S A W P A

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

NOTICE OF REGULAR MEETING OF THE
PROJECT AGREEMENT 22 COMMITTEE
Interregional Landscape Water Demand Reduction Program

Committee Members:
Halla Razak, General Manager, Inland Empire Utilities Agency
Doug Headrick, General Manager, San Bernardino Valley Municipal Water District
Paul D. Jones, General Manager, Eastern Municipal Water District, Chair
Michael Markus, General Manager, Orange County Water District, Vice Chair
Craig Miller, General Manager, Western Municipal Water District

THURSDAY, OCTOBER 25, 2018 – 8:00 A.M.

AGENDA

1. **CALL TO ORDER** (Paul D. Jones, Chair)

2. **PUBLIC COMMENTS**

   Members of the public may address the Committee on items within the jurisdiction of the Committee; 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).

4. **COMMITTEE DISCUSSION ITEMS**

   Presenter: Ian Achimore
   Recommendation: Provide feedback based on the following options presented to increase the pace of Smartscape implementation and receive remarks from Garry Brown, Executive Director and CEO of Orange County Coastkeeper.

   Presenter: Ian Achimore
   Recommendation: Receive and file.

   Presenter: Rick Whetsel
   Recommendation: Receive and file.

   Presenter: Rick Whetsel
   Recommendation: Receive and file.

5. FUTURE AGENDA ITEMS

6. ADJOURNMENT

PLEASE NOTE:

Americans with Disabilities Act: Meeting rooms are wheelchair accessible. If you require any special disability related accommodations to participate in this meeting, please contact (951) 354-4220 or kberry@sawpa.org. Notification at least 48 hours 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.org, subject to staff's ability to post documents prior to the meeting.

Declaration of Posting

I, Kelly Berry, Clerk of the Board of the Santa Ana Watershed Project Authority declare that on Wednesday, October 17, 2018, a copy of this agenda has been uploaded to the SAWPA website at www.sawpa.org and posted at the SAWPA office, 11615 Sterling Avenue, Riverside, California.

/s/

_____
Kelly Berry, CMC

2018 Project Agreement 22 Committee Regular Meetings
Fourth Thursday of Every Month
(Note: All meetings begin at 8:00 a.m., unless otherwise noticed, and are held at SAWPA.)

July	August
7/26/18 Regular Committee Meeting	8/23/18 Regular Committee Meeting
September	**October**
~~9/27/18 Regular Committee Meeting~~ [cancelled]	10/25/18 Regular Committee Meeting
November	**December**
11/15/18[*] Regular Committee Meeting[*]	12/27/18 Regular Committee Meeting

[*] Meeting date adjusted due to conflicting holiday.

2019 Project Agreement 22 Committee Regular Meetings
Fourth Thursday of Every Month
(Note: All meetings begin at 8:00 a.m., unless otherwise noticed, and are held at SAWPA.)

January		February	
1/24/19	Regular Committee Meeting	2/28/19	Regular Committee Meeting
March		April	
3/28/19	Regular Committee Meeting	4/25/19	Regular Committee Meeting
May		June	
5/23/19	Regular Committee Meeting	6/27/19	Regular Committee Meeting
July		August	
7/25/19	Regular Committee Meeting	8/22/19	Regular Committee Meeting
September		October	
9/26/19	Regular Committee Meeting	10/24/19	Regular Committee Meeting
November		December	
11/21/19[*]	Regular Committee Meeting[*]	12/26/19	Regular Committee Meeting

[*] Meeting date adjusted due to conflicting holiday.

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COMMITTEE MEMBERS PRESENT

Doug Headrick, General Manager, San Bernardino Valley Municipal Water District
Michael Markus, General Manager, Orange County Water District [Vice Chair]
Halla Razak, General Manager, Inland Empire Utilities Agency
Nick Kanetis, Deputy General Manager, Eastern Municipal Water District [Non-Voting]

COMMITTEE MEMBERS ABSENT

Paul D. Jones, General Manager, Eastern Municipal Water District [Chair]
Craig Miller, General Manager, Western Municipal Water District

STAFF PRESENT

Larry McKenney, Karen Williams, Mark Norton, Dean Unger, Rich Whetsel, Ian Achimore, Kelly Berry

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE

The meeting was called to order at 8:03 a.m. by Vice Chair Markus at the Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, California.

2. PUBLIC COMMENTS

There were no public comments.

3. APPROVAL OF MEETING MINUTES: MARCH 22, 2018

MOVED, approve the March 22, 2018 meeting minutes.

Result:	**Adopted (Unanimously; 3-0)**
Motion/Second:	Headrick/Razak
Ayes	Headrick, Markus, Razak
Nays:	None
Abstentions:	None
Absent:	Jones, Miller

4. COMMITTEE DISCUSSION ITEMS

A. EMERGENCY DROUGHT GRANT PROGRAM SCHEDULE AND BUDGET UPDATE (PA22#2018.23)

Ian Achimore provided the PowerPoint presentation contained in the agenda packet (pages 10-14) with an Emergency Drought Grant Program Schedule and Budget Update. Anticipated completion of Project 1 (conservation based reporting tools and rate structure implementation) is February of 2019; completion of Project 2 (high visibility turf removal and

retrofit) is March 2019.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.A.

B. UTILIZING $83,605 IN COST SAVINGS FOR HIGH VISIBILITY TURF REMOVAL IN ORANGE COUNTY (PA22#2018.20)

Ian Achimore provided a PowerPoint presentation regarding the utilization of $83,605 (earlier budgeted contingency) in cost savings for high visibility turf removal in Orange County. An advisory group met and determined MWDOC/OCWD should utilize the funding as they had remaining projects in the queue. Vice Chair Markus noted that initially it was challenging for Orange County to spend their funding until the criteria was opened to HOAs, public agencies, and commercial projects.

Committee Member Razak asked what conditions are attached to this funding to ensure the drought tolerant landscaping remains and is not removed in the future in favor of grass. Achimore advised the program mirrors the conditions of the individual agencies, and there is a stated 5-year useful life of the project in each individual contract. Quality assurance measures ensure the placement of drought tolerant landscaping.

MOVED, (1) Approve utilizing $83,605 in cost savings from the Proposition 84 Drought Grant for Orange County Water District and the Municipal Water District of Orange County's High Visibility and Turf Removal and Retrofit Project, and, (2) Authorize SAWPA to execute a Sub-Grantee Agreement amendment with Orange County Water District to add the $83,605 of grant cost savings to their current funding amount of $880,894.

Result:	**Adopted (Unanimously; 3-0)**
Motion/Second:	Headrick/Razak
Ayes	Headrick, Markus, Razak
Nays:	None
Abstentions:	None
Absent:	Jones, Miller

C. SAWPA AERIAL IMAGERY AND LANDSCAPE MEASUREMENT DATA – ESRI ON-LINE WEB APPLICATION AND CLOUD SERVICE – YEAR TWO OF SERVICE (PA22#2018.19)

Rick Whetsel provided a revised version of the PowerPoint presentation contained in the agenda packet (pages 19-22) regarding the ESRI online web application and cloud service. Staff will be developing a flyer and presenting a workshop to provide information regarding the purpose and utilization of this tool. A discussion ensued regarding the number of and cost per license. The cost is $500 per license annually; as to the number needed, we will know more after the workshop. Smaller water agencies most likely will not have the license; if more licenses are needed than have been budgeted, then that would be brought back to the Committee at a future date. Committee Member Razak noted perhaps we should first hold the workshop, and then determine the number of licenses needed. An incentive for agencies to utilize the tools developed needs to be in place. Vice Chair Markus suggested it would be more appropriate for them to pay out of their budgets to access the tool and then they can utilize the tool for as long as they determine it is useful, rather than to subsidize it upfront. Larry McKenney indicated that would occur in the long term; initially this is an

outreach effort so agencies can see the value of the tool that might not have access to that software. They can make a value judgment in the future as to whether or not they want to pay for the software and continue utilizing the tool. Committee Member Razak suggested SAWPA consider how we will utilize these developed tools to help our agencies adhere to the legal requirements, and to take it a step further to become a model the state could utilize. Whetsel advised that staff has had discussions with DWR regarding collaborative utilization of aerial imagery and tools in meeting the new water efficiency regulations, and DWR has asked staff to provide an agency to serve as part of their next pilot round. Committee Member Razak noted it is our obligation to seek out agencies to educate them on these tools we have developed, and to provide examples specific to their needs as to how the tools can be utilized.

MOVED, approve an amount not to exceed $50,000 for ESRI license fees, on-line web application and cloud services as part of an on-going effort to provide agency staff access to SAWPA aerial imagery and landscape measurement data.

Result:	**Adopted (Unanimously; 3-0)**
Motion/Second:	Razak/Headrick
Ayes	Headrick, Markus, Razak
Nays:	None
Abstentions:	None
Absent:	Jones, Miller

D. WEB-BASED WATER CONSUMPTION REPORTING AND CUSTOMER ENGAGEMENT PROJECT – FINAL PROJECT REPORT (PA22#2018.18)

Rick Whetsel provided an oral presentation and briefly reviewed the agenda packet materials.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.D.

E. CONSERVATION-BASED WATER RATES UPDATE (PA22#2018.21)

Ian Achimore provided a PowerPoint presentation with a conservation-based water rates update. A $15,150 Change Order with CV Strategies has been executed to assist in outreach regarding rates and marketing of tools with SAWPA website development, graphics, content, and forms retail agencies can utilize. A demonstration will be provided at a future meeting; timeframe is anticipated to be 4-6 weeks.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.E.

F. CONFERENCE PANEL AND PRESENTATION ON THE DROUGHT GRANT'S TOOLS (PA22#2018.22)

Ian Achimore provided a PowerPoint presentation regarding SAWPA's participation in bringing together a conference panel to showcase and discuss the drought tools developed, which will occur during the ACWA Fall Conference, November 27-30 in San Diego. Committee Members encouraged SAWPA staff to continue to work on creatively getting the word out in the watershed relative to the development and purpose of these tools, showing the tools and providing specific examples of their usefulness.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.F.

5. <u>FUTURE AGENDA ITEMS</u>

Committee Member Razak requested a visioning session to brainstorm on how we can take these tools into the future in relation to working with the state, etc.

6. <u>ADJOURNMENT</u>

There being no further business for review, Vice Chair Markus adjourned the meeting at 9:01 a.m.

Approved at a Regular Meeting of the Project Agreement 22 Committee on Thursday, October 25, 2018.

_____
Paul D. Jones II, Chair

Attest:

_____
Kelly Berry, CMC
Clerk of the Board

PA 22 COMMITTEE MEMORANDUM NO. 2018.24

DATE: October 25, 2018

TO: SAWPA Project Agreement 22 Committee

SUBJECT: Smartscape Implementation

PREPARED BY: Ian Achimore, Senior Watershed Manager

RECOMMENDATION

Provide feedback based on the following options presented to increase the pace of Smartscape implementation and receive remarks from Garry Brown, Executive Director and CEO of Orange County Coastkeeper.

DISCUSSION

The Santa Ana River Conservation and Conjunctive Use Program (SARCCUP) includes several projects including the water use efficiency oriented Smartscape Program. Smartscape was designed to continue the momentum of the various turf removal rebates that were offered by the Emergency Drought Grant Program and train water agency customers to maintain their drought-tolerant landscapes. Orange County Coastkeeper is a project partner and the lead for implementing Smartscape while SAWPA manages the agreement with Coastkeeper. Coastkeeper is a project partner that helped develop the SARCCUP Proposition 84 grant application that was submitted to the Department of Water Resources in 2015.

