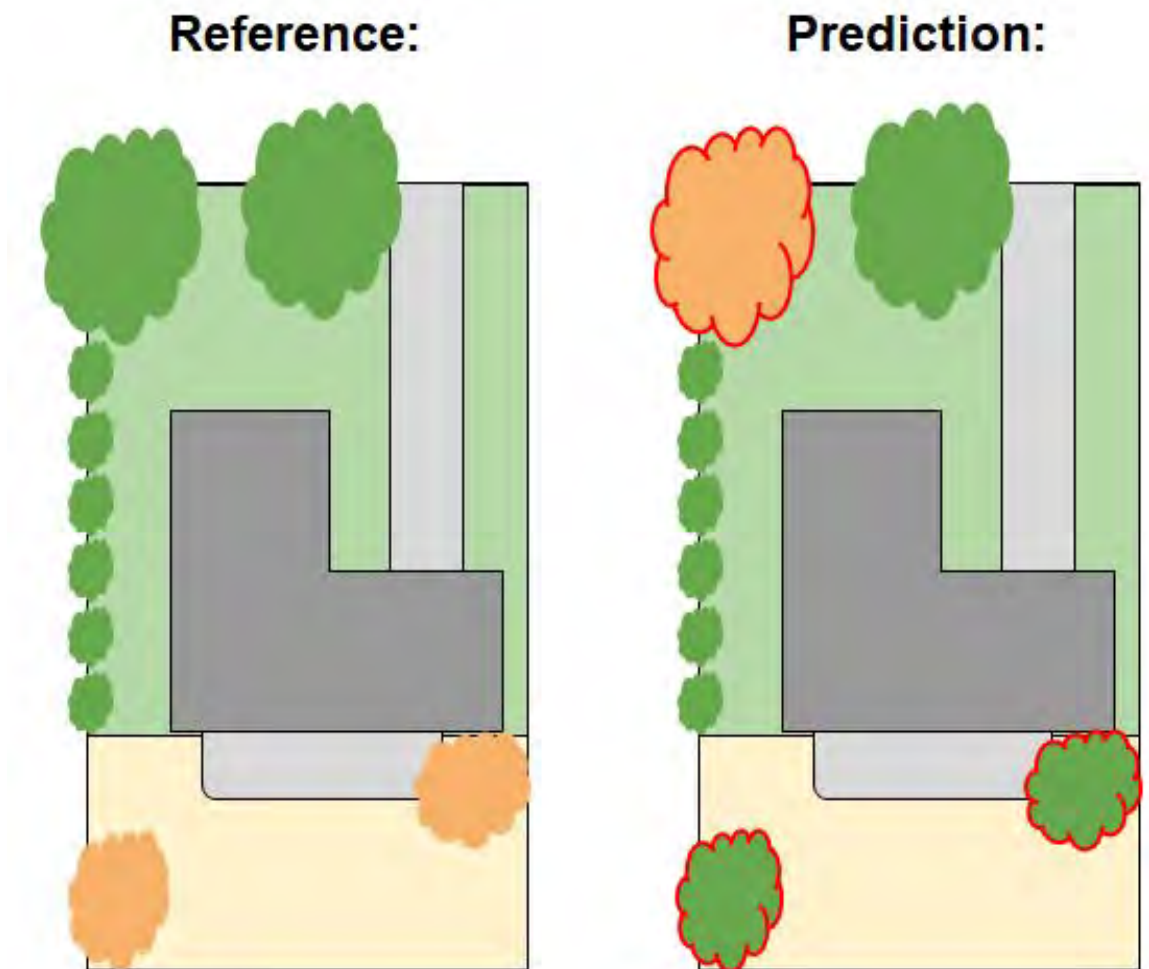
J = Jaccard distance

A = set 1

B = set 2

Accuracy Assessment (DWR – NV5)

- NV5 conducted their accuracy assessment at multiple resolutions to achieve their final accuracy scores of greater than or equal to 95% accuracy (as prescribed by the State).
- Accuracy Assessment at Multiple Resolutions conducted by NV5
 - Point or Mapped Level Accuracy - Object to object comparison of results with no error cancellation.
 - Parcel Level Accuracy - Allows errors in the mapped classification to cancel at a parcel resolution. If the error is balanced, it cancels.
 - District Level Accuracy - Allows between-parcel errors to cancel such that the overall accuracy is reflective of the error and bias one would expect to find when summarizing to the district level of resolution. If the error is balanced, it cancels.



