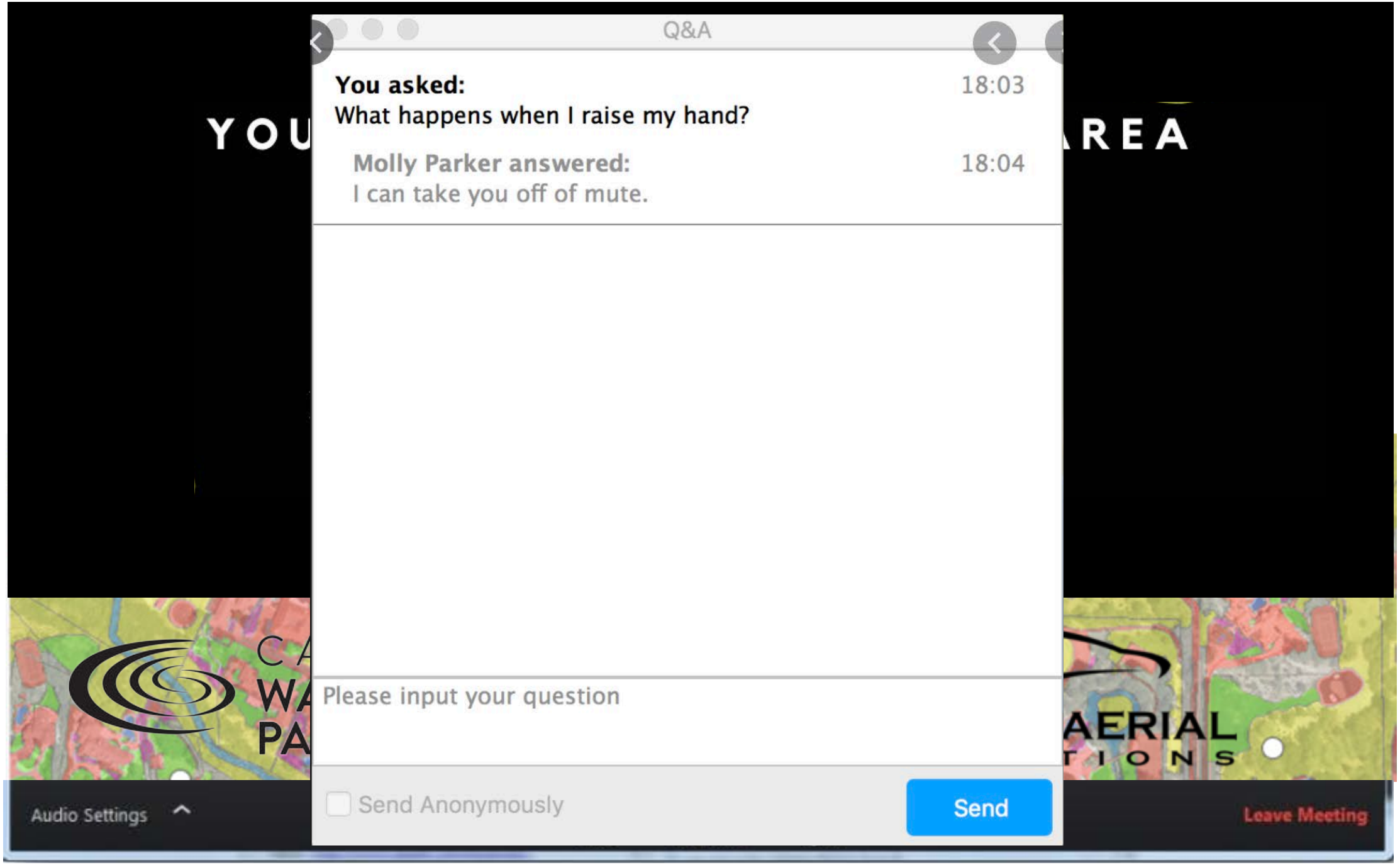
YOU GOT YOUR LANDSCAPE AREA DATA FROM DWR...

Now What?

Part I: Unpacking the data, using the DWR verification portal, and what to look for


Q&A
You asked:
18:03
What happens when I raise my hand?
Molly Parker answered:
18:04
I can take you off of mute.
Please input your question
Send Anonymously
Send
Audio Settings
Leave Meeting

Introductions

Moderator: Lisa Cuellar

Senior Program Manager
CalWEP

Presenter: Jaz Molloy

Project Manager
Eagle Aerial

CALIFORNIA WATER EFFICIENCY PARTNERSHIP

EAGLE AERIAL SOLUTIONS

QUICK REVIEW:CALCULATING WATER USE OBJECTIVES

Providers will need to meet the SUM of the standards

INDOOR USE

+

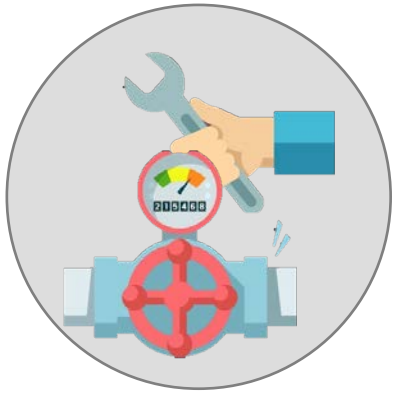
OUTDOOR RESIDENTIAL USE

+

CII LANDSCAPE

+

WATER LOSS



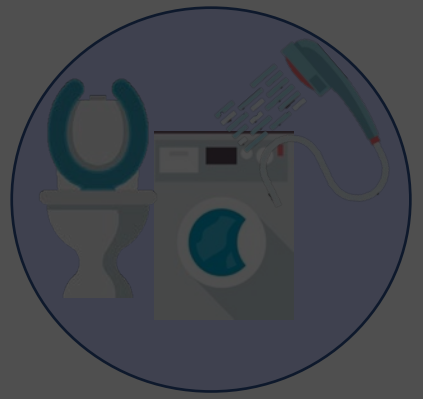
+ (Variances) + (Recycled Water Bonus)

= WATER PROVIDER'S UNIQUE WATER TARGET

QUICK REVIEW:CALCULATING WATER USE OBJECTIVES

Providers will need to meet the SUM of the standards

INDOOR USE



+

OUTDOOR RESIDENTIAL USE

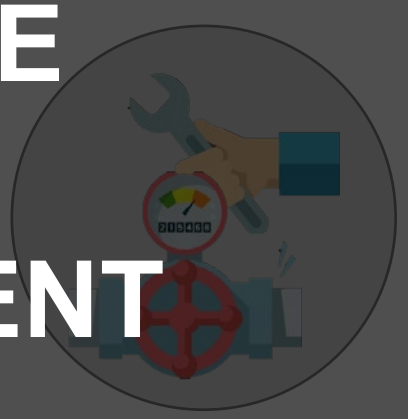
+

CII LANDSCAPE

LANDSCAPE AREA MEASURMENT

+

WATER LOSS



+ (Variances) + (Recycled Water Bonus)

= WATER PROVIDER'S UNIQUE WATER TARGET

What we *WON'T* Cover

1. Overview of the "Long-term Framework" legislation
2. Methods the state used to calculate landscape area measurements (LAM)
3. Defining landscape area classifications
4. How to assess landscape area classifications for accuracy
5. Discussing the outdoor standard methodology (i.e. ETAF & Effective Precip.)

Check out CalWEP's FAQ shared in the chat

What we *WILL* Cover

1. Overview of file types in your data package
2. How to access the verification portal and measurement tool
3. Recommended steps for reviewing your *residential* landscape area measurement results
4. Recommended response format to DWR
5. Future webinar topics

Background

- Landscape area for residential and commercial/ industrial/ institutional will be used to establish an agency's outdoor water use standard (June 2022).
- To-date most agencies should have received their LAM data for *residential* accounts from DWR
- Each agency is responsible for:
  1. Reviewing the *residential* landscape area results for their service area
  2. Verifying that all *residential* parcels were included in the analysis

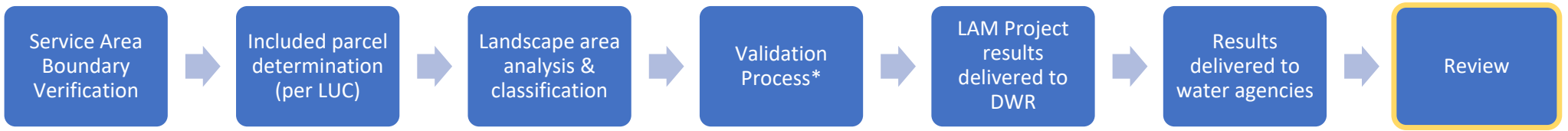
DWR LAM Data Overview

Jazmine Molloy, PM – Eagle Aerial Solutions

EAGLE AERIAL
SOLUTIONS

quantum
SPATIAL

The analysis phase of the Landscape Area Measurement & Classification project is complete



So…what do the water agencies need to do?

The landscape area analysis is done

- Now -

Agencies need to confirm that the areas/parcels that were included in the analysis were the correct ones

EAGLE AERIAL SOLUTIONS

What you receive from DWR:

Email from DWR

From: Hayes, Scott@DWR <Scott.Hayes@water.ca.gov>
Sent: Tuesday, February 2, 2021 8:32 AM
To: Joe Smith<jsmith@ABCWater.com>
Subject: Landscape Area Measurement – ABC Water (413)

Dear Joe Smith,

Thank you for your participation in the California Department of Water Resources Urban Residential Landscape Area Measurement (LAM) project.
Department of Water Resources is required by AB1668/SB606 of 2018 to provide each urban retail water supplier with data regarding the area of irrigable lands.
The initial study report classifying outdoor residential landscape areas within your agency boundary is attached.

Please provide your input on the accuracy and completeness of the provisional estimated residential landscape area within your service area.
Because the Miscellaneous parcels (land use codes 0010 through 0027) in your agency comprise greater than 5 percent of the total irrigable area,
we ask you to confirm that the estimated residential landscape areas for the Miscellaneous parcels are indeed served by a residential water supply.
Please review the data carefully and report back to DWR with your determination on the Miscellaneous parcels and any other comments, corrections or suggestions you may have by March 1, 2021 using the following email address: WUE_LAM@water.ca.gov.