In 2017, Coastkeeper developed a list of 10 tasks with input from the PA 22 Committee's Conservation Advisory Workgroup and is under contract to complete the project in two years, ending in March 2020. These tasks include landscape design assistance to residential customers, landscape designs, site surveys with feedback on plant type and irrigation, and leading workshops. Unfortunately, the rate of task implementation has been at a pace where the project cannot likely be completely completed in two years. Due to this rate of implementation, two of the five original Coastkeeper Smartscape staff have left for other employment opportunities. The reason for the slow pace include the saturation of the market in the Metropolitan Water District service area for workshops and design assistance, the time needed to engage customers to register for Smartscape services, and the lack of interest from residential customers who previously received turf removal rebates. In San Bernardino Valley Municipal Water District's service area, the pace is on track to complete the project largely because these services have not been previously available on a regional basis and they are in high demand by the retail water agencies. In comparison, in Inland Empire Utilities Agencies has services offered by MWD such as landscape workshops that are no cost to IEUA.

The amount of funding provided to Coastkeeper through its SAWPA agreement is approximately $400,000, which is $122,000 in grant and $278,000 in match. As shown in Attachment 2, the Smartscape Spending Rates by Task, approximately 12% ($47,325) has been expended. To help address this issue of slower paced implementation, the Conservation Advisory Group has developed some recommendations for feedback from the Committee:

- Coastkeeper develop a landscape maintenance program whereby staff adjusts controllers and makes minor adjustments to sprinkler heads. This option may require Coastkeeper, or a sub-contractor, to have a C-27 Landscaping Contractor license. This was recommended by IEUA's member agencies who already receive many of the Coastkeeper services from MWD and IEUA.
- Instead of agency staff time being devoted to registering Smartscape customers, Coastkeeper can provide the outreach necessary to engage the public. This was recommended by EMWD and would entail reaching out to school districts, other public agencies and possibly residential customers.
- Coastkeeper can offer their design services to customers at the same time they register for MWD turf removal rebates. This was recommended by WMWD and would establish an automated way for customers to receive Smartscape services and use the momentum of the rebate program to educate customers on maintenance.

SBVMWD is also following up with their agencies and asking if they need any additional services beyond the 10 tasks. Garry Brown, Executive Director and CEO of Coastkeeper, will attend the October 25th PA 22 Committee to provide remarks and answer any Committee questions.

CRITICAL SUCCESS FACTORS

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

RESOURCE IMPACTS
None.

Attachments:
1. List of Smartscape Tasks and Costs
2. Smartscape Spending Rates by Task

List of Smartscape Tasks and Costs

Task	Scope of Task	Costs	Cost Assumptions
A	Conduct site visits and introductory and follow up phone calls.	a) $250 for residential b) $250 per hour for commercial, industrial or institutional	Multi Family is commercial.
B	Develop brief written material with graphics and photographs	a) $3,500 per 2000 brochures b) $1,200 per 3000 flyers	Includes development, design, printing and distribution. A brochure is a folded product a flyer is one page unfolded
C	Develop brief educational videos	$3,000 to $5,000	Costs in range will depend on length, venue and editing.
D	Develop and distribute training manuals	Price based on design/content. Printing only- $10 each based on a run of 250 copies	N/A
E	Develop landscape design documents such as drawings, plans and specifications	a) $1,000 for residential b) $1,000 per 1,200 square feet for commercial, industrial and institutional	a. Includes simple custom designs based on existing Sub-Grantee themes. Assumes landscape size of equal to or less than 1,200 square feet b. Both residential and commercial services
F	Develop signage with graphics and photographs	Varies by sign size and material.	Metal yard signs are approximately $100 each (including design and manufacture).
G	Lead, plan and execute workshops and outreach	a) $1,000 for community outreach events b) $1,500 to $3,500 for residential-focused workshops c) $500 to $2,000 for presentations at conferences d) $3,500 for landscape professionals workshops	a) Includes staffing, booth and supplies. b) Includes planning, promotion, venue, speakers, supplies and giveaways. c) Costs in range depend on conference fee, travel and lodging. d) Includes planning, promotion, venue, speakers, supplies and giveaways.
H)	Develop and edit articles in local print media.	$250 per article	Includes development of written materials, editing and coordination with media.
I)	Social media post development	$150 per post	Includes development of written materials, graphics and photos, editing and coordination with entity posting material.
J)	Outreach to local schools through assemblies or field trips.	$3,000 per event	Includes coordination time, transportation and venue costs and materials.

Smartscape Spending Rates By Task

<u>Actuals</u>

	EMWD	IEUA	SBMVWD	WMWD	Total
Actual To Date - Costs					
2018Q1			$ 1,000		$ 1,000
2018Q2	$ 2,375	$ 500	$ 33,700	$ 3,000	$ 39,575
2018Q3	$ -	$ 750	$ 5,500	$ 500	$ 6,750
Totals	$ 2,375	$ 1,250	$ 40,200	$ 3,500	$ 47,325
Allocations	$96,509	$96,509	$96,509	$96,509	$386,034
Remaining	**$94,134**	**$95,259**	**$56,309**	**$93,009**	**$338,709**
Actual To Date - Task* Amounts					
Workshops			2		2
Site Visits	9	5	18	14	46
Designs			8		8
Written Material			3		3
Signage			5		5
Totals	9	5	36	14	64

Projections - How Many Tasks Need to Be Completed in Project Time Frame**

	EMWD	IEUA	SBMVWD	WMWD	Total		Costs per Task
Workshops	63		8		70		$ 1,500
Site Visits		381	45	186	612		$ 250
Designs			11	47	58		$ 1,000
Written Material			9		9		$ 1,200
Signage			6		6		$ 2,000
Total Projection	$ 94,134	$ 95,259	$ 56,309	$ 93,009	$ 338,709		

*Tasks shown are those being actively implemented.

**Time frame end March 2020.

PA 22 COMMITTEE MEMORANDUM NO. 2018.25

DATE: October 25, 2018

TO: SAWPA Project Agreement 22 Committee

SUBJECT: Emergency Drought Grant Program Schedule and Budget Update

PREPARED BY: Ian Achimore, Senior Watershed Manager

RECOMMENDATION

Receive and file.

DISCUSSION

The following information provides an overview of the scheduled completion dates of each of the Emergency Drought Grant Program's components, and the status of Program spending in comparison to the overall budget in the Proposition 84 Grant Agreement. There are two sub-projects included in the Program:

- Project 1: Conservation Based Reporting Tools and Rate Structure Implementation.
- Project 2: High Visibility Turf Removal and Retrofit.

Project 1 includes the project components: 1) Aerial Mapping, 2) Conservation Based Rates, 3) Meter Geocoding & Business Type Classification, 4) Web-Based Information Tool, 5) ESRI Customer Parcel Water Budget Tool. Project 2 includes the turf removal and retrofit component.
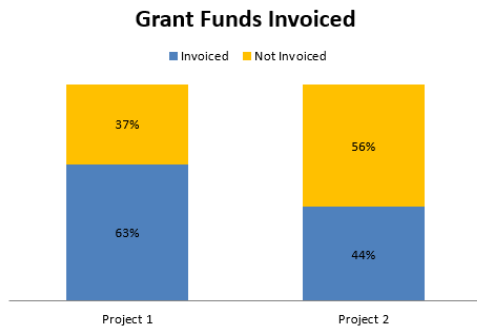
The dates and funding amounts provided for project completion recognize that the DWR Grant Agreement amendment was approved on June 7, 2018 and extended the schedule for implementation of both Projects from June 30, 2018 to June 30, 2019.

The funding amounts for Project 2 show that the Sub-Grantee agreements have been amended, per the approval of the PA 22 Committee on August 24, 2017. That action increased the funding available to Eastern Municipal Water District, Inland Empire Utilities Agency and Western Municipal Water District. The memo reflects the latest invoices that have been submitted to SAWPA by August 31, 2018.

PROGRAM STATUS

	Grant	Required Funding Match	Total
In Grant Agreement	$ 12,860,110	$ 7,051,533	$ 19,911,643
Invoiced ($)	$7,087,112	$ 5,943,834	$13,030,946
Invoiced (%)	**55%**	**84%**	**65%**

INDIVIDUAL PROJECT STATUS

Grant Funds Invoiced

■ Invoiced ■ Not Invoiced

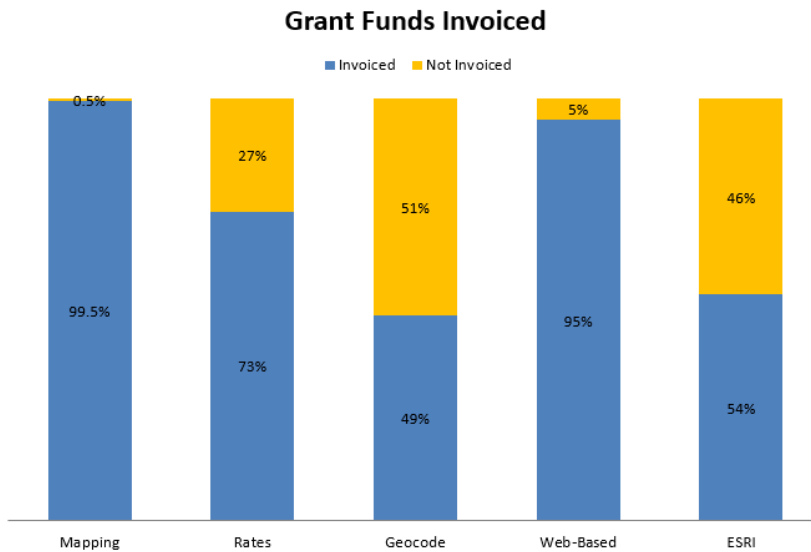|	
Project 1: Not Invoiced 37%, Invoiced 63%	Project 2: Not Invoiced 56%, Invoiced 44%

Scheduled dates of completion:

- Project 1: April 2019
- Project 2: March 2019

PROJECT 1 STATUS BY INDIVIDUAL COMPONENTS

Grant Funds Invoiced

■ Invoiced ■ Not Invoiced

Component	Not Invoiced	Invoiced
Mapping	0.5%	99.5%
Rates	27%	73%
Geocode	51%	49%
Web-Based	5%	95%
ESRI	46%	54%

Scheduled dates of completion:

- Aerial Mapping: (Completed) July 2017
- Conservation Based Rates: April 2019
- Meter Geocoding and Business Type Classification: December 2018
- Web-Based Information Tool: (Completed) June 2018
- ESRI Customer Parcel Water Budget Tool: November 2018

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PROJECT 2 STATUSES BY INDIVIDUAL SUB-GRANTEES

Grant Funds Invoiced

■ Invoiced ■ Not Invoiced

	EMWD	IEUA	OCWD*	SBVMWD	WMWD	RCWD
Not Invoiced	98%	30%	89%	100%	19%	0%
Invoiced	2%	70%	11%	0%	81%	100%
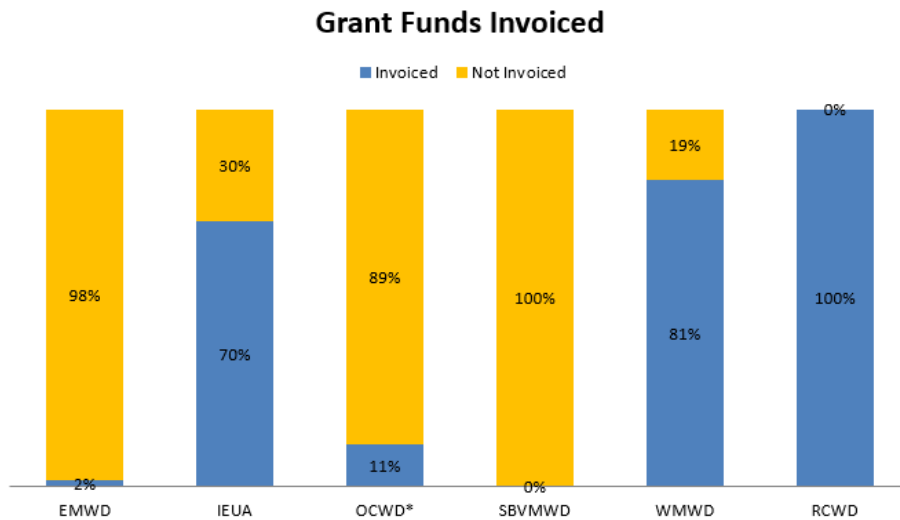
* SAWPA has a Sub-Grantee agreement with OCWD; OCWD has an agreement with MWDOC that passes down the conditions from their Sub-Grantee agreement to MWDOC.

