


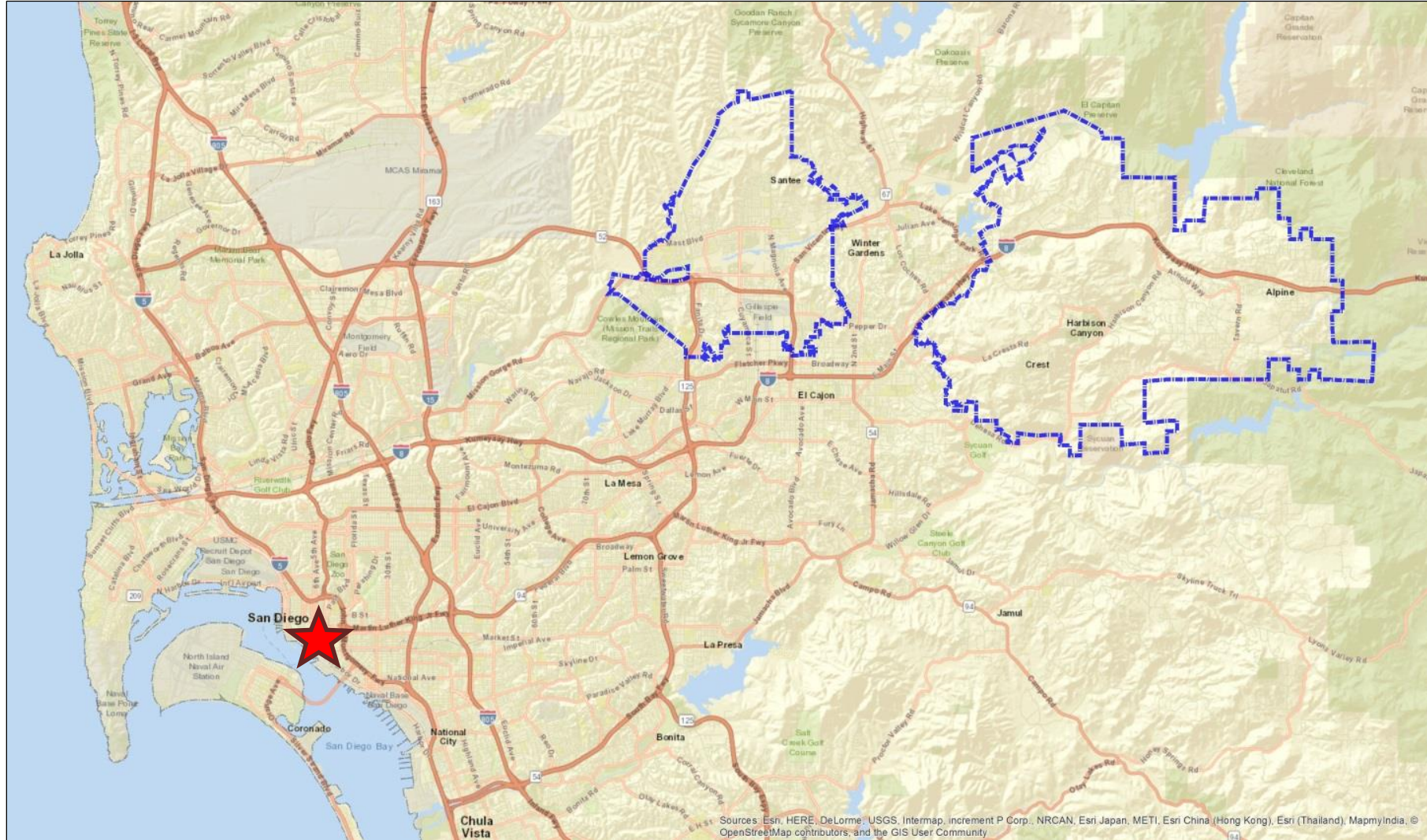


Efficiencies from PDMWD's Collector Applications **DigAlert and Fire Hydrant Painting**

Courtney Mael, P.E., Engineering Manager
Steve Weddle, Inspector
Colleen Larsen, GIS Coordinator
Yelena Granovskaya, GIS/CAD Specialist



Padre Dam MWD Vicinity



LEGEND

FACILITY SYMBOLS

- ▲ District Offices
- Potable Reservoirs
- Recycled Reservoir
- Potable Water Pump Stations
- Sewer Lift Stations
- Recycled Water Pump Station
- CWA Intake Connections
- Emergency Interconnects
- Pressure Reducing Stations

BOUNDARIES

- Western Service Area (Water/Sewer/Recycled)
- Lakeside Water District
- LWD & PDMWD Overlapping Boundaries
- Eastern Service Area

