



Technology Based Information System: Web Based Water Consumption Reporting, Analytics and Customer Engagement Tool

**Status Update: Dropcountr Component** 

PA 22 Committee August 24, 2017



## Update on Dropcountr Component

- SAWPA staff met with OmniEarth and Dropcountr staff to discuss low response by retail agencies in employing the customer outreach tools
- Six of the nine retail agencies that have signed up with Dropcountr have been slow to implement or launch the customer outreach tools
- Concerns/Issues:
  - Timing:
    - Perception that drought is over due to the Wet Winter of 2016
    - No Regulatory Driver
  - Delays
    - Data Quality Issues
    - Staff/Board Turnover
    - Disconnect between Departments





## Project Highlights

SAWPA has brought onboard the team of Dropcountr and OmniEarth to implement a comprehensive solution to assist retail agencies in the Santa Ana River Watershed in meeting mandated water conservation targets.

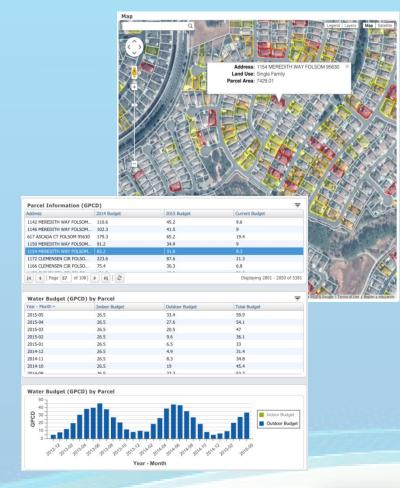
- Cutting edge software
- Efficiency-based approach
- Precise water budgets
- Targets wasteful users
- Customized messaging
- Training for retail agency staff
- Reporting on water savings benefits achieved





### **OmniEarth Tools**

- Efficiency Based Indoor & Outdoor
  Water Budgets by Parcel for the entire
  Santa Ana River watershed and portions
  of the Upper Santa Margarita watershed
  that covers, RCWD, EMWD and WMWD
  service areas.
- Agency Dashboards
  - Sq. Footage of Irrigated Area by Parcel
  - Automatic identification of difference between budget and actual usage
  - Inefficient User Identification
  - Tracking Metrics for State Reporting
- Training and Support





## **Dropcountr Tools**

#### Agency Dashboards

- Meter Data Management Platform
- Customer Information System
- Map and List View of ALL Residential Customers
- Sort, Filter, Report, Analyze
- Leak Alerts
- Data Export
- Customer Engagement via 'Push-Notification' and Email
- ID Most Inefficient Users

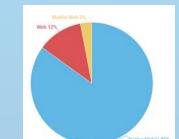
### Consumer Mobile Application

- 25% of customer base will gain access to mobile and web platform
- iOS and Android Applications
- Web Based Platform

#### Paper Outreach

- 10% Customer base will receive paper outreach
- 1 Postcard
- 1 personalized Monthly Water Report
- Training and Support







## Next Steps:

- SAWPA Staff is scheduling individual meetings with retail agencies to discuss.
- Staff will work with these retail agencies to get them reengage in the process.
- Staff will work with the project consultants
   OmniEarth and Dropcountr for any customization of
   project tools to address the specific needs of the
   retail agencies.
- Staff is confident that there is sufficient time within the project window to complete the project and achieve the required project benefits.