As discussed in previous PA 22 Committee meeting, although invoices have not been received, the Sub-Grantees are making major progress on the High Visibility Turf Removal and Retrofit Project component. Some of the agencies are choosing to hold invoices until their overall turf removal program in their service area is complete. By holding invoices, a final and comprehensive invoice package that includes an agency's total turf removal costs can be submitted to SAWPA, which is beneficial for accounting and administration.

Scheduled date of completion:

- Turf Removal: March 2019

CRITICAL SUCCESS FACTORS

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

RESOURCE IMPACTS
None.

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PA 22 COMMITTEE MEMORANDUM NO. 2018.26

DATE: October 25, 2018

TO: SAWPA Project Agreement 22 Committee

SUBJECT: SAWPA Aerial Imagery and Landscape Measurement Data - ESRI On-line Web Application and Cloud Services – Year Two of Service

PREPARED BY: Rick Whetsel, Senior Watershed Manager

RECOMMENDATION
Receive and file this status report on the ESRI Customer Parcel Water Budget Tool.

DISCUSSION
ESRI completed work on the GIS web based application to provide water agency staff access to the SAWPA high resolution aerial imagery and landscape vegetation measurement data funded through Proposition 84.

SAWPA staff is now coordinating with staff from each of the SAWPA member agencies to schedule on-site presentations to retail agencies to demonstrate the ESRI Customer Parcel Water Budget Tool, as well as provide an update on other available SAWPA water conservation data/tools.

The tentative schedule for these events is as follows:

EMWD	Tentatively scheduled for a Water Master meeting
IEUA	Tentatively scheduled for 10:30 a.m. Wednesday, Nov. 28th or Jan 23rd
MWDOC	12:30 p.m. Thursday, December 6, 2018
SBVMWD	10:00 a.m. Wednesday, December 21, 2018
WMWD	Tentatively scheduled for a Water Conservation meeting in February

BACKGROUND
June 22, 2017, the Project Agreement (PA) 22 Committee authorized a Task Order with ESRI to develop an on-line web application and managed cloud services to provide water agency staff access to our high resolution aerial imagery and landscape vegetation measurement data.

Cloud services hosted by ESRI will enable SAWPA to deliver up to fourteen terabytes of raster imagery in a scalable cloud computing environment made available both directly to current ESRI clients and through a custom ArcGIS Online application.

Contracting with ESRI, SAWPA is utilizing our existing relationship and leveraging the existing ESRI license agreements of our member agencies in order to achieve a significantly (approximately 50%) lower cost for hosting and serving this dataset. Additionally, through the cloud services hosted by ESRI, SAWPA and its member agencies will also enjoy the benefit of access to this immense data set without tying up their agency's own computer data storage/networking services.

The on-line web application developed by ESRI using a number of predefined tools will enable water retail agency staff to access SAWPA's aerial imagery and the results of our landscape analysis performed under the Prop 84 Emergency Drought Grant Program. Making these data available through an on-line web application eliminates the need and associated costs to store this large data for all agencies and for those lacking GIS capabilities provides a platform to use the data. Additionally, this will provide the

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foundation for which future data may be added and shared, both among agency staff and between agencies.

The on-line web application will include many of the capabilities of the original data, allowing the user to view the background imagery in three modes: Natural Color, False Color Infrared and Normalized Difference Vegetation Index (NVDI). Additionally, the user will have access to the results of SAWPA's work to analyze the watershed's landscape using aerial imagery and remote sensing analysis. The results of the landscape analysis will be able to be viewed at both the parcel level, as well as the agency level, which will include a summary of the landscape statistics by land use type.

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
No impact.

PA 22 COMMITTEE MEMORANDUM NO. 2018.27

DATE: October 25, 2018

TO: SAWPA Project Agreement 22 Committee

SUBJECT: Retail Water Agency Meter Geocoding and Business Type Classification
                   Program

PREPARED BY: Rick Whetsel, Senior Watershed Manager

RECOMMENDATION
Receive and file this status report on the Miller Spatial Retail Water Agency Meter Geocoding and
Business Type Classification Program.

DISCUSSION
Miller Spatial staff was invited to present to the PA 22 Committee an update on the Retail Water Agency
Meter Geocoding and Business Type Classification Program. This presentation will provide a status
report on the project expected to be completed in June 2019 and will highlight the following:

- Update on each of the 20+ agencies participating in the program

- Project Case Study, walk through of the process and presentation of work product deliverables
  created by Miller Spatial

- Next steps (how districts are using this data)
    o Further MSA alignment to landscape
    o GPS meter points and MSAs for commercial malls
    o Meter data on field map books
    o NAICS Industry Water consumption research

BACKGROUND
On August 24, 2017, the Project Agreement (PA) 22 Committee authorized a Task Order with Miller
Spatial Services, LLC for an amount not-to-exceed $300,000 to implement the Retail Water Agency
Meter Geocoding and Business Type Classification Program for agencies in the Santa Ana River
Watershed, as well as the EMWD and WMWD service areas within the Upper Santa Margarita
Watersheds.

The support services to be performed by the consultant, Miller Spatial Inc. are highlighted below:
    • Water Meter Account to Water Meter Service Area Matching Services
    • Business Account Type Classification Services based upon North American Industry
      Classification System (NAICS) Data
    • Identification of Mixed Use Commercial, Industrial and Institutional (CII) Accounts
    • Project Reporting following Prop 84 Reporting Formats and Requirements

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
No impact.

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PA 22 COMMITTEE MEMORANDUM NO. 2018.28

DATE: October 25, 2018

TO: SAWPA Project Agreement 22 Committee

SUBJECT: Conservation-Based Water Rates Update

PREPARED BY: Ian Achimore, Senior Watershed Manager

RECOMMENDATION

Receive and file.

DISCUSSION

There are currently three retail water agencies involved in the Emergency Drought Grant Program's Conservation-Based Water Rates component – the cities of Chino, Chino Hills and Hemet. Chino adopted their conservation-based rate structure on June 19, 2018 and Chino Hills adopted it on May 8, 2018. The City of Chino Hills has fully implemented the rate structure and customer bills are being calculated using the budget-based formula.

The City of Chino, like Chino Hills, has contracted with the data management firm Tyler Technologies for their customer billing services. Due to Tyler's focus on updating Chino Hills's billing system for the new rate structure, they have had to delay the update of Chino's billing system software. It is projected that Chino's software updates will be finalized by December 31, 2018 and the City can fully implemented by February 2019.

The City of Hemet City Manager has pushed the City Council meeting addressing water rates till January 22nd 2019 to ensure the newly established City Council can make major policy decisions such as a water rate change. The Proposition 218 notices to customers would be distributed after that meeting and the rates would be up for adoption by Council on March 26th if there isn't a majority protest by the customers. The City is currently finalizing its rate study with consultant Bartle Wells Associates and matching customer water meter data to the 2015 landscape measurement data provided by SAWPA.

As presented to the Committee on August 25, staff is working with public relations firm CV Strategies to develop new webpages that would be housed on SAWPA's existing website. These new webpages would ensure the conservation-based rates and related aerial imagery tools, such as the ESRI Customer Parcel Water Budget Tool, are utilized by retail water agencies throughout the region. Information will also be included on the new webpages about the two bills signed by the Governor in May 2018, SB 606 and AB 1668, that implement most of the May 2016 Executive Order entitled "Making Water Conservation a California Way of Life." The webpages will include a fillable form where retailers can sign up to receive technical assistance on utilizing the ESRI and Miller Spatial tools.

As discussed with the Committee, SAWPA is also on an Association of California Water Agencies (ACWA) conference panel on the afternoon of November 28, 2018 in San Diego. The panel will focus the tools provided by the Committee such as aerial imagery and Customer Parcel Water Budget Tool. Department of Water Resources and the City of Chino Hills staff will also likely participate on the panel.

CRITICAL SUCCESS FACTORS

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

RESOURCE IMPACTS
None.

Attachments:
1. Draft CV Strategies Webpages

SANTA ANA WATERSHED PROJECT AUTHORITY

SAWPA

🏠 11615 Sterling Avenue, Riverside, CA 92503   🕐 Monday Through Every Other Friday 8 am to 5 pm

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DRAFT

MOVING THE NEEDLE ON WATER USE EFFICIENCY

Water Use Efficiency Info and Tools to Assist Retail Water Agencies

The approximately $23 million Emergency Drought Grant Program will provide retail and wholesale water agencies in the Santa Ana River Watershed with funding and tools to ensure water reliability. The tools focus on demand management, customer engagement and compliance with *new water use efficiency legislation* signed by the Governor in May 2018, which will affect your agency.

- *Customized budgets for every customer designed to meet individual needs while encouraging efficiency*
- *Different price levels for indoor, outdoor and inefficient use*
- *Fair treatment for customers based on their need*
- *Long-term financial stability for agencies*

Click on the links below to learn more about the individual components offered to agencies under the Program and how to participate

Water Use Efficiency Legislation

Get information on the two bills signed by the Governor that require retail water agencies to report their usage compared to water budgets.

Customer Parcel Water Budget Tool

Learn about a web-based tool that retail agencies can use to compare customer budgets to billing data.

Aerial Mapping

Discover remote sensing data that measures the amount of irrigated and irrigable vegetation in the watershed.

Conservation-Based Water Rates

Find out about grant funding and technical assistance to evaluate and possibly implement conservation-based rates.

GOVERNANCE & FUNDING

The Project Agreement (PA) 22 Committee was established by the SAWPA Commission on October 17, 2014, to make policy decisions regarding implementation of regional water use efficiency tools that can assist agencies in the Santa Ana River Watershed meet their supply reliability goals.

Paul D. Jones II, *Chair*

General Manager
Eastern Municipal
Water District

Michael R. Markus, *Vice Chair*

General Manager
Orange County
Water District

Halla Razak

General Manager
Inland Empire
Utilities Agency

Douglas Headrick

General Manager
San Bernardino Valley
Municipal Water District

Craig Miller

General Manager
Western Municipal
Water District

The PA 22 Committee meets on the fourth Thursday of every month. Unless otherwise noted, Committee meetings begin at 8 a.m. at SAWPA, 11615 Sterling Avenue, Riverside, CA 92503. Click here to view *agenda packets and minutes* for the PA 22 Committee meetings.

Portions of this water efficiency effort are being funded through local match financed by the SAWPA member agencies and a Department of Water Resources grant provided by the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84, Chapter 2), which is managed through SAWPA's One Water One Watershed process.

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DRAFT

CONSERVATION–BASED WATER RATES

Opportunities to Fund Your Agency's New Rate Structure

Using Emergency Drought Grant Funding (Proposition 84) from the state, SAWPA is able to assist retail agencies in the Santa Ana River Watershed implement a conservation-based water rate structure, also known as budget-based rates.

⚠ **FIRST COME FIRST SERVED**

Partner with SAWPA to:

Reduce the cost of investigating and implementing a conservation-based rate structure.

Utilize technical assistance and public relations documents that answer customer questions on the rate structure.