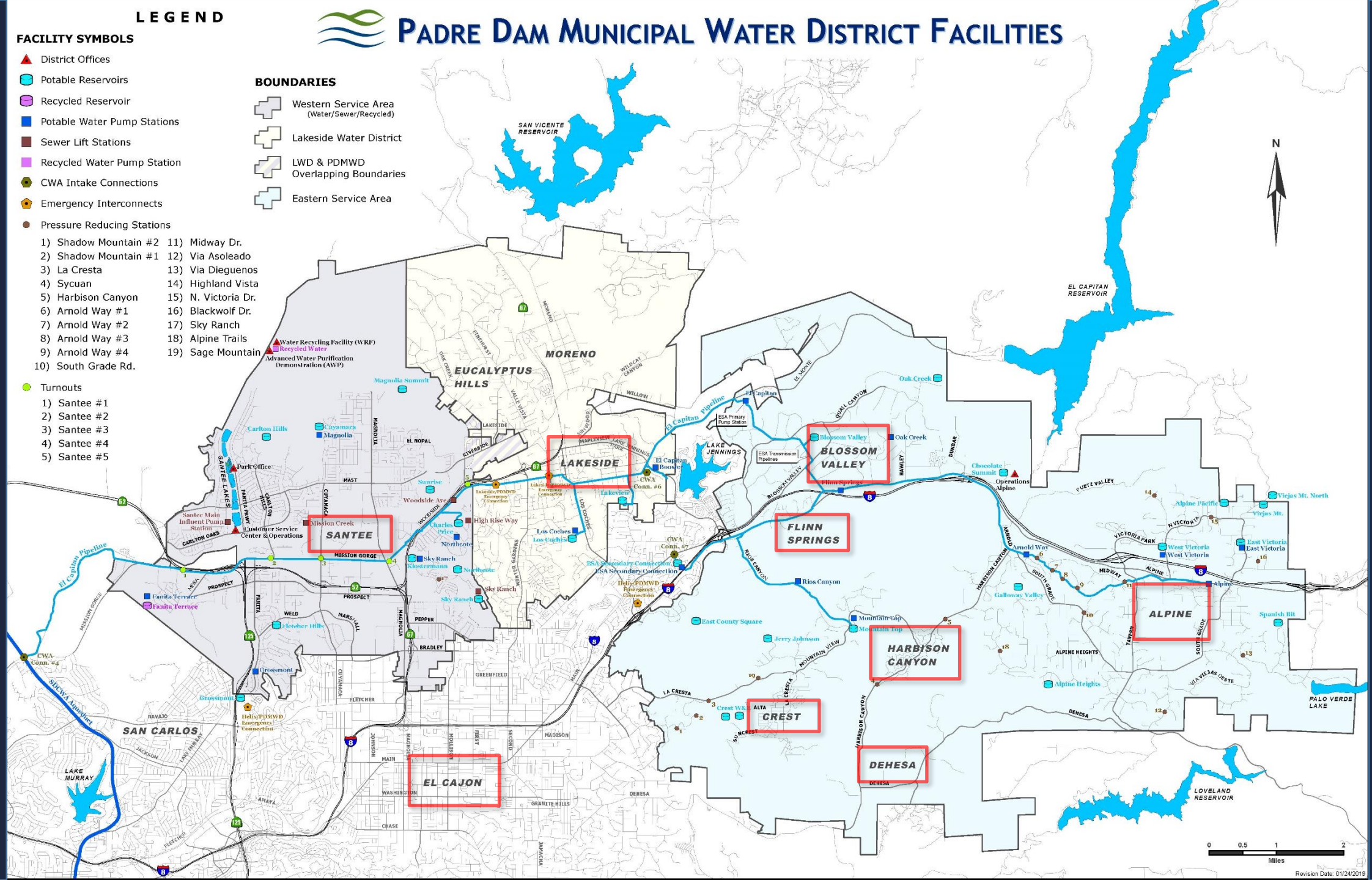
- 1) Shadow Mountain #2
- 2) Shadow Mountain #1
- 3) La Cresta
- 4) Sycuan
- 5) Harbison Canyon
- 6) Arnold Way #1
- 7) Arnold Way #2
- 8) Arnold Way #3
- 9) Arnold Way #4
- 10) South Grade Rd.
- 11) Midway Dr.
- 12) Via Asoleado
- 13) Via Dieguenos
- 14) Highland Vista
- 15) N. Victoria Dr.
- 16) Blackwolf Dr.
- 17) Sky Ranch
- 18) Alpine Trails
- 19) Sage Mountain

Turnouts

- 1) Santee #1
- 2) Santee #2
- 3) Santee #3
- 4) Santee #4
- 5) Santee #5



PADRE DAM MUNICIPAL WATER DISTRICT FACILITIES



About Padre Dam Municipal Water District

• History

- 1955-formed by San Diego County Board of Supervisors to import water from the Colorado River. Originally named Rio San Diego Municipal Water District
- 1976-Renamed Padre Dam and merged with the Santee County Water District.
- 1980s-Acquired Alpine Highlands Water District and Crest Public Utility District.
- The District is named for the Old Mission Dam in Mission Trails Regional Park, built by Spanish missionaries circa 1807.





About Padre Dam Municipal Water District

• Statistics

- Padre Dam provides water, wastewater, recycled water and recreation services to ~102,540 residents covering 73 square miles.
- Total Service Connections: 24,647
 - Water & Sewer: 13,832 Water Only: 9,034 Sewer Only: 1,544 Recycled Water: 238
- Miles of Pipe
 - Water: 392 Sewer: 169 Recycled: 27
- Santee Lakes Recreational Preserve
 - 190 acres, 7 lakes, 300 campground sites, 10 cabins
- Total District Staff ~140





DIGALERT



Underground Service Alert of Southern California





Dig Alert Purpose

- Dig Alert provides a free service to customers allowing them to electronically notify utilities that they plan to dig.
- The utilities are then required to locate their facilities in the area.