## Questions?



## Project Budget

Available Grant Funding	\$ 1,735,000				
Grant Expenditures (projected)					
Water Retailer		Oı	nniEarth	Dı	opcountr
FULLERTON, CITY OF	\$ 43,101	\$	9,966	\$	33,135
WEST VALLEY WATER DISTRICT	\$ 36,572	\$	10,104	\$	26,468
LOMA LINDA, CITY OF	\$ 20,639	\$	6,679	\$	13,960
TUSTIN, CITY OF	\$ 27,729	\$	7,717	\$	20,013
EASTERN MUNICIPAL WATER DISTRICT	\$ 149,545	\$	25,543	\$	124,002
RIALTO, CITY OF	\$ 27,032	\$	7,614	\$	19,418
BREA, CITY OF	\$ 30,350	\$	8,100	\$	22,250
YORBA LINDA WATER DISTRICT	\$ 39,196	\$	9,395	\$	29,801
ONTARIO, CITY OF	\$ 43,153	\$	9,592		na
MONTE VISTA WATER DISTRICT	\$ 26,517	\$	7,819	\$	18,698
NEWPORT BEACH, CITY OF	\$ 41,625	\$	9,750		na
Sub-total (projected):	\$ 420,023	\$	112,279	\$	307,744
Other Expenditures under Task Order					
Watershed Budgets	\$ 525,000				
Dashboards	\$ 1,000				
Outreach Workshops & Toolset Training	\$ 15,000				
Sub-total:	\$ 541,000				
Total Grant Expenditures (projected):	\$ 961,023				
Remaining Task Order Funding:	\$ 538,977				
Unallocated Grant Funding:	\$ 235,000				
IEUA Grant Funding Request:	\$ 50,000				
Remaining Grant Funding:	\$ 723,977				



## Retail Water Agency Meter Geocoding & Business Type Classification Program

## Background – April 2017

State releases its final report titled, Making Water Conservation a California Way of Life, Implementing Executive Order B-38-16. The report outlines three recommended performance measures on Commercial, Industrial, and Institional (CII) accounts

## Background April 2017 continued

- Convert all landscapes over a specified size threshold that are served by mixed meter CII account to dedicated irrigation accounts
- Classify CII accounts using North American Industry Classification System (NAICS)
- Conduct water use audits or prepare water management plans for CII accounts over specified size, volume or percentage threshold

## Background – June 2017

- JUNE 2017 PA 22 Committee Authorizes SAWPA staff to issue RFP looking for firms to do the following:
  - Provide Comprehensive Water Meter Geocoding Services
  - Perform NAICS classifications on CII accounts
  - Identify mixed meter CII accounts

## Selection Process

- Two Firms responded
  - AESC
  - Miller Spatial
- Review and Interviews by committee
- Miller Spatial selected for experience and cost

## Work Plan

- Kickoff Meeting
- Individual Agency Meeting
- Geocoding Process
- Quality Assurance Reports
  - Record Counts
- Deliverables
  - Business Point Shape File with Account Attributes

# Geocoding Process – MSA to Accounts

Parcels with Meter Service Areas (MSA) and Vegetation measurements



Agency
Accounts
including
Account type
and Addresses



Agency Accounts with Lat Long Location and Vegetation measurements

# Geocoding Process – NAICS Matching

Agency CII
Accounts
including GPS
Locations, Veg
Calcs, Business
Names and
Addresses



Business Point
Data with
Business Names,
NAICS codes
and Address



Agency Business
Points and
records with
NAICS codes,
GPS Locations,
and Veg Calcs

## CII Matched Accounts



## Interested Agencies

City of Brea
City of Buena Park
Eastern Municipal Water District
Fontana Water Company
Golden State Water Company
City of La Habra
City of La Palma

Monte Vista Water District
City of Orange
Rancho California Water District
City of Seal Beach
City of Tustin
City of Westminster
Western Municipal Water District
Yorba Linda Water District

## Miller Spatial Estimaded Costs

	. /		
Item	Count	Cost	Total
Agency Setup - \$1000 to \$5000	15	\$4000	\$60,000
Business Point Database - Watershed	1	\$30,000	\$30,000
Geocoding – Per meter type and count Includes NAICS codes on CII meters	*	*	\$200,000
ESRI ArcGIS Online license	15	\$500	\$7,500
Estimated Costs:			\$297,500

## Recommendation

The Conservation Advisory Workgroup and SAWPA staff recommends that the Project Agreement (PA) 22 Committee authorize Task Order No. MSS504-301-01 with Miller Spatial Inc. 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 Watershed.