Access staff contacts and expertise from water agencies throughout the region that have adopted the rate structure.

BENEFITS OF CONSERVATION–BASED RATES

Customer Engagement: Conservation-based rates use price tiers that increase as water use rises. The amount of water in each tier is often calculated using aerial mapping and U.S. Census data to determine the water needs of that customer. With an individualized water budget reflected on their bills, customers are more engaged with their water usage because it reflects realistic and unique water targets.

Fairness: Under conservation-based rates, a customer's bill reflects individualized efficiency-based targets (tiers) which is beneficial to an agency with unique customer needs. The method of calculation of the tiers is the same for all customers in that customer class.

Efficiency: The most efficient customers are rewarded under the tiered pricing. When customers reduce their water use, their bill is lower.

Regulatory Compliance: Although adopting the rate structure is not a requirement to comply with the new state law (AB 1668 and SB 606) enacted in May 2018 requiring water agencies to report their usage against a water budget, it can help an agency that is not in compliance. If an agency is using water beyond the overall agency budget, the rate structure's budget-based tiered pricing can help the customers who are causing the agency to be non-compliant reduce their inefficient water use.

Customer A — Varying Tier Widths — Price per unit — Gallons Used (Thousands)

Customer B — Varying Tier Widths — Additional unit for larger lot size — Price per unit — Gallons Used (Thousands)
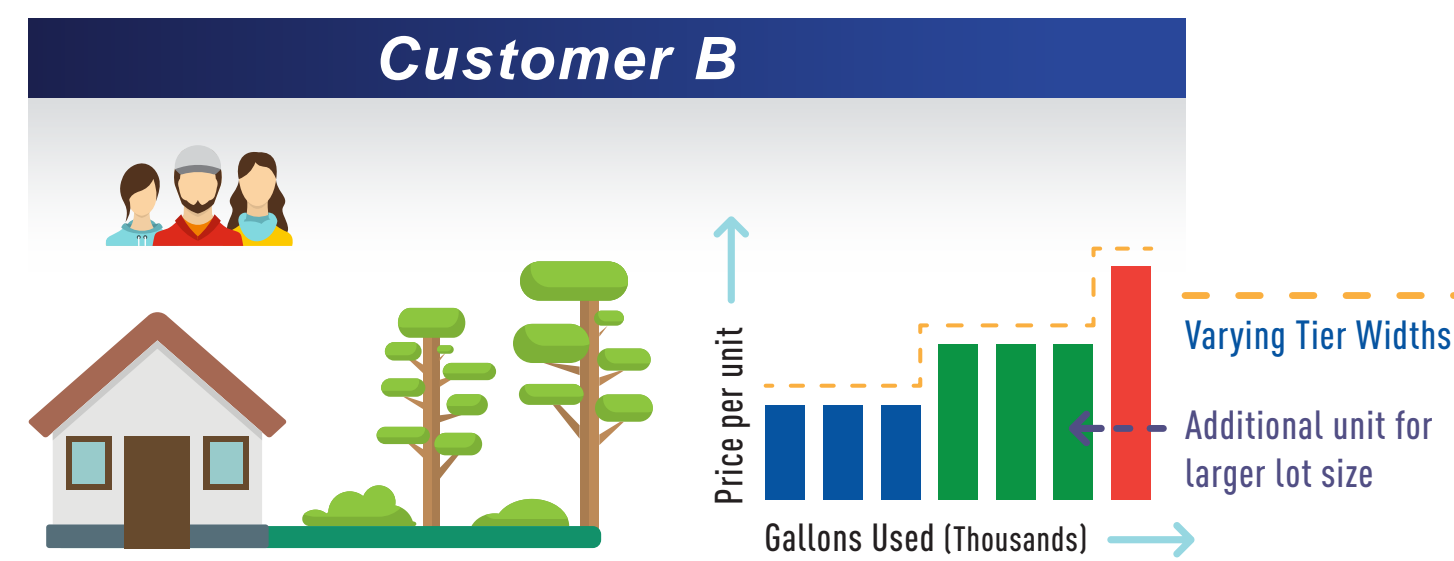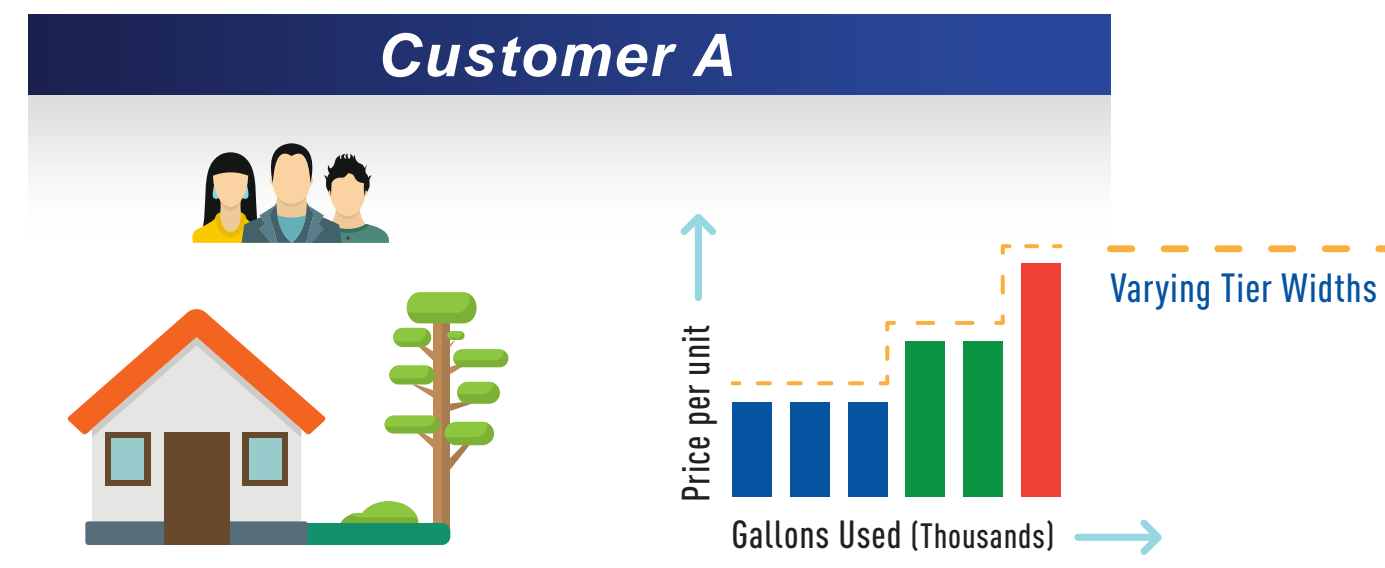
HOW TO SIGN UP

Use the grant to cover the cost of this rate evaluation effort by contacting SAWPA Senior Watershed Manager Ian Achimore at *iachimore@sawpa.org*

For More Information:

» More Information on Conservation-(Budget) Based Rates.

» SAWPA Water Rates Workshop Video – Learn from Other Water Agencies and About the Grant

» How Are Conservation-Based Rates Fair to All Customers?

» How Are Conservation-Based Rates Legally Defensible Considering the San Juan Capistrano Decision?

Home   Contact Us   Website Design by Web Casa Design

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DRAFT

WATER USE EFFICIENCY LEGISLATION

Why SAWPA's Water Use Efficiency Tools Are Necessary

In 2018, the California Legislature enacted two bills – Senate Bill 606 and Assembly Bill 1668 – to establish new regulations for long-term improvements in water use efficiency. These two bills require urban water suppliers* to implement permanent water use reporting and meet agency-wide targets that will be enforceable after 2022.

SAWPA has several tools that can assist agencies located in the Santa Ana River Watershed comply with the new laws. These resources include:
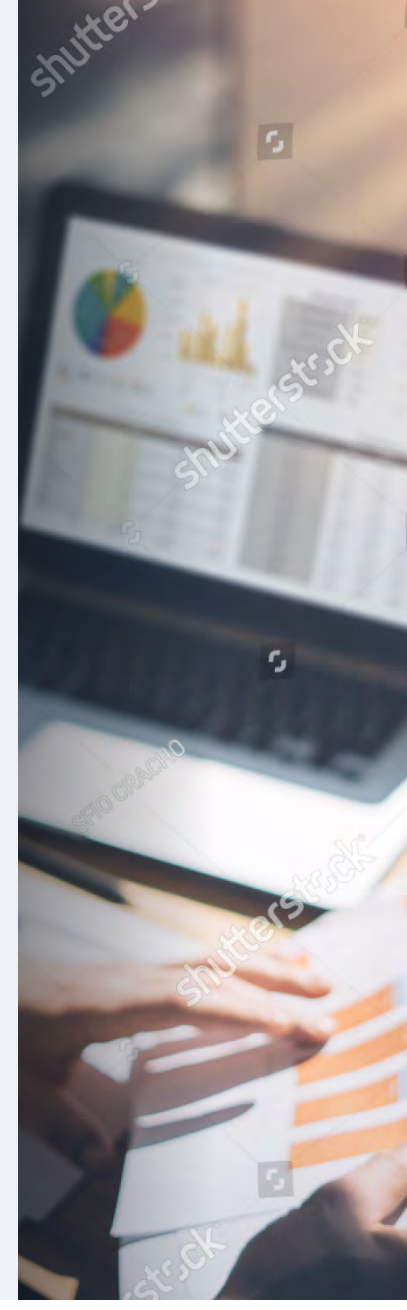
Aerial Mapping: SAWPA can help agencies calculate outdoor water demands in their service areas using 2015 aerial mapping data at 3-inches-per-pixel resolution. To create outdoor water budgets by parcel, the data was analyzed to identify different landscape types such as turf grass, trees, shrubs, and pools.

Customer Parcel Water Budget Tool: This technology allows agencies to analyze outdoor water budgets at the parcel level and compare them to billing data. Because the tool is web-based, aerial mapping data can be accessed without using up storage space on an agency's server.

Matching Customer Meters to Landscape Measurements: SAWPA has partnered with Miller Spatial Services to help agencies digitize the locations of their customers' water meters and assign each meter location to an outdoor water budget. This is being done through GIS software using the 2015 aerial mapping dataset, which identifies different categories of landscape type by parcel.

Conservation-Based Water Rates: SAWPA will utilize state grant funds to assist agencies in the Santa Ana River Watershed with the cost of studying and implementing a conservaton-based water rate structure.

REQUIREMENTS OF SB 606 AND AB 1668

Under the new laws, suppliers' water use will be compared to a target that is calculated using the formula below. The legislation refers to this target as the "urban water use objective." Instead of basing the target on prior use, as was done with the emergency drought regulations in 2015, the formula calculates the volume of water that is needed to efficiently meet the needs of a supplier's customers.

The Urban Water Use Objective formula accounts for local conditions such as population, weather and irrigable area. It is important to have tools that can aggregate this data so the objective and water usage can be reported by water agencies to the State annually.

URBAN WATER USE OBJECTIVE FORMULA

Urban Retail Water Supplier's Urban Water Use Objective [CWC § 10609.20(c)]

Total estimated efficient indoor residential water use

+

Total estimated efficient outdoor residential water use

+

Total estimated efficient irrigation of commercial landscape areas

+

Total estimated efficient water losses

+

Total estimated water use for variances approved by the State Water Board

+

Allowable Bonus Incentive Adjustments [CWC § 10609.20(d)]

Volume of potable reuse water from **EXISTING** facility, not to exceed **15%** of urban water use objective

Volume of potable reuse water from **NEW** facility, not to exceed **10%** of urban water use objective

=

Urban Retail Water Supplier's "adjusted" urban water use objective for annual reporting purposes and comparison to the actual water use in the previous year

ADDITIONAL INFORMATION

State Levied Fines: SB 606 and AB 1668 establish possible fines starting in 2027 for water suppliers that do not meet their objectives. These fines would be levied on the agencies, not individual customers.

