

# This presentation premiered at WaterSmart Innovations

[watersmartinnovations.com](http://watersmartinnovations.com)





**WATERVIEW**  
By Eagle Aerial Solutions



**EAGLE AERIAL  
SOLUTIONS**



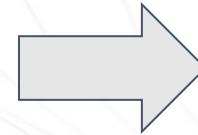
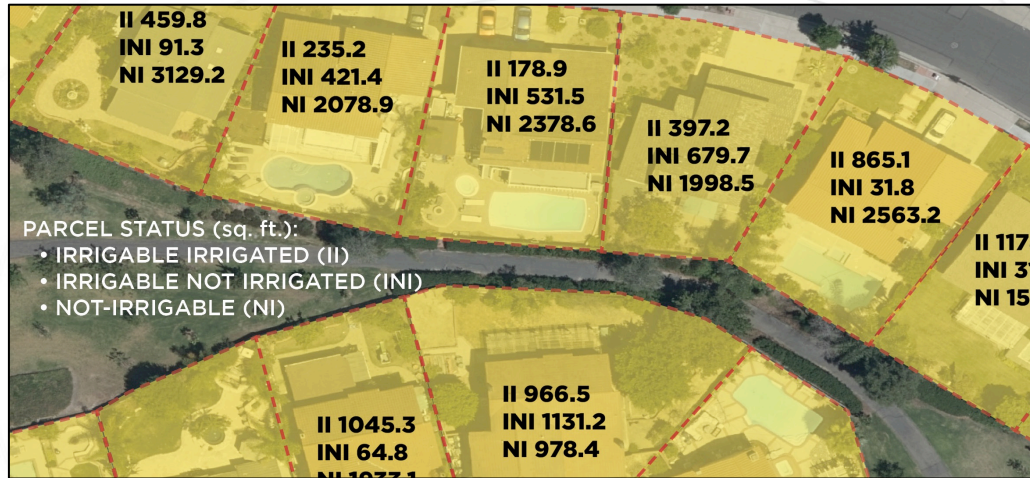
# SB606 & AB1668 Landscape Area Measurement (LAM) Project

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# IDENTIFIED A NEED

FOR ALL URBAN WATER SUPPLIERS



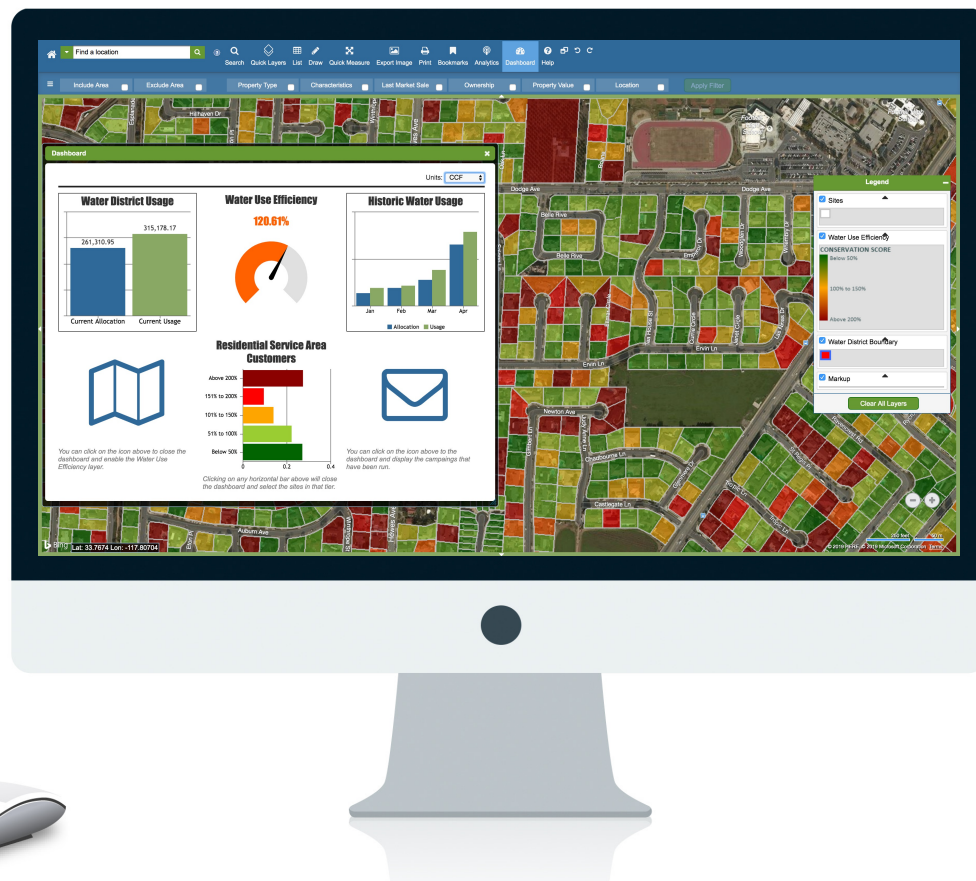
IF THE GOAL IS:  
**WATER USE EFFICIENCY**



**NEW INNOVATIVE TOOLS** THAT CAN  
TRACK – ANALYZE - QUANTIFY *REAL ELEMENTS* OF WATER USE BEHAVIOR

# WATERVIEW

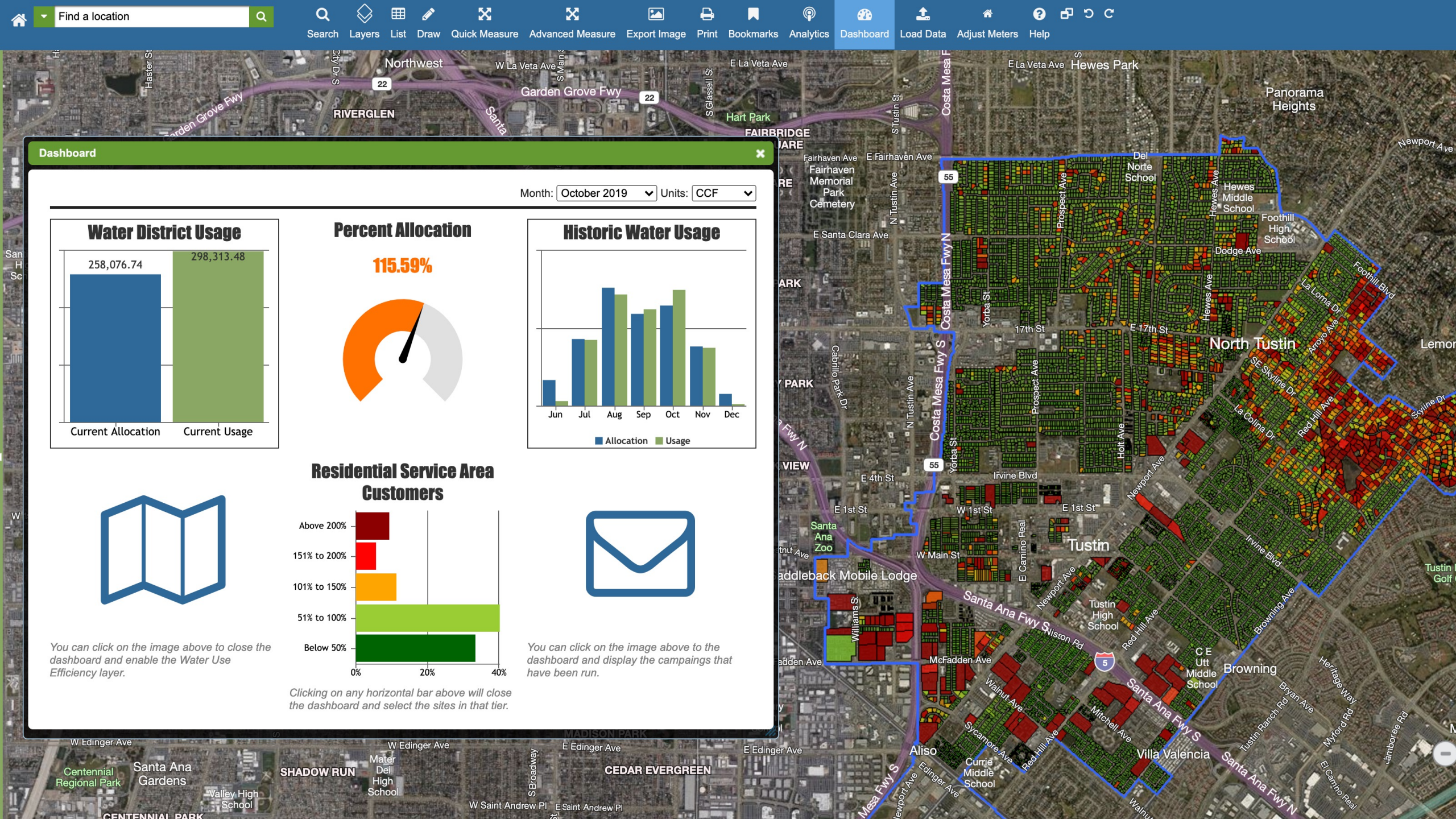
Water Efficiency Software



Sophisticated data management platform + simplified GIS environment

Built specifically to help water suppliers promote efficiency and meet their unique water use objectives







# Total Service Area

## Residential Indoor/Outdoor Allocation VS. Actual Usage

### Custom Calculations

Indoor Standard  
Outdoor Standard  
Weather/Climate considerations  
(*Evapotranspiration factors*)

Cross referenced & tracked along with  
actual water use

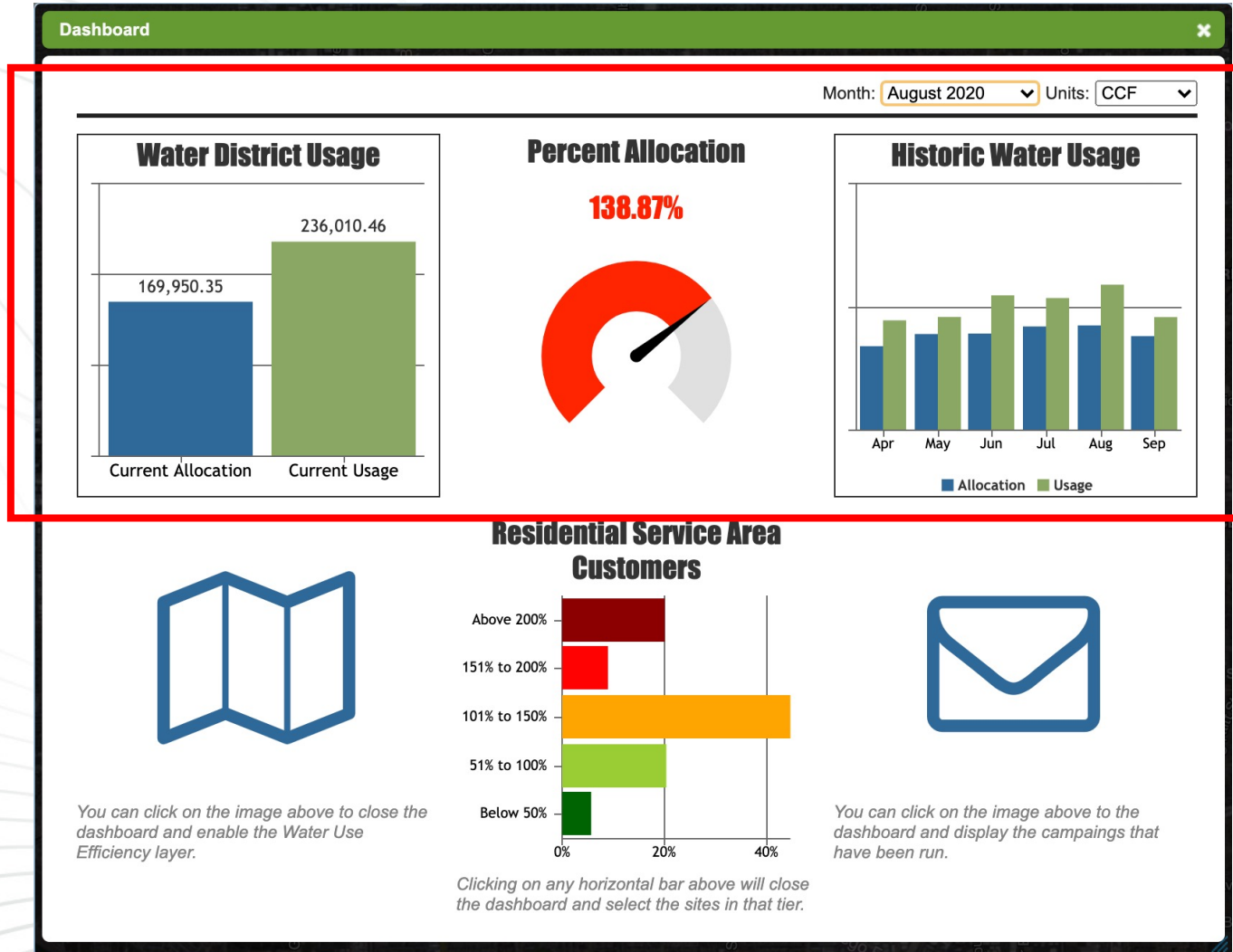
*provides*

Instant **water use efficiency** reading



Identification of **water use trends** across the  
service area:

*Historic Allocation Vs. Usage*



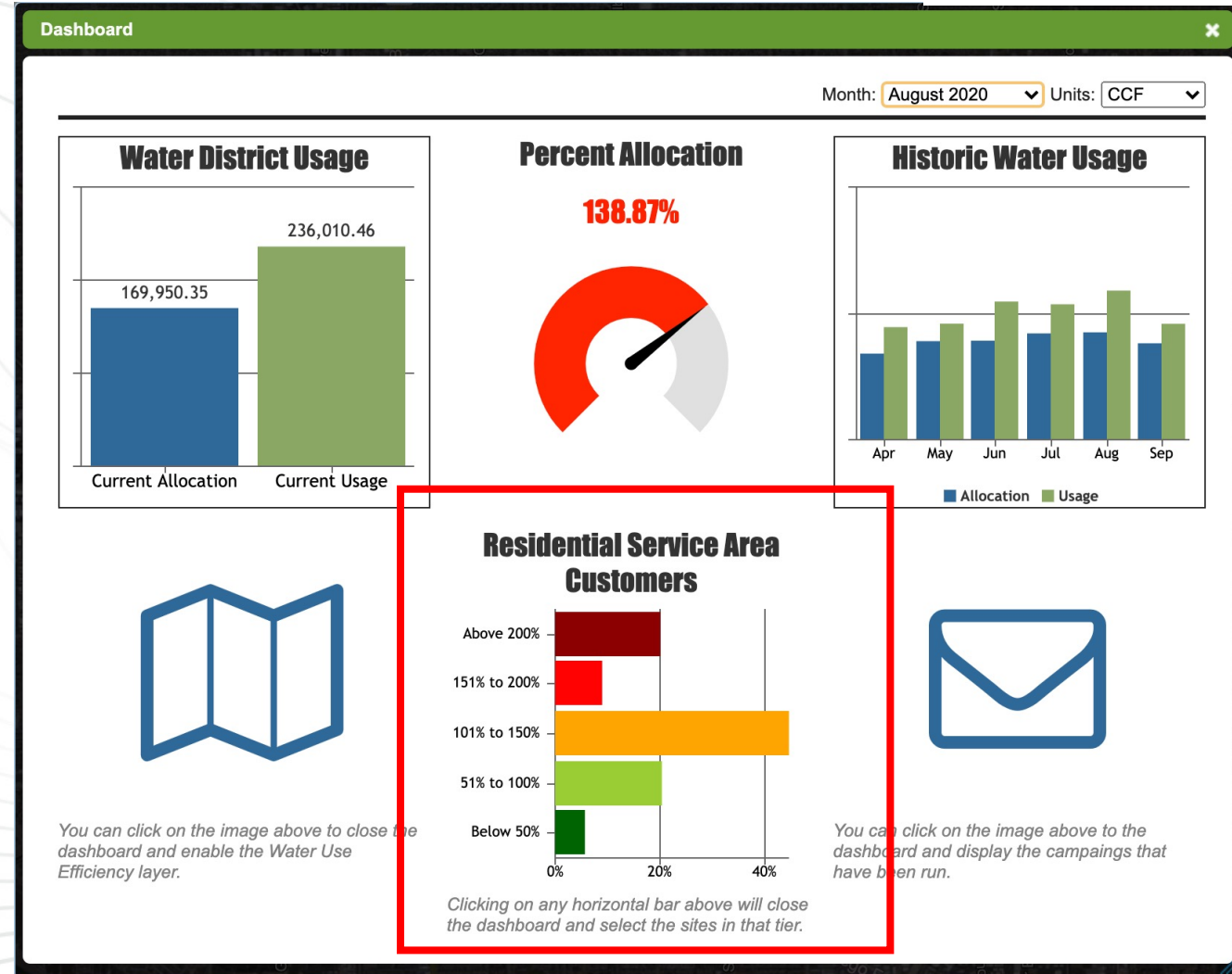
# Parcel Level Calculations

---PARCEL LEVEL---

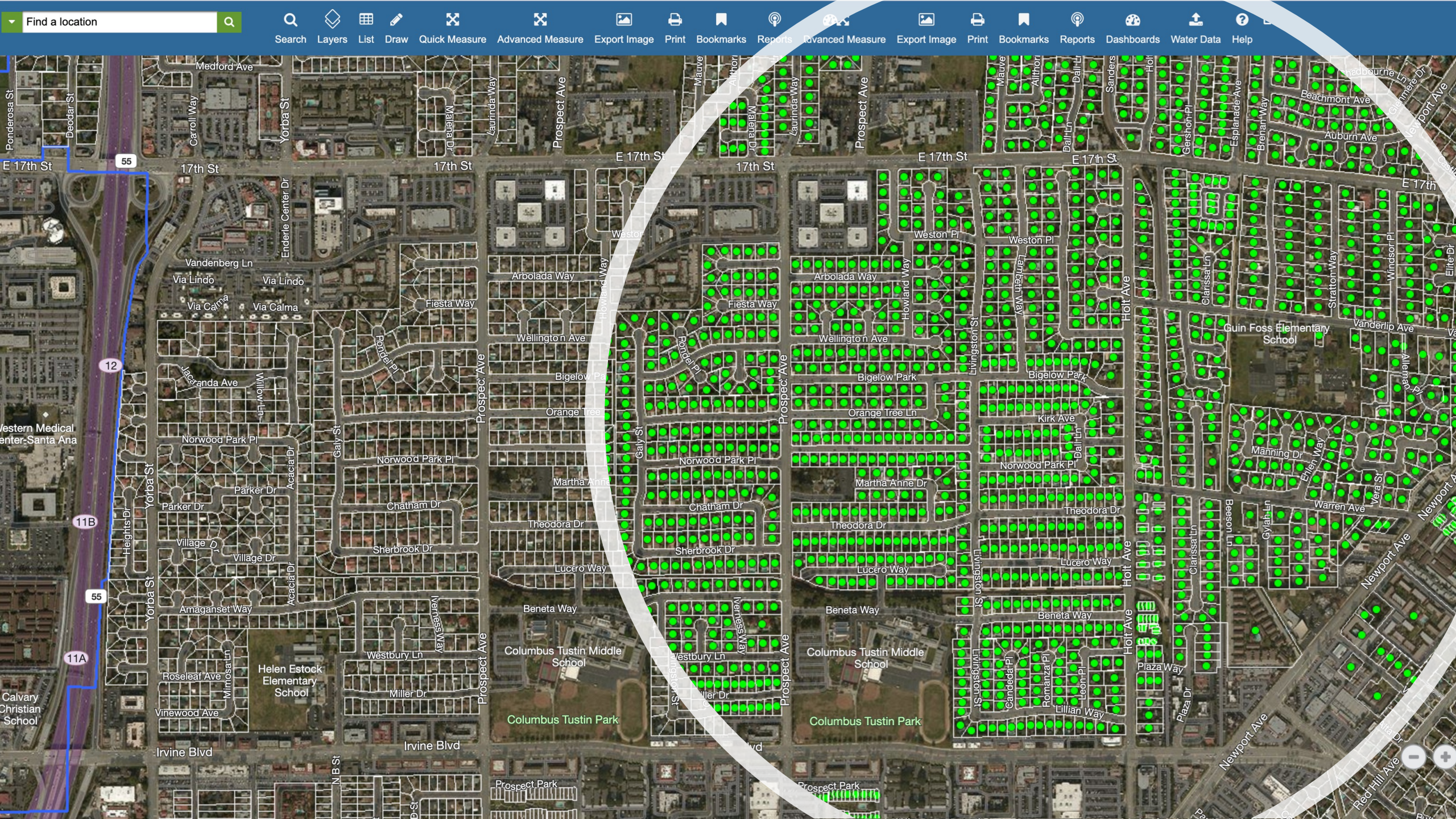
**Residential Indoor/Outdoor Allocation  
VS.  
Actual Usage**

**Cross referenced & tracked along with  
actual water use**

Broken down into INTERACTIVE  
**water use efficiency** tiers based on  
the **% of allocation** used by the  
residential customer