Please note that the final irrigable landscape area for your agency may change based on feedback we receive from you, stakeholders, and further investigations we may conduct.

Please use this link to download your agencies' provisional GIS results: https://cadwr.box.com/s/qwyad4kqhaymgzs3kjpp3yuptkjqthhb. The download link will expire on May 30, 2021.

The downloadable zip file contains the following ESRI shapefiles, CSV and PDF files:
Landscape Area Estimates Project README, Agency report, AgLands_Mask, Horse_Corral_Mask, UDL_Mask, A_UID_Summary, B_UID_Summary, Area of Interest (AOI),
Parcels_All, Parcels_Queried, Parcels_AB_Relationship, Parcels_Disputed, and the VoidPoly.

File details are described in the attached README.pdf which is also included in the download package.
Upon successful download of your districts' results, please forward the information to the appropriate party in your organization.
A representative from DWR project partner, Eagle Aerial, will also contact you with further information about accessing the data portal where you may review study results with aerial imagery.

If you are unable to access and download the data, please contact me immediately at, Scott.Hayes@water.ca.gov.

Sincerely,

Scott Hayes
Environmental Scientist
Scott.Hayes@water.ca.gov
916-654-6125
Division of Regional Assistance, Water Use Efficiency Branch

2 Attachments: agency report + README.pdf

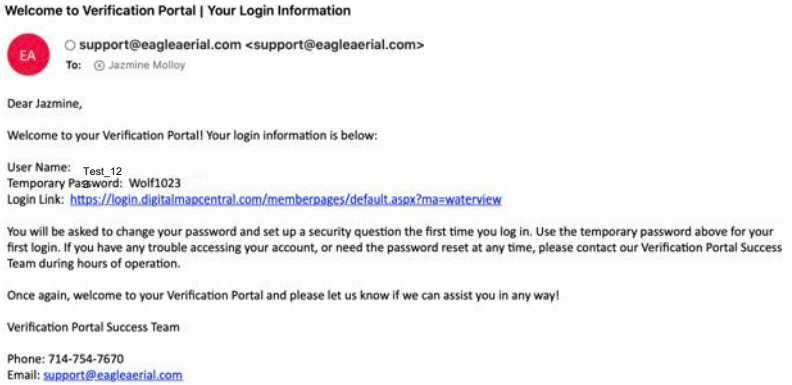
EAGLE AERIAL SOLUTIONS

Deliverables:

Downloadable zip file contains the following ESRI shapefiles, CSV and PDF files:

- Landscape Area Estimates Project README
- Agency report
- Area of Interest (AOI) :
- Parcels_All
- A_UID_Summary
- B_UID_Summary
- Parcels_Queried
- AgLands_Mask
- Horse_Corral_Mask
- UDL_Mask
- Parcels_AB_Relationship
- Parcels_DisputedVoidPoly

Access to the DWR Verification Portal



Welcome to Verification Portal | Your Login Information

EA support@eagleaerial.com <support@eagleaerial.com>
To: Jazmine Molloy

Dear Jazmine,

Welcome to your Verification Portal! Your login information is below:

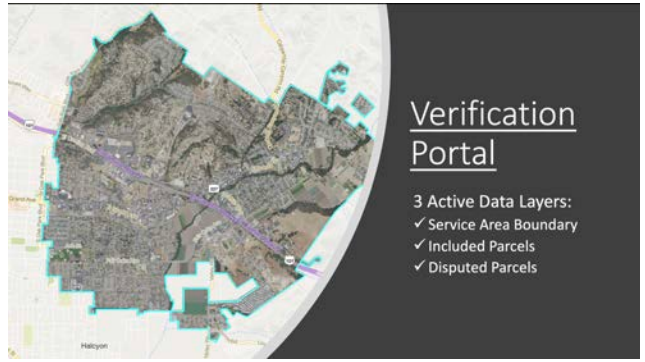
User Name: Test_12
Temporary Password: Wolf1023
Login Link: https://login.digitalmapcentral.com/memberpages/default.aspx?ma=waterview

You will be asked to change your password and set up a security question the first time you log in. Use the temporary password above for your first login. If you have any trouble accessing your account, or need the password reset at any time, please contact our Verification Portal Success Team during hours of operation.

Once again, welcome to your Verification Portal and please let us know if we can assist you in any way!

Verification Portal Success Team

Phone: 714-754-7670
Email: support@eagleaerial.com



Deliverables:

Downloadable zip file contains the following ESRI shapefiles, CSV and PDF files:

- Landscape Area Estimates Project README
- Agency report
- Area of Interest (AOI) :
- Parcels_All
- A_UID_Summary
- B_UID_Summary
- Parcels_Queried
- AgLands_Mask
- Horse_Corral_Mask
- UDL_Mask
- Parcels_AB_Relationship
- Parcels_DisputedVoidPoly

Access to the DWR Verification Portal

Welcome to Verification Portal | Your Login Information

EA support@eagleaerial.com <support@eagleaerial.com>
To: Jazmine Molloy

Dear Jazmine,

Welcome to your Verification Portal! Your login information is below:

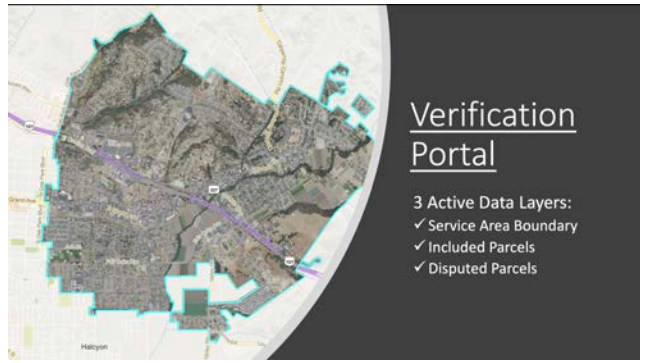
User Name: Test_12
Temporary Password: Wolf1023
Login Link: https://login.digitalmapcentral.com/memberpages/default.aspx?ma=waterview

You will be asked to change your password and set up a security question the first time you log in. Use the temporary password above for your first login. If you have any trouble accessing your account, or need the password reset at any time, please contact our Verification Portal Success Team during hours of operation.

Once again, welcome to your Verification Portal and please let us know if we can assist you in any way!

Verification Portal Success Team

Phone: 714-754-7670
Email: support@eagleaerial.com



Landscape Area Estimates Project README:

A_UID_Summary and B_UID_Summary

'A_UID_Summary.shp' is the landscape area estimate dataset for the original parcel layer. This layer contains Assessor Parcel Numbers (APN), and is identical to the data viewable in the Data Review Portal.

A_UID_Summary data fields

Field Name	Type	Length	Description	example Attribute Values
DIST_NAME	String	70	Name of the water district as outlined in appendix A of the contract	Ex. Rancho California Water District
DIST_NUM	Short Integer	3	Water district number as outlined in appendix A of the contract	Ranges from 1 through 403
LAST_MOD	Date	8	The date A_UID_Summary was last updated. Used for version control	Ex. 04/02/2019
IMG_YEAR	Short Integer	4	Year of the 4-band imagery that was used to derive the data	Ex. 2018
APN	String	40	Property APN/ID as inventoried by the tax assessor	Ex. 125-100-11
ZIP	String	5	Property zip code returned from corrected address process	Ex. "92120" in 123 main street unit A Anytown CA 92120
LUC	String	4	Four-digit Land Use Code (held as string field to preserve leading zeros). Indicates the use of a property. Refer to LUCDSC field for the corresponding description.	Ex. 0015, 9016, etc.
A_UID	String	50	Unique ID added to the original parcel layer by QSI	Ex. Ranch00000000341
IMP_AREA	Double	8	Area of impervious surfaces within the parcel, in square feet	Ex. 90.2356
I_AREA	Double	8	Area of irrigated land within the parcel, in square feet	Ex. 623.2356

EAGLE AERIAL SOLUTIONS

Agency Report:

Introduction

In August of 2018, the California Department of Water Resources (CADWR) contracted Quantum Spatial, Inc., an NV5 company, with support from Eagle Aerial Solutions, to provide landscape area estimates for single-family and multi-family residential parcels for all urban retail water suppliers in California. The results of this endeavor will aid in the designation of urban retail water use efficiency standards and objectives under Assembly Bill (AB) 1668 and Senate Bill (SB) 606. This report, specific to Example Water District, briefly outlines some key summary statistics about the water district area of interest (AOI), the parcels included in the analysis, as well as key results of the analysis.

Note: Results for water districts completed during the Phase 2B pilot stage were generated using one-foot resolution, 4-band imagery collected in 2016. Results for water districts completed during Phase 3 were generated using one-foot resolution, 4-band imagery collected in 2018. The imagery for Example Water District was collected in 2018.

Additionally, due to the presence of overlap in the original parcel layers (the 'A' layer), a topologically corrected version of the parcel layer (the 'B' layer) is created in order to summarize landscape area estimates at the district level without duplicating areas. The parcels selected for training and validating the district model were selected from the topologically corrected parcel layer and then related back to the original layer using the crosswalk table provided in the file geodatabase deliverable.

For reference, the Example Water District is shown in Figure 1, along with its location in the state of California.

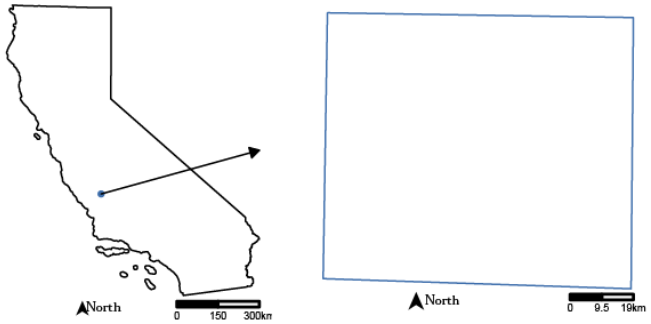


Figure 1: Location of the water district in California (left) and area of interest of the water district (right)

Landscape Area Estimates Process Overview

In the Landscape Area Estimates Project, remote sensing and advanced machine learning techniques are leveraged in order to measure the landscaped areas of Example Water District. Here, we briefly describe a high-level overview of the modeling procedure.