## Background - Projects in **Grant Agreement**

Project 1: Conservation Based Reporting Tools and



**Rate Structure Implementation** 

Project 2: High Visibility Turf Removal and Retrofit









## Background - Funding **Areas in Grant Agreement**





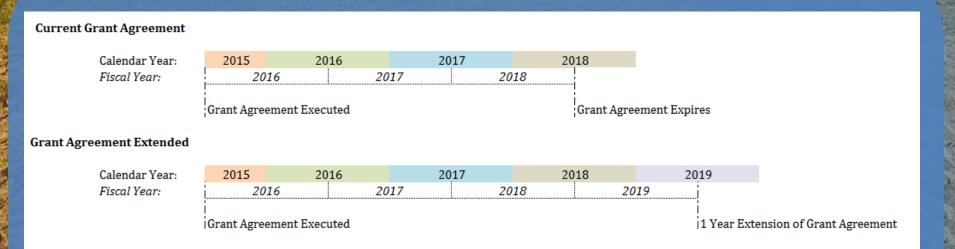
## Background - Definition of Budget Category

Budget category refers to the funding classification used for DWR's IRWM grants. DWR normally utilizes four budget categories. Grantees are able to transfer funding within budget categories (such as between tasks) without an grant agreement amendment, but a transfer between budget categories requires an official amendment.

Budget Category	Budget Category Name
Α	Project Administration
В	Land Purchase
С	Planning
D	Construction



## Summary of Amendment - Schedule



### Additional time necessary to implement:

Water Rates, Tech Tool and Executive Order, and Turf components



### Summary of Amendment - Funding

The shifting of approximately \$1,470,000 (the total of the \$1,150,000 and \$320,000) within the Proposition 84 IRWM Drought Grant agreement would provide further benefits such as

- Turf removal and associated water savings to the region,
- Fully utilize the cost savings from implementation of the Emergency Drought Grant Program, and
- Stay within the current grant authority of \$12,860,110 as shown in Table 7.

#### Notes:

\$1,150,000 related to turf implementation \$320,000 related to project management.



## Budget Change to Include in Proposed Amendment

#### Table 7.

Prop 84 IRWM Drought Grant Agreement Budget
Before and After Proposed Amendment

Budget Category	Project 1 Current Budget	Project 1 Amended Budget	Delta
Α	\$875,000	\$1,194,852	+\$319,853
В	\$0	0	0
С	\$50,000	\$50,000	0
D	\$6,662,610	\$5,190,824	-\$1,471,786
Total	\$7,587,610	\$6,435,676	-\$1,151,934

Budget Category	Project 2 Current Budget	Project 2 Amended Budget	Delta
Α	\$0	\$0	\$0
В	\$0	\$0	\$0
С	\$0	\$0	\$0
D	\$5,272,500	\$6,424,434	+\$1,151,934
Total	\$5,272,500	\$6,424,434	+\$1,151,934

Grant Authority (Total Project 1 + \$12,860,110 \$12,860,110 \$0 Total Project 2)	)
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Cost savings moved within Project 1 (D to A)



Cost savings in Project 1 (D) moved to Project 2 (D)



## Participating Agency Funding Requests

Table 1.							
Red	Requests from Turf Participating Agencies						
Participating	Participating Additional Funding Provided Associated Square						
Agency	by Grant's Cost Savings	Feet of Turf Removed					
EMWD	\$598,329	448,170					
IEUA	340,000						
OCWD/MWDOC	\$0	0					
RCWD	\$0	0					
SBVMWD	\$0	0					
WMWD	\$130,000	369,125					
Total	\$1,068,329	1,157,295					

Important Note: The importance of gathering the list of turf removal projects and their associated costs from the participating agencies is that the projects would be able to utilize the cost savings from Project 1 of the Emergency Drought Grant Program.