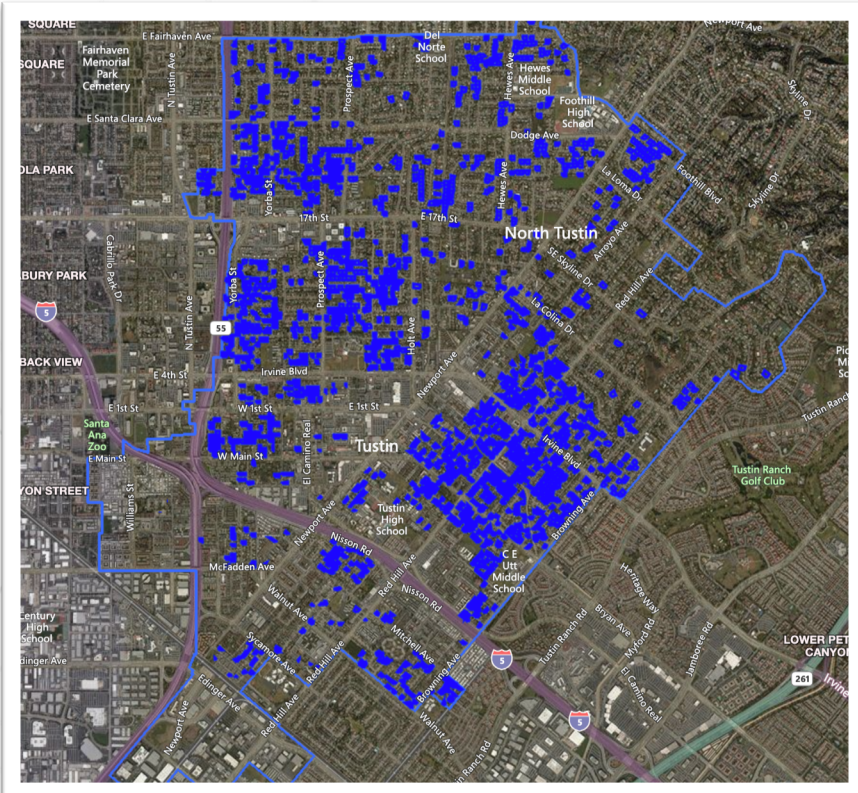
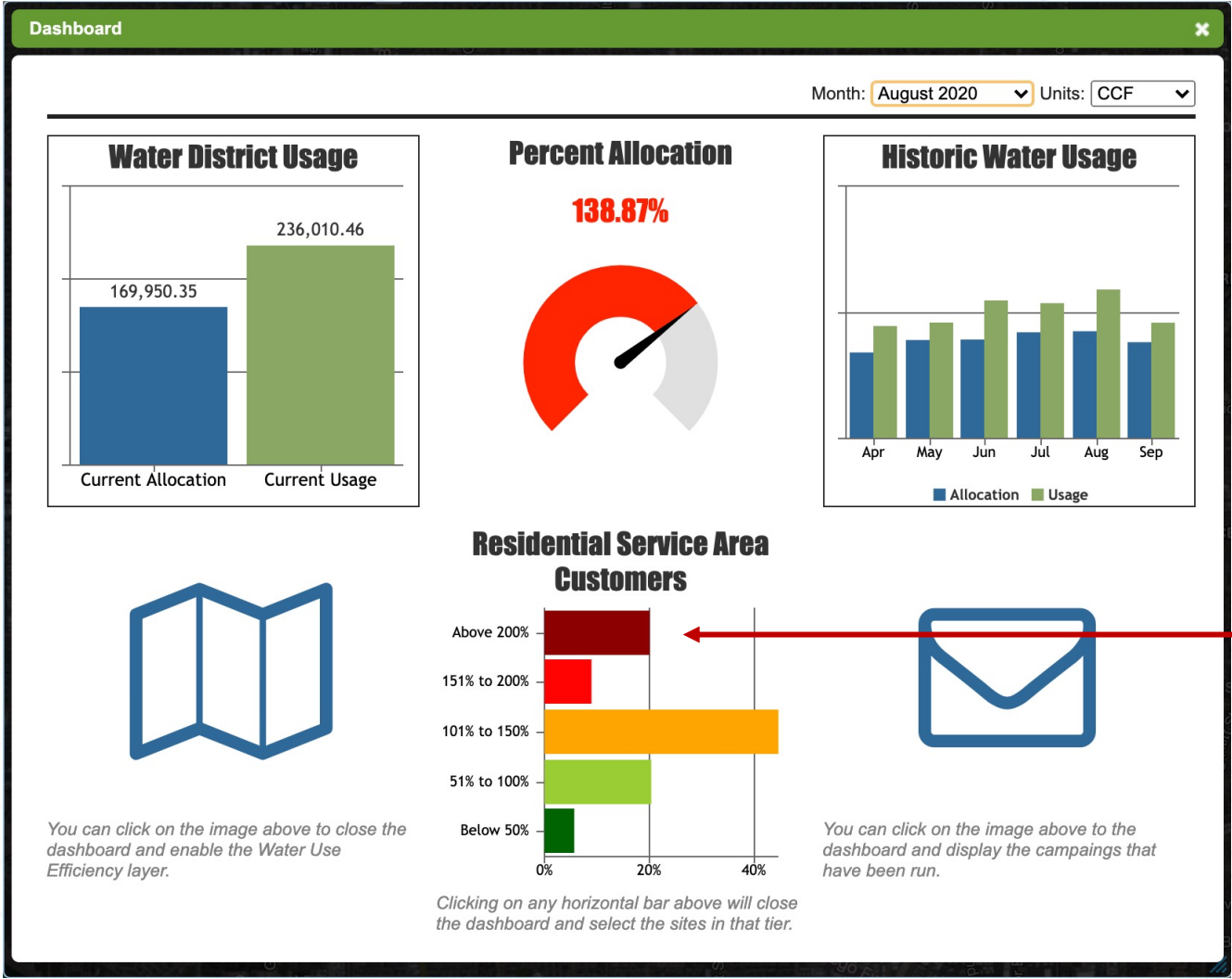


Find a location

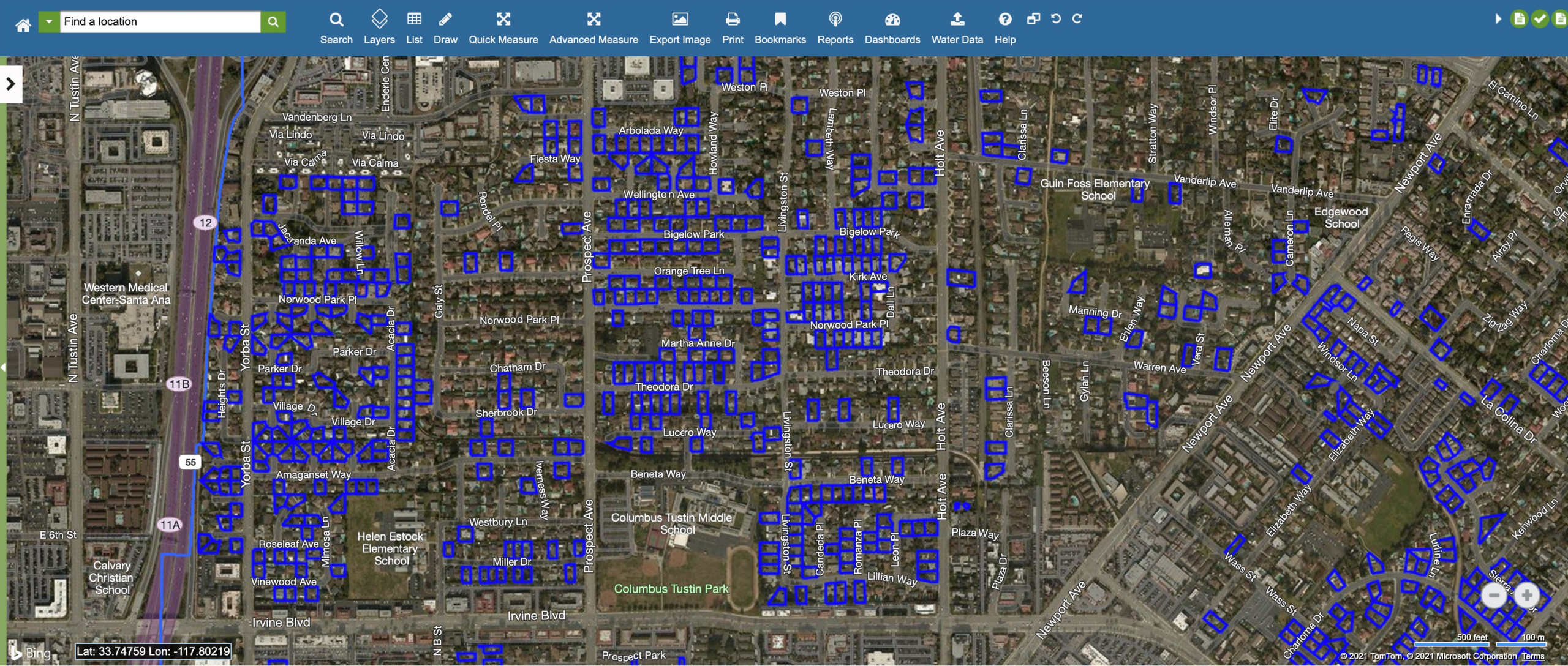
- Search
- Layers
- List
- Draw
- Quick Measure
- Advanced Measure
- Export Image
- Print
- Bookmarks
- Reports
- Advanced Measure
- Export Image
- Print
- Bookmarks
- Reports
- Dashboards
- Water Data
- Help

