For each water district, four band, one-foot resolution imagery is utilized to model land cover and land use across the parcel areas. In the initial stages, water district imagery is segmented into objects by grouping zones of like-valued pixels called super-pixels. These super-pixels become the foundational classification unit for this project. After the imagery has been segmented, a unique model is trained for each water district using parcel similarity relationships and reference parcel data that are manually digitized by human photo interpreters. A graphic showing the primary phases of imagery classification is shown in Figure 2.

Additionally, manually derived land masks that identify large and challenging to model areas are created by Quantum Spatial's digitizing team and reviewed by the California Department of Water Resources. Three land masks are used to classify undeveloped lands, agricultural lands, and horse corrals (an example of the derived land masks is shown in Figure 4). These masks are used to ensure that correct land use classifications are captured across the entire water district.

Throughout the modeling process, rigorous internal checks are used to ensure satisfactory model performance. Once modeling has been completed, an independent validation is performed using manually digitized parcel data that was withheld from the modeling process. An example of the final classification for Example Water District is shown in Figure 5.

Figure 2: High level modeling process in the Landscape Area Estimates Project. (A) Water district imagery. (B) Imagery segmentation into super-pixel objects. (C) Classified super-pixel objects.

EAGLE AERIAL SOLUTIONS

Agency Report:

Classification example

Figure 5 shows an example of model classification for an image tile in the Example Water District, to showcase model performance.

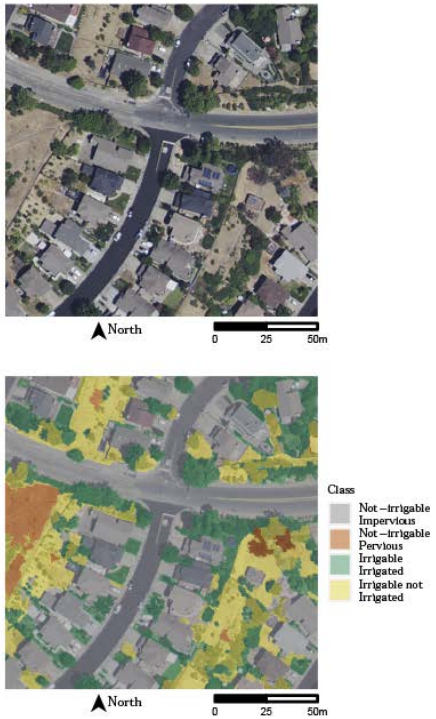


Figure 5: Example of modeling (bottom) on a selected image tile (top). This visualization represents the 8 classes being delivered to DWR. For 8-class definitions, please see Table A2 of the appendix.

Derived Land Masks

The derived land masks created as a part of this analysis are used to manually capture regions of undeveloped land, agriculture, and horse corrals due to their visual similarity to other irrigated or irrigable not-irrigated landscapes throughout the water district. When applied to the Landscape Area Estimates product, they classify the covered regions of super-pixels as not-irrigable landscapes. Of the parcels in the analysis, 13 (0.24%) contain some amount of horse corral, 1,417 (26.32%) contain some amount of undeveloped lands, and 4 (0.07%) contain some amount of agriculutral lands. In total, the AOI contains 4.60 acres, of horse corral, 1,518.74 acres of undeveloped lands, and 17.02 acres of agricultural lands. Examples of both horse corral and undeveloped lands identification are provided in Figure 4.

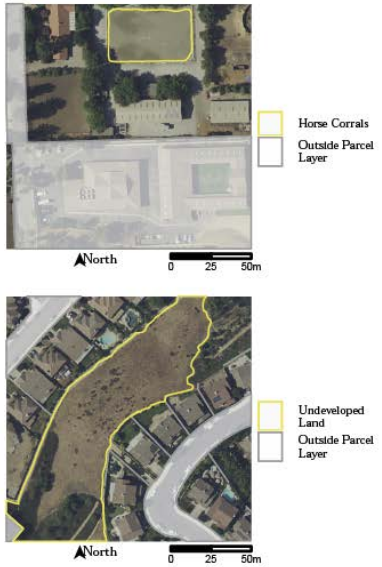


Figure 4: Example of horse corral (top) and undeveloped lands (bottom) identification.

EAGLE AERIAL SOLUTIONS

Agency Report:

Summary of Results

The 5,384 single-family and multi-family residential parcels in Example Water District are composed of 69.1 percent not irrigable, 18.6 percent irrigated, and 12.3 percent irrigable not-irrigated landscapes. The district-level weighted accuracy of the classification is 98.13% with a confidence interval of [98.08%, 98.18%]. Table 10 shows the water district accuracy statistics at the point, parcel, and district level. The total area at the three-class level for the whole district is provided in Table 4. In addition, the irrigation status summary and mean and median percent of irrigation classes found in parcels of each LUC are provided in Tables 5 and 6. The average class coverage by parcel size and a summary of canopy cover by parcel size are included in Table 7 and Table 8.

Table 4: Total predicted area for the district by irrigation status level. For irrigation status definitions, please see Table A1 of the appendix.

Class	Percent of area in analysis	Total area (sq. ft.)	95% confidence interval (sq. ft.)
Not-irrigable	69.1	34,487,738.12	3,015,970.16
Irrigable irrigated	18.6	9,300,154.60	2,071,769.01
Irrigable not-irrigated	12.3	6,153,870.85	1,402,367.47

Table 5: Total predicted area by LUC at the irrigation status level in square feet. For irrigation status definitions, please see Table A1 of the appendix. For LUC definitions, please see Table A19 of the appendix.

LUC	Total NI area (sq. ft.)	Total II area (sq. ft.)	Total INI area (sq. ft.)
0010	948,397.21	122,905.03	71,864.14
1000	9,612.80	53.23	0.00
1001	22,035,368.78	8,256,935.95	5,221,400.85
1004	149,352.24	69,360.28	24,221.74
1006	9,273.15	1,888.65	1,045.94
1008	7,918,149.15	159,980.97	400,410.58
1100	18,524.35	6,123.00	10,612.44
1109	1,517,374.11	102,408.63	96,800.09
1112	1,831,166.70	573,262.05	320,325.19
9106	50,544.41	7,294.80	7,230.69

Table 6: Percent coverage of LUC at the irrigation status level. For irrigation status definitions, please see Table A1 the appendix. For LUC definitions, please see Table A19 of the appendix.

	NI		II		INI	
LUC	Median (%)	Mean (%)	Median (%)	Mean (%)	Median (%)	Mean (%)
0010	83.8	82.9	5.6	10.8	4.2	6.3
1000	99.4	99.4	0.6	0.6	0.0	0.0
1001	63.8	64.1	21.8	22.6	10.0	13.2
1004	78.3	78.3	10.4	16.0	1.8	5.8
1006	76.7	76.7	14.5	14.5	8.8	8.8
1008	91.7	84.8	1.6	5.0	6.2	10.2
1100	52.5	52.5	17.4	17.4	30.1	30.1
1109	82.7	83.3	6.5	10.1	4.7	6.6
1112	69.4	69.0	18.1	18.4	9.8	12.6
9106	77.7	77.7	11.2	11.2	11.1	11.1

EAGLE AERIAL SOLUTIONS

Deliverables (continued):

Downloadable zip file contains the following ESRI shapefiles, CSV and PDF files:

- ~~Landscape Area Estimates Project README~~
- ~~Agency report~~
- Area of Interest (AOI)
- Parcels_All
- A_UID_Summary
- B_UID_Summary
- Parcels_Queried
- AgLands_Mask
- Horse_Corral_Mask
- UDL_Mask
- Parcels_AB_Relationship
- Parcels_DisputedVoidPoly

EAGLE AERIAL SOLUTIONS

Spatial Files:

- **Area of Interest (AOI) :** Agency's service area boundary
- **Parcels_All:** All parcels delivered from assessor
- **A_UID_Summary :** Topographically flat layer of analyzed parcels, contains commonly recognized parcel attribution (APN), may contain minor overlap
- **B_UID_Summary :** Topographically corrected layer of analyzed parcels, best for agency wide landscape summaries, overlap is eliminated so areas are not duplicated
- **Parcels_Queried:** All parcels included in the analysis PLUS the VOID shape*
- **Parcels_DisputedVoidPoly:** Residentials parcels within overlapping water agency service areas
- **AgLands_Mask:** Irrigated farmland greater than one acre - not included in analysis
- **Horse_Corral_Mask:** Horse corrals and horse arenas – no included in analysis
- **UDL_Mask:** Land that is undeveloped and not irrigable
- **Parcels_AB_Relationship**: Crosswalk to relate the A_UID and B_UID layers used for advanced GIS analysis

EAGLE AERIAL SOLUTIONS

Spatial Files:

- **Area of Interest (AOI) :** Agency's service area boundary
- **Parcels_All:** All parcels delivered from assessor
- **A_UID_Summary :** Topographically flat layer of analyzed parcels, contains commonly recognized parcel attribution (APN), may contain minor overlap
- **B_UID_Summary :** Topographically corrected layer of analyzed parcels, best for agency wide landscape summaries, overlap is eliminated so areas are not duplicated
- **Parcels_Queried:** All parcels included in the analysis PLUS the VOID shape*
- **AgLands_Mask:** Irrigated farmland greater than one acre - not included in analysis
- **Horse_Corral_Mask:** Horse corrals and horse arenas – no included in analysis
- **UDL_Mask:** Land that is undeveloped and not irrigable
- **Parcels_AB_Relationship**: Crosswalk to relate the A_UID and B_UID layers used for advanced GIS analysis
- **Parcels_DisputedVoidPoly:** Residentials parcels within overlapping water agency service areas