### **Waiver of Policy Statement**

The IRWMP grant and local matching funds will be provided to individual landscape retrofit projects on properties owned and maintained by a homeowner association, institution or public agency, whereby each individual property can receive no more than \$250,000 in IRWMP grant funds per the policy statement issued by the Committee.

EMWD - West Valley High School rebate provided by grant: \$281,000





## **Projected Spending**

## Table 2. Projected Spending

Item	Projected Spending Item	<b>Grant Funding</b>	Budget Category	Project
a.	EMWD	\$598,329	D	2
b.	IEUA	\$340,000	D	2
C.	WMWD	\$130,000	D	2
d.	First Come/First Serve Turf	\$83,605	D	2
e.	Remaining Grant in Turf Sub-Grantee Agreements	\$3,388,728	D	2
f.	Additional Rate Funding	\$15,000	D	1
g.	Remaining Grant in Rates Project	\$1,517,561	D	1
h.	OmniEarth Tool	\$330,000	D	1
i.	ESRI Mapping Tool	\$115,000	D	1
j.	Geo/Business Coding Program	\$350,000	D	1
k.	Project Management (Grant & PA 22)	\$542,346	Α	1
l.	Project Management (Implementation)	\$241,047	D	1
m.	Additional Project Management (Grant & PA 22)	\$40,000	Α	1
n.	Additional Project Management (Implementation)	\$45,000	D	1
0.	Sub-Total Project 1	\$3,195,954	A and D	1
p.	Sub-Total Project 2	\$4,540,662	D	2
q.	Grand Total	\$7,736,616	A and D	1 and 2



### **Items for Feedback**

1	Table 2.						
	Projected Spending						
A CONTRACT OF	Item	Projected Spending Item	Grant Funding	Budget Category	Project		
	d.	First Come/First Serve Turf	\$83,605	D	2		
1	f.	Additional Rate Funding	\$15,000	D	1		

"First come/first serve" amount of grant funding for turf projects could serve as a method to incentivize the participating agencies to compete for the remaining grant funds beyond those itemized in the turf funding table (Table 1).

An alternative method includes allocating the funding to each of the agencies, but with their current demand for grant funding already accounted for in Table 1, a set-aside may not serve as the strongest incentive to complete the Emergency Drought Grant Program by December 2018.



### **Items for Feedback**

	Table 2.					
Projected Spending						
Item	Projected Spending Item	Grant Funding	Budget Category	Project		
d.	First Come/First Serve Turf	\$83,605	D	2		
f.	Additional Rate Funding	\$15,000	D	1		

An allocation of funding could be provided to the seven conservation-based water rate agencies on a first come/first serve basis if they adopt the rate structure. This could serve as a method to incentivize agencies to not only adopt their rate structure, but also complete their rate study as quickly as possible to secure remaining grant funding.



## Budget Change to Include in Proposed Amendment

#### Table 7.

Prop 84 IRWM Drought Grant Agreement Budget
Before and After Proposed Amendment

Budget Category	Project 1 Current Budget	Project 1 Amended Budget	Delta
Α	\$875,000	\$1,194,852	+\$319,853
В	\$0	0	0
С	\$50,000	\$50,000	0
D	\$6,662,610	\$5,190,824	-\$1,471,786
Total	\$7,587,610	\$6,435,676	-\$1,151,934

Budget Category	Project 2 Current Budget	Project 2 Amended Budget	Delta
Α	\$0	\$0	\$0
В	\$0	\$0	\$0
С	\$0	\$0	\$0
D	\$5,272,500	\$6,424,434	+\$1,151,934
Total	\$5,272,500	\$6,424,434	+\$1,151,934

Grant Authority (Total Project 1 + \$12,860,110 Total Project 2)	\$12,860,110	\$0
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Cost savings moved within Project 1 (D to A)



Cost savings in Project 1 (D) moved to Project 2 (D)