# Interactive tiers - 1 click to list creation

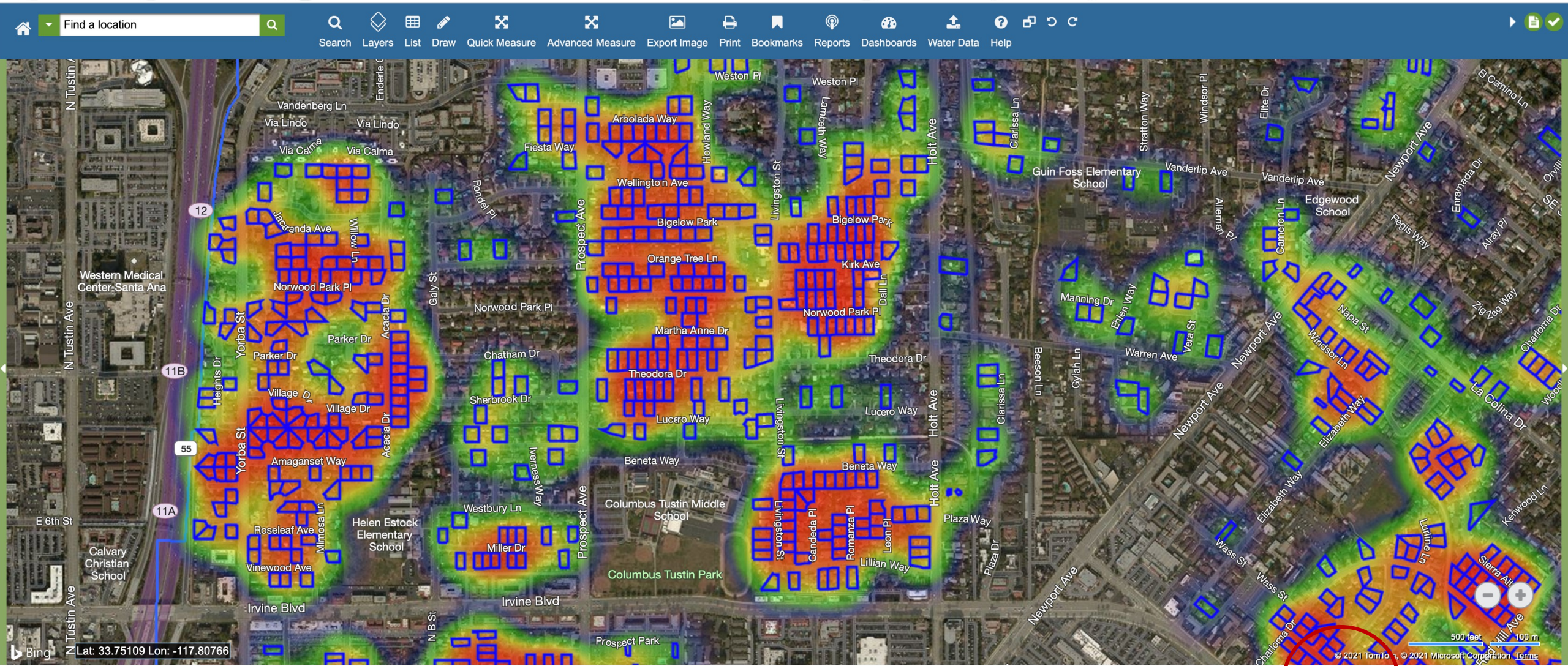






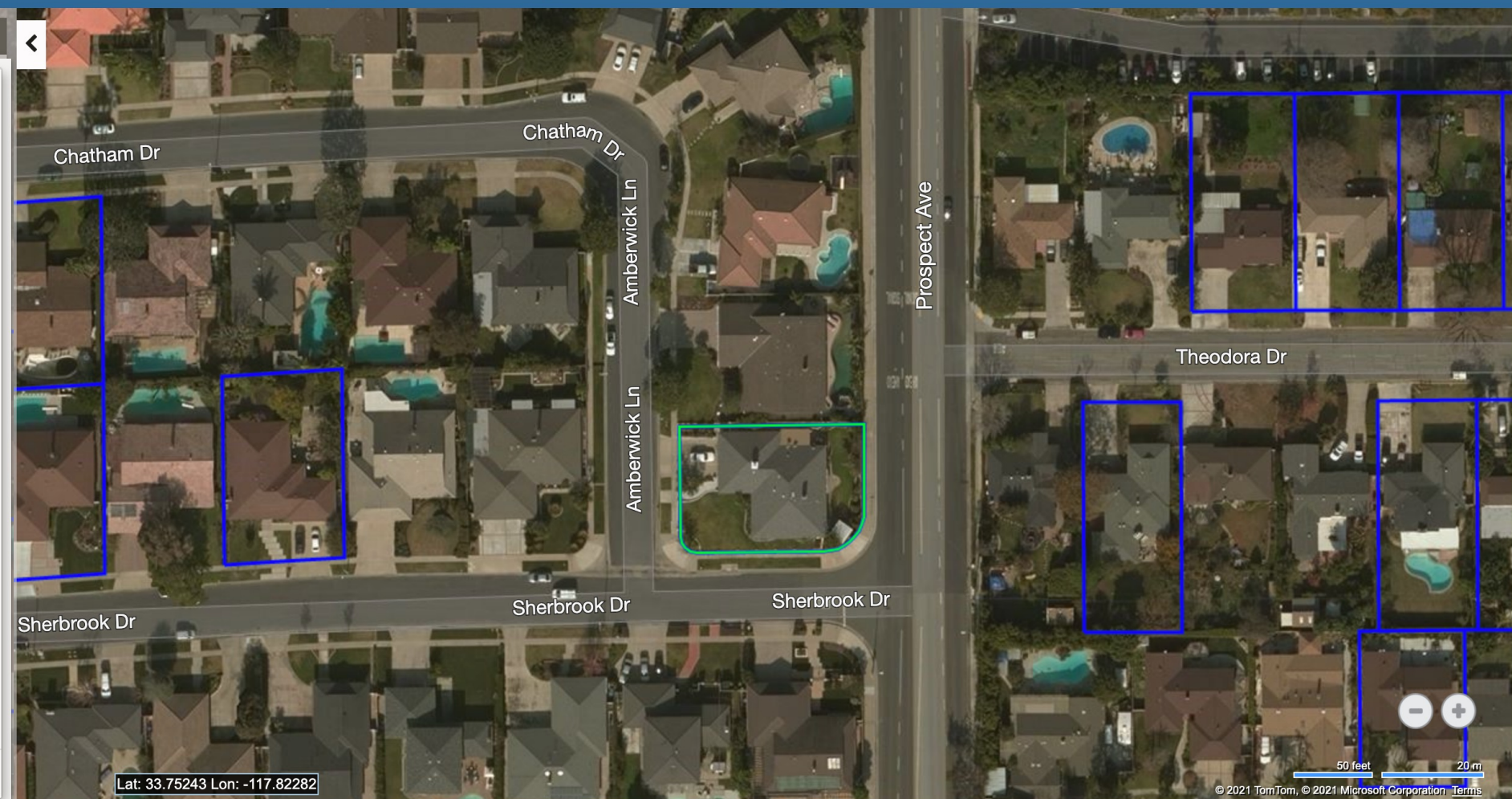
Usage (2022 Records)													Heat Map		123						
Options	#	Parcel	USAGE	ALLOCATION	CONSERVATION SCORE	ACREAGE	LAND SQFT	BUILDING SQUARE FEET	IRRIGATED AREA	IRRIGABLE NOT IRRIGATED	Build Median Year	IRRIGABLE IRRIG	Show Heat Map	IE DESC	UNITS NUMBER						
	399	100660192_215625381	40.48074	12.47048895	3.24612291966307	0.23	10000	1720	2705.25	676.31	1958	2028.94		SFR	1						
	400	100660192_215625382	40.37529	12.44083845	3.24538335275948	0.23	10000	1732	2693.27	673.32	1958	2019.95		SFR	1						
	401	100660192_215625383	29.65968	12.3578022	2.40007725645585	0.23	10000	1700	2659.72	664.93	1958	1994.79		SFR	1						
	402	100660192_215625396	40.87968	12.5831757	3.24875698906437	0.23	10000	1700	2750.78	687.69	1958	2063.09		SFR	1						
	403	100660192_215625397	40.87968	12.5831757	3.24875698906437	0.23	10000	1656	2750.78	687.69	1958	2063.09		SFR	1						
	404	100660192_215625398	39.66963	12.2421702	3.24040830603711	0.23	10000	2224	2613	653.25	1958	1959.75		SFR	1						
	405	100660192_215625399	39.51147	12.19769445	3.23925723520645	0.24	10400	2284	2595.03	648.76	1958	1946.27		SFR	1						
	406	100660192_215625400	40.87968	12.5831757	3.24875698906437	0.23	10000	1700	2750.78	687.69	1958	2063.09		SFR	1						





Usage (2022 Records)														
Options	#	Parcel	USAGE	ALLOCATION	CONSERVATION SCORE	ACREAGE	LAND SQFT	BUILDING SQUARE FEET	IRRIGATED AREA	IRRIGABLE NOT IRRIGATED	Build Median Year	IRRIGABLE IRRIGATED	LANDUSE DESC	UNITS NUMBER
▼	399	100660192_215625381	40.48074	12.47048895	3.24612291966307	0.23	10000	1720	2705.25	676.31	1958	2028.94	SFR	1
▼	400	100660192_215625382	40.37529	12.44083845	3.24538335275948	0.23	10000	1732	2693.27	673.32	1958	2019.95	SFR	1
▼	401	100660192_215625383	29.65968	12.3578022	2.40007725645585	0.23	10000	1700	2659.72	664.93	1958	1994.79	SFR	1
▼	402	100660192_215625396	40.87968	12.5831757	3.24875698906437	0.23	10000	1700	2750.78	687.69	1958	2063.09	SFR	1
▼	403	100660192_215625397	40.87968	12.5831757	3.24875698906437	0.23	10000	1656	2750.78	687.69	1958	2063.09	SFR	1
▼	404	100660192_215625398	39.66963	12.2421702	3.24040830603711	0.23	10000	2224	2613	653.25	1958	1959.75	SFR	1
▼	405	100660192_215625399	39.51147	12.19769445	3.23925723520645	0.24	10400	2284	2595.03	648.76	1958	1946.27	SFR	1
▼	406	100660192_215625400	40.87968	12.5831757	3.24875698906437	0.23	10000	1700	2750.78	687.69	1958	2063.09	SFR	1





Usage (2022 Records)														<a href="#">Heat Map</a>	123						
Options	#	Parcel	USAGE	ALLOCATION	CONSERVATION SCORE	ACREAGE	LAND SQFT	BUILDING SQUARE FEET	IRRIGATED AREA	IRRIGABLE NOT IRRIGATED	Build Median Year	IRRIGABLE IRRIGATED	LANDUSE DESC	UNITS NUMBER							
	704	100660192_215630783	38.07618	11.57152035	3.290507975471	0.23	10033	2702	2779.53	694.88	1968	2084.65	SFR	1							
	705	100660192_215630785	39.79182	12.2222385	3.25569002764919	0.23	10000	2301	2750.78	687.69	1955	2063.09	SFR	1							
	706	100660192_215630792	39.79182	12.2222385	3.25569002764919	0.23	10000	1611	2750.78	687.69	1955	2063.09	SFR	1							
	707	100660192_215630793	39.79182	12.2222385	3.25569002764919	0.23	10000	2232	2750.78	687.69	1955	2063.09	SFR	1							
	708	100660192_215630794	29.47635	12.23706375	2.40877637006672	0.23	10000	1434	2756.77	689.19	1955	2067.58	SFR	1							
	709	100660192_215630795	39.73551	12.20741325	3.25503111807901	0.23	10000	1294	2744.79	686.2	1955	2058.59	SFR	1							
	710	100660192_215630796	39.79182	12.2222385	3.25569002764919	0.23	10000	1398	2750.78	687.69	1955	2063.09	SFR	1							
	711	100660192_215630798	21.55587	9.21974175	2.33801234183159	0.17	7280	2146	1537.65	384.41	1972	1153.24	SFR	1							



Usage

Parcel No (APN)  
Land Use Descrip  
No of Units  
Billing Name  
Billing Address  
Lot Area (sqft)  
Building Area (sqft)  
Year Built

401-022-14  
SFR  
1  
Andrew Andrews  
14492 AMBERWICK LN TUSTIN, 92780  
10,033  
2,702  
1968