State Provided Aerial Imagery: In 2021, the state will provide a 2018 aerial mapping dataset at a resolution of 1-foot-per-pixel that can be used by agencies to calculate their water use objectives. SAWPA can help agencies *match individual water meter geospatial location* data to the aerial mapping data to assign each water meter an outdoor water budget.

Fine-tuning the SAWPA Tools: More work is needed by the state before water suppliers can start reporting against the calculated objectives. For example, some landscape areas are unique to certain parts of California. The state will work with water agencies to develop standards for swimming pools, spas and other features. SAWPA will continue to engage with the state and fine tune any SAWPA-led aerial mapping efforts and the Customer Water Budget Tool as specific standards are developed.

A water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

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PA 22 COMMITTEE MEMORANDUM NO. 2018.29

DATE: October 25, 2018

TO: SAWPA Project Agreement 22 Committee

SUBJECT: Update on Outreach to Department of Water Resources regarding the Recently Adopted Water Use Efficiency Legislation, Assembly Bill 1668 and Senate Bill 606

PREPARED BY: Ian Achimore, Senior Watershed Manager

RECOMMENDATION

Receive and file.

DISCUSSION

At the August 23, 2018 PA 22 Committee meeting, the Committee suggested that SAWPA engage with Peter Brostrom, the Department of Water Resources (DWR) lead for assisting agencies comply with the new water use efficiency regulations related to Assembly Bill 1668 and Senate Bill 606. SAWPA staff met with Peter Brostrom individually on September 7, 2018 and provided the attached presentation to brief him on the recently developed Customer Parcel Water Budget Tool and the 2015 aerial imagery. The Tool was developed with ESRI and allows water managers to view the three inch per pixel resolution aerial imagery online, as opposed to using a desktop GIS software program, as well as the outdoor water budgets. The budgets are available at the retail and parcel level.

Mr. Brostrom appreciated the update and suggested a future partnership that would benefit the Committee and DWR – a study that evaluated the water saving benefits of the Tool.

The scope of the study would include:

SAWPA ensures three retailers use the outdoor budget feature of the Tool and upload their billing data, that includes the volume of water used per customer, every billing cycle to identify the inefficient water users. By involving three retailers DWR would be interested in knowing

1. How many of their customers are over budget,
2. How many of their customers are under budget, and
3. How difficult is it to bring inefficient customers within their budget by providing them water conservation services like outreach, rebates, etc.

Staff is meeting with Mr. Brostrom on October 17th and will have more information for the Committee during the October 25th Committee meeting.

CRITICAL SUCCESS FACTORS

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

RESOURCE IMPACTS
None.

Attachments:
1. September 7, 2018 Presentation to Peter Brostrom
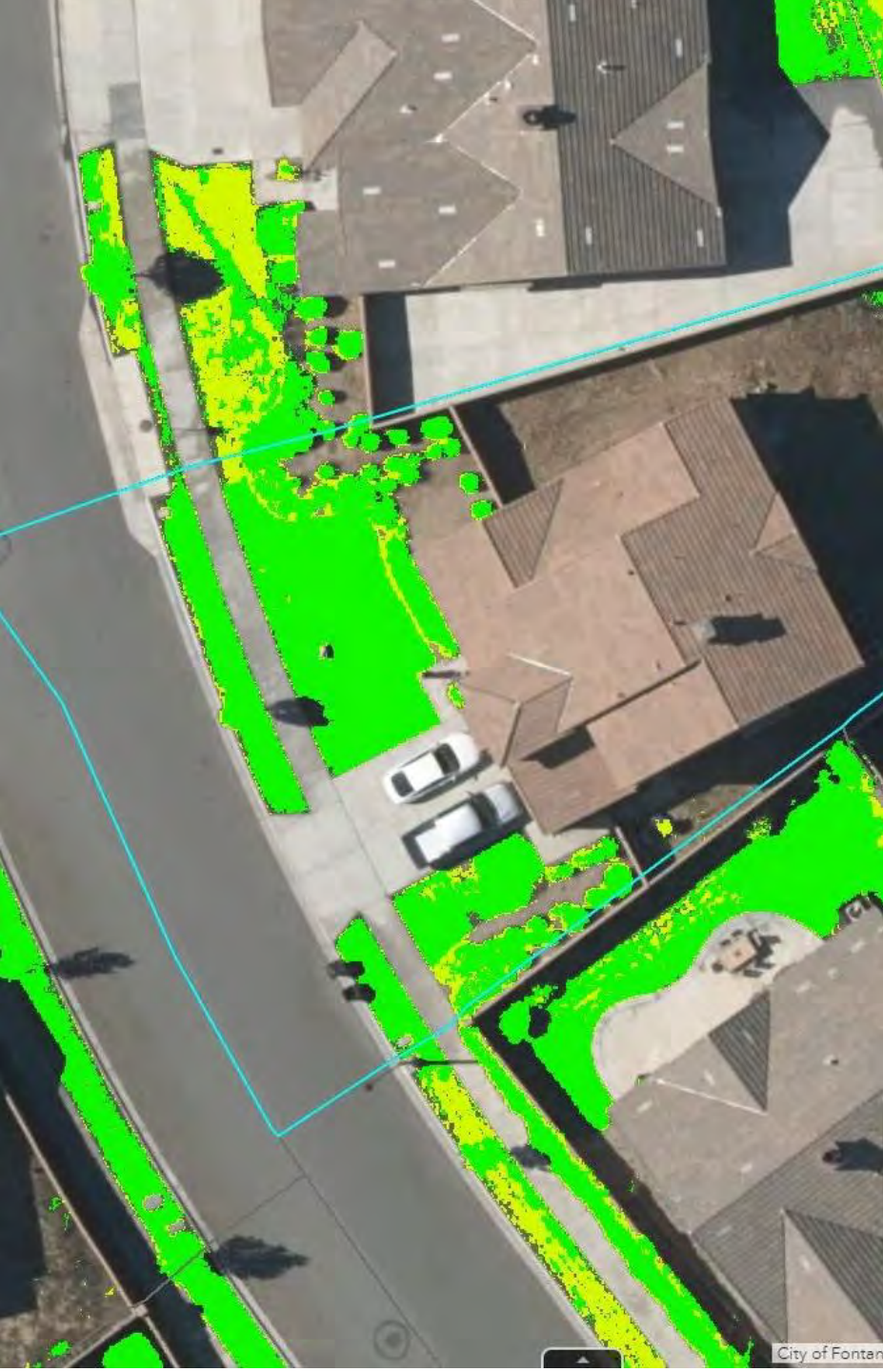
CUSTOMER PARCEL WATER BUDGET TOOL

OUTDOOR BUDGETS FOR PARCELS WITHIN THE SANTA ANA RIVER WATERSHED

SANTA ANA WATERSHED PROJECT AUTHORITY SEPTEMBER 7, 2018

MAPPED AREA

- SAWPA received a Prop 84 grant to map:
  - 2,400 square miles
  - 1.5 Million parcels

- Grant provided funding to develop tools and programs using the aerial imagery
  - Customer Outreach Tool
  - Conservation-Based Water Rates Program
  - **Customer Parcel Water Budget Tool**