Comparison Residential Areas

- SAWPA staff compared the residential areas modeled by DWR to was used by SAWPA

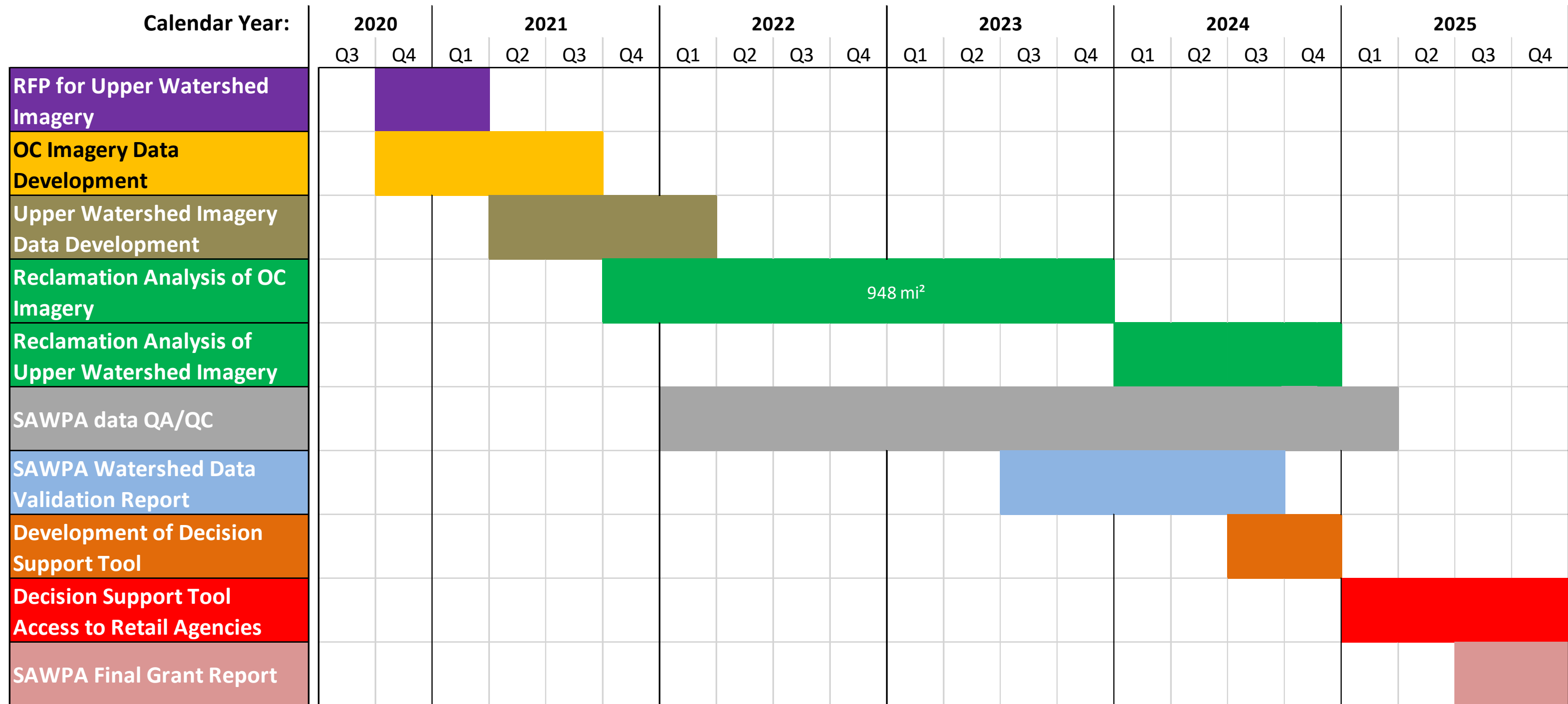
Orange County Retail Water Agency Accuracy Assessment	Quantum Spatial (NV5)	Quantum Spatial (NV5)	Reclamation	SAWPA	Quantum Spatial (NV5)	Quantum Spatial (NV5)	Quantum Spatial (NV5)	Quantum Spatial (NV5)	Reclamation	Reclamation	SAWPA	SAWPA	SAWPA
	Parent Class	Parent Class	Parent Class	Parent Class	Parent Class	Parent Class	Parent Class	Parent Class	Parent Class	Child Class	Child Class		
	Area-weighted overall accuracy (%)	Unweighted overall accuracy (%)	Unweighted overall accuracy (%)	Unweighted overall accuracy (%)	Area-weighted overall accuracy (%)	Unweighted overall accuracy (%)	Area-weighted overall accuracy (%)	Unweighted overall accuracy (%)	Unweighted overall accuracy (%)	Accuracy Detail Class overall accuracy (%)	Accuracy Detail Class overall accuracy (%)	Parcel Extension Increase Pct	Pct Residential >DWR
	Point	Point	Point	Point	Parcel	Parcel	District	District	District	Point	Point	%	%
Anaheim City of	87.31	88.03	90.00	94.50	89.15	89.83	95.62	96.39	97.47	79.90	84.50	20.54	24.80
Brea City of	89.09	89.27	91.82	94.00	90.57	90.73	96.02	95.83	95.52	70.91	82.00	18.06	30.21
Buena Park City of	88.36	88.28	89.09	96.00	90.16	90.10	96.94	96.95	96.61	79.09	84.00	29.11	34.52
El Toro Water District	92.20	93.08	92.73	94.50	93.80	94.67	98.45	98.38	98.15	74.55	82.00	14.90	23.22
Fountain Valley City of	89.98	89.74	92.73	95.00	91.66	91.49	95.24	95.27	98.47	78.18	85.00	28.86	38.16
Fullerton City of	88.70	87.95	91.82	92.00	91.29	90.78	96.03	95.99	97.25	78.18	79.00	20.02	29.53
Garden Grove City of	88.52	88.32	98.18	96.00	89.97	89.80	95.18	95.16	99.77	87.27	89.00	30.77	27.47
Huntington Beach City of	94.31	94.54	90.91	94.00	94.90	95.08	95.78	95.82	97.98	85.45	87.50	19.58	28.07
Irvine Ranch Water District **	86.02	79.68	90.91	95.00	90.92	86.63	99.57	99.41	98.84	73.64	77.00	18.06	44.94
La Habra City of	87.68	86.86	88.18	95.50	91.14	90.44	96.36	95.88	90.72	66.36	82.50	21.76	20.91
La Palma City of	92.80	93.32	89.00	95.00	93.41	93.94	96.57	97.02	92.41	70.00	87.00	27.21	34.24
Mesa Water District	90.10	89.92	89.09	96.00	91.89	91.74	95.82	95.74	95.74	75.45	84.00	20.95	20.64
Newport Beach City of	96.19	96.08	91.82	97.50	96.78	96.69	98.15	98.13	97.19	80.00	87.00	26.49	35.99
Orange City of	87.25	86.48	90.91	90.00	88.77	88.11	95.07	95.16	97.40	82.73	75.00	15.00	36.03
Santa Ana City of	84.91	83.38	96.36	95.00	88.37	87.14	95.84	95.25	98.17	82.73	85.00	25.78	16.56
Seal Beach City of	94.86	95.10	94.55	96.00	95.49	95.74	96.93	96.88	99.78	75.45	82.00	6.83	22.06
Tustin City of	85.48	85.76	97.00	94.50	89.10	89.31	98.25	98.22	98.33	66.36	88.00	23.80	20.57
Westminster City of	90.27	89.78	94.00	97.00	90.91	90.49	96.13	96.34	98.39	84.00	87.50	27.28	23.85
Yorba Linda Water District	84.91	84.45	92.73	89.50	87.32	86.94	97.02	96.97	97.06	70.91	72.00	3.56	24.07
Santa Margarita Water District **	92.27	90.90	90.91	93.50	94.73	93.86	98.22	97.92	98.11	79.09	83.00	1.45	54.75
Average	89.56	89.05	92.14	94.53	91.52	91.18	96.66	96.64	97.17	77.01	83.15	20.00	29.53



Task 3 – Decision Support Tool

- Objective: SAWPA will develop a web-based tool to display key GIS data layers (outdoor landscape features, retail water agency boundaries, and watershed imagery), and show model results, and water budget calculations. Access to individual agency data will be controlled by the grantee and available to water agency staff upon request.
- Decision Support Tool
 - Staff envisions this “tool” to reside on a dedicated SAWPA webpage, where Agency staff can go to view (sample data) and request their retail agency level data, including the following:
 - Imagery
 - Modeled outdoor landscape (GIS layer)
 - Landscape budgets (spreadsheet)
 - GIS Tools
 - Landscape Area Measurements Reports
- Work to begin August 2024

Project Schedule



948 mi²

Next Steps

- Reclamation to complete outdoor landscape modeling for retail water agency services areas in the upper Santa Ana River Watershed by December 31, 2024.
- SAWPA staff is working in coordination with MWDIOC to prepare and submit a watershed level data validation report to DWR for consideration of the Alternative Landscape Data set.
- SAWPA staff to initiate efforts to design the web-based tool following approval of the data validation report by DWR.

Questions?