EAGLE AERIAL SOLUTIONS

Area of Interest (AOI) :

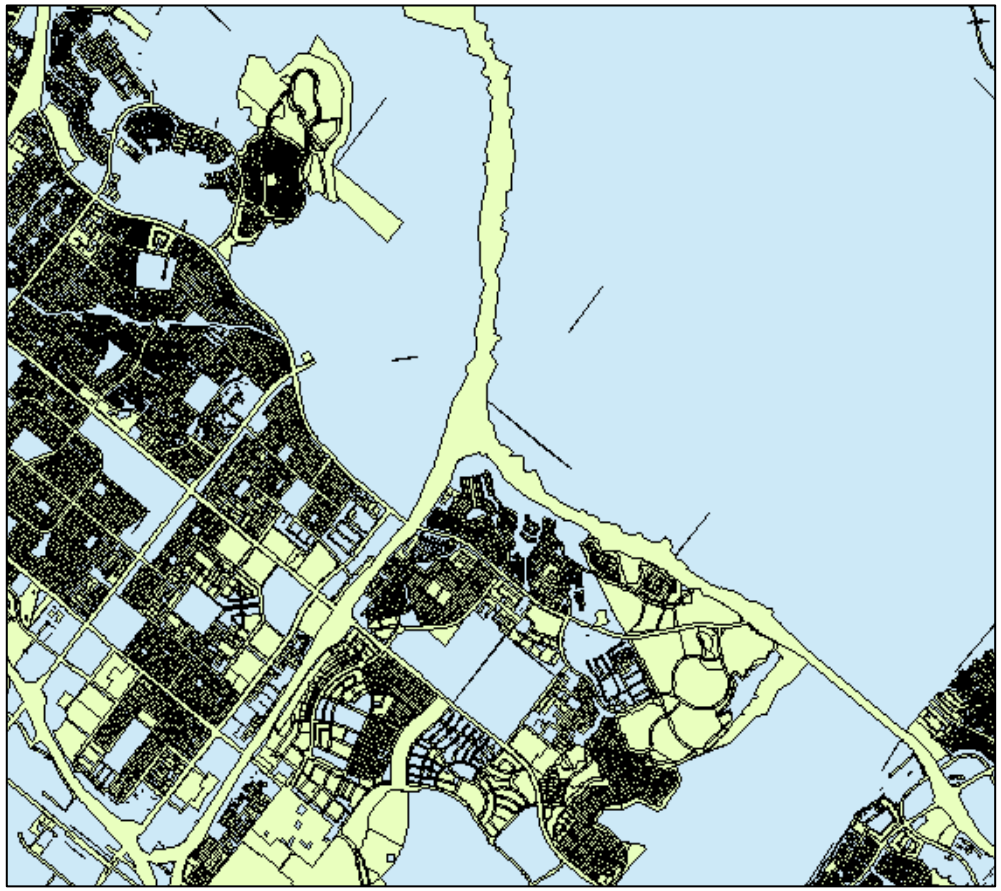
- Represents the water supplier boundary
- Includes fields that represents the total district landscape are estimates based on the topologically corrected parcel layer (the B_UID_Summary layer), measured in sqft

TOTAL_II	Total irrigated area in square feet. **(I_AREA + POOL_AREA)**
TOTAL_INI	Total irrigable not irrigated area in square feet. **(INI_AREA)**
TOTAL_NI	Total not irrigable area in square feet. **(IMP_AREA + NI_AREA + HCL + UDM + AG)**

LAST_MOD	IMG_YEAR	TOTAL_II	TOTAL_INI	TOTAL_NI
10/2/2020	2018	85421328.11	10845179.88	176281539.46

EAGLE AERIAL SOLUTIONS

Parcels_All:

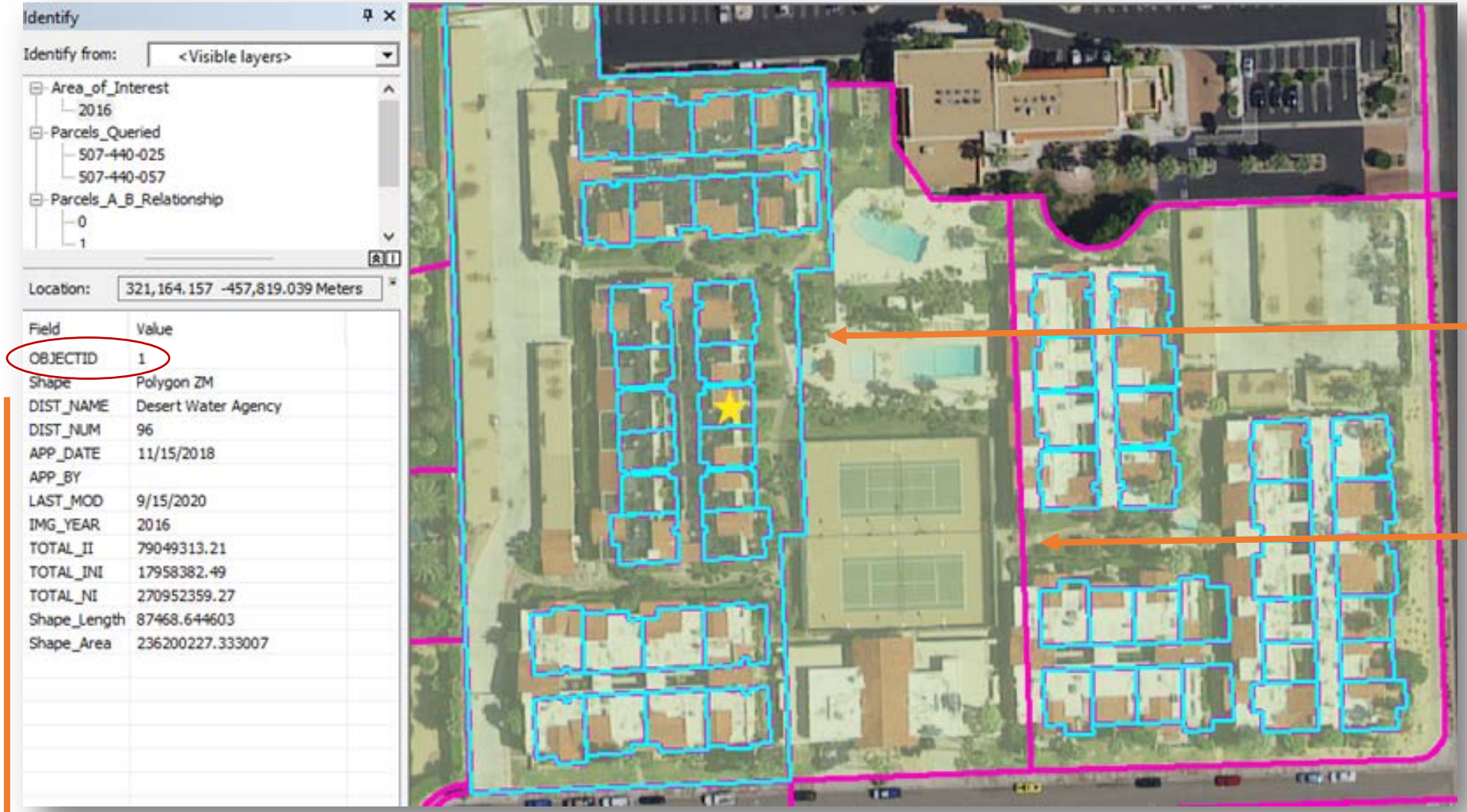


Represents the whole parcel dataset within the AOI

Parcels_All

	OBJECTID *	Shape *	PIN	FIPS	APN	LUC	HSNUM	DIR	STNAME	SUFFIX
	1	Polygon ZM	13913207	06029	139-132-07	1103	210	E	9TH	ST
	2	Polygon ZM	13921014	06029	139-210-14	8007				
	3	Polygon ZM	13916103	06029	139-161-03	1001	807	S	KERN	ST
	4	Polygon ZM	01912115	06029	019-121-15-01	1001	731	S	BROWN	ST
	5	Polygon ZM	01911120	06029	019-111-20	8002	709		DR MARTIN LUTHER KING JR	BLVD

Parcels_Queried:



Included residential parcels

VOID shape parcel completion

1= VOID (there is no parcel)
Null = Not enough attribution to determine (no APN)

EAGLE AERIAL SOLUTIONS

Best Suggestion:

Keep it simple…stick to AOI + Parcels_All + Parcels_Queried

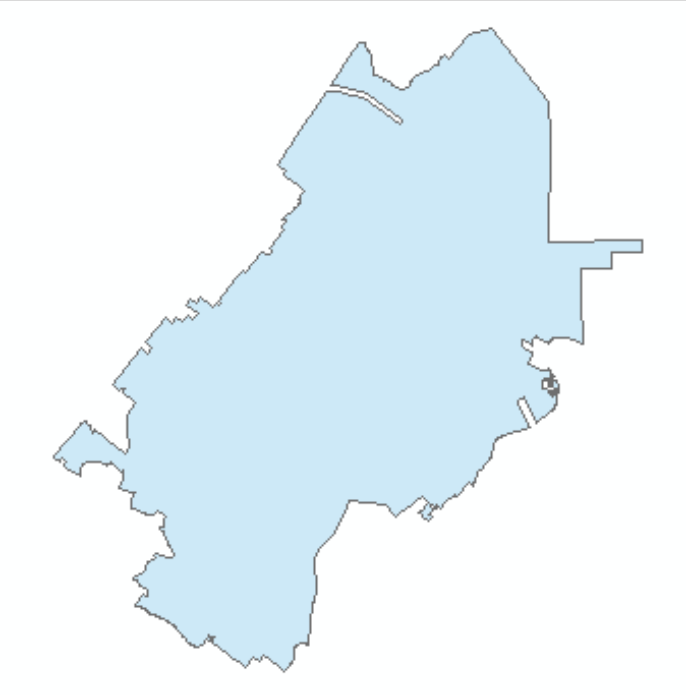


Figure 1 - Area of Interest

Figure 2 – Parcels All

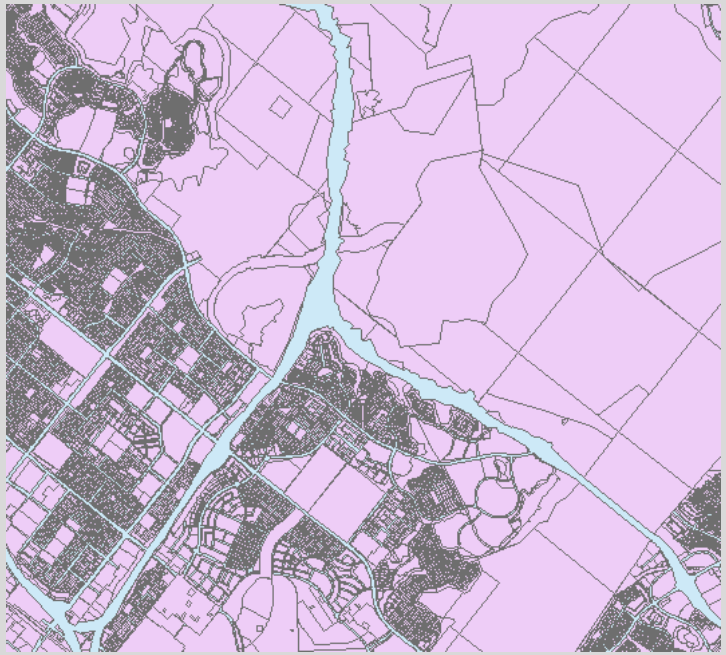


Figure 3 - Parcels Queried

<u>Using GIS:</u>

- Point file using Parcels_All & Parcels_Queried as reference

<u>No GIS:</u>

- Create spread sheet
  - Identify parcel (APN and/or address)
  - Add comments

EAGLE AERIAL SOLUTIONS

Mask Layers:

The masks are polygons interpreted from imagery as not irrigable in the context of SFM or MFR water use.
These layers are manually delineated and used to increase the accuracy of irrigation estimates.

- **AgLands_Mask**: irrigated farmlands greater than 1 acre
- **Horse_Corral_Mask**: horse corrals and horse arenas
- **UDL_Mask**: land that is undeveloped and not irrigable

EAGLE AERIAL SOLUTIONS

Deliverables (Continued):

Downloadable zip file contains the following ESRI shapefiles, CSV and PDF files:

- ~~Landscape Area Estimates Project README~~
- ~~Agency report~~
- ~~Area of Interest (AOI) :~~
- ~~Parcels_All~~
- ~~A_UID_Summary~~
- ~~B_UID_Summary~~
- ~~Parcels_Queried~~
- ~~AgLands_Mask~~
- ~~Horse_Corral_Mask~~
- ~~UDL_Mask~~
- ~~Parcels_AB_Relationship~~
- Parcels_DisputedVoidPoly

Access to the DWR Verification Portal

Welcome to Verification Portal | Your Login Information

EA support@eagleaerial.com <support@eagleaerial.com>
To: Jazmine Molloy

Dear Jazmine,

Welcome to your Verification Portal! Your login information is below:

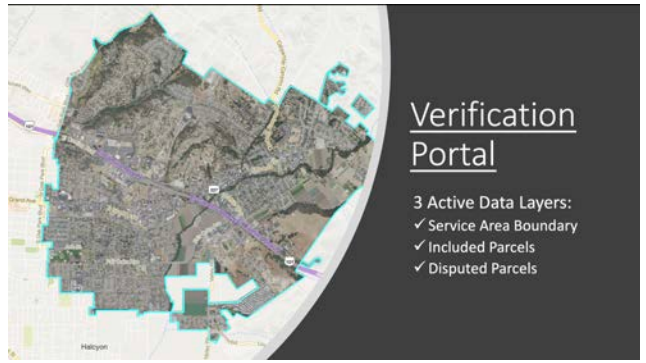
User Name: Test_12
Temporary Password: Wolf1023
Login Link: https://login.digitalmapcentral.com/memberpages/default.aspx?ma=waterview

You will be asked to change your password and set up a security question the first time you log in. Use the temporary password above for your first login. If you have any trouble accessing your account, or need the password reset at any time, please contact our Verification Portal Success Team during hours of operation.

Once again, welcome to your Verification Portal and please let us know if we can assist you in any way!

Verification Portal Success Team

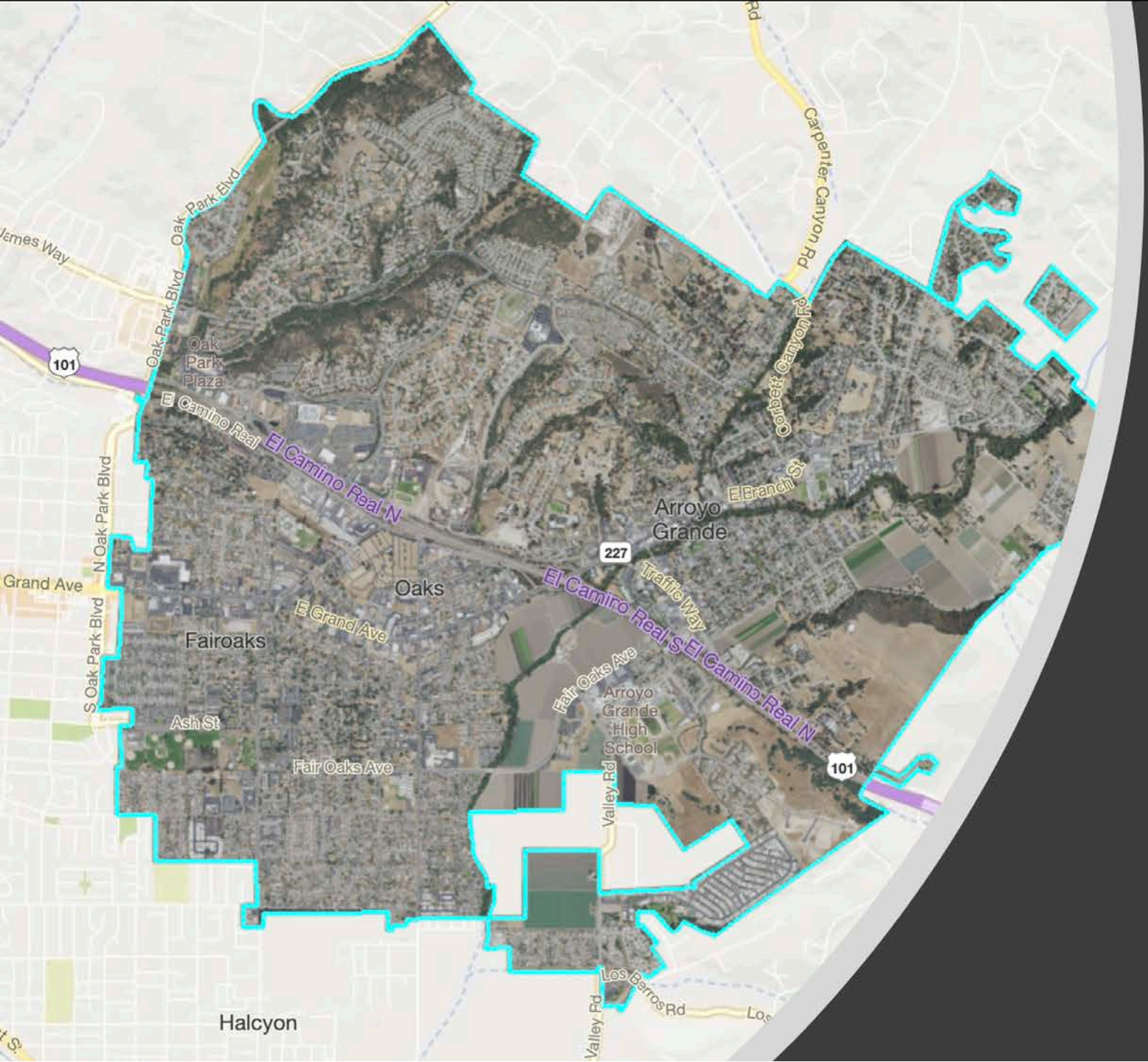
Phone: 714-754-7670
Email: support@eagleaerial.com



Parcels_DisputedVoidPoly

- Disputed parcels are SFR & MFR parcels that are shared spatially with a neighboring water agency
- Landscape estimates are not included in summaries until dispute is resolved