Aerial Flight Map

Legend:
- Watershed
- Flight Area

30
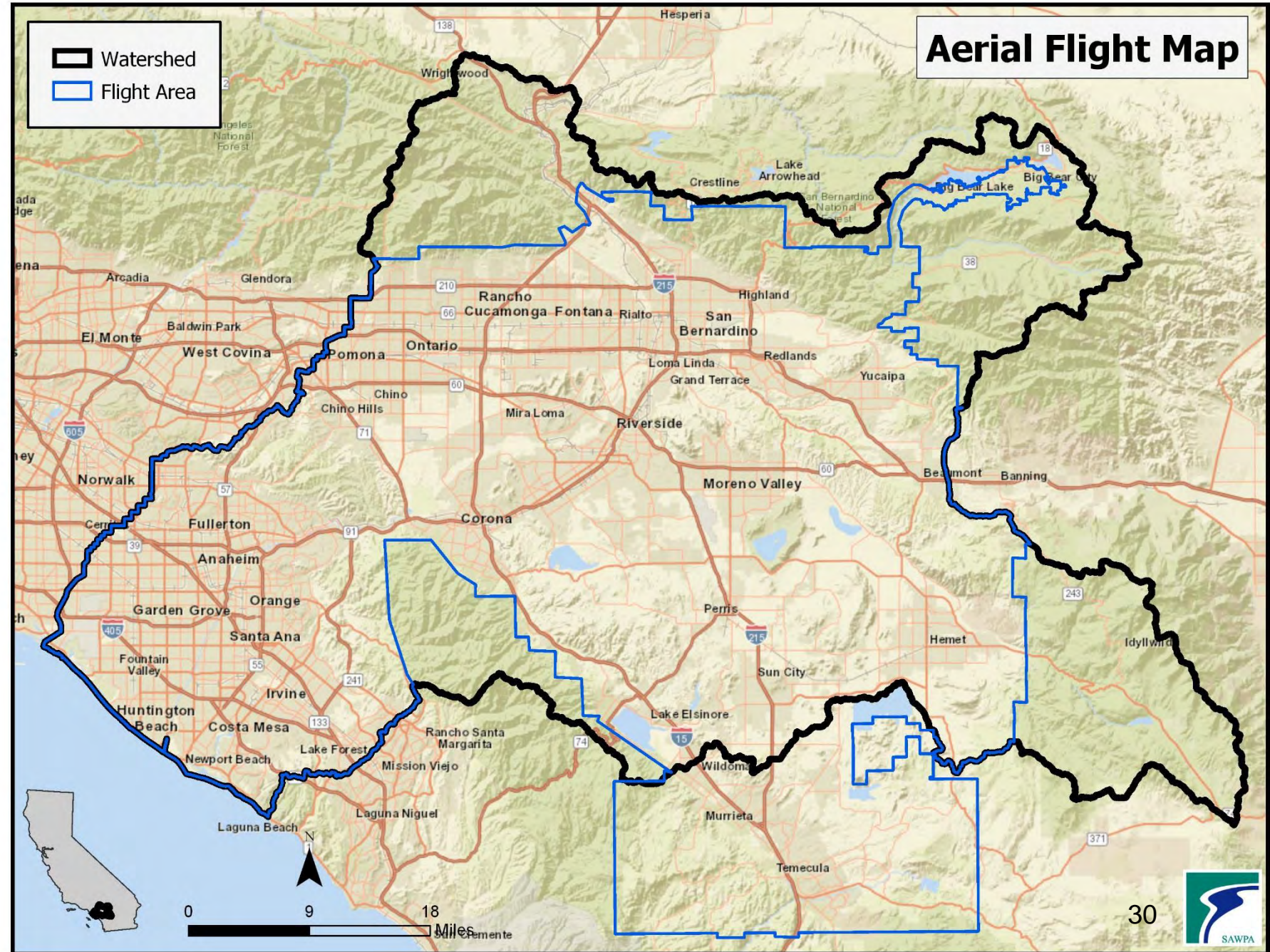
ANALYSIS OF MAPPED AREA

- Erdas Imagine and ESRI GIS software

- 3 inch 4 Band Color Imagery for high accuracy

- 80 approximate spectral classes

- Probability model of landcover

- Probability is summed against the modified parcel area

- Modified parcel area includes parkway and canopy area

- Display Probability Model is colored by range of values

Imagery
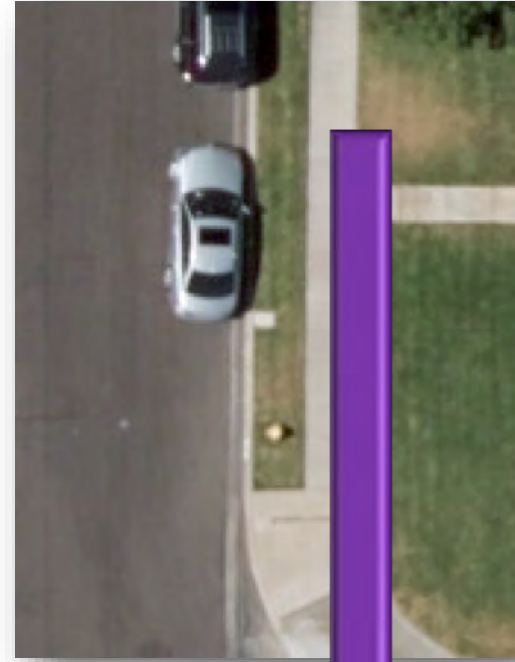
Analysis

ABOUT THE TOOL
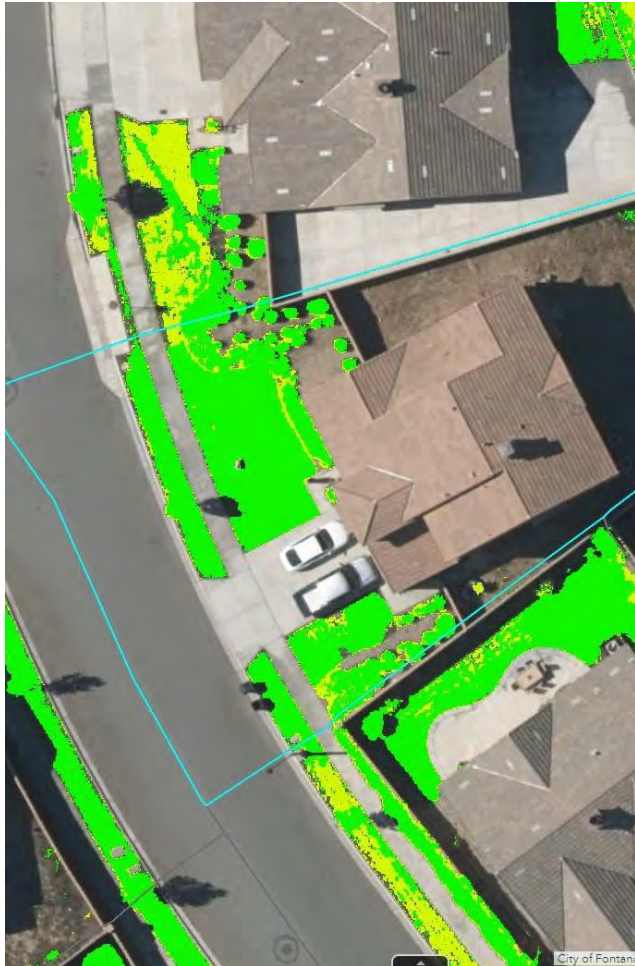
Customer Parcel Water Budget Tool
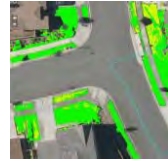
Features / Data

- **Agency boundaries**
- **Parcel boundaries (modified)**
- **Landscape vegetation**
- **Landscape measurements**
- **Outdoor budgets**

Capabilities / Functions

- **Locate by Address/Parcel/Agency**
- **Provides monthly budget for Parcel**
- **Provides agency budget**
- **Prints maps**
- **Exports budget data**
- **Imports billing records**

4

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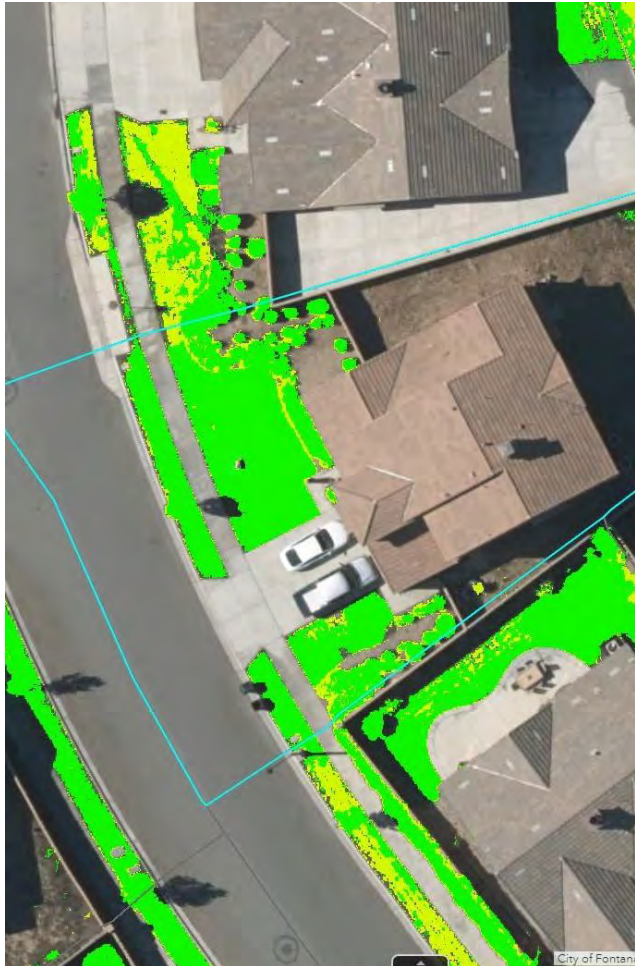
Calculating Outdoor Water Budgets

AREA

WATER NEEDS

Vegetated Area
(in square feet)

✖

Reference
Evapotranspiration
(in inches) *x*
70% *

*Based on Model Water Efficient Landscape Ordinance

HOW THE TOOLS HELPS WATER AGENCIES
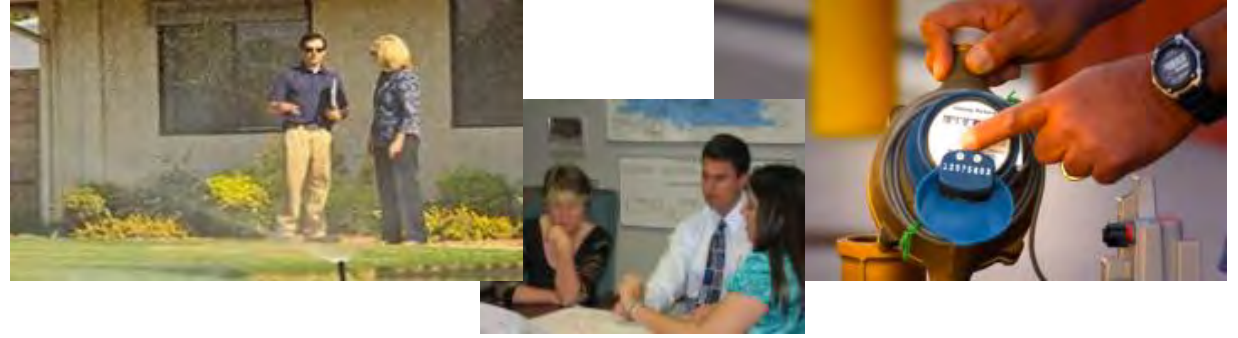
1. Water resource planning and supply/demand forecasts.

2. Complying with regulations that require water agencies to adhere to agency-wide water budgets (per Senate Bill 606 and Assembly Bill 1668).

3. Assisting water agency customers and responding to billing inquiries.

4. Implementing water use efficiency programs, like targeted campaigns, in order to determine inefficient water users.

5. Providing a resource to field staff who perform water audits.

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THE IMPACT OF NEW REGULATIONS
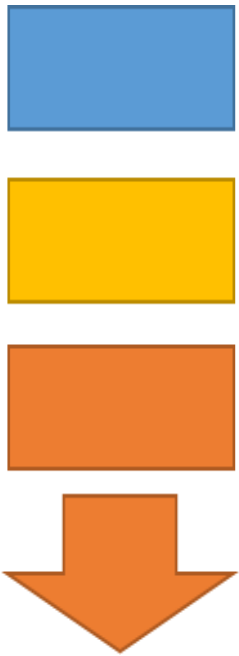
Earliest Date of Action	Water Board Action	Required Remedy or Penalty
Nov 2023	Informational Orders	No action required
Nov 2024	Notices of Failure	May request retailer to address areas of concern in annual report
Nov 2025	Conservation Order	May include measures designed to assist a provider in reaching objective
Nov 2027	Orders and Regulations	May be liable for fines of $1,000 per day and up to $10,000 per day if the violation occurs during emergency drought declaration

Specialty Layers

- *3" Color Imagery*
- *Vegetation Analysis Imagery*
- *Infrared Imagery*
- *Plant Health Imagery (NDVI) -Future*
- *Business Points (NAICS)*
- *Landscape Areas / Outdoor Water Budgets*
  - *Per Parcel*
  - *Per Water Retailer*

Standard Base Map Layers

- *½ Meter Imagery*
- *Topographic*
- *Streets with Building Footprints*

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SPECIALTY VS. STANDARD DATA LAYERS

Specialty Map Layer
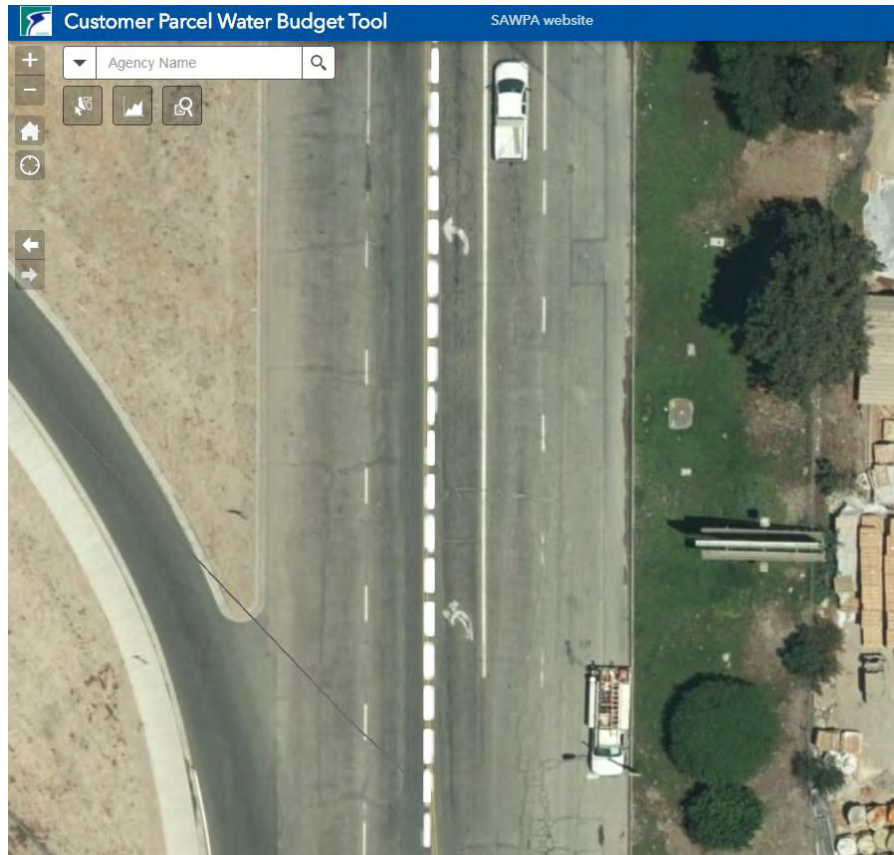
Standard Base Map Layer
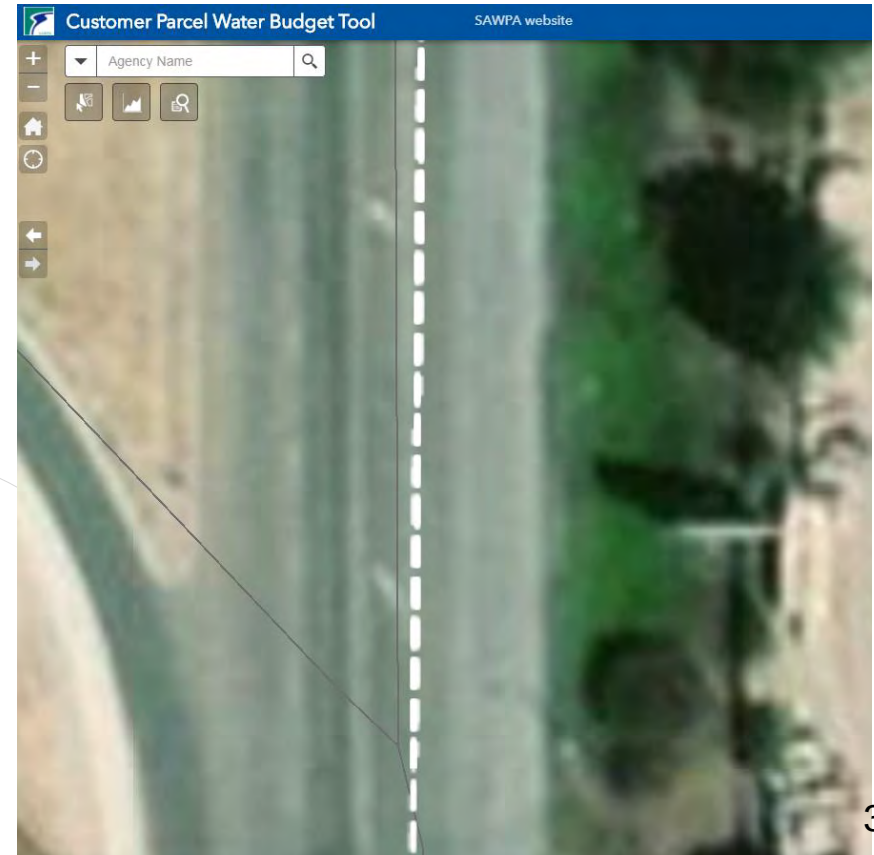
LOCATE CUSTOMERS