Thank You

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sawpa.gov



OWOW Quarterly Report

April - June 2024

Rachel Gray, Water Resources and Planning
Manager

SAWPA OWOW Status Report
4/1/24 to 6/30/24

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Prop 1 IRWM Round 1 5

Prop 1 IRWM Round 2 5



SAWPA OWOW Status Report 4/1/24 to 6/30/24



PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETING DATES
OWOW Planning	Integrated Regional Water Management Planning and Grant Application Support for the Santa Ana River Watershed	<ul style="list-style-type: none"> Staff worked with the Roundtable of IRWM Regions Network Coordinator to facilitate bi-monthly meetings with Roundtable members that include DWR staff to discuss pertinent topics. Staff worked with the Roundtable of Regions to develop an IRWM transition plan which requires meeting with staff from State agencies such as the State Water Board and Department of Water Resources. Transition Plan is being updated to incorporate comments from DWR. The Governor’s Office of Planning and Research awarded the Santa Ana River Watershed Project Authority \$644,190 for the Santa Ana River Watershed Climate Adaptation and Resilience Plan through the Regional Resilience Grant Program (RRGP). 	<ul style="list-style-type: none"> Update the Roundtable of Regions website on a continual basis. Release the draft IRWM transition plan for all members of the Roundtable to comment on. Amend OWOW Plan to include Santa Ana River Watershed Climate Adaptation and Resilience Plan. 	<p>Roundtable of Regions Steering Committee Meeting on August 26, 2024.</p> <p>OWOW Steering Committee Meeting on September 26, 2024.</p>
Santa Ana River Watershed Weather Modification Pilot Project	Conduct a pilot project with validation and stormwater capture analysis for weather modification (cloud seeding) program for the Santa Ana River Watershed	<ul style="list-style-type: none"> Year 1 Operations completed (November 15, 2023 - April 15, 2024). Prepared the progress report and invoices to the Department of Water Resources for the Proposition 1 Round 2 grant. North American Weather Consultants, Inc. staff provided a draft annual report that summarizes the weather events and operations during the first operational year (November 15, 2023, to April 15, 2024). SAWPA to distribute final report to Commissioners, GMs, member agencies staff, and funding partners. SAWPA staff is coordinating with Desert Research Institute on the validation tasks and the results of the Year 1 operations of the cloud seeding program will be presented to the Commission. 	<ul style="list-style-type: none"> Future presentations about the SAWPA weather modification pilot project to interested parties. Provide update to funding parties. Work on validation component of Pilot Program. Develop scope of work for surface water modeling. 	Update to SAWPA Commission targeted for August 2024.
Santa Ana River Watershed Sustainability Assessment	Conduct a Watershed Sustainability Assessment	<ul style="list-style-type: none"> The latest Santa Ana River Watershed Sustainability Assessment was completed in 2019. The next one is anticipated to be updated in Fiscal Year Ending 2025. 	<ul style="list-style-type: none"> Update Watershed Sustainability Assessment in FY2024-2025. 	Present approach to MAs staff (TBD).

**SAWPA OWOW Status Report
4/1/24 to 6/30/24**

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETING DATES
Prop 1 IRWM Disadvantaged Community Involvement (DCI) Program Implementation	Needs assessment, education and outreach, and technical assistance for disadvantaged, economically distressed and under- represented communities in the watershed	<ul style="list-style-type: none"> • SAWPA staff maintains the DCI Program webpage on the SAWPA website. 	<ul style="list-style-type: none"> • None at this time. 	None at this time.
	Proposition 1 IRWM Disadvantaged Communities Involvement (DCI) Grant Set-Aside funding made available through the 2021 Urban and Multibenefit Drought Relief Grant Program	<ul style="list-style-type: none"> • SAWPA staff submitted a proposal for an amendment to extend the DWR grant agreement to include the following: <ul style="list-style-type: none"> ○ Extend deadline for work completed out to March 2026 and final invoices to be submitted by June 2026. ○ Replace the City of Colton Well 32 project (due to issues with water quality and diminished capacity) with the Well 33 project. ○ Revise budget allocation for Box Springs MWC project. • SAWPA staff coordinated with the CRWA and the City of Fullerton to track the progress of the projects and next steps. • SAWPA staff submitted the 6th quarterly progress report and invoice to DWR in April 2024. 	<ul style="list-style-type: none"> • Receive approval from DWR on amendment to grant Agreement. • Submit 7th quarterly progress report and invoice to DWR in July 2024. 	Status reports on this effort will be provided by staff at future OWOW Steering Committee and SAWPA Commission meetings as appropriate.
Santa Ana River Conservation and Conjunctive Use Program (SARCCUP) Implementation	Implementation of SARCCUP (which includes conjunctive use, fish habitat, invasive weed removal, and water use efficiency programs) through the PA 23 Committee.	<ul style="list-style-type: none"> • SAWPA is working to implement the water use efficiency task, so it is to be completed by July 2024. The consultant, NV5, is working with eight different retail water agency partners to complete this work. Work was completed with seven of the retail water agencies; the remaining one will be completed by June 2024. 	<ul style="list-style-type: none"> • Finish water use efficiency task by July 2024. 	Bi-weekly SARCCUP Planning Manager meetings.

SAWPA OWOW Status Report
4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETING DATES
Prop 84 IRWM Round 1	Grant administration of Prop 84 IRWM Round 1	<ul style="list-style-type: none"> This round of funding is complete 	<ul style="list-style-type: none"> None. 	
Prop 84 IRWM Round 2	Grant administration of Prop 84 IRWM Round 2	<ul style="list-style-type: none"> All projects are complete 	<ul style="list-style-type: none"> All grant administration will continue until the final Round 2 project is implemented and continues with annual monitoring for 3 years after the completion of the projects. 	
Prop 84 IRWM 2015 Round	Grant administration of Prop 84 IRWM 2015 Round	<ul style="list-style-type: none"> Staff prepared and reviewed the grant invoice and progress report for the fourth reporting period of 2023 that is due to DWR on February 29, 2024. 	<ul style="list-style-type: none"> Submit the 1st quarterly report/invoice of 2024 to DWR by May 30, 2024. 	Bi-weekly SARCCUP Planning Manager meetings.
Prop 1 IRWM Round 1	Enhancements to Watershed-Wide Water Budget Decision Support Tool	<ul style="list-style-type: none"> Task 1 Aerial Imagery - complete. Task 2 - Landscape Analysis – Reclamation is working to develop a deep learning model to conduct Landscape analysis for retail water agency service areas within the upper Santa Ana River Watershed. SAWPA staff met with MWDOC staff to discuss an approach to present the Orange County modeling results to the State (DWR and SWRCB) to seek approval of these data to be used as an alternate data set for regulatory compliance. Reclamation staff presented to the PA 22 Advisory Workgroup the results of the Orange County outdoor landscape modeling using ESRI’s deep learning tools and an provided a status update on model development for the upper Santa Ana River. Task 3 – Decision Support Tool, SAWPA staff does not anticipate additional work on the decision Support Tool until USBR is further along in completing their landscape modeling. 	<ul style="list-style-type: none"> SAWPA to continue efforts to coordinate with MWDOC on an approach to present to present the Orange County modeling results to the State (DWR and SWRCB) to seek approval of these data to be used as an alternate data set for regulatory compliance. Staff to initiate efforts to develop the framework for the decision Support Tool. This may include collaboration with Eagle View of the possibility using their Water View tool to share the results of Reclamation’s landscape analysis and validation results. 	