HH Median Size  
HH Median Income

2.6 | Map  
\$91,610

(II) Irrigable Irrigated  
(INI) Irrigable Not Irrigated  
Total II + INI

2,084.65 SF | Map  
694.88 SF  
2,779.53 SF | Map

(NI) Not Irrigable

6,631.50 SF | Map

Water Allocation  
Water Usage  
Current % of Allocation

11.57 CCF  
38.08 CCF | Map  
329.05%

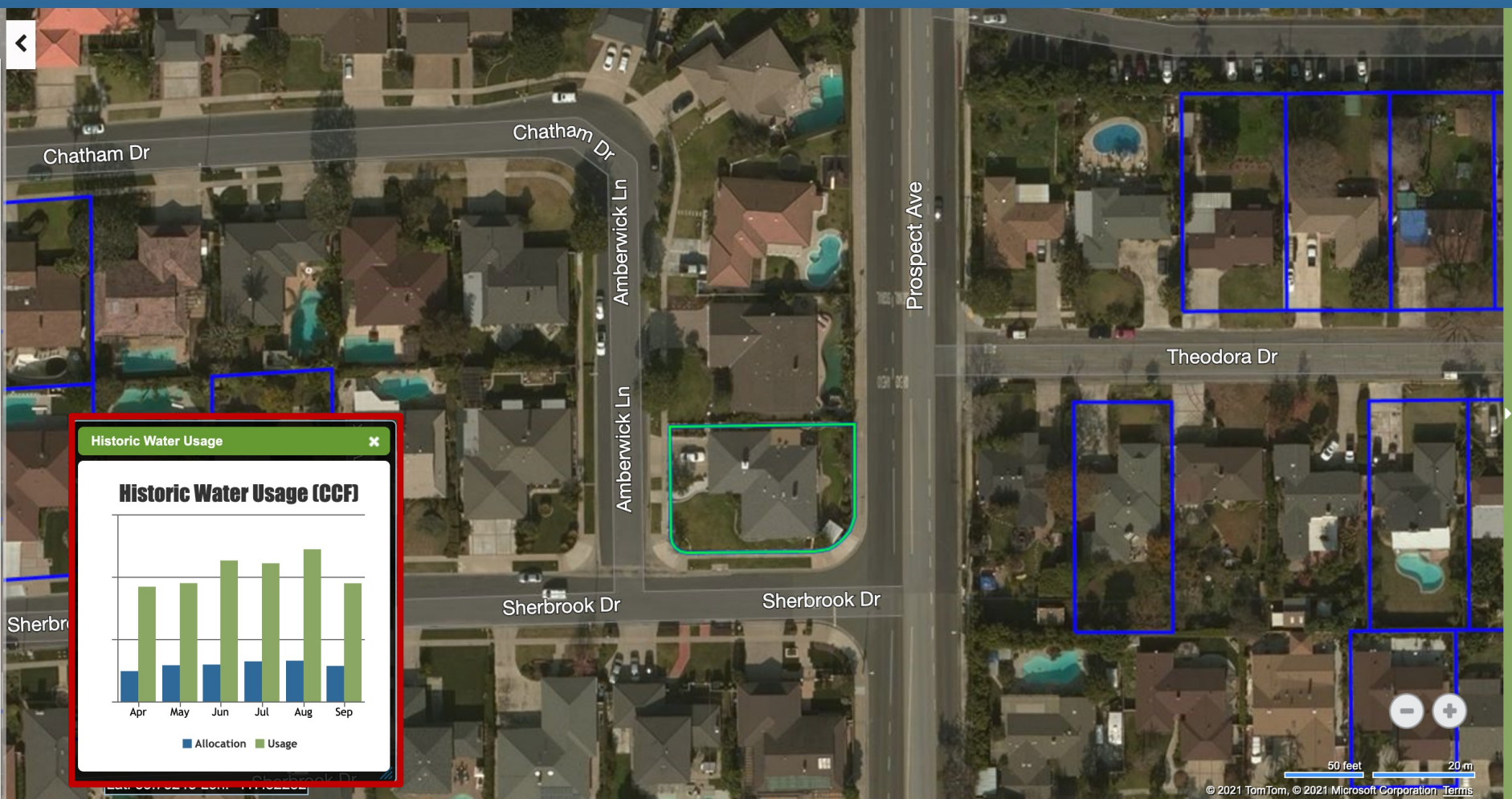
Usage History













Show Chart

Add to List

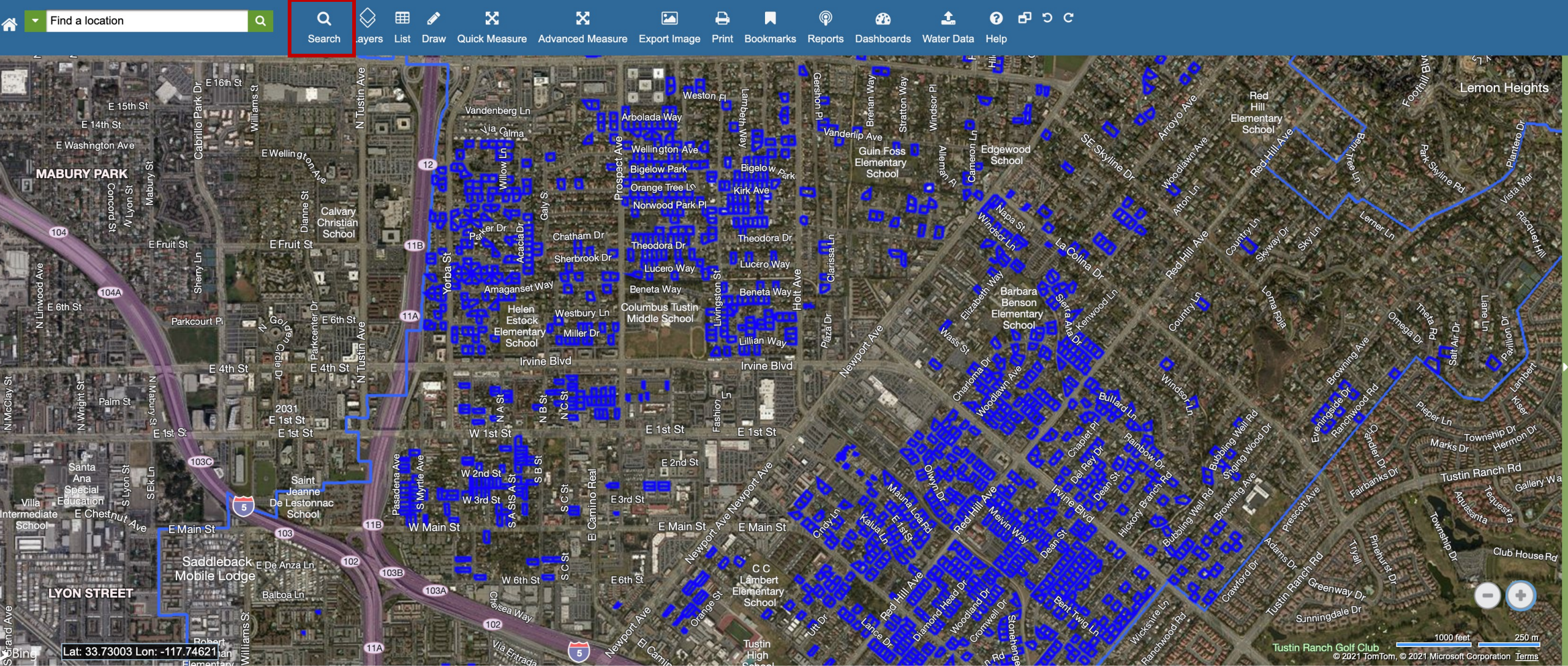
Search Area

More



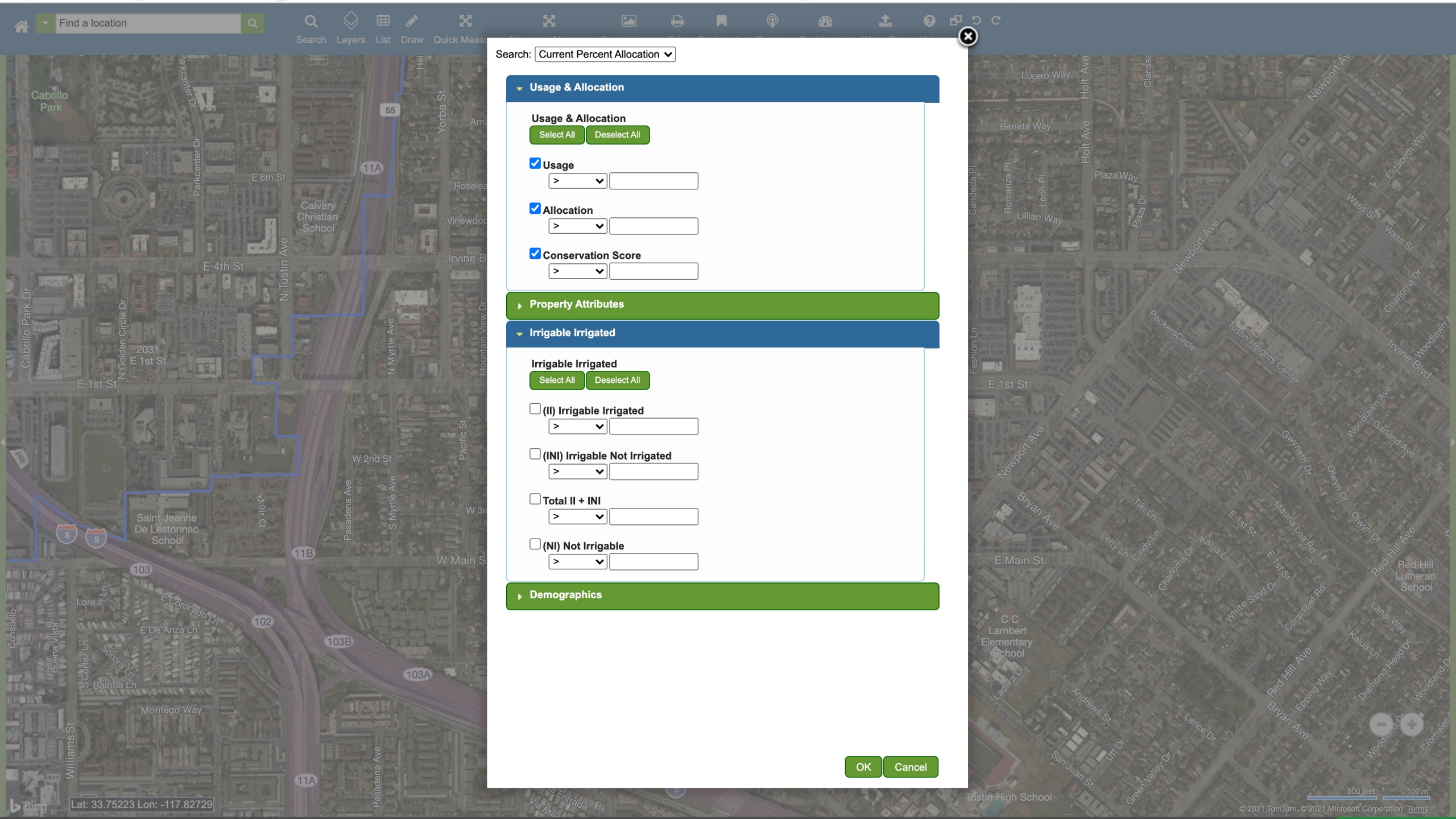
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Options	#	Parcel	USAGE	ALLOCATION	CONSERVATION SCORE	ACREAGE	LAND SQFT	BUILDING SQUARE FEET	IRRIGATED AREA	IRRIGABLE NOT IRRIGATED	Build Median Year	IRRIGABLE IRRIGATED	LANDUSE DESC	UNITS NUMBER									
	704	100660192_215630783	38.07618	11.57152035	3.290507975471	0.23	10033	2702	2779.53	694.88	1968	2084.65	SFR	1									
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	706	100660192_215630792	39.79182	12.2222385	3.25569002764919	0.23	10000	1611	2750.78	687.69	1955	2063.09	SFR	1									
	707	100660192_215630793	39.79182	12.2222385	3.25569002764919	0.23	10000	2232	2750.78	687.69	1955	2063.09	SFR	1									
	708	100660192_215630794	29.47635	12.23706375	2.40877637006672	0.23	10000	1434	2756.77	689.19	1955	2067.58	SFR	1									
	709	100660192_215630795	39.73551	12.20741325	3.25503111807901	0.23	10000	1294	2744.79	686.2	1955	2058.59	SFR	1									
	710	100660192_215630796	39.79182	12.2222385	3.25569002764919	0.23	10000	1398	2750.78	687.69	1955	2063.09	SFR	1									
	711	100660192_215630798	21.55587	9.21974175	2.33801234183159	0.17	7280	2146	1537.65	384.41	1972	1153.24	SFR	1									





Options	#	Parcel	USAGE	ALLOCATION	CONSERVATION SCORE	ACREAGE	LAND SQFT	BUILDING SQUARE FEET	IRRIGATED AREA	IRRIGABLE NOT IRRIGATED	Build Median Year	IRRIGABLE IRRIGATED	LANDUSE DESC	UNITS NUMBER
	976	511099208_102038	22.54788	9.6396732	2.33907099672217	0.14	5940	1997	1515.56	378.89	1962	1136.67	SFR	1
	977	511099208_102040	22.87134	9.7640367	2.34240618944007	0.17	7280	2215	1564.33	391.08	1962	1173.25	SFR	1
	978	511099208_102041	31.46397	9.9212697	3.171365253784	0.17	7280	1688	1625.99	406.5	1962	1219.49	SFR	1
	979	511099208_102042	23.23437	9.9025017	2.34631315438199	0.16	7046	1543	1618.63	404.66	1962	1213.97	SFR	1
	980	511099208_102043	31.36455	9.8930922	3.17034849831886	0.19	8400	1543	1614.94	403.74	1962	1211.2	SFR	1
	981	511099208_102046	22.92765	9.7851762	2.34310037258195	0.17	7340	1637	1572.62	393.15	1962	1179.47	SFR	1
	982	511099208_102047	23.17326	9.8790162	2.34570523328021	0.15	6615	1637	1609.42	402.36	1962	1207.06	SFR	1
	983	511099208_102048	22.78989	9.7358847	2.34081346505675	0.18	7700	1637	1553.29	388.32	1962	1164.97	SFR	1