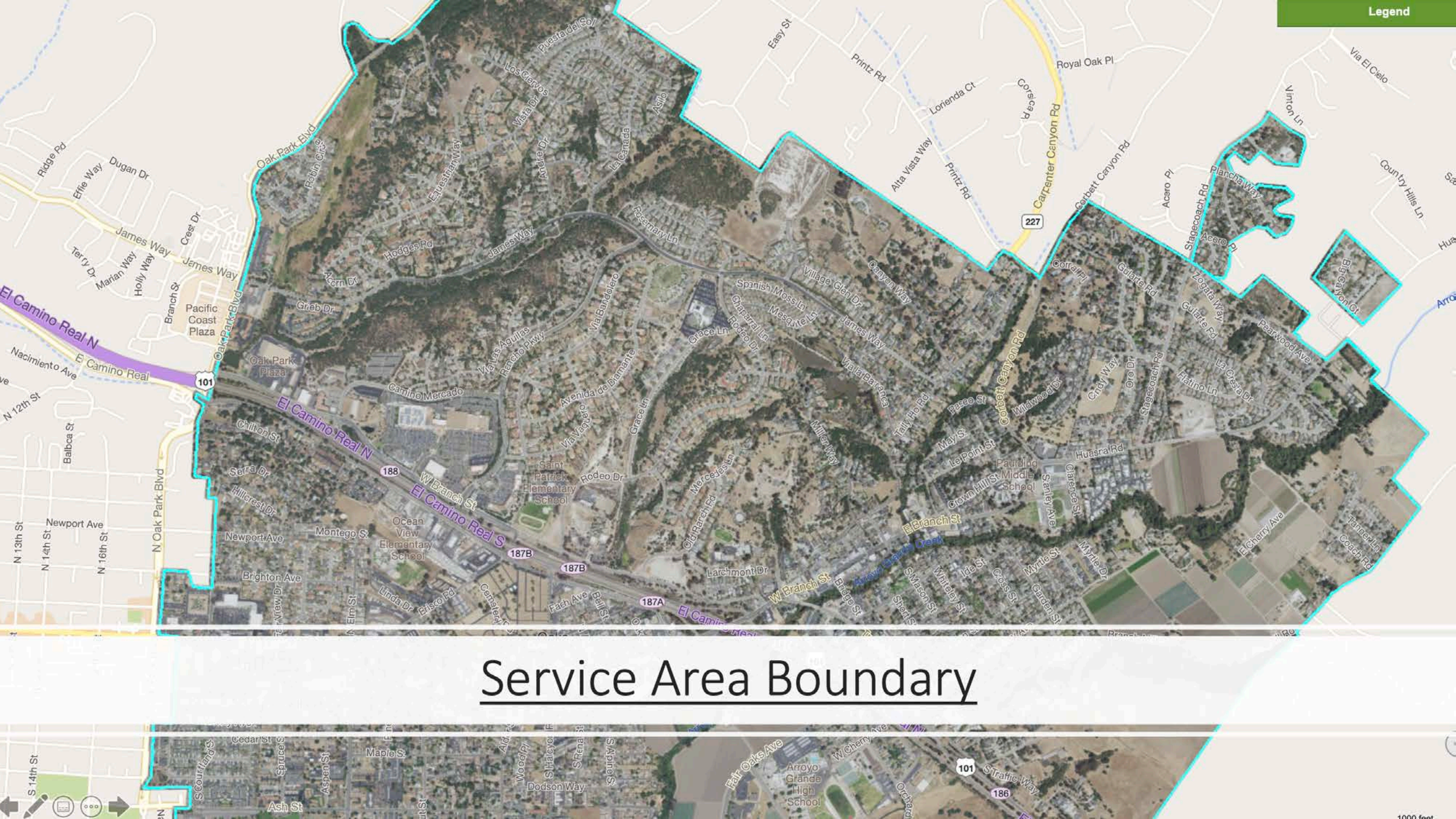
EAGLE AERIAL SOLUTIONS

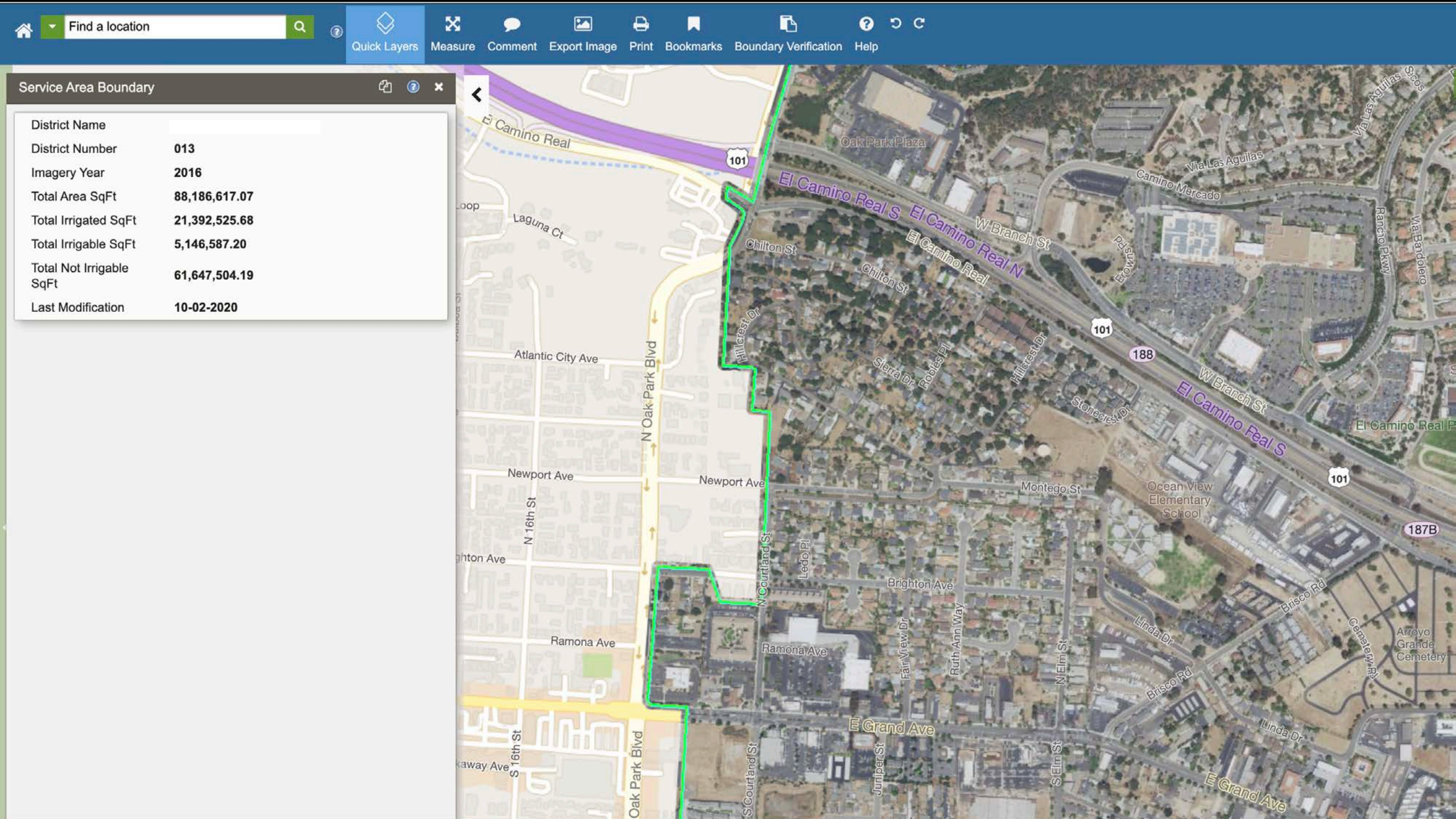


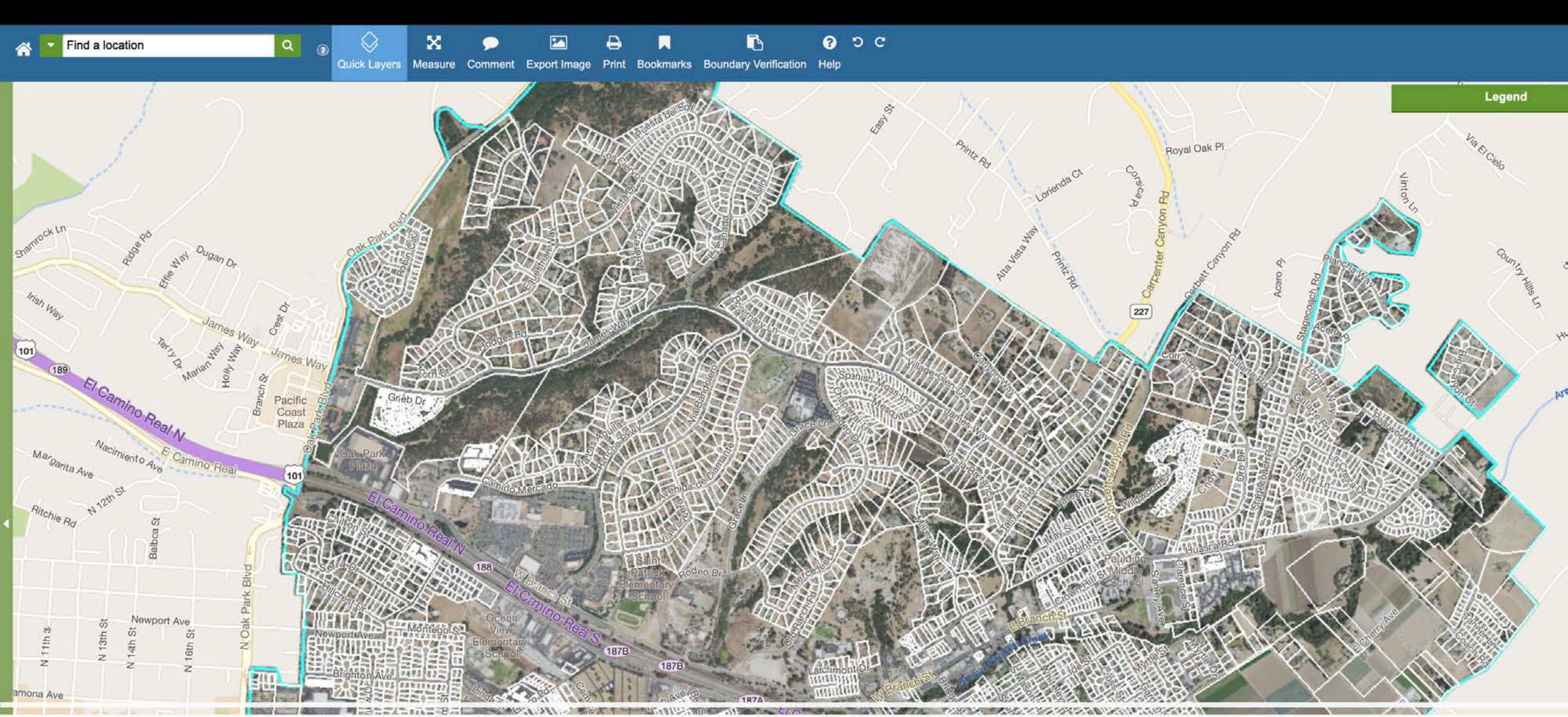
DWR Verification Portal

3 Active Data Layers:

- ✓ Service Area Boundary
- ✓ Included Parcels
- ✓ Disputed Parcels


Legend
Service Area Boundary
El Camino Real N
El Camino Real
El Camino Real S
W Branch St
Oak Park Blvd
Pacific Coast Plaza
Oak Park Plaza
Saint Patrick Elementary School
Ocean View Elementary School
Pauldino Middle School
Arroyo Grande High School
Carrenter Canyon Rd
Corbett Canyon Rd
Printz Rd
Royal Oak Pl
James Way
Hodges Rd
Rodeo Dr
Grace Ln
Camino Mercado
Avenida de Diamante
Via Vaquero
Via Las Aguilas
Rancho Pkwy
Via Barandero
Village Glen Dr
Spanish Moss Ln
Chaparral Ln
Mesquite Ln
Rosemary Ln
Canyon Way
Via La Barranca
Tally Ho Rd
Old Ranch Rd
Mercedes Ln
Larchmont Dr
Chilton St
Serra Dr
Hillcrest Dr
Newport Ave
Montego St
Brighton Ave
Linda Dr
Erisco Rd
Rodeo Dr
Via El Cielo
Vinton Ln
Country Hills Ln
Stagecoach Rd
Acaro Pl
Plancha Way
Gularte Rd
Zobata Way
Pearwood Ave
La Cresta Dr
Flathno Ln
Cindy Way
Oro Dr
Mildwood Dr
Huasna Rd
Paseo St
May St
Le Point St
Crown Hill St
Clarence St
Stanley Ave
E Branch St
E Cherry Ave
Myrtle St
Myrtle Dr
Tanner Ln
Coach Rd
Ide St
Cross St
Garden St
Whiteley St
S Mason St
Bridge St
Short St
Easy St
Alta Vista Way
Lorienda Ct