SAWPA OWOW Status Report
4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETING DATES
Prop 1 IRWM Round 1	Grant administration of Prop 1 IRWM Round 1	<ul style="list-style-type: none"> Staff continues to work with the agencies involved in the 9 projects under the first round of Prop 1 IRWM program to undertake all labor associated with interaction with DWR staff; project invoices processing including review, verification and submittal to DWR; project reporting review, verification and submittal to DWR; all DWR agreements, SAWPA Sub-agreements and Amendments preparation, processing and execution; DWR payment processing; project implementation inspection and verification; assembling, reviewing and submittal of Financial Statements; coordination and review of all Labor compliance; review and verification of all certifications, permits, and CEQA; project deliverables review, verification and submittal to DWR; project benefit assessment; review and verification of project monitoring plan; review and verification of project signage; review, verification and preparation of all documentation for audit review; grant administration budget preparation, monitoring, projections and assessment; SAWPA management review, oversight and direction regarding these defined tasks. 	<ul style="list-style-type: none"> Submit the 2nd quarterly report/invoice of 2024 to DWR by August 29, 2024 	
Prop 1 IRWM Round 2	Grant administration of Prop 1 IRWM Round 2	<ul style="list-style-type: none"> Staff is working to execute grant sub-agreements with our program partners. SAWPA staff finalized a grant sub-agreement with CRWA and Box Springs MWC to implement the Box Springs MWC Well Replacement project. SAWPA staff continues work on a three-party sub-agreement with LESJWA and City of Lake Elsinore for the Lake Elsinore Algae Harvesting and Nutrient Removal Pilot project. 	<ul style="list-style-type: none"> Work with agencies to get fully executed sub-agreements Submit the 2nd quarterly report/invoice of 2024 to DWR by August 29, 2024 	

Roundtables Quarterly Report

April – June 2024

Rachel Gray, Water Resources and Planning
Manager

SAWPA Roundtables Status Report
4/1/24 to 6/30/24

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SAWPA Roundtables Status Report

4/1/24 to 6/30/24



PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
Middle Santa Ana River (MSAR) Pathogen TMDL Task Force	Implement TMDLs to address impairments to water quality relating to the fecal coliform objective established to protect the REC-1 use for waterbodies located within the Middle Santa Ana River Watershed.	<ul style="list-style-type: none"> • SAWPA continued Task Force Administration including management and review of consultant contracts, project invoices, and annual Task Force budget. • Task Force consultant, Tess Dunham continued her effort to orchestrate the TMDL Implementation strategy for the MSAR TMDL Task Force, with the support of Steve Wolosoff and Richard Meyerhoff (GEI Consultants). • Consultant team received and is currently reviewing additional comments from Regional Board staff on the Draft Basin Plan language and updated TMDL Technical Report. 	<ul style="list-style-type: none"> • Consultant team is expected to address comments from Regional Board staff and submit to Task Force stakeholders for review final draft documents to revise and update the MSAR TMDLs Basin Plan Amendment in preparation of a Spring 2024 Regional Board Public Workshop. • Distribute FY 2024-25 stakeholder invoices in July 2024. 	Future Task Force Meeting (virtual meeting) scheduled for August 14th.
	TMDL Task 3 Watershed Monitoring Program	<ul style="list-style-type: none"> • MSAR TMDL Compliance monitoring is conducted as a component of the Santa Ana River Bacteria monitoring program implemented through the Regional Water Quality Monitoring (RWQM) Task Force. • Consultants prepared and addressed comments to the draft FY 2024 Annual Santa Ana River Regional Bacteria Monitoring Program report. • Submitted the final FY 2024 Annual Santa Ana River Regional Bacteria Monitoring Program report to Regional Board on 30, 2024. 		

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
	TMDL Task 4 Source Evaluation and Management	<ul style="list-style-type: none"> • MSAR TMDL Task Force meetings continued to be used as a forum for stakeholders to update Regional Board staff on their CBRP implementation activities. • SAWPA continued to act as the contracting party for the benefit of Task Force agencies to implement specific studies and projects to support each County's Comprehensive Bacteria Reduction Plan implementation activities. • All current source implementation work relating to the bacteria indicator TMDLs is being conducted through the individual Counties MS4 program to implement their respective Comprehensive Bacteria Reduction Plans. 	<p>The MSAR Task force to discuss possible future special studies to investigate strategies for dry weather TMDL compliance.</p> <ul style="list-style-type: none"> - Tier 1 Source Evaluation Update - Sediment Source Study 	

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
<p>Lake Elsinore and Canyon Lake Nutrient TMDL Task Force</p>	<p>Implement TMDLs to address water quality issues relating to excess nutrients in Lake Elsinore and Canyon Lake.</p>	<ul style="list-style-type: none"> • LESJWA continued Task Force administration including management and review of consultant contracts, project invoices, and annual Task Force budget. • Staff continued to coordinate issues relating to stakeholder load/cost allocations, in-lake modeling, and the design of in-lake treatment projects with various consultants. • Task Force consultant, Tess Dunham continued her role of working with stakeholders on a long-term plan to revise and update the Lake Elsinore and Canyon Lake nutrient TMDLs. • GEI Consultants continued their efforts to support the Task Force in the process by Regional Board to amend the Basin Plan to update the LE&CL TMDLs and provide technical support to the Task Force. • Final Draft Basin Plan language and revisions to the TMDL Technical document under review by Task Force stakeholders. • The Regional Board in coordination with the Task Force consultants continued their process to amend the Basin Plan language to update the Lake Elsinore and Canyon Lake nutrient TMDLs. 	<ul style="list-style-type: none"> • Regional Board Public Workshop scheduled for September 13, 2024, and adoption hearing on the Revised LE&CL TMDLs to be scheduled for December 13, 2024. • Distribute FY 2024-25 stakeholder invoices in July 2024. 	<p>Future Task Force Meeting (virtual meeting) scheduled for July 23, 2024.</p>
	<p>TMDL Task 4 Monitoring Program</p>	<ul style="list-style-type: none"> • WSP USA continued to implement the TMDL Compliance Monitoring Program for FY 2023-24. • The City of Lake Elsinore continues implement FHAB monitoring for Lake Elsinore. 	<ul style="list-style-type: none"> • Draft FY 2023-24 Annual TMDL Compliance Monitoring Program due to Regional Board by August 15, 2024. 	

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
	TMDL Task 9 Lake Elsinore TMDL Compliance Implementation Activities	<ul style="list-style-type: none"> • Work relating to the implementation of Lake Elsinore In-Lake Sediment Nutrient Reduction Plan performed in conjunction with the RCFC&WCD MS4 Comprehensive Nutrient Reduction Plan continued. • LEAMS Operators working with GEI Consultant on study to Evaluate Future Options for the Lake Elsinore Aeration and Mixing System. • Staff began work to prepare the draft 2023 LEAMS Nutrient Offset Accounting Report. 	<ul style="list-style-type: none"> • Prepare and submit draft 2023 LEAMS Nutrient Offset Accounting Report to LEAMS Operators. 	No LEAMS Operators meeting (virtual meeting) Scheduled.
	TMDL Task 10 Canyon Lake TMDL Compliance Implementation Activities	<ul style="list-style-type: none"> • Work relating to the implementation of Canyon Lake In-Lake Sediment Treatment Evaluation performed in conjunction with the RCFC&WCD MS4 program Comprehensive Nutrient Reduction Plan continues. • Completed Spring 2024 Canyon Lake alum application the week of April 22-24. 	<ul style="list-style-type: none"> • Schedule Canyon Lake Alum Application Public meeting for the first week of September • Fall 2024 Canyon Lake alum application to be scheduled for mid-September / early October. 	
	TMDL Task 11 Model Update	<ul style="list-style-type: none"> • No update. 		