In the upper left hand corner of the tool there is a entry location and several search options.

Search by Parcel, Street Address, or Water Agency Name.

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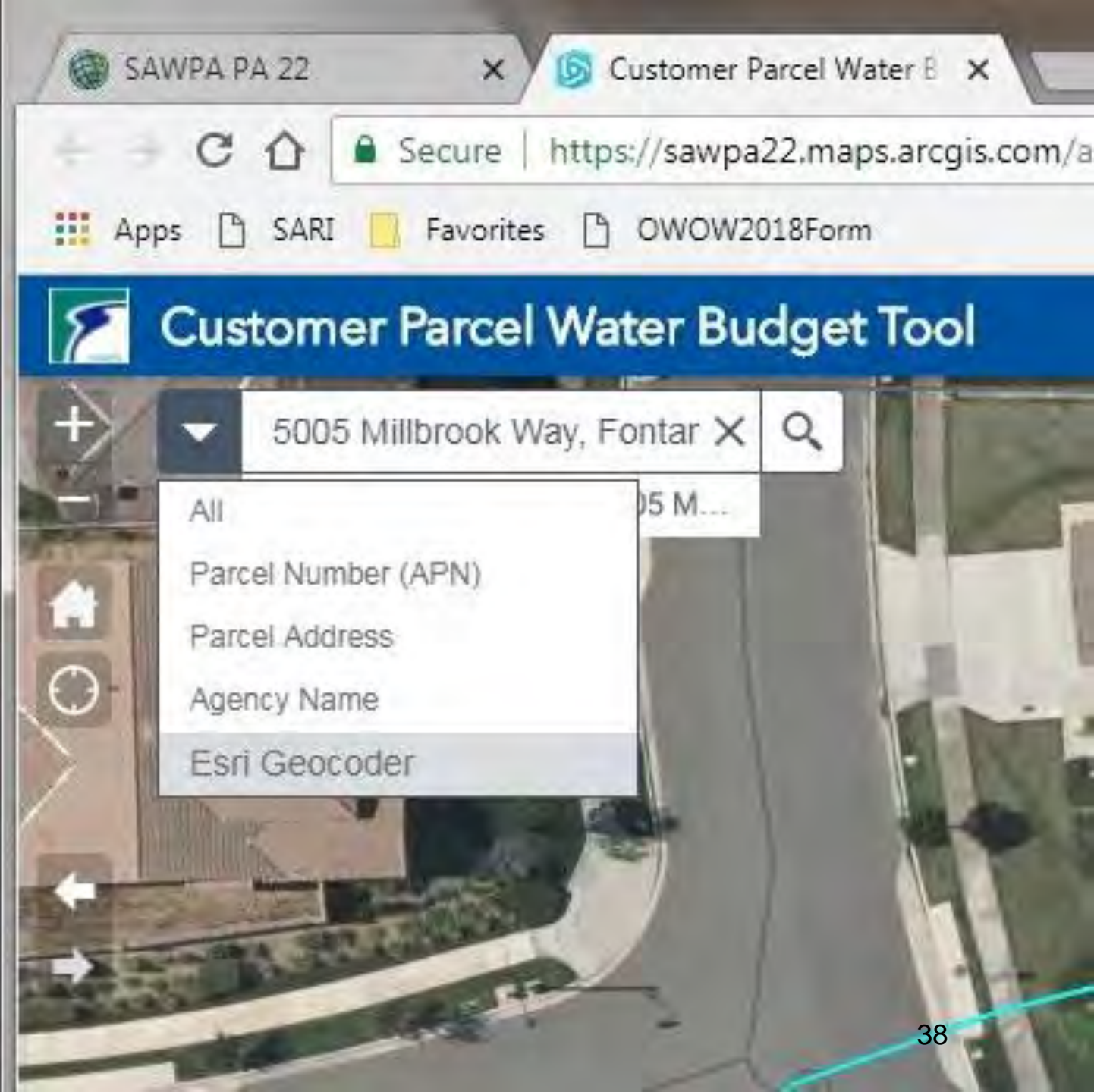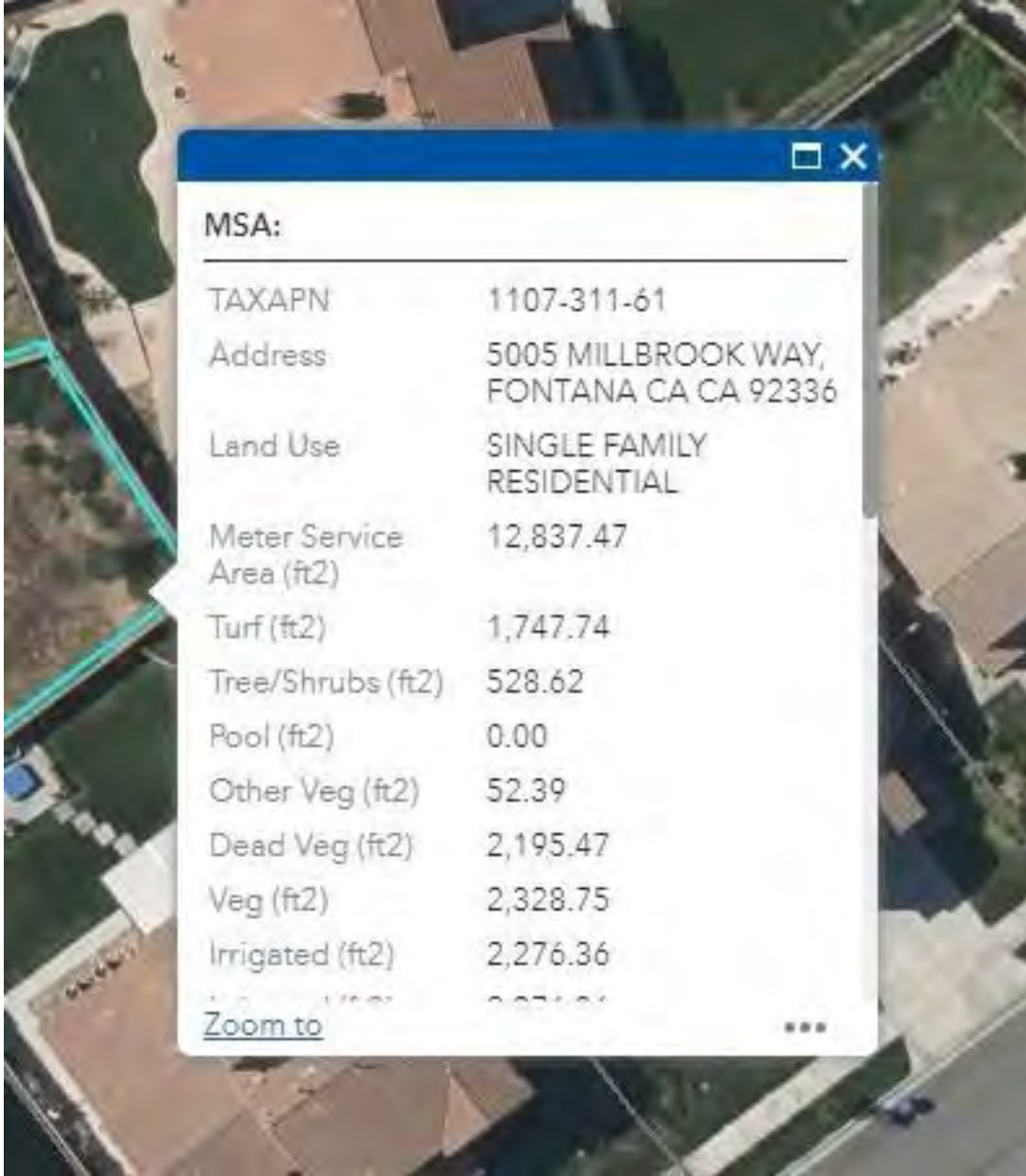
ANALYZE PARCELS

- Click on the customer parcel to access parcel, address, land use, and landscape area (i.e. meter service area) data.

- The landscape area is categorized into turf, tree/shrubs, pool, other vegetation (veg), and dead veg.

- In addition there are other categories such as Veg (All Veg) and Irrigated (Green Veg) as well as the past 12 months of estimated outdoor budgets.

FIND AN AGENCY

Using the location tool with the agency search selected, type in the agency name and there is a roll up of all customer parcel attributes for each agency.