Dig Alert Notification Email

- PDM01 00005A USAS 05/11/17 08:12:42 A71310080-00A SHRT NEW GRID
- Ticket : A71310080 Date: 05/11/17 Time: 08:09 Oper: ADS Chan: 100 Old Tkt: A71310080 Date:
- Company: SUPERIOR POOLS Caller: SUE DENNEY Co Addr: 8733 N MAGNOLIA AVE STE 124
- City&St: SANTEE, CA Zip: 92071
- Phone: 619-445-4362 Ext: Call back: 8AM-5PM Formn: JOSH MARSHALL Phone: 619-312-7248 [Email: SUPERIORPOOLSSD@GMAIL.COM](mailto:SUPERIORPOOLSSD@GMAIL.COM)
- State: CA County: SAN DIEGO Place: ALPINE Delineated: Y
- Delineated Method: WHITEPAINT Address: 2445 Street: ELTINGE DR X/ST 1 : BAY MEADOWS DR
- MPM 1: MPM 2:
- Locat:
- Excav Enters Into St/Sidewalk: N Grids: 1234B064
- Lat/Long : 32.833853/-116.761979 32.833254/-116.760881
- : 32.832712/-116.762601 32.832113/-116.761504 Caller GPS:
- Boring: N Explosives: N Vacuum: N Re-Mark: N
- Work : INSTALL POOL
- Wkend: N Night: N
- Work date: 05/15/17 Time: 07:00 Hrs notc: 094 Work hrs: 046 Priority: 1 Instruct : MARK BY Permit: NOT AVAILABLE
- Done for : H/O DELGADO Tkt Exp: 06/08/17
- Mbrs : ATTD SOUTH COSDSD COSDWM COX01 PDM01 SDG01

History

- Fax Machine



- E-mail & Printer



- GIS Application



Esri Enterprise Assistance Program

Task Scheduler

Name	State	Triggers	Next Run Time
Adobe Acrobat Update Task	Ready	Multiple triggers defined	6/27/2019 11:00:00 PM
ArcGIS Pro Indexing (ENGINEERING_engad...	Ready	At 9:27 AM every day - After triggered, repeat every 1 hour for a duration of 1 day.	
Delete Dig Alert Tickets Greater Than 3 Years	Ready	At 2:00 AM every day	
Dig Alert Listener	Ready	At system startup	
DigAlertPositiveResponse	Ready	At 12:15 PM every day - After triggered, repeat every 1 hour indefinitely.	
GoogleUpdateTaskMachineCore	Ready	Multiple triggers defined	
GoogleUpdateTaskMachineUA	Ready	At 6:48 PM every day - After triggered, repeat every 1 hour for a duration of 1 day.	
Optimize Start Menu Cache Files-S-1-5-21-...	Ready	When computer is idle	
Optimize Start Menu Cache Files-S-1-5-21-...	Ready	When computer is idle	
Send Number of Marks Email	Ready	At 8:00 AM on day 1 of January, February, March, April, May, June, July, August, September, October, November	

Pick Outlook Message

Outlook Message Files (.msg)

Importance
Normal

Pick Outlook Message

OK

Cancel

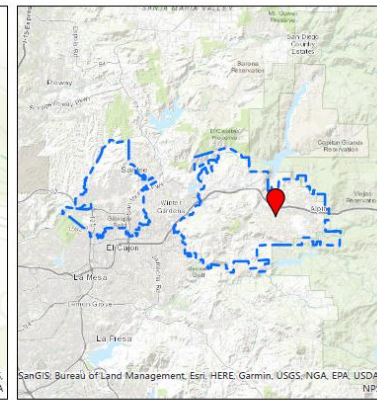
Environments...

<< Hide Help

Tool Help



Ticket: A183460487-00A



Inspected By: Steve Weddle

Status: Clear NORM

Number of Marks: 3

Notes: None

Location:

S GRADE RD
X\ST: ADRIAN CT
Place: ALPINE
County: SAN DIEGO

Ticket Date: 12/12/2018

Point Created: 12/12/2018

Last Edited: 12/12/2018

PR Code: Clr - Private Utility onsite

PR Date: 12/12/2018

PR Return: 250

PR Message:
OK

Comments:

Printed Date: 12/13/2018 01:59 PM

BENEFITS



100% ACCURACY SINCE IMPLEMENTATION



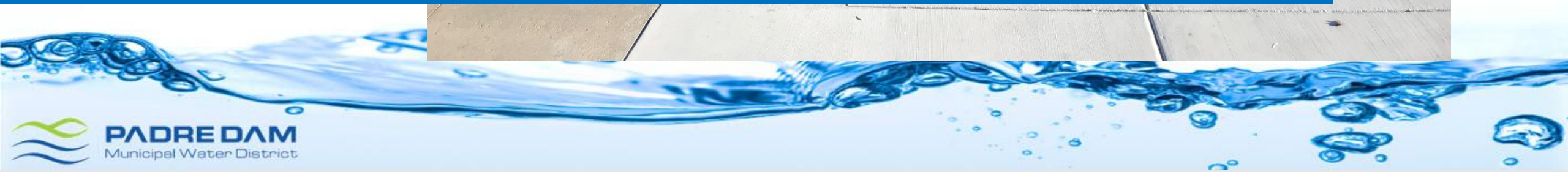
ELIMINATING THE NEED FOR A FULL-TIME LOCATOR



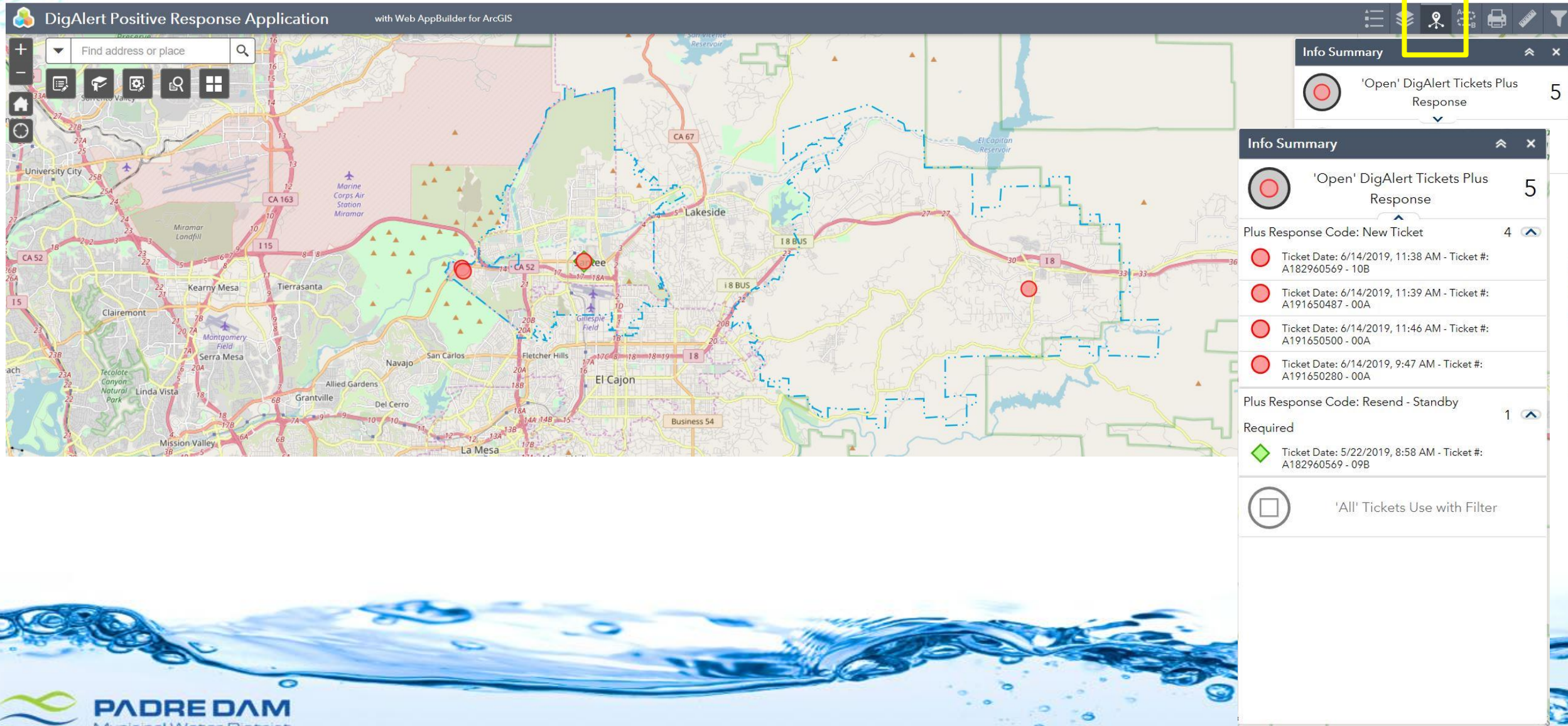
POSITIVE RESPONSE - AUTOMATIC CUSTOMER RESPONSE



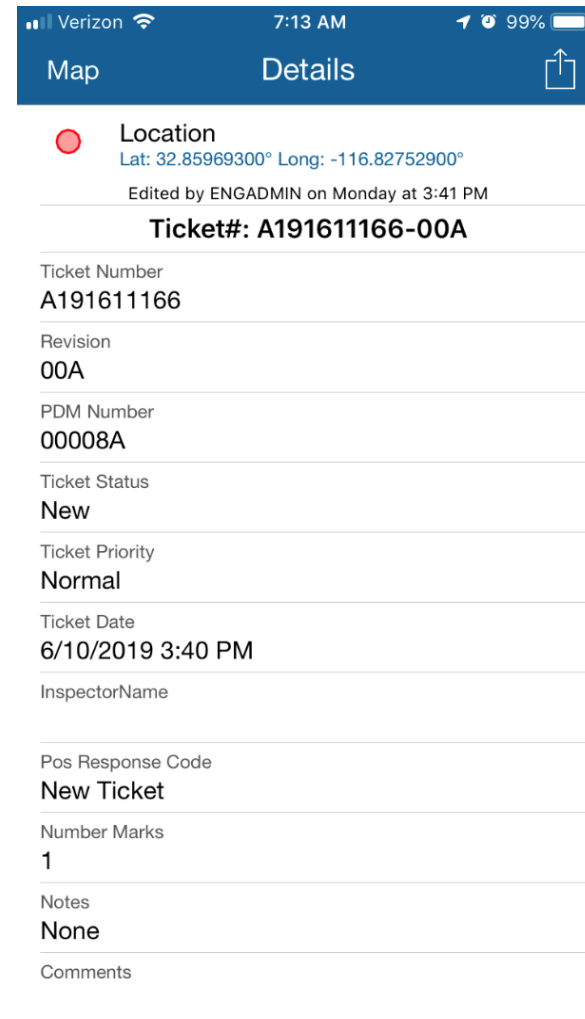
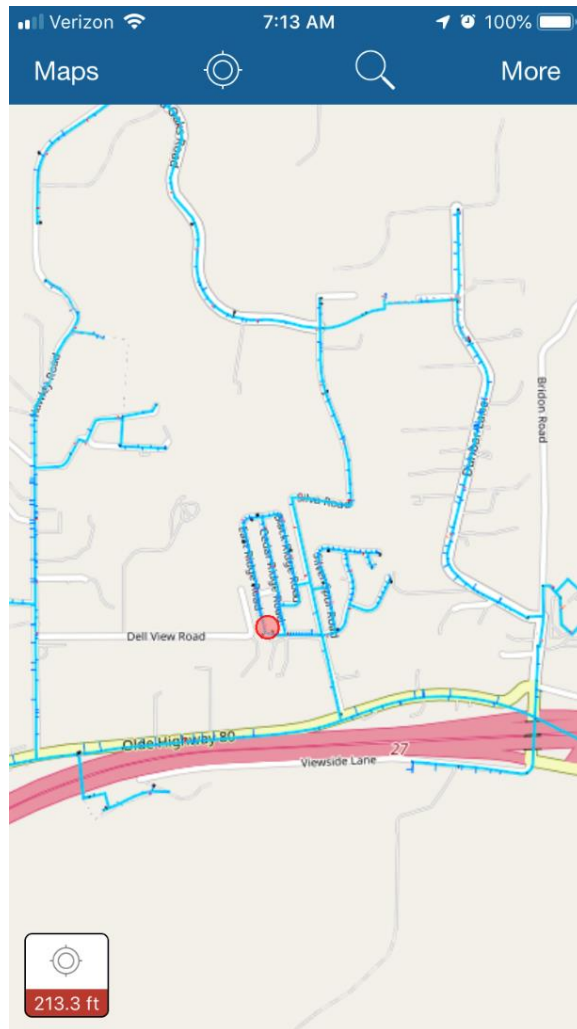
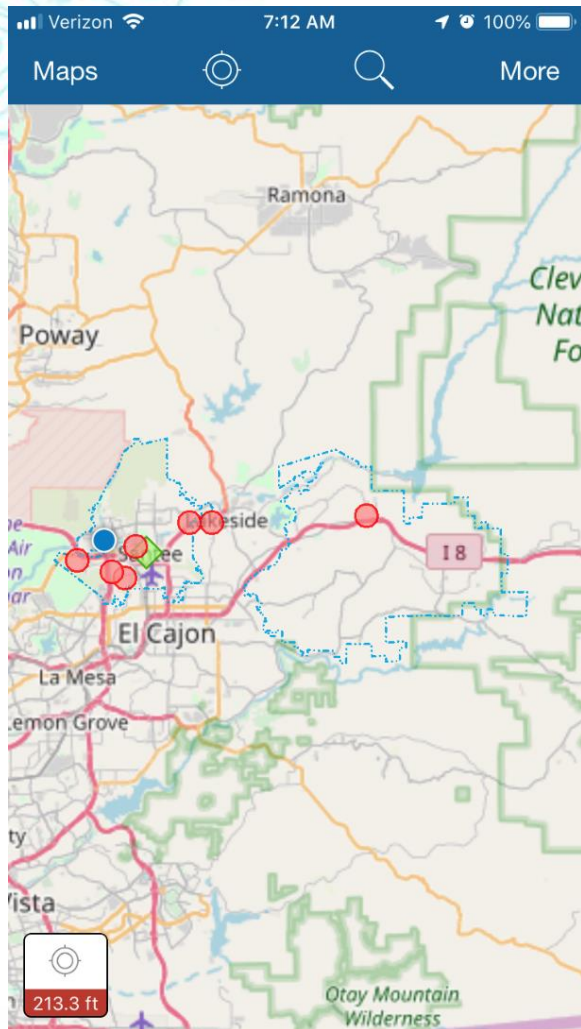
Applications and GIS integration



DigAlert Positive Response Dashboard



Collector Mobile Application



PDM01 00008A USAS 06/10/19 15:41:14 A191611166-00A NEW NORM POLY LREQ

Ticket: A191611166 Rev: 00A Created: 06/10/19 15:40 User: CAC Chan: 100

Work Start: 06/17/19 07:00 Legal Start: 06/17/19 07:00 Expires: 07/08/19 23:59
Response required: Y Priority: 2

Excavator Information
Company: ALPINE FENCE
Co Addr: 2038 ALPINE BLVD