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
Basin Monitoring Program Task Force	Annual Santa Ana River Surface Water Quality Monitoring Report, Periodic Ambient (Groundwater) Water Quality Update Report, and related Basin Plan Amendments	<ul style="list-style-type: none"> • Worked on procurement documents for the Santa Ana River Reach 3 Special Study to understand causes of rising Total Dissolved Solids. • Worked on the procurement documents for annual groundwater data compilation, groundwater storage model analysis, and groundwater analytical tools. • Staff working to prepare draft 2023 Annual Report of Santa Ana Water Quality for review by stakeholders. • Consultant CWE collected quarterly Santa Ana River water quality samples at reaches 4 and 5. 	<ul style="list-style-type: none"> • Submit a draft basin plan amendment package focused on several items, including the new SAR water quality monitoring work plan, to the Regional Board by December 31, 2024. • Draft Annual Report of Santa Ana Water Quality to be submitted to stakeholders for review. 	July 24, 2024, Task Force meeting (virtual mtg). Scoping Committee meetings (TBD) to discuss procurement documents.
	Santa Ana River Watershed/Basin Integrated Report	<ul style="list-style-type: none"> • Revisions on the 2024 Integrated Report (IR) were posted in January 2024 and the RWQCB worked diligently with the State Water Board to provide revisions and support to avoid listing Chino Creek Reach 1B in this cycle. • In the final 2024 Integrated Report, Chino Creek Reach 1B was listed as a 305(b) Category 3, indicating that there is insufficient data to make a final determination but the limited data indicates that there may be impairment. 	<ul style="list-style-type: none"> • None. 	Next Integrated Report (IR) that will include Santa Ana River Watershed will be the 2030 IR that will likely be posted as draft in February 2029.
	Imported Water Rechargers Subcommittee	<ul style="list-style-type: none"> • The Imported Water Recharger Subcommittee last held a meeting on May 25, 2022. 	<ul style="list-style-type: none"> • Recharge reports are now required every five years and modeling every ten years through a stairstep process. The next cycle of reporting will not be due until 2026 with recharge summary reports due then. 	No separate meetings of the Imported Water Rechargers Subcommittee are deemed necessary in 2024.

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
Emerging Constituents Program Task Force	Provide emerging constituents sampling report and watershed water quality outreach program	<ul style="list-style-type: none"> The EC Program Task Force meets on a quarterly basis and met on April 8, 2024. At the meeting, SAWPA coordinated with the regulatory consultant, KSC Inc. (Tess Dunham), on emerging issues related to microplastics. 	<ul style="list-style-type: none"> Have a guest speaker on the topic of microplastics at the August 2024, meeting – Theresa Slifko, Metropolitan Water District of Southern California and And a guest speaker on the subject of PFAS at the August 2024 meeting – Rob Thompson, OC Sanitation District 	TBD, Task Force meeting in August 2024 (virtual mtg).
PFAS Regional Analysis	Investigate the impacts of PFAS in the surface water of the upper Santa Ana River Watershed and evaluate and prioritize measures to address PFAS contamination.	<ul style="list-style-type: none"> SAWPA staff is conducting regular coordination meetings with CDM Smith on the Phase 2 Project. SAWPA conducted the first of a series of stakeholder Workshops to review the HSPF hydrology modeling. It was requested that the consultant CDM Smith to prepare a memo to summarize the hydrologic modeling results and confirm their appropriateness for the PFAS modeling. 	<ul style="list-style-type: none"> SAWPA to conduct the second of a series of project stakeholder Workshops in September 2024. This workshop is intended to review the parameterization of PFAS within the HSPF model. SAWPA staff to initiate Engagement Plan to identify additional potential project partners and acquire additional local PFAS data. 	Workshop (to be scheduled).
Reclamation So Cal Studies	Support regional studies with Bureau of Reclamation	<ul style="list-style-type: none"> SAWPA continued to coordinate with Bureau of Reclamation staff on the Water Management Options Pilot/Decision Support Tool regarding analyzing high resolution imagery across the watershed, Southern Orange County, and the southern ends of the WMWD/EMWD services areas. Updates on this effort are discussed in the OWOW quarterly report under Prop 1 Round 1. 	<ul style="list-style-type: none"> SAWPA staff will continue to coordinate with Reclamation on grant funding opportunities supporting the watershed. 	

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
Santa Ana River Fish Conservation Task Force	Determine the reasons for the decline of the Santa Ana sucker fish (<i>Catostomus santaanae</i>) in the Santa Ana Watershed and implement projects that will benefit the species.	<ul style="list-style-type: none"> • Staff is working on updating the Riverwalk ranking methodology that is used to score each of the Riverwalk data points' habitat quality. • Staff performed quality control on the historic Riverwalk data to ensure the same level of quality as more recent data. • Staff prepared materials for a presentation of Riverwalk data to the SAWPA commission for July 2024. • Staff submitted the final report on May 15, 2024, due to California Department of Fish and Wildlife summarizing the work done in the 0.3 acre mitigation area over the last five years. 	<ul style="list-style-type: none"> • Distribute the draft Riverwalk Atlas. • Develop scope of work for Riverwalk 2024 to possibly procure consultant support where needed. 	Hold Team meeting in August 2024.
Regional Water Quality Monitoring Task Force	Implement a coordinated regional water quality monitoring program in the Santa Ana River watershed to meet the requirements of the amended Recreational Use Water Quality Standards and Implementation Plan requirements of the Santa Ana Basin Plan, and to assist Regional Board with future triennial reviews of the Basin Plan.	<ul style="list-style-type: none"> • SAWPA continued Task Force Administration including management and review of consultant contracts, project invoices and annual Task Force budget. • Tess Dunham through her role as regulatory consultant to the MSAR TMDL Task Force will support the Task Force in regulatory efforts related to bacteria. • Consultant continued efforts to update the Monitoring Program QAPP. • Consultants prepared and addressed comments to the draft FY 2024 Annual Santa Ana River Regional Bacteria Monitoring Program report. • Submitted the final FY 2024 Annual Santa Ana River Regional Bacteria Monitoring Program report to Regional Board on 30, 2024. 	<ul style="list-style-type: none"> • Distribute FY 2024-25 stakeholder invoices in July 2024. • Task Force to work with Tess Dunham to consider submitting a Request to Regional Board to modify the SAR Regional bacteria Monitoring Program Monitoring Program Plan and QAPP to address issues relating to lake Elsinore and Priority 3 Monitoring sites/results. 	Future Task Force Meeting (virtual meeting) to be scheduled.