### Recommendation

- Approve the execution of an amendment to the Proposition 84
   Integrated Regional Water Management Drought Grant
   Agreement to include changes such as:
  - A. Shifting approximately \$1,150,000 in Emergency Drought Grant Program cost savings from Project 1 to Project 2.
  - B. Shifting approximately \$320,000 in cost savings within Project 1 from Budget Category D to Budget Category A.
- 2. Authorize SAWPA to execute sub-grantee agreement amendments to add the Emergency Drought Grant Program's cost savings to the current funding amounts in the agreements.
- 3. Waive Policy Statement No. 1 the projects scheduled to receive a rebate partially over the \$250,000 per project ceiling.
- 4. Provide feedback on the projected spending items first come/first serve for turf and rates.

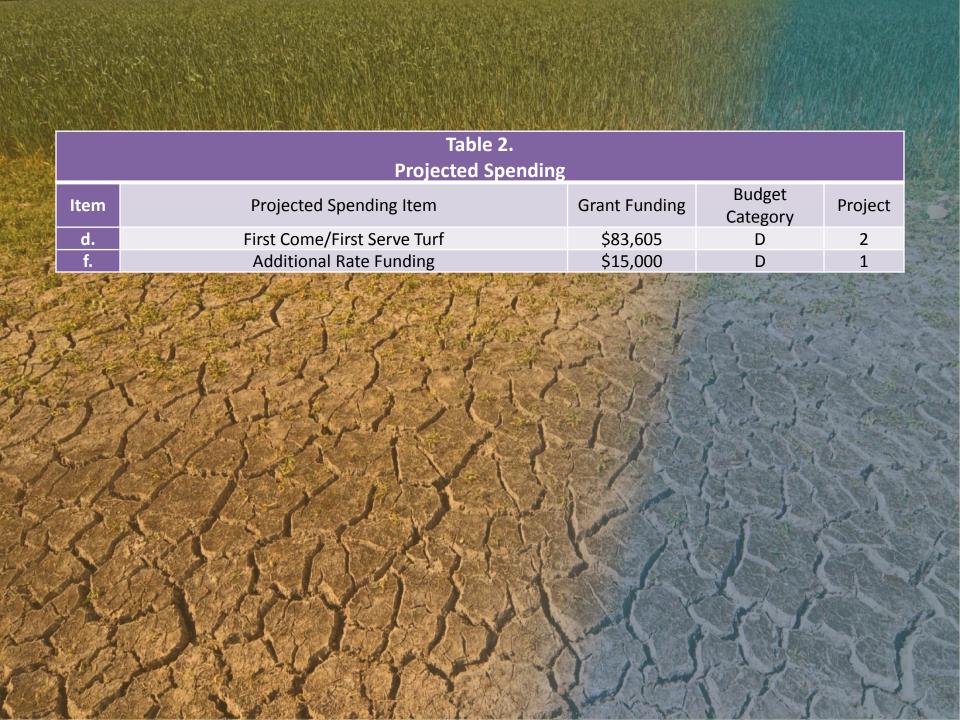












## Supporting Material



## DWR Grant Perspective:

Before and After Grant Agreement Amendment



### **Current Budget: Project 1**

Table 3.

Project 1: Conservation Based Reporting Tools and Rate Structure Implementation

a.	b.	C.	d.	e.	f.
			(b c.)		(b c e.)
Budget	Grant Budget	Actual Grant	Remaining	Projected Grant	Remaining
Category		Spending	Grant Funding	Spending	Grant Funding
А	\$875,000	\$612,506	\$262,493	\$582,346	-\$319,853
В	\$0	\$0	\$0	\$0	\$0
С	\$50,000	\$50,000	\$0	\$0	\$0
D	\$6,662,610	\$2,577,215	\$4,085,394	\$2,613,608	\$1,471,786
Totals	\$7,587,610	\$3,239,723	\$4,347,887	\$3,195,954	\$1,151,934