City : ALPINE State: CA Zip: 91901
Created By: THOMAS BUCHANAN Language: ENGLISH
Office Phone: 619-971-0242 SMS/Cell: 619-971-0242
Office Email: TOMMY@ALPINEFENCECOMPANY.COM

Site Contact: THOMAS BUCHANAN
Site Phone: 619-971-0242 Site SMS/Cell:
Site Email:

Excavation Area
State: CA County: SAN DIEGO Place: EL CAJON
Zip: 92021
Location: Address/Street: E RIDGE RD
: X/ST1: S PLAINS RD
: SPC 80 LOC ON COR/OF INTER/OF E RIDGE RD & S PLAINS RD **ADDRESS IS
: TO AN MOBILE HOME PARK AT 15935 SPRING OAKS RD** **STREETS NOT SHOWN
: ON MAP BLACKRIDGE RD EXTENDS S/FROM E CREEK RD FOR APPROX 160FT THEN
: AT THIS POINT IT CONTS W/FOR APPROX 170FT TO CEDAR RIDGE RD, S PLAINS
: RD CROSSES CEDAR RIDGE RD AT APPROX 334FT S/W OF E CREEK RD AND E
: RIDGE RD EXTENDS N/FROM S PLAIN RD AT APPROX 179FT W/OF CEDAR RIDGE
: RD.