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
Lake Elsinore and San Jacinto Watersheds Authority (LESJWA)	Support lake quality improvement projects at Lake Elsinore and Canyon Lake	<ul style="list-style-type: none"> • LESJWA hosted their bi-annual LESJWA Summit on April 30, 2024, at the City of Lake Elsinore. The event agenda included: <ul style="list-style-type: none"> ○ Pilot Lake Treatability Study in Lake Elsinore to Reduce Harmful Algal Blooms (WSP) ○ Regulatory Compliance (Tess Dunham) ○ Alum Applications in Canyon Lake (Aquatechnex) ○ Lake Elsinore Aeration and Mixing System (EVMWD) ○ Exploring Nano Bubble Technology in Lake Elsinore (City of Lake Elsinore) ○ Addressing HABs with Innovative Technology: A Solution for Lake Elsinore (AECOM) • LESJWA staff continued working with Water Systems Consulting, Inc. and LESJWA Member Agencies on the development of LESJWA’s Strategic Plan. 	<ul style="list-style-type: none"> • Develop LESJWA Strategic Plan 	LESJWA Board Meeting: Workshop on Strategic Plan August 15, 2024.
	Provide education and outreach	<ul style="list-style-type: none"> • Liselle DeGrave of DeGrave Communications continues her support to LESJWA through the LESJWA Education and Outreach Committee. Joint meetings with the consultant, LESJWA member agency PR staff, and the SAWPA staff are held on a quarterly basis for coordination. The last meeting held was on June 10, 2024. • DeGrave Communications updated the committee on the 2024 LESJWA Summit. • LESJWA Staff informed the committee on a minor fish kill that occurred during the Canyon Lake alum application on April 24, 2024. 	<ul style="list-style-type: none"> • DeGrave Communications will be assisting staff in coordinating a public workshop to inform residents on the Canyon Lake Alum Treatment project. 	August 12, 2024 LESJWA Education & Outreach Meeting (virtual mgt). Canyon Lake Alum Treatment project: Public Workshop: Tuesday, September 3, 2024.

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
Southern California Salinity Coalition (SCSC)	Support regional salt management and practices in Southern California	<ul style="list-style-type: none"> • The SCSC held its quarterly Board in person at SAWPA with a virtual option on June 6, 2024. Kevin Hardy, SCSC Administrator, officiated the meeting. • Review Salinity Science and Policy Communications Toolbox Request for Proposals. • SCSC formation, Bylaws, and administration. • Information items on: <ul style="list-style-type: none"> ○ Water Research Foundation (WRF) Project 5061: Carlsbad Desalinated Seawater Integration (Phase II) and Regional Salinity Reduction Study ○ MWD Water Supply Conditions and TDS Report 	<ul style="list-style-type: none"> • Officer Committee: August 29, 2024. 	The next SCSC Board of Directors meeting is scheduled for September 5, 2024.
Santa Ana River Parkway and Open Space Plan Technical Advisory Committee	<ul style="list-style-type: none"> • Help identify priorities and values for the Santa Ana River Parkway and Open Space Plan • Identify project selection criteria and projects for inclusion in the Parkway Plan • Provide input and feedback on the Plan throughout its development 	<ul style="list-style-type: none"> • Staff coordinated with the Santa Ana River Conservancy staff on the quarterly Local Advisory Group meetings. A meeting was held on June 27, 2024. 	<ul style="list-style-type: none"> • Brief the Commission on the progress of completing the Santa Ana River Trail. 	Upcoming Local Advisory Group meeting September 2024.

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
Water Energy Community Action Network (WECAN)	Support water and energy efficiency on disadvantaged communities in the watershed.	<ul style="list-style-type: none"> • SAWPA submitted to the City of Riverside bi-monthly progress reports for the WECAN Eastside Climate Collaborative Program, this included the May Report #18 and July Report #19. • The city of Riverside received amendment approval from SGC for expanded project area map in hopes to increase program participation and eligibility for disadvantaged community areas surrounding the previous iteration. SAWPA is still awaiting their respective sub-grantee agreement from City of Riverside, under the Transformative Community Collaborative (TCC) Grant. 	<ul style="list-style-type: none"> • Supporting outreach events hosted by program partners with flyers and materials to distribute to promote the program within the community. • Submit bi-monthly progress reports for the Eastside Climate Collaborative Program by September 15 and October 15 for the upcoming quarter. • Continue to meet and correspond with grant administrators regarding pending grant amendment. 	Bi-Weekly meetings with the City of Riverside. Monthly Community Engagement meetings hosted by RCHF.
Forest First	Support collaborative partnership among Forest Service and downstream stakeholders to develop methods to ensure the resiliency of the forests and headwaters within the Santa Ana River Watershed	<ul style="list-style-type: none"> • Staff coordinated with SBVMWD on a partnership with the agency regarding the Headwaters Resiliency Partnership Task Force. 	<ul style="list-style-type: none"> • Utilize the results from the Dr. Underwood research to evaluate the economic benefits of water supply/quality of forest projects in the watershed. • Meet with Cleveland and San Bernardino National Forest staff to launch the next phase of the Forest First MOU on July 31, 2024. • Research invasive species permitting needs in upper watershed areas. 	Meet with Cleveland and San Bernardino National Forest staff for check-in meeting on July 31, 2024.

SAWPA Roundtables Status Report

4/1/24 to 6/30/24

PROJECT	DESCRIPTION	STATUS	FUTURE TASKS/DEADLINES	FUTURE MEETINGS
<p>Arundo Removal</p>	<p>Remove non-native plant species, particularly Arundo donax, using SAWPA's Arundo Removal mitigation bank credit funding</p>	<ul style="list-style-type: none"> • Staff coordinated with the Riverside County Regional Park and Open-Space District (County Parks) on exploring options to improve the Santa Ana River Mitigation Bank so that customers with various mitigation needs can receive bank credit. • Staff reviewed 2021 imagery covering the Santa Ana River Watershed to determine the current extents of Arundo donax across the watershed. • Staff reviewed the historic Arundo dataset from a 2011 California Invasive Plant Council report to determine changes over time. • Staff continued working with Inland Empire Resource Conservation District (IERCD) on the Headwaters Arundo Removal Project. • Staff met with staff from the San Manuel Band of Mission Indians on their interest in removing invasive plant species in the upper Santa Ana River Watershed. 	<ul style="list-style-type: none"> • Map past Arundo removal projects led by SAWPA. • Coordinate with IERCD on property access needs in the upper Santa Ana River watershed. • GIS staff analysis of Arundo in the lower watershed (OC and small area in Riverside County below Prado) using recent 2021 imagery and ESRI GIS tools. Maps will be developed showing areas mapped and the estimated location of Arundo. 	<p>Bi-monthly Santa Ana River Watershed Weed Management Area mtg to update them on the upper watershed project as well as the outreach material.</p>

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1 SAWPA Department Heads Graduate from Leadership Series

SAWPA Department Heads Graduate from Leadership Series

SAWPA's department heads have graduated from a leadership series led by Nate Sassaman, a West Point graduate and retired Lieutenant Colonel. Over 10 months, this six-meeting program focused on enhancing leadership skills and team dynamics, addressing the unique challenges faced by government agencies. Key topics included:

- **Leadership Philosophies:** Defining and refining individual leadership styles.
- **Strategic Communications:** Developing effective communication strategies.
- **Team Effectiveness:** Improving collaboration and cohesion.
- **Accountability:** Emphasizing responsibility and ownership.
- **Strategic Thinking:** Cultivating long-term planning skills.
- **Personal Action Plans:** Creating actionable plans for growth.

The program has strengthened the leadership team, preparing them to better serve SAWPA and the community. This fall, leadership training will be made available for all SAWPA employees.