**Funds Moved Within Project 1** 



**Moved to Project 2** 





## **Amended Budget: Project 1**

Table 5. Project 1: Conservation Based Reporting Tools and Rate Structure Implementation					
a.	b.	C.	d.	e.	f.
Budget	Grant Budget	Actual Grant	(b. – c.) Remaining Grant	Projected Grant	(b. – c. – e.) Remaining
Category		Spending	Funding	Spending	Grant Funding
Α	\$1,194,852	\$612,506	\$582,345	\$582,345	\$0
В	\$0	\$0	\$0	\$0	\$0
С	\$50,000	\$50,000	\$0	\$0	\$0
D	\$5,190,824	\$2,577,216	\$2,613,608	\$2,613,608	\$0
Tota/	\$6,435,676	\$3,239,723	\$3,195,953	\$3,195,953	\$0

**Funds Moved to Project 2** 



**Funds Moved Within Project 1** 









## **Current Budget: Project 2**

Table 4. Project 2: High Visibility Turf Removal and Retrofit Project					
a.	b.	c. d. e. f. (b c e.			
Budget Category	Grant Budget	Actual Grant Spending	Remaining Grant Funding	Projected Grant Spending	Remaining Grant Funding
Α	\$0	\$0	\$0	\$0	\$0
В	\$0	\$0	\$0	\$0	\$0
С	<b>\$0</b>	\$0	\$0	\$0	\$0
D	\$5,272,500	\$1,883,772	\$3,388,728	\$3,388,728	\$0
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a.

**Budget** 

Category

**Totals** 

### **Amended Budget: Project 2**

Table 6.

Project 2: High Visibility Turf Removal and Retrofit Project					
b.	C.	d.	e.	f.	
		(b c.)		(b. − c. − e.)	
<b>Grant Budget</b>	Actual Grant	Remaining	Projected Grant	Remaining	
	Spending	Grant Funding	Spending	Grant Funding	
\$0	\$0	\$0	\$0	\$0	

\$0

\$0

\$4,450,662

\$4,450,662

\$0

\$0

\$4,450,662

\$4,450,662

\$0

\$0

\$0 **\$0** 

Funds Moved From Project 1

\$0

\$0

\$1,883,772

\$1,883,772

\$0

\$0

\$6,424,434

\$6,424,434

## Supporting Material

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Source of Funds

Grant – SAWPA Implementation

Grant – Pass Through to SARCCUP

Agencies **Total** 

Use of Funds – SAWPA Implementation	Funding
Labor	\$109,479
Benefits	\$47,824
Indirect Costs	\$154,453
Program Expenses	\$953,927
Total	\$1,265,683
Use of Funds – Pass Through	Funding
Reimbursement to Agencies	\$4,133,341
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Source of Funds	Funding
Grant – SAWPA Implementation	\$1,182,042
Grant – Pass Through to Agencies	\$100,000
Total	\$1,282,042
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Use of Funds – SAWPA Implementation	Funding
Labor	\$81,866
Benefits	\$35,772
Indirect Costs	\$115,478
Program Expenses	\$948,927
Total	\$1,182,043
Use of Funds - Doss Through	Funding
Use of Funds – Pass Through	Funding
Reimbursement to Agencies	\$100,000

Funding

\$1,265,683

\$4,133,341

\$5,399,024

FYE 2019







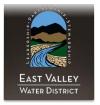
















MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

































Individual Projects	Square Feet of Turf Removed	Grant	Match	Total
Project 1	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 2	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 3	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 4	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 5	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 6	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 7	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 8	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 9	1	\$ 0.75	\$ 1.00	\$ 1.75
Project 10	1	\$ 1.00	\$ 1.00	\$ 2.00
Project 11	1	\$ 2.00	\$ -	\$ 2.00
Project 12	1	\$ 2.00	\$ -	\$ 2.00
Total	12	\$ 11.75	\$ 10.00	\$ 21.75



Programmatically – Ratio for \$/SF is \$0.98/1SF \$11.75/12SF