Delineated Method: WHITEPAINT
Work Type: INSTALL NEW FENCE
Work For : H/O BLACKWOOD, HENRY
Permit: NOT REQUIRED Job/Work order:
1 Year: N Boring: N Street/Sidewalk: N Vacuum: N Explosives: N

Lat/Long
Center Generated (NAD83): 32.860014/-116.828072 32.860174/-116.827121
: 32.859212/-116.827937 32.859372/-116.826986
Excavator Provided: 32.859694/-116.827528

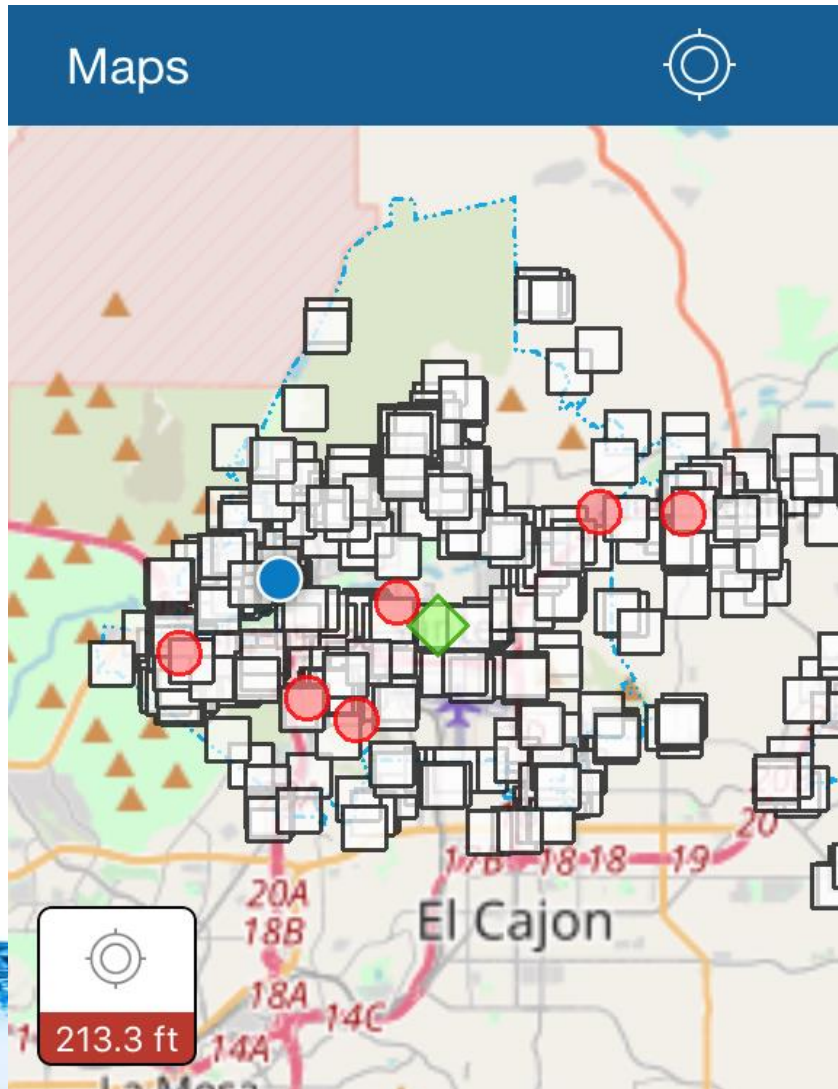
Map link:
https://newtin.digalert.org/newtinweb/map_tkt.nap?TRG=F9NcUTYNXMBLUKdAeA

Members:
ATTDSOUTH COSDSD COSDWM COX01 PDM01 SDG01

(c) Copyright 2018 Underground Service Alert of Southern California.
All rights reserved.



Collector Mobile Application



Verizon 7:17 AM 98%

Map Details

☐ Location
Lat: 32.85596800° Long: -116.85669800°

Ticket Priority

Ticket Date
7/12/2017 10:31 AM

InspectorName
Steve Weddle

Pos Response Code

Number Marks
77

Notes
None

Comments
Marked as requested. Line valve at blossom valley appears to. E buried in shoulder under ac berm. Location marked per plan and alpine crew (Larry) notified for further investigation and bringing up to finish grade.

Ticket Expiration
8/9/2017 12:00 AM

Site Address
FLINN SPRINGS RD

Cross Street
BLOSSOM VALLEY RD

Location



FIRE HYDRANT MAINTENANCE PROGRAM





Fire Hydrant Maintenance Program

➤ Valve Crew Responsibilities

- Valve Exercising
- Hydrant Inspections, Flushing, Clear Surrounding Debris
- Hydrant ainting
 - Light uty, Customer complaint, Boy Scout projects