2 SAWPA Sponsors BIA Southern California Water Conference

SAWPA Sponsors BIA Southern California Water Conference

SAWPA is proud to sponsor the BIA Southern California Water Conference, taking place on August 9 in Ontario. This event will bring together key stakeholders to discuss critical water issues affecting our region. SAWPA's General Manager, Jeff Mosher, will moderate a panel on Local Supply Reliability in the Upper Santa Ana Watershed. Joining him will be General Managers from four of SAWPA's member agencies, including Inland Empire Utilities Agency, San Bernardino Valley Municipal Water District, Western Municipal Water District, and Eastern Municipal Water District. This panel will provide valuable insights into efforts to ensure a reliable local water supply for our communities.



Learn more about the BIA at biabuild.com/water-conference.

3 SAWPA Staff Complete First Aid/CPR/AED Training

SAWPA Staff Complete First Aid/CPR/AED Training

On July 11, SAWPA staff participated in First Aid/CPR/AED training conducted by the American Red Cross. This training equipped our team with essential life-saving skills, ensuring they are prepared to respond effectively in emergencies. We are proud of our staff's commitment to safety and readiness.



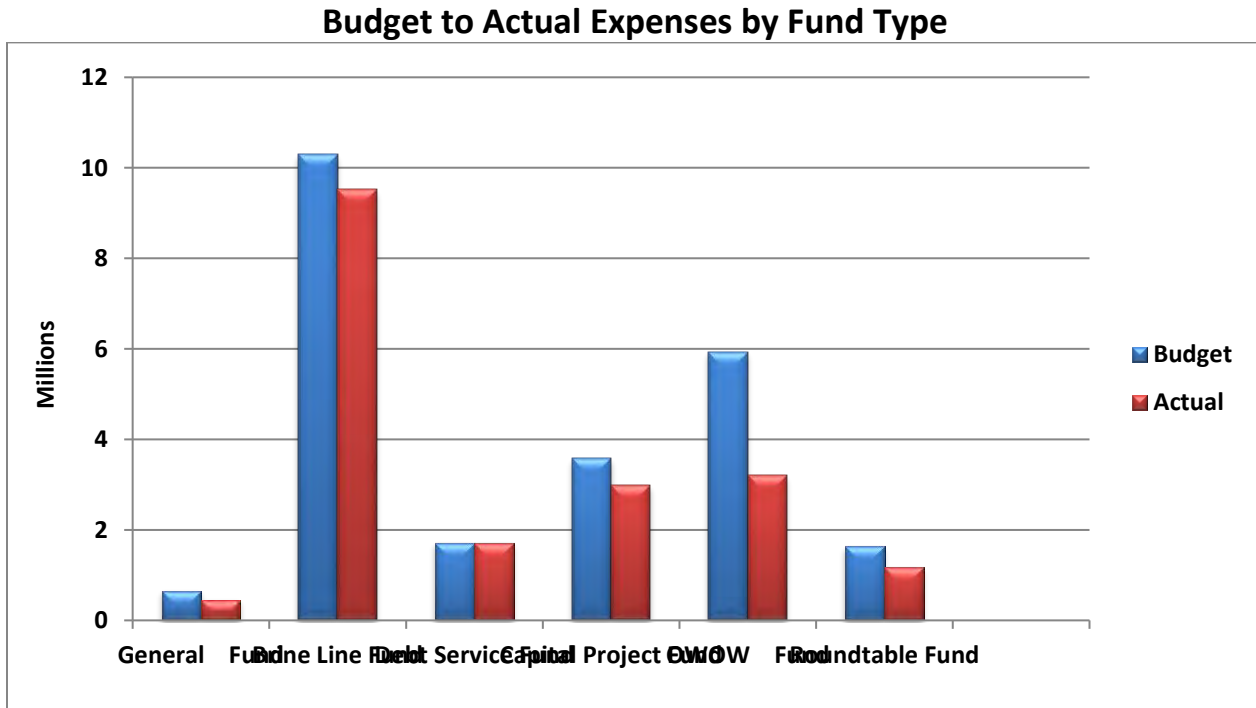
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Santa Ana Watershed Project Authority Executive Financial Information Report May 2024

Staff comments provided on the last page are an integral part of this report.

Overview	This report highlights the agency's key financial indicators for the Fiscal Year-to-Date (FYTD) May 2024 unless otherwise noted.
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Budget to Actual Expenses by Fund Type	✔ Favorable			
	Annual Budget	FYTD Budget	FYTD Actual	Favorable (Unfavorable) Variance
General Fund	\$696,275	\$646,585	\$454,375	\$192,210
Brine Line Enterprise	11,022,144	10,289,077	9,521,938	767,139
Debt Service Fund	1,709,476	1,709,476	1,709,476	-
Capital Project Fund	3,893,137	3,568,709	2,974,107	594,602
OWOW Fund	6,469,335	5,930,223	3,204,748	2,725,475
Roundtable Fund	1,764,355	1,627,673	1,172,865	454,808
Total	\$25,554,722	\$23,771,743	\$19,037,509	\$4,734,234