Find a location

Search: Current Percent Allocation

Usage & Allocation

Usage & Allocation

Select All Deselect All

☒ Usage  
>

☒ Allocation  
>

☒ Conservation Score  
>

Property Attributes

Irrigable Irrigated

Irrigable Irrigated

Select All Deselect All

☐ (II) Irrigable Irrigated  
>

☐ (INI) Irrigable Not Irrigated  
>

☐ Total II + INI  
>

☐ (NI) Not Irrigable  
>

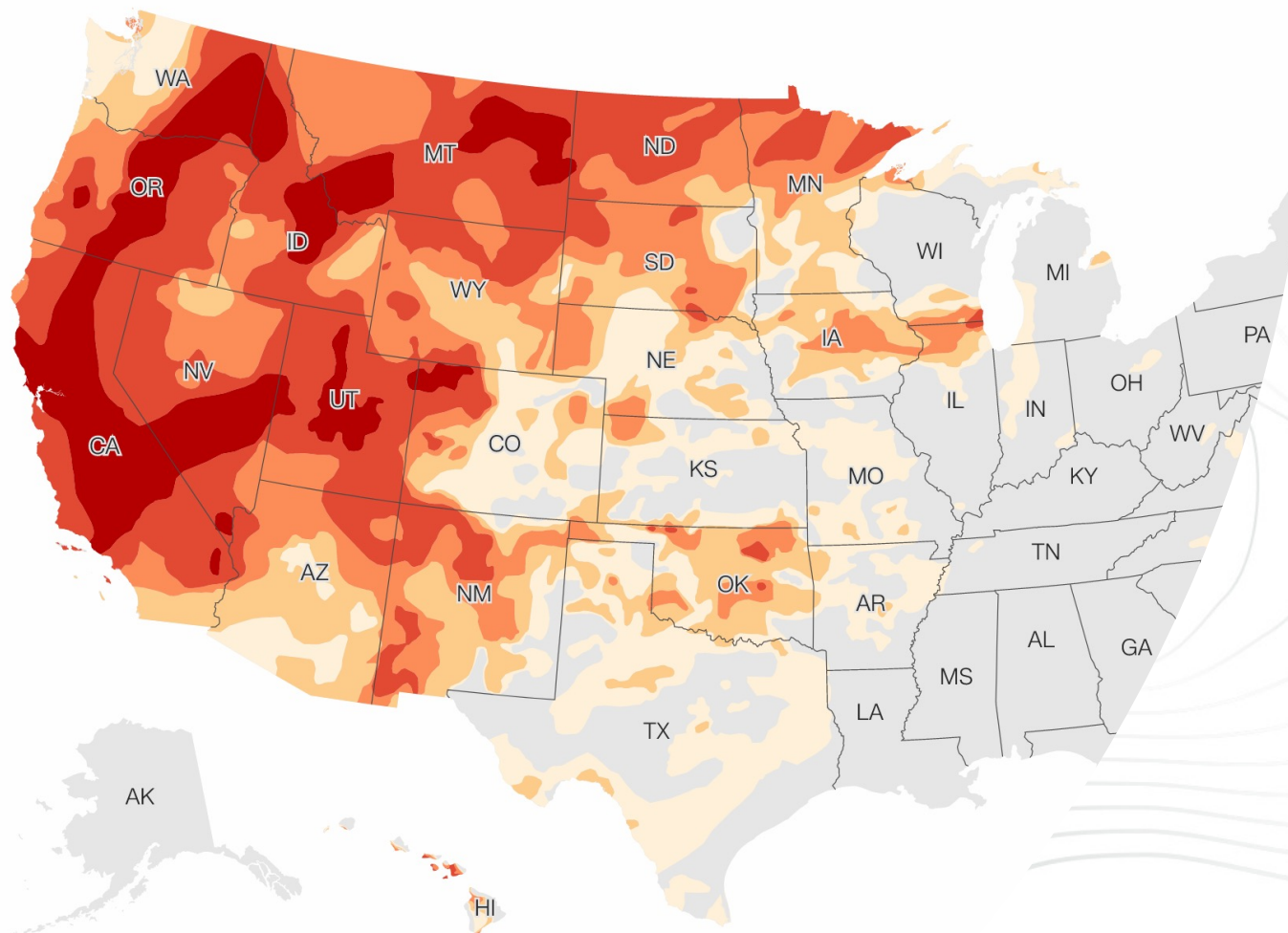
Demographics

OK Cancel

Lat: 33.75223 Lon: -117.82729

# Drought map

Abnormally dry Moderate drought Severe drought Extreme drought Exceptional



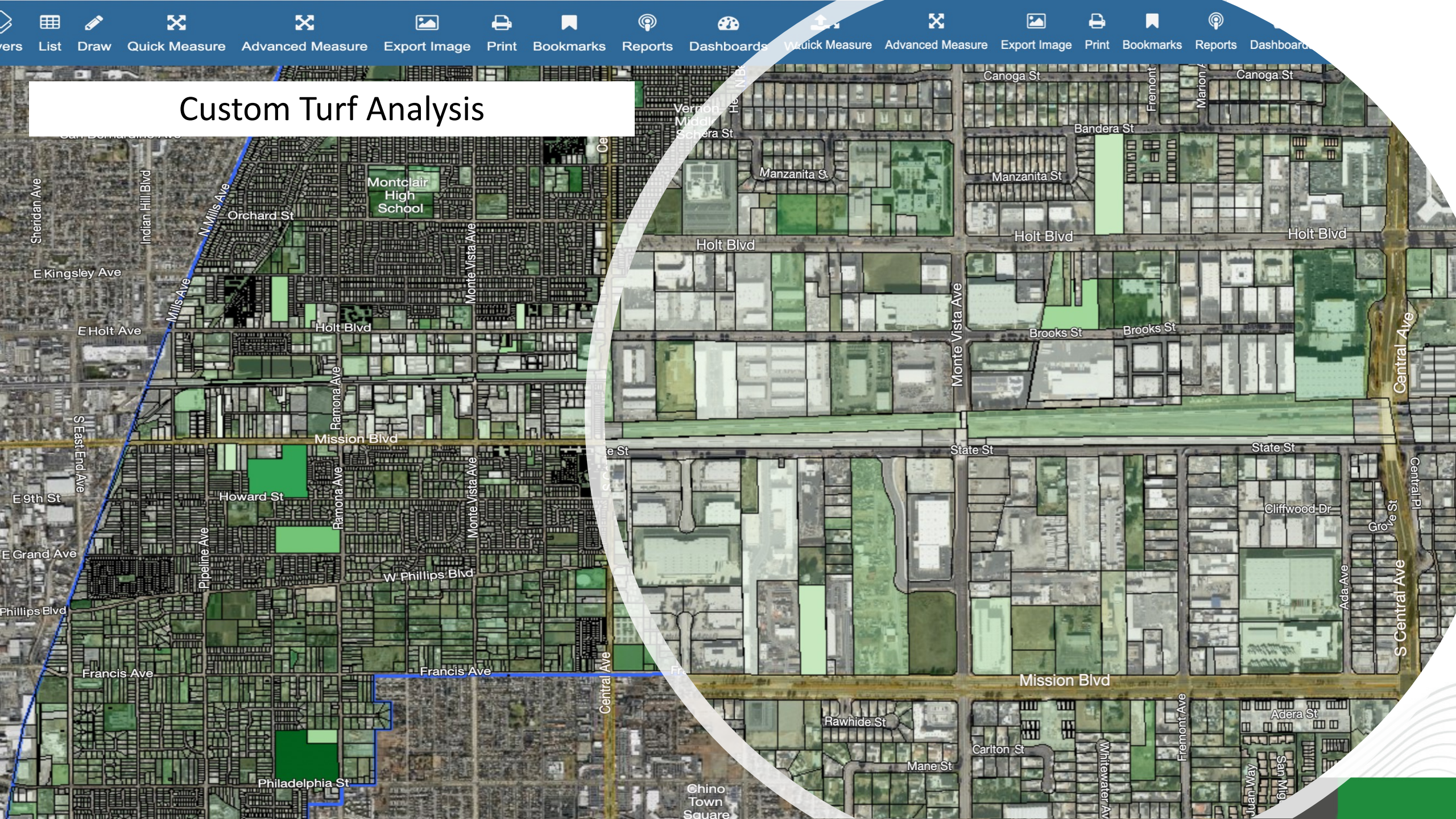
**Winter 2021 NOAA  
Climate Prediction Center  
Forecast**

**Relief Unlikely**

Data is reported weekly. Map updated Thursday, September 30 and repr

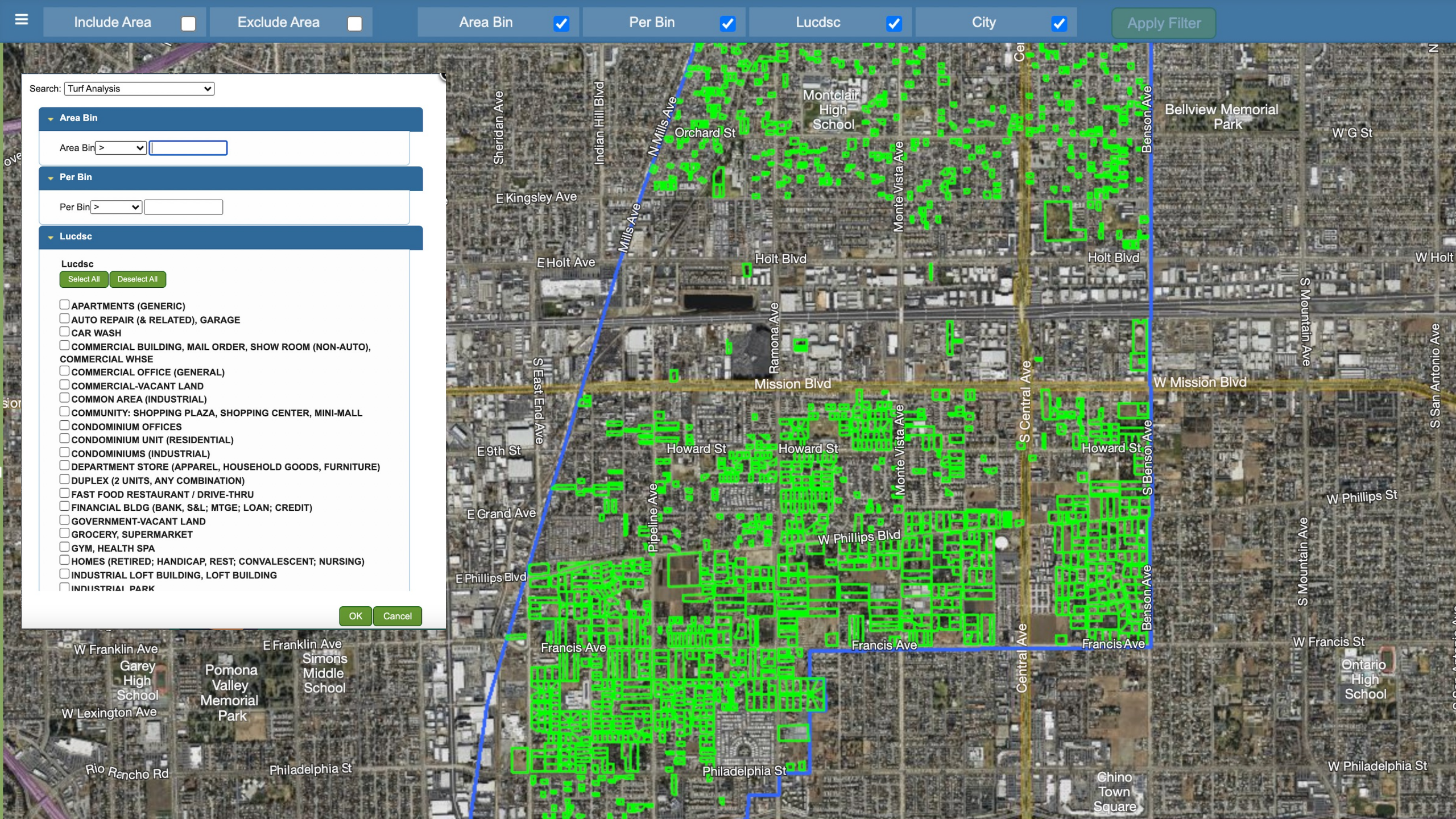
Source: US Drought Monitor





# Custom Turf Analysis





Include Area



Exclude Area



Area Bin



Per Bin



Lucdsc



City



Apply Filter

Search:

Area Bin

Area Bin >

Per Bin

Per Bin >

Lucdsc

Lucdsc

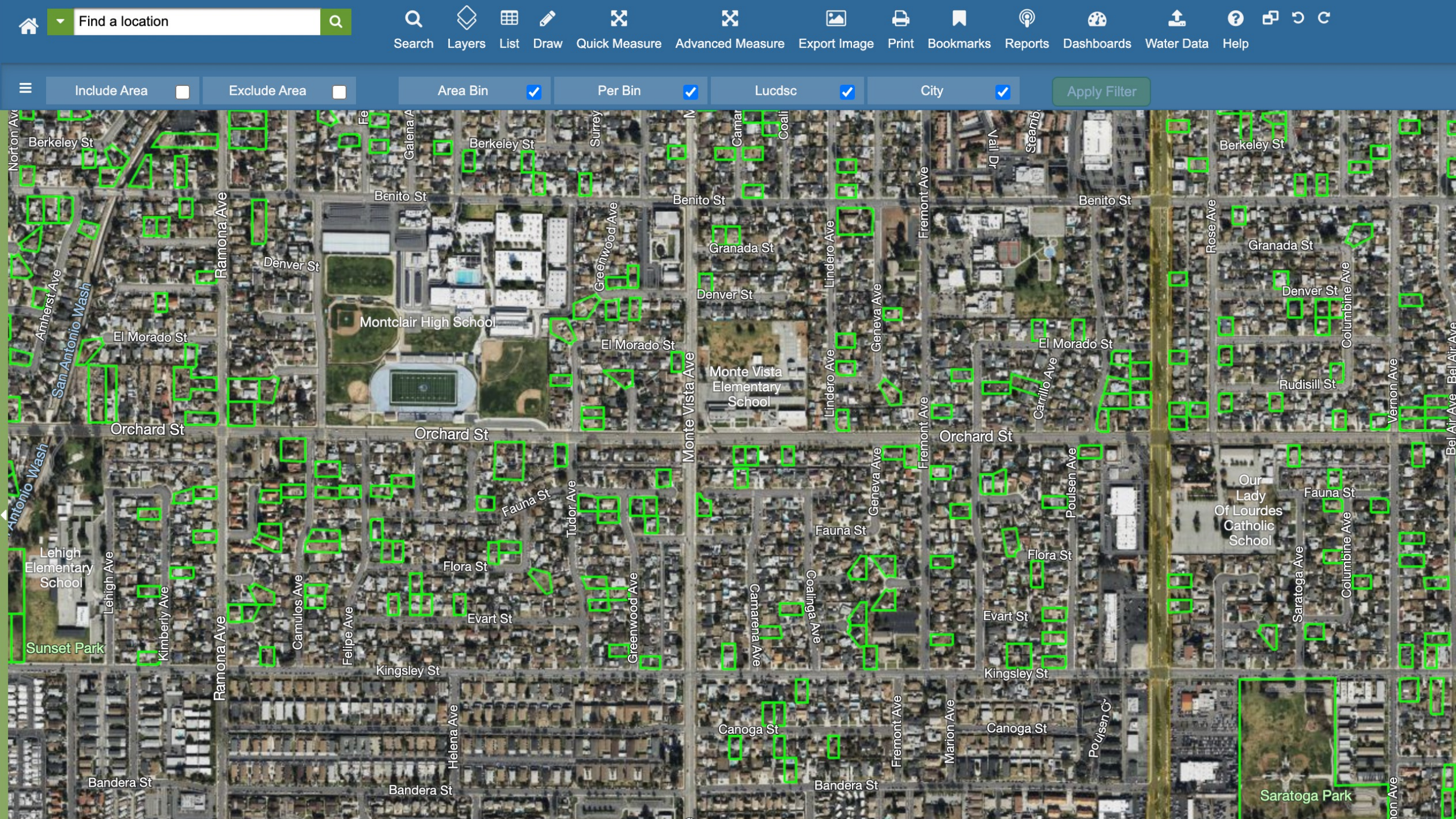
Select All Deselect All

- ☐ APARTMENTS (GENERIC)
- ☐ AUTO REPAIR (& RELATED), GARAGE
- ☐ CAR WASH
- ☐ COMMERCIAL BUILDING, MAIL ORDER, SHOW ROOM (NON-AUTO), COMMERCIAL WHSE
- ☐ COMMERCIAL OFFICE (GENERAL)
- ☐ COMMERCIAL-VACANT LAND
- ☐ COMMON AREA (INDUSTRIAL)
- ☐ COMMUNITY: SHOPPING PLAZA, SHOPPING CENTER, MINI-MALL
- ☐ CONDOMINIUM OFFICES
- ☐ CONDOMINIUM UNIT (RESIDENTIAL)
- ☐ CONDOMINIUMS (INDUSTRIAL)
- ☐ DEPARTMENT STORE (APPAREL, HOUSEHOLD GOODS, FURNITURE)
- ☐ DUPLEX (2 UNITS, ANY COMBINATION)
- ☐ FAST FOOD RESTAURANT / DRIVE-THRU
- ☐ FINANCIAL BLDG (BANK, S&L; MTGE; LOAN; CREDIT)
- ☐ GOVERNMENT-VACANT LAND
- ☐ GROCERY, SUPERMARKET
- ☐ GYM, HEALTH SPA
- ☐ HOMES (RETIRED; HANDICAP, REST; CONVALESCENT; NURSING)
- ☐ INDUSTRIAL LOFT BUILDING, LOFT BUILDING
- ☐ INDUSTRIAL PARK

OK

Cancel







Search:

Location

Population

Race & Ethnicity

Households

Housing Units

Income

Income

Select All

Deselect All

☒ Median Household Income

≥

☒ Average Household Income

≥

☒ Per Capita Income

≥

Age

Spending

Employment

OK

Cancel



Advanced Measure Export Image Print Bookmarks Reports Dashboards Water Data Help



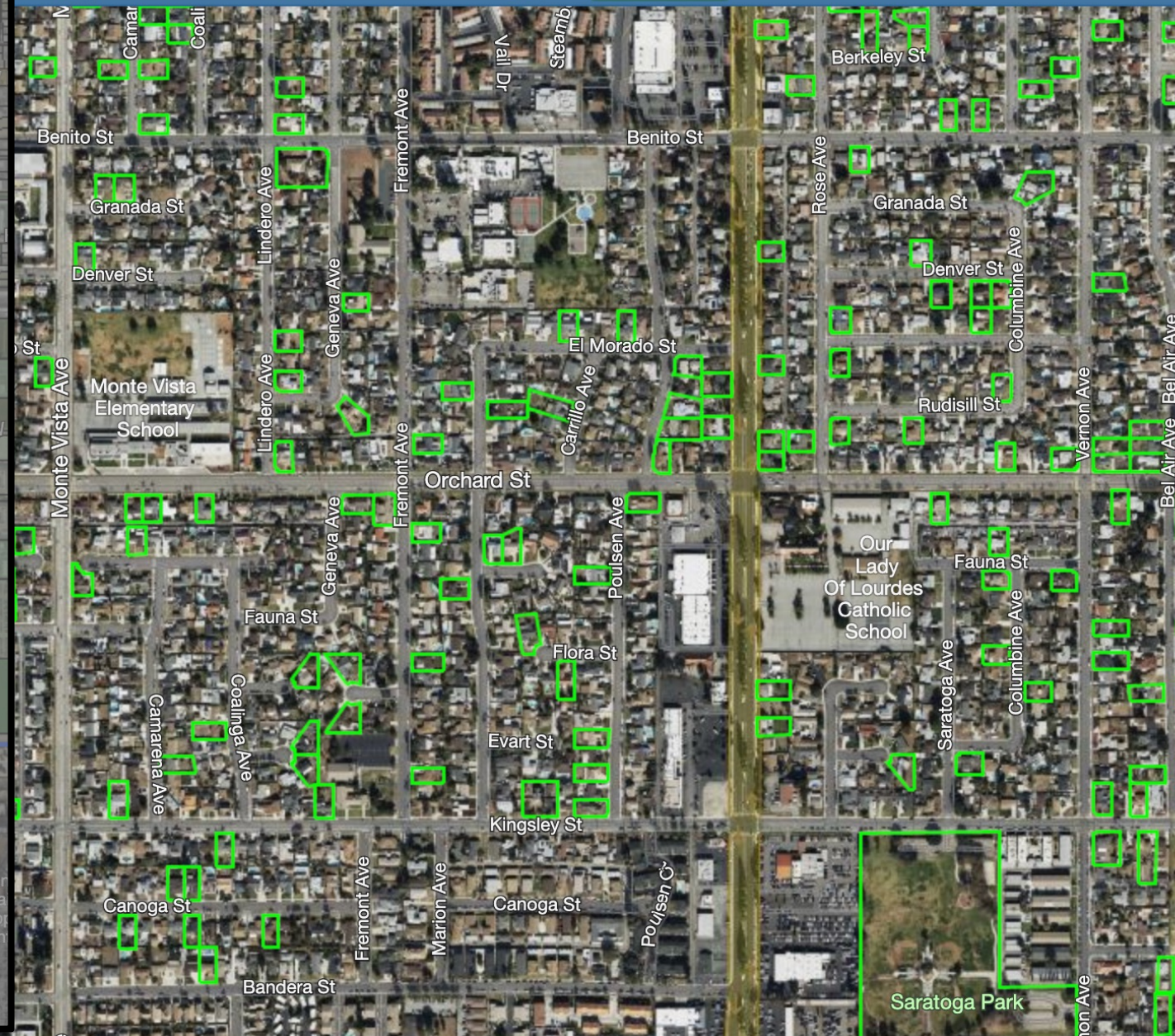
Lucdsc



City



Apply Filter





# JULY 2021

GOVERNOR NEWSOM CALLED ON CALIFORNIAN'S TO VOLUNTARILY REDUCE THEIR WATER BY 15%



## DROUGHT STUDY

Recent Months	Total Allocation	Total Usage CCF	Reduce current usage by 15%	Difference CCF
Apr	480,615	344,963	293,219	51,744
May	559,503	401,870	341,590	60,281
Jun	625,946	462,081	392,769	69,312

			462,081	30%			
Customers	25,644	Usage CCF	% of Total ^	Reduce by ^	Difference CCF	Usage CCF >	Cons Score % >
10%	2,564	103,118	22%	72,183	30,935	15	1.40
15%	3,847	140,599	30%	98,419	42,180	12	1.23
20%	5,129	174,309	38%	122,016	52,293	10	1.11
25%	6,411	203,543	44%	142,480	61,063	10	1.01
30%	7,693	226,348	49%	158,444	67,904	9	0.94
35%	8,975	261,897	57%	183,328	78,569	9	0.85
40%	10,258	284,440	62%	199,108	85,332	8	0.79