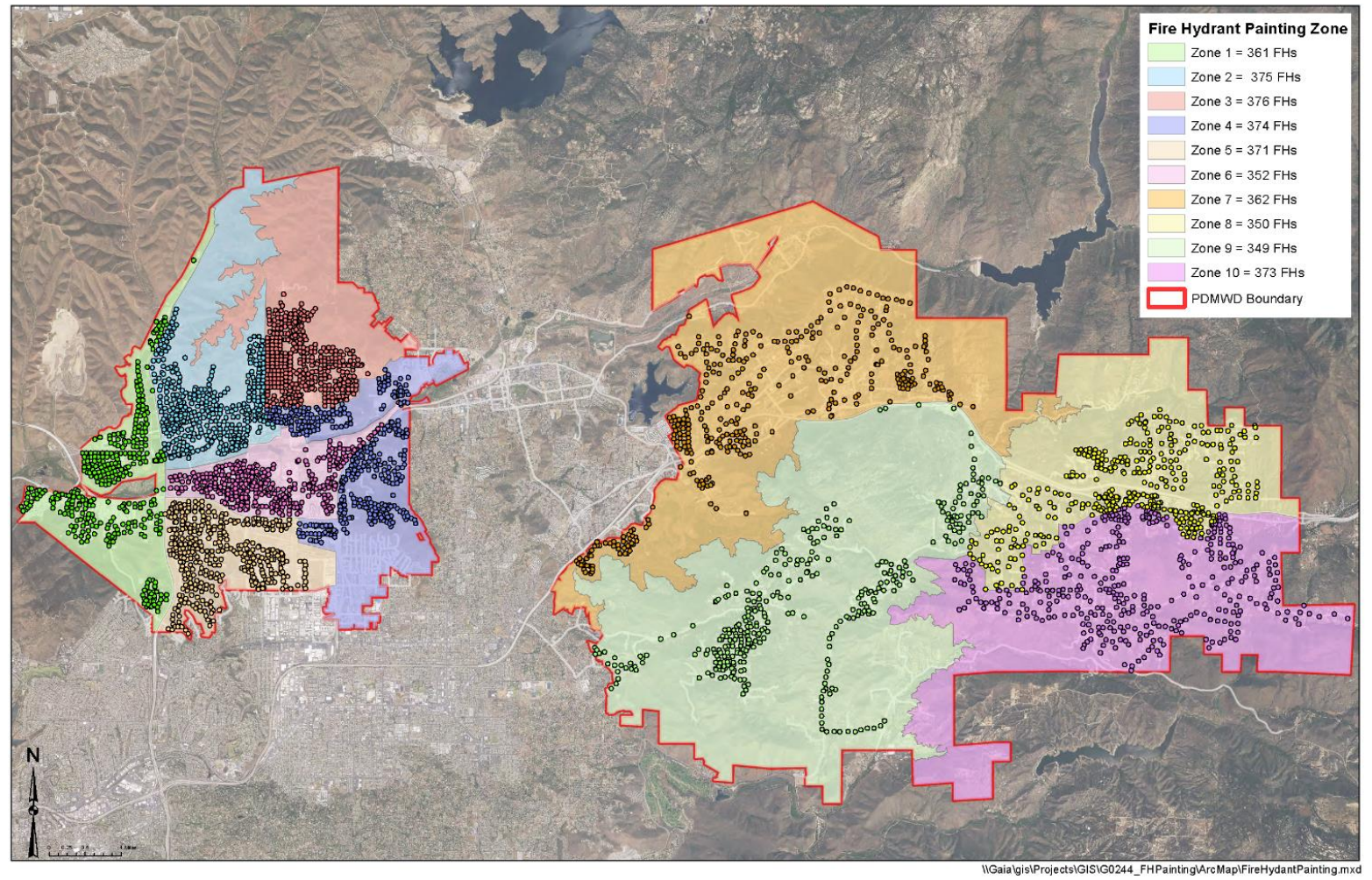
➤ Fire Hydrant Painting Program

- Leverage GIS – Better Accountability with Real Time Information
- Use of Contractor
 - Old Method – paper maps, delay in records management, QA/QC time consuming
- Project requirements – To collect data in the field, take before and after photos

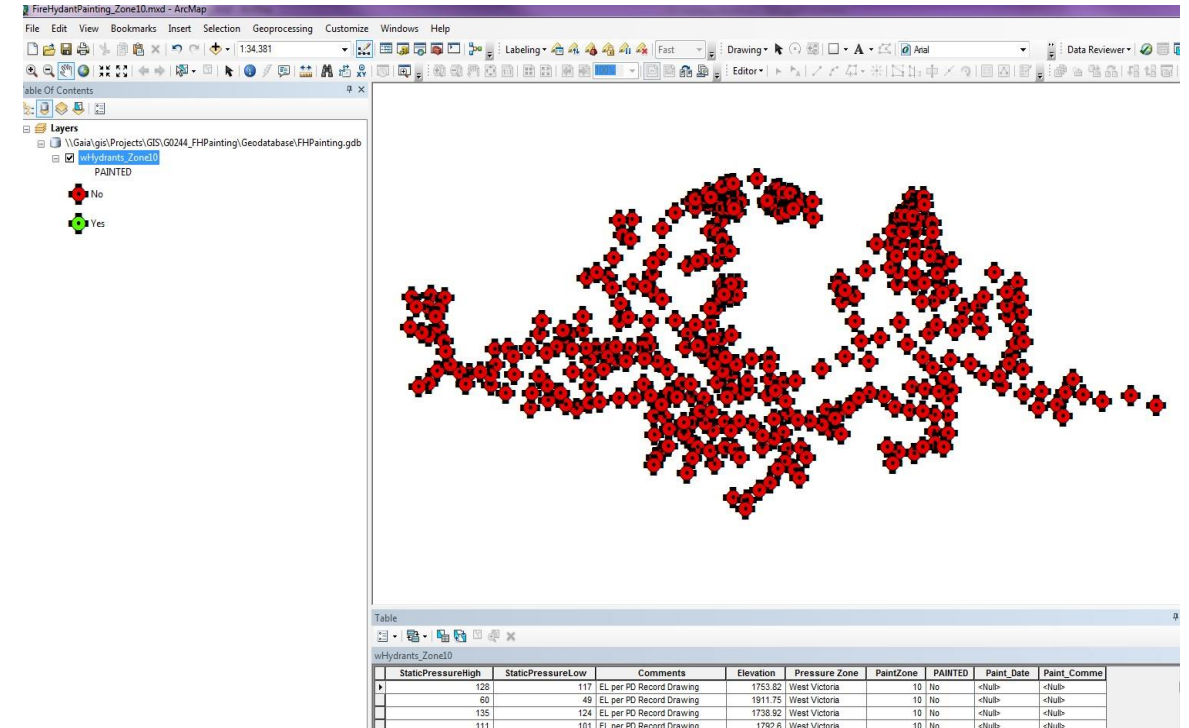
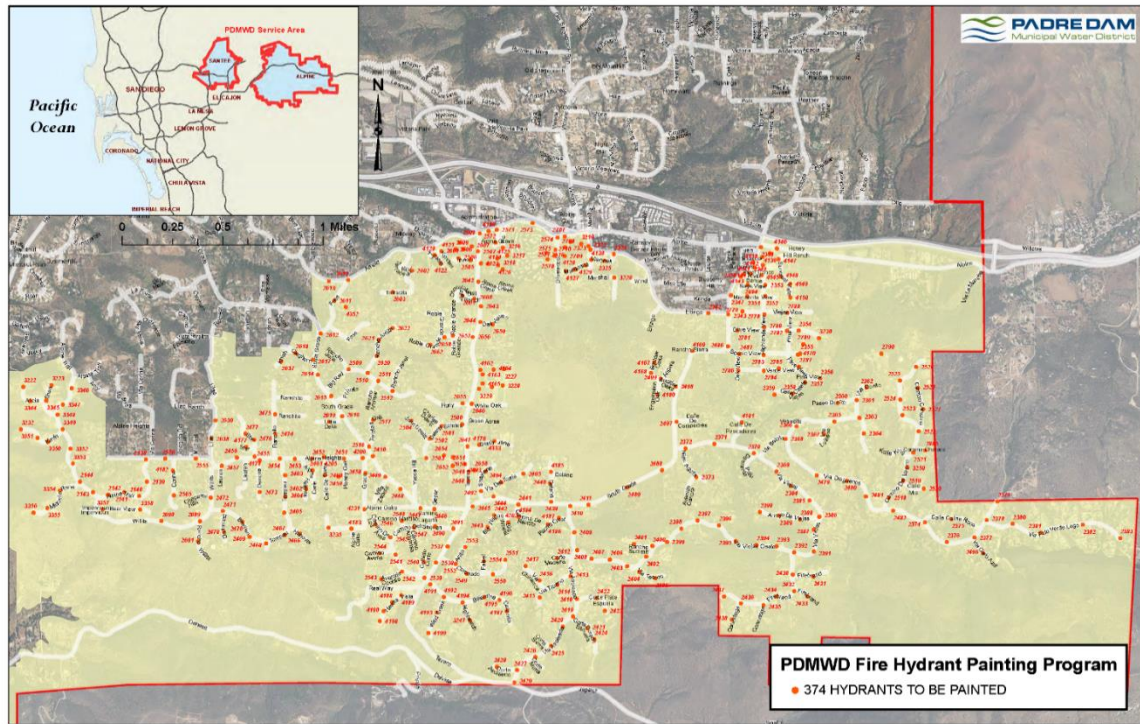