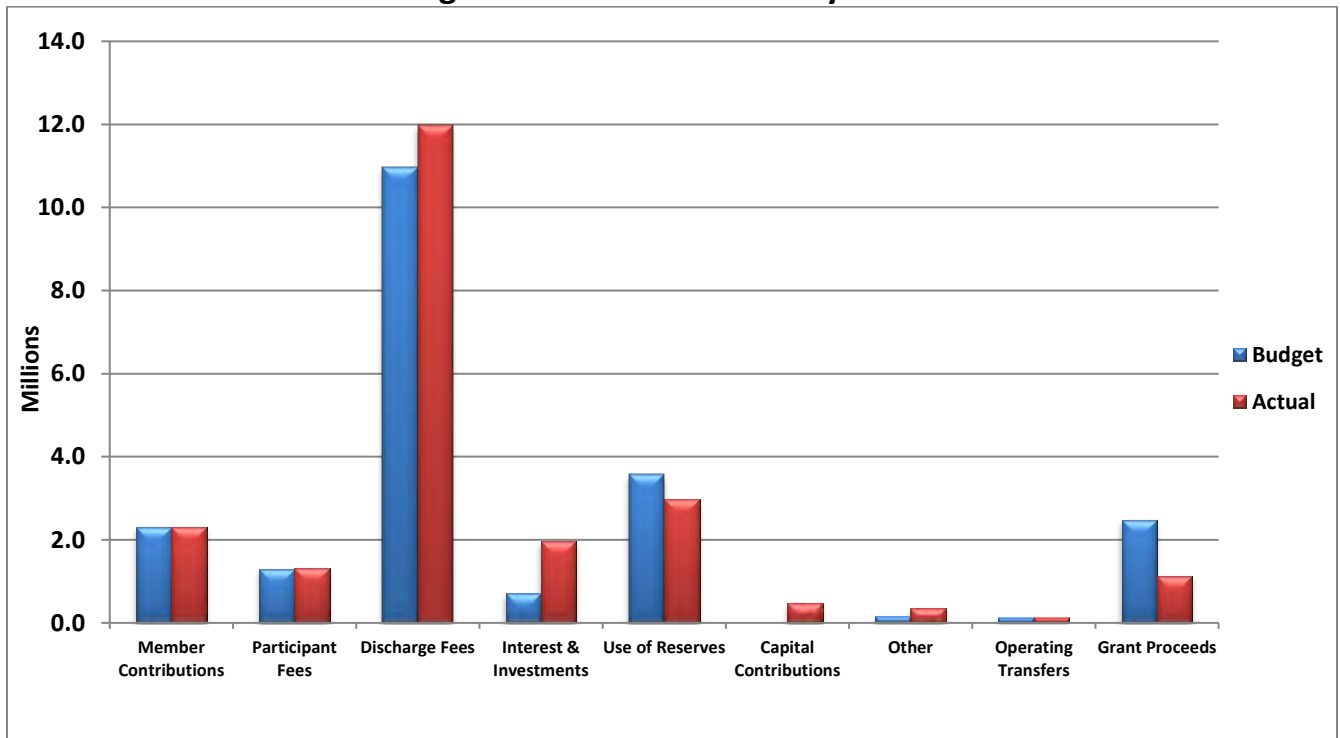
Budget to Actual Revenues by Source



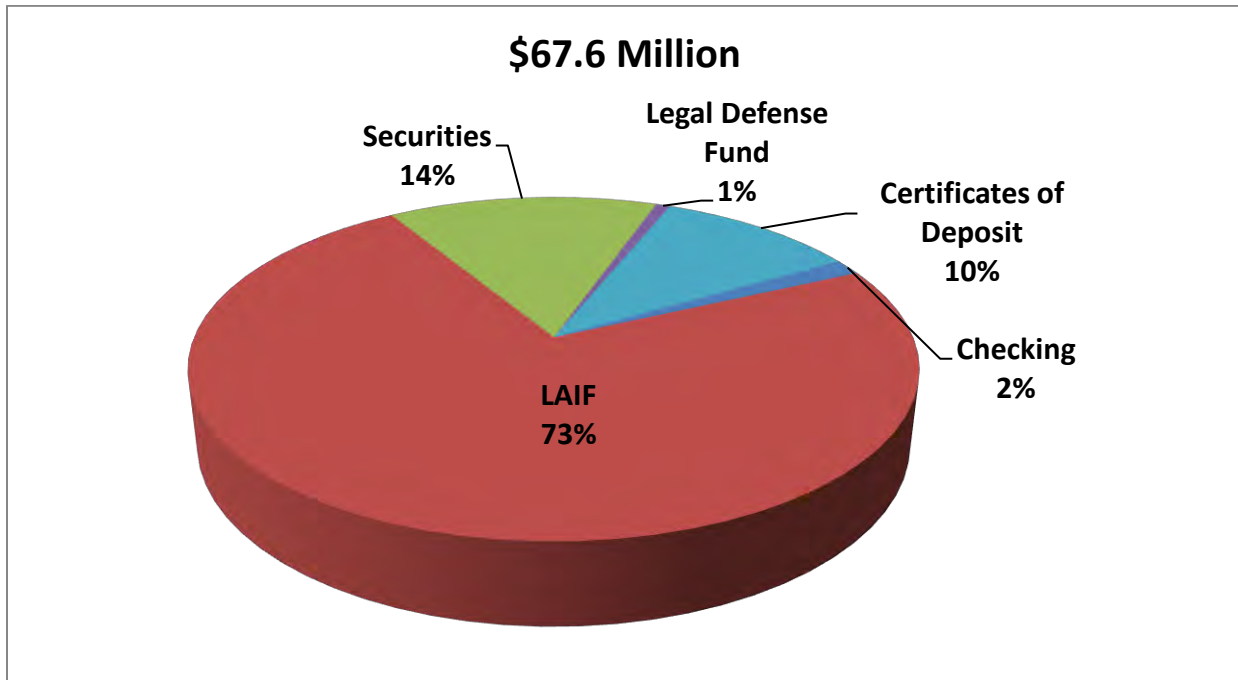
On Track

	Annual Budget	FYTD Budget	FYTD Actual	Favorable (Unfavorable) Variance
Member Contributions	\$2,308,275	\$2,308,275	\$2,308,275	\$-
Participant Fees	1,301,678	1,301,678	1,322,726	21,048
Discharge Fees	11,961,620	10,964,818	11,975,643	1,010,825
Interest & Investments	770,000	705,833	1,957,465	1,251,632
Use of Reserves	3,893,137	3,568,709	2,974,107	(594,602)
Capital Contributions	-	-	475,081	475,081
Other	185,857	170,369	355,645	185,275
Operating Transfers	124,165	124,165	124,165	-
Grant Proceeds	3,357,148	2,480,178	1,130,872	(1,349,306)
Total	\$23,901,880	\$22,623,979	\$22,623,979	\$999,954

Budget to Actual Revenues by Source



Total Cash & Investments







Reserve Fund Balance

	Amount
General Fund	\$1,999,443
Building Fund	620,007
OWOW Fund	1,672,817
Roundtable Fund	2,779,784
Debt Retirement	2,979,538
Pipeline Replacement & Capital Investment	32,842,697
OC San Pipeline Rehabilitation	2,849,924
Pipeline Capacity Management	12,671,389
OC San Future Treatment & Disposal Capacity	1,940,031
Brine Line Operating Reserve	2,240,462
Brine Line Operating Cash	4,975,947
Total Reserves	\$67,572,040

Legend

Compared to Budget

	Ahead or Favorable	Above +5% Favorable Revenue or Expense Variance
	On Track	+5% to -2% Variance
	Behind	-3% to -5% Variance
	Concern	Below -5% Variance

Staff Comments

For this month's report, the item(s) explained below are either "behind", a "concern", or have changed significantly from the prior month.

Revenues are 4.4% above budget and expenses are 19.9% below budget. It is anticipated that they both will be on track with the budget by the end of the year.



SAWPA Communications Report

Date: August 6, 2024
To: Commission
From: Melissa Bustamonte
Subject: **Communications Highlights – July 1, 2024 – July 31, 2024**

Communications

- SAWPA was featured in the following press articles:
Project – ICARP
News Article
 - [Inside UCR](#)
- SAWPA successfully submitted an entry for PRSA-IE's Polaris Awards Program, highlighting the communications campaign for the Santa Ana River Watershed Cloud Seeding Pilot Program.
- SAWPA has finalized a 23-month contract with Bri Communications to promote the agency through watershed signage featuring the SAWPA logo and a description of the One Water One Watershed (OWOW) Program. Installation of 75 signs within the watershed is scheduled for December 2024, with an estimated viewership of approximately 1,050,000 during the project duration.
- The Communications Plan section of SAWPA's draft Sewer System Management Plan (SSMP) has been comprehensively revised and improved for better clarity and effectiveness.
- The summer edition of SAWPA's Watershed Watch, the agency's digital newsletter, is currently in production. To join SAWPA's mailing list, please visit sawpa.gov/newsroom/contact.
- Staff coordinated and led SAWPA's internal all-hands meeting on July 10.
- Staff attended the following webinars:
 - CAPIO/ACWA: Mastering the Op-Ed: From Concept to Publication
- Updates were posted to the Authority's social media channels. Follow SAWPA on social media:
 - X: https://twitter.com/SAWPA_Water
 - Instagram: https://www.instagram.com/sawpa_water/

- LinkedIn: <http://www.linkedin.com/company/santa-ana-watershed-project-authority>
- YouTube: <https://www.youtube.com/@SAWPATUBE>