CREATE PRINTABLE MAPS FOR CUSTOMERS AND FIELD STAFF

Customer Location

5005 Millbrook Way
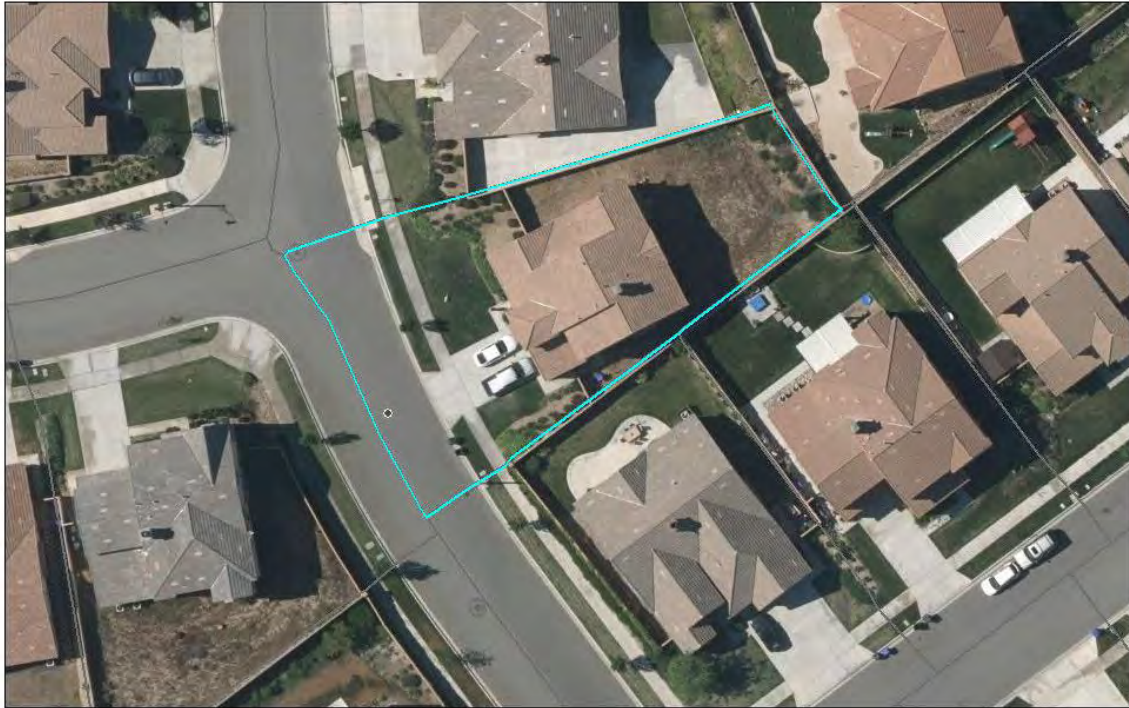
Customer Landscape

5005 Millbrook Way

CREATE CHARTS TO COMMUNICATE WITH CUSTOMERS
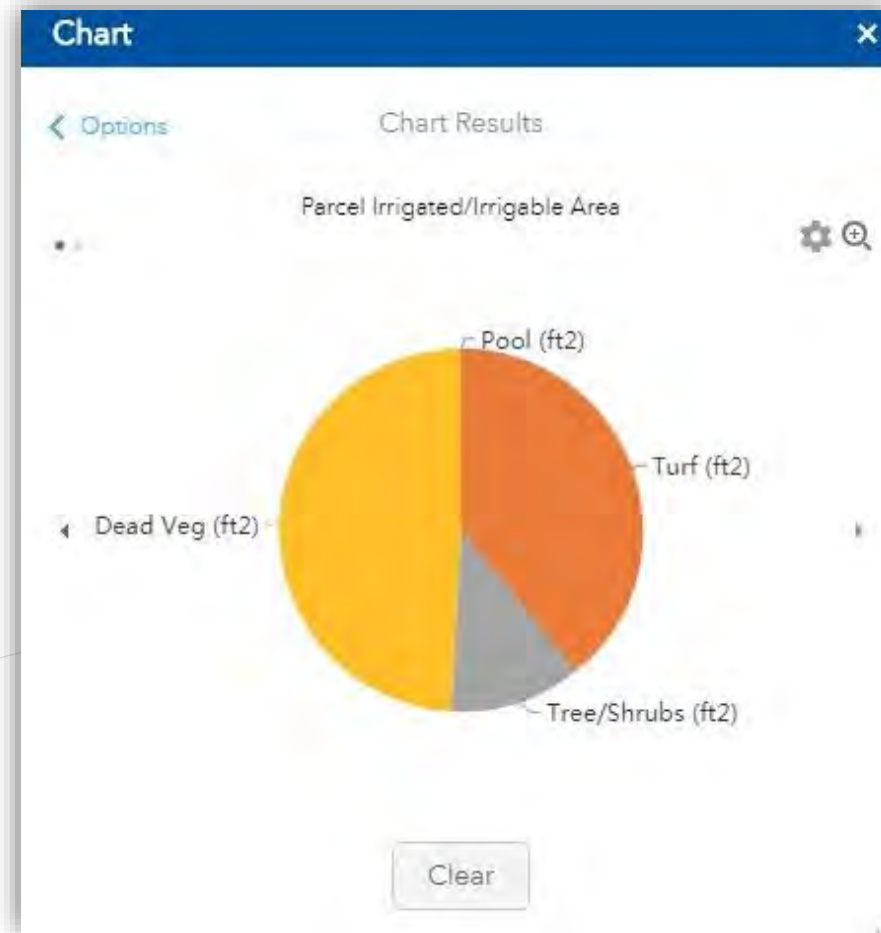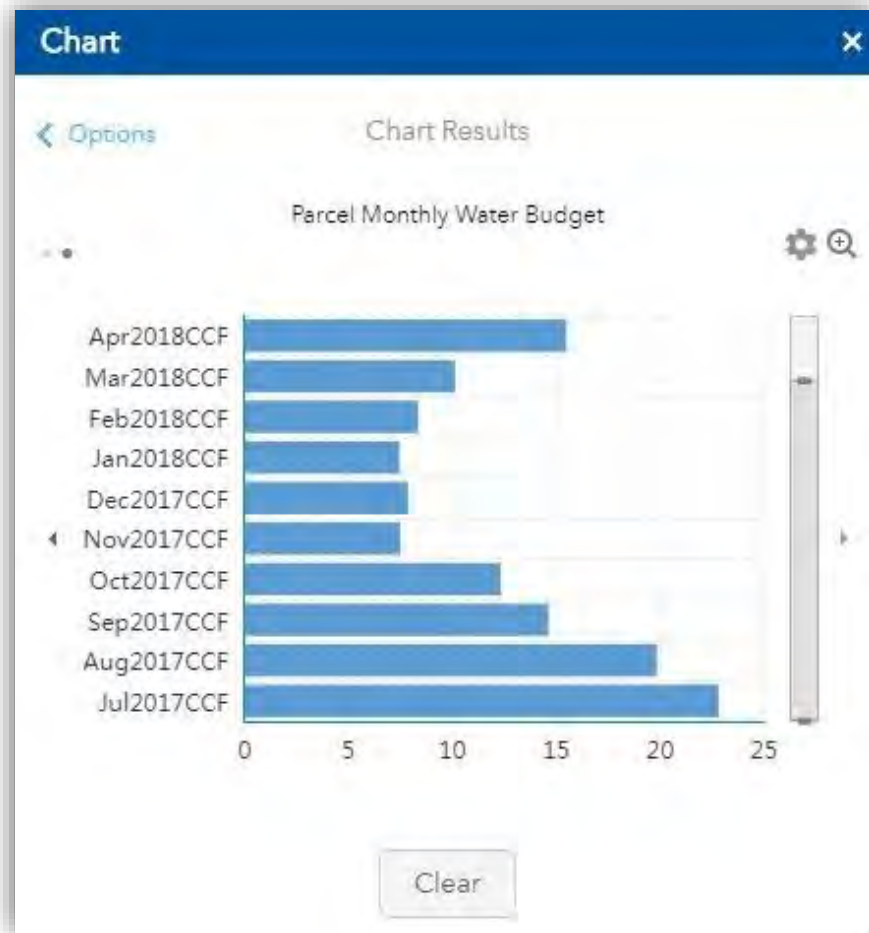
EXPORT DATA IN EXCEL TO RUN VARIOUS ANALYSES

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TOOL ACCESS

ArcGIS

esri

- Tool is an online-based software hosted by Esri (data-stored on Amazon's cloud).

- License to use this tool needed through ArcGIS Online.

- This particular tool not available to members of the public.

- Data uploads and downloads to this tool are "session-based".

California Department of Water Resources (DWR)

FUNDING OF THE TOOL

- Tool is financed by a grant from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84).

- Grant is administered by the Department of Water Resources through an agreement with the Santa Ana Watershed Project Authority.

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● ● ● ●
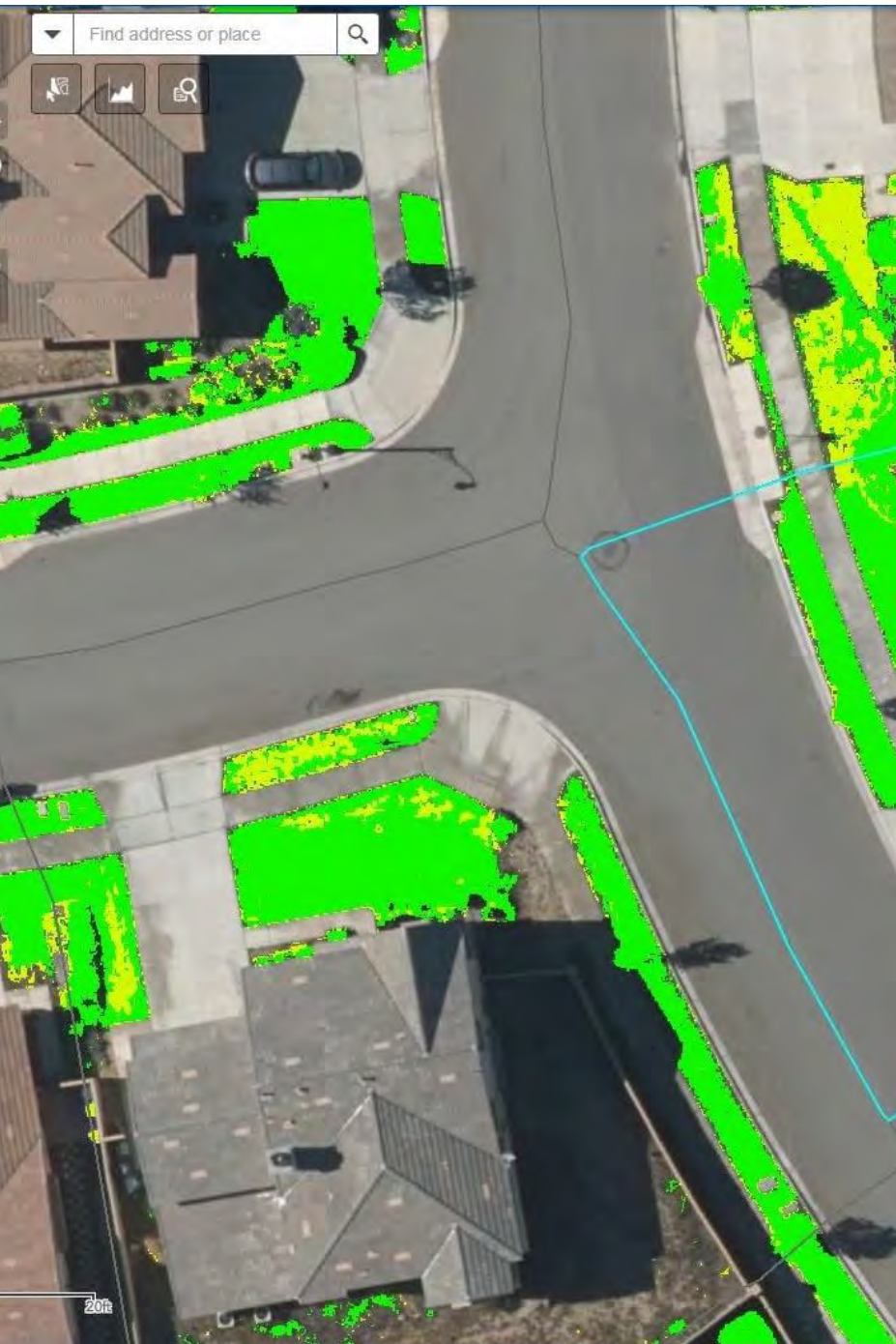
THANK YOU

✉️ **Rick Whetsel, SAWPA Senior Watershed Manager**
rwhetsel@sawpa.org

🔗 **www.sawpa.org**