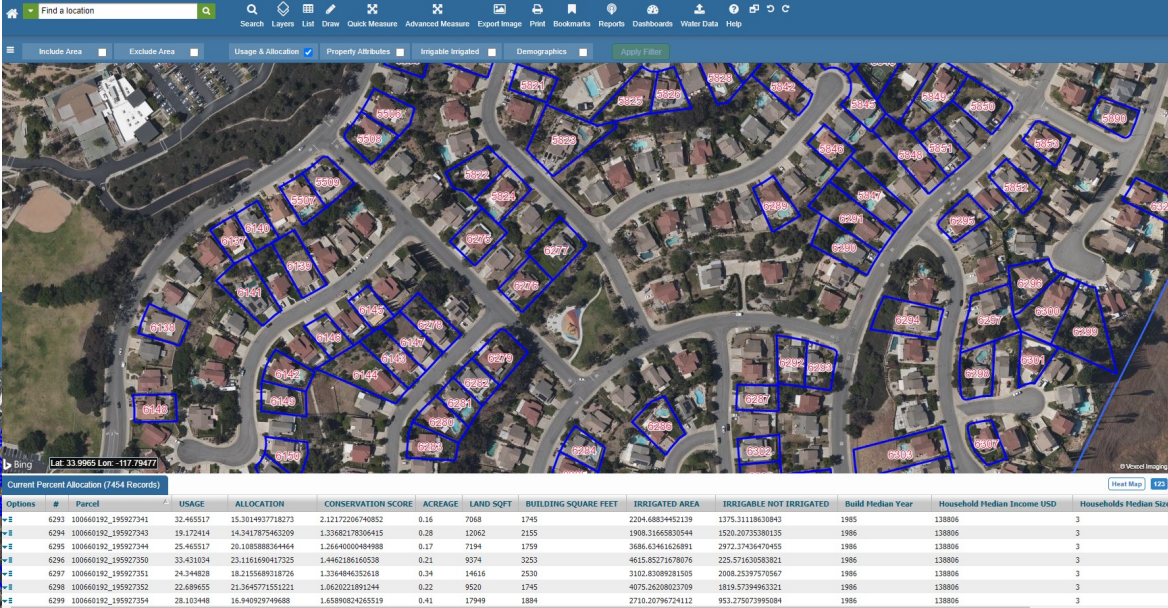
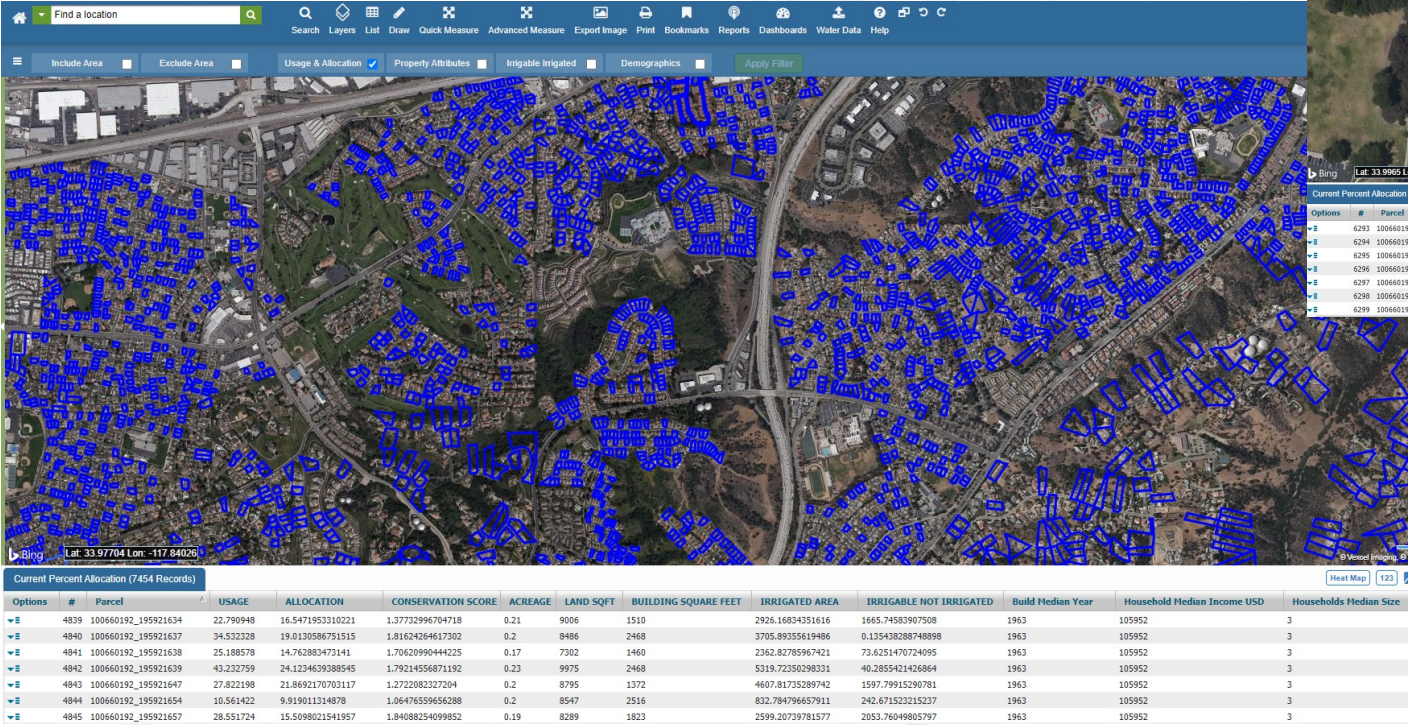


WATERVIEW



# Targeting 30% of the LEAST efficient water customers

			462,081	30%	
Customers	25,644	Usage CCF	% of Total ^	Reduce by ^	Difference CCF
10%	2,564	103,118	22%	72,183	30,935
15%	3,847	140,599	30%	98,419	42,180
20%	5,129	174,309	38%	122,016	52,293
25%	6,411	203,543	44%	142,480	61,063
30%	7,693	226,348	49%	158,444	67,904
35%	8,975	261,897	57%	183,328	78,569
40%	10,258	284,440	62%	199,108	85,332

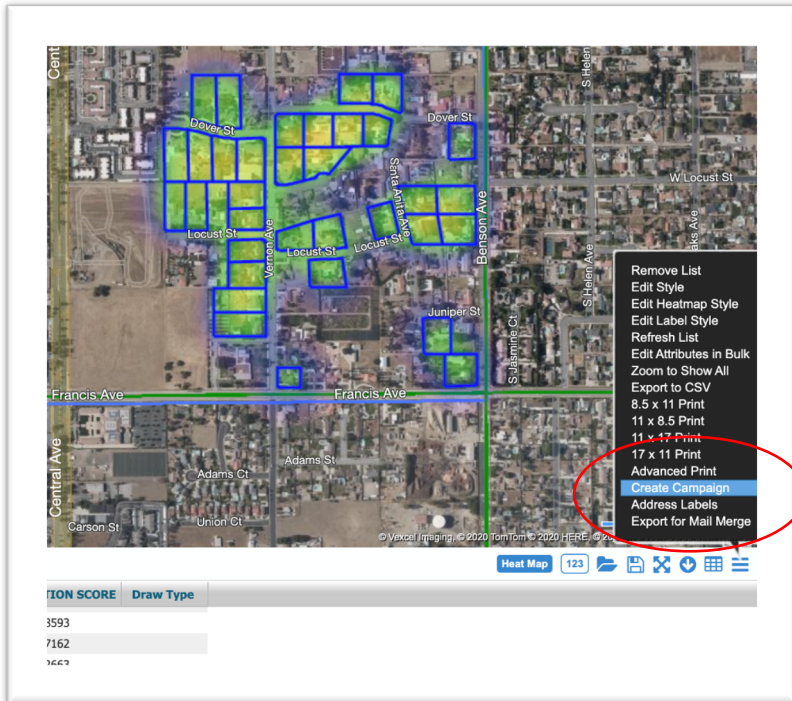


Resources spent on outreach to these 7,500 customers, NOT all 25,000



## NEXT STEPS

Create an **outreach campaign** and **track the water use behavior change over time**



Create Campaign

Title

Fall 2020

Category

Over 200%

Subcategory

Conservation Score

Action Date

Notes

September 2020

Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

# WV - Outreach Module

Monitor the group included in the outreach effort

Watch water use behavior changes over time

Export the new results

Filter Editor

Change over Time

CONSERVATION SCORE

Field CONSERVATION SCORE

Start of Range: 0

End of Range: 0

Remove

Criteria

Field ENTRY DATE

Starting Date: 08/01/2019

Ending Date: 10/31/2019

Remove

Add Search Criteria

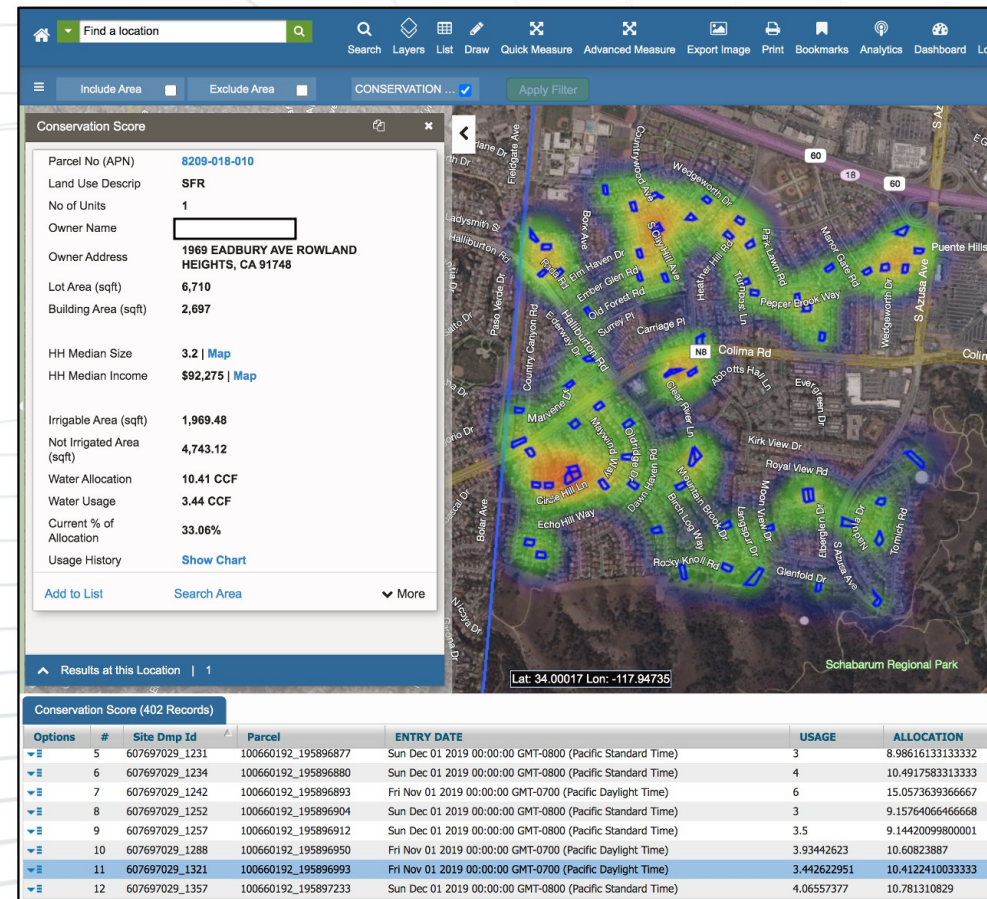
Add Group

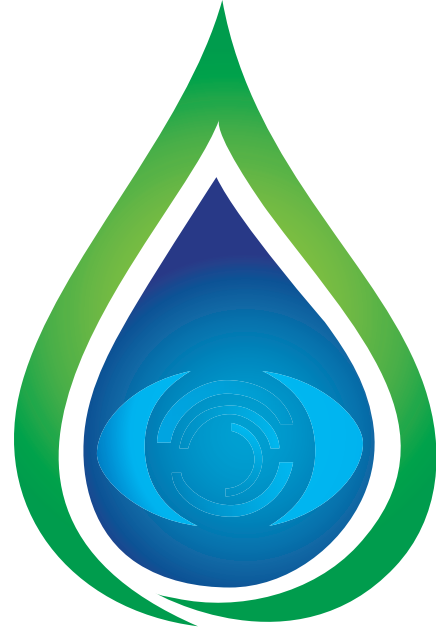
Folder: USER

Name: Change Over Time

OK

Cancel





**WATERVIEW**  
By Eagle Aerial Solutions

## Contact Information

Support Team

[support@eagleaerial.com](mailto:support@eagleaerial.com)

(714) 754-7670

[www.eagleaerial.com](http://www.eagleaerial.com)