Los Ciervos
Puesta del Sol
Vista Dr
Asilo
La Canada
Equestrian Way
Robin Cir
Oak Park Blvd
Ridge Rd
Effie Way
Dugan Dr
Cress Dr
Terry Dr
Marian Way
Holly Way
Branch St
Greb Dr
Corn Dr
Nacimiento Ave
N 12th St
Balboa St
N Oak Park Blvd
N 13th St
N 14th St
N 16th St
Newport Ave
Maple St
Cedar St
Spruce St
Aspen St
Ash St
S Courtland St
S 14th St
Elm St
Wood Pl
Dodson Way
Fair Oaks Ave
W Cherry Ave
Traffic Way
Orchard
101
186
227
187A
187B
188

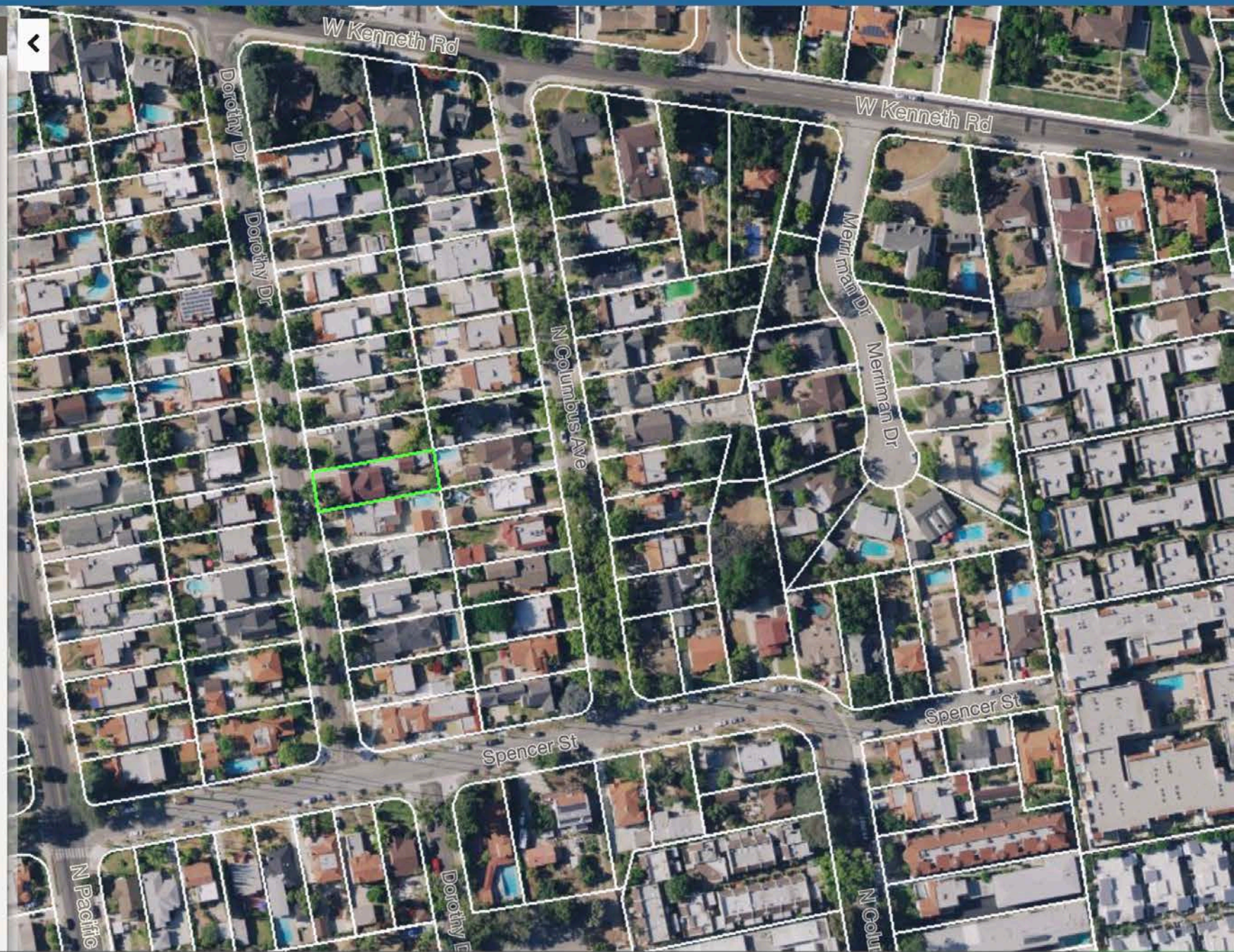

Find a location
Quick Layers
Measure
Comment
Export Image
Print
Bookmarks
Boundary Verification
Help
Service Area Boundary
District Name
District Number 013
Imagery Year 2016
Total Area SqFt 88,186,617.07
Total Irrigated SqFt 21,392,525.68
Total Irrigable SqFt 5,146,587.20
Total Not Irrigable SqFt 61,647,504.19
Last Modification 10-02-2020
El Camino Real
101
Oak Park Plaza
Via Las Aguilas
Camino Mercado
El Camino Real S
El Camino Real N
W Branch St
Chilton St
Laguna Ct
Atlantic City Ave
N Oak Park Blvd
Hillcrest Dr
Sierra Dr
Robles Pl
Stonecrest Dr
188
Newport Ave
N 16th St
Montego St
Ocean View Elementary School
187B
N Courtland St
Ledo Pl
Brighton Ave
Ramona Ave
Fair View Dr
Ruth Ann Way
N Elm St
Linda Dr
Brisco Rd
Arroyo Grande Cemetery
Cemetery Rd
E Grand Ave
S 16th St
S Oak Park Blvd
S Courtland St
Juniper St
S Elm St
Rancho Pkwy
Via Bandolero

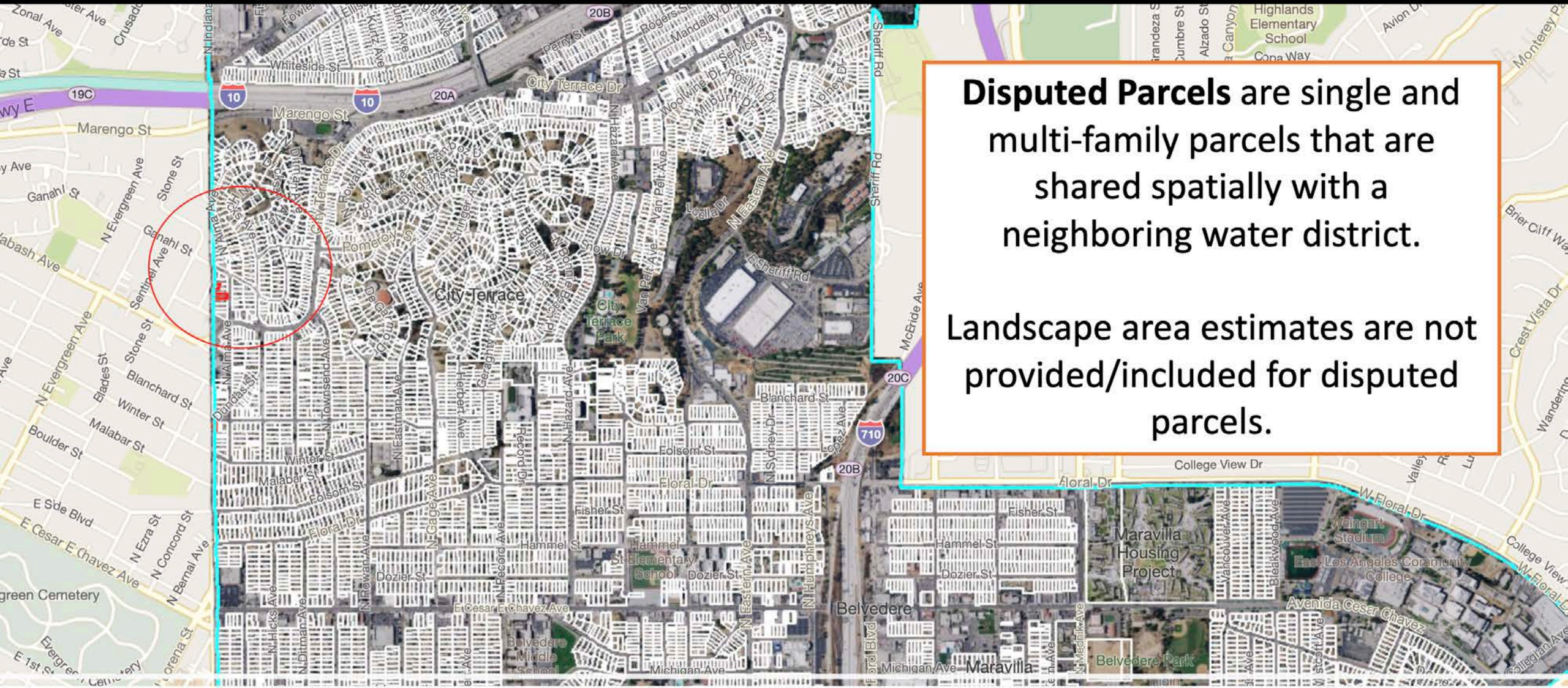


Included Parcels

Included Parcels

District Name	
APN	**5633-018-026**
LUC	**1001**
Total Area SqFt	**7,468.30**
Total Irrigated SqFt	**1,780.41**
Total Irrigable SqFt	**494.06**
Total Not Irrigable SqFt	**5,193.83**
Last Modification	**10-01-2020**

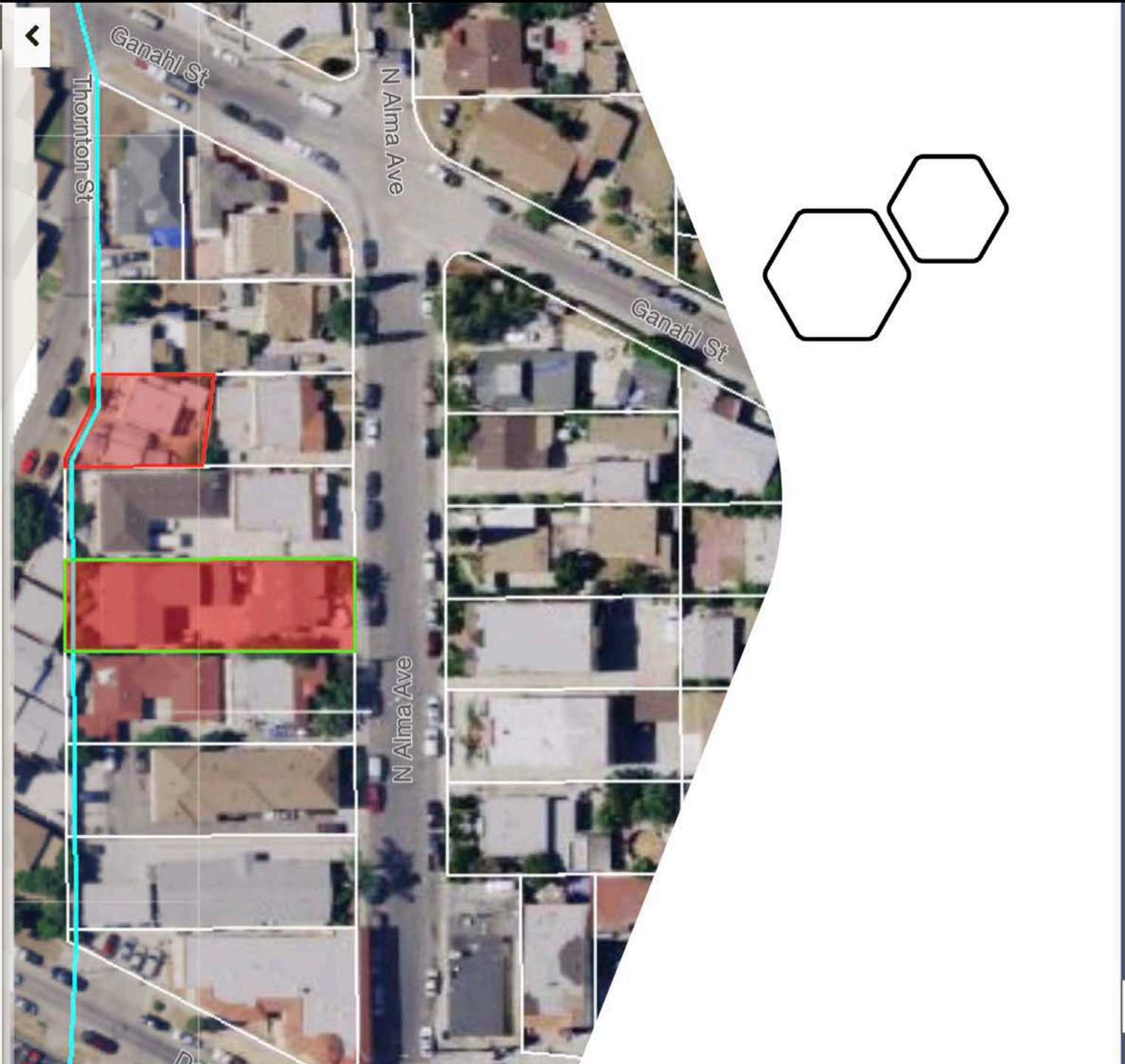




Disputed Parcels

Disputed Parcels

APN	**5229-024-011**
LUC	**1101**
District Name	
District Number	**47**
OVLP District Name	
OVLP District Number	**203**
Imagery Year	**2016**
Last Modification	**10-02-2020**

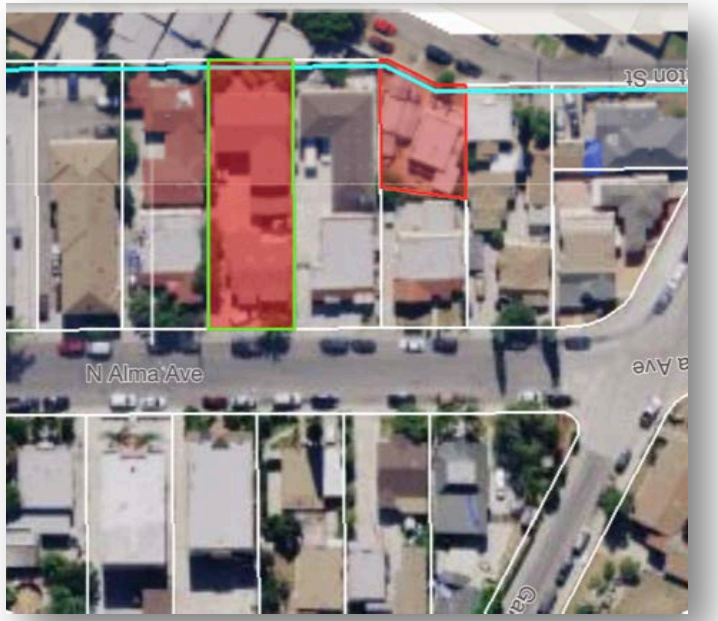


EAGLE AERIAL SOLUTIONS

How to resolve your disputed parcels

Using GIS

- Point file using Parcels_DisputedVoidPoly as reference
- Create notes column directly on Parcels_DisputedVoidPoly layer
- Email DWR – INCLUDE OVERLAPPING AGENCY in communication with DWR



Non GIS

- Create spread sheet
  - Identify parcel (APN)
  - Add identifying information (meter number, account number, etc)
- Email DWR – INCLUDE OVERLAPPING AGENCY in communication with DWR

EAGLE AERIAL SOLUTIONS

Recap:

REMINDER

DWR will be hosting a final stakeholder meeting in APRIL.
Stay tuned for more info…don't miss it!

Until then…

1. Disputed Parcels
2. Included & Excluded parcels
3. Feedback

Need support along the way?

1. DWR: WUE_LAM@water.ca.gov
2. EAS/QSI: support@eagleaerial.com

Jazmine Molloy, PM – Eagle Aerial Solutions
jmolloy@eagleaerial.com
714-754-7670 ext 700

Additional resources . . .

- DWR Sharepoint (Email WUE@water.ca.gov to request access)
- CalWEP has updated its LAM fact sheet
- Framework resource hub hosted on CalWEP's website (members only)
  - ✓San Diego County Water Authority resources – includes 4 case studies (Carlsbad, Olivenhain, Moulton Niguel, and Contra Costa)

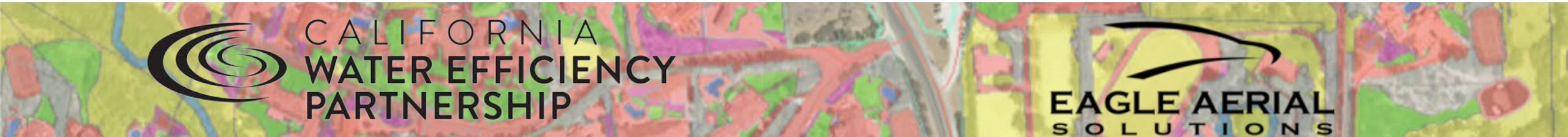
A note about what we didn't cover today . . .

- DWR is planning a final stakeholder meeting for mid-April (Date TBD)
- CalWEP will host additional webinars in this series. Future webinars will be offered to our members. (*WaterView* and *Water Budgets 101* in the works)

Q & A

<u>FAQs:</u>

1. How do you deal with front yard area that is not included in the polygons?
2. What do I do if parcels are missing?
3. What do I do if the parcel is misclassified?
4. What do I do with “voided” overlapping parcels?
5. What are the next steps after this round of data review?
6. What tools are available?



Thank you!

CalWEP LAM Contact:

Lisa Cuellar

lisa@calwep.org

CALIFORNIA WATER EFFICIENCY PARTNERSHIP