Fire Hydrant Painting Plan

- 3700 Fire hydrants over 10 years
- 10 painting zones
- Annual Request for Proposal (RFP)



AGOL Web Map and Dashboard



- New contract awarded

- Publish feature service




AGOL Web Map and Dashboard

Groups

[+ Create group](#)

1 - 1 of 1 Filters Created: 2/1/18–2/28/18 [Clear filters](#)



PD Hydrant Painting

Owner: ColleenL

Created: Feb 2, 2018 Last Updated: Jun 5, 2019 Viewable by: Group Members

Group to share web map for tracking hydrants painted.

- AGOL Group
- Offline editing
- Enable Attachments

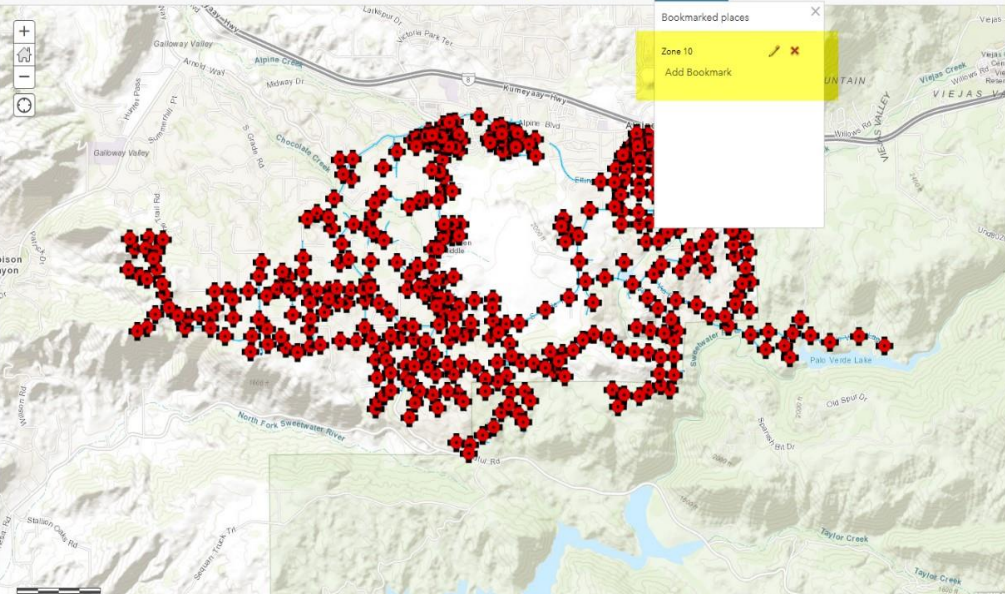
Home FireHydrantPainting_Zone10 [New Map](#) [Create Presentation](#) [Yelena](#)

[Details](#) [Add](#) [Edit](#) [Basemap](#) [Analysis](#)

[About](#) [Content](#) [Legend](#)

Contents

- ☒ FireHydrantPainting_Zone10
 - No
 - Yes
- ☒ FireHydrantPainting_Zone10 wMains
- Topographic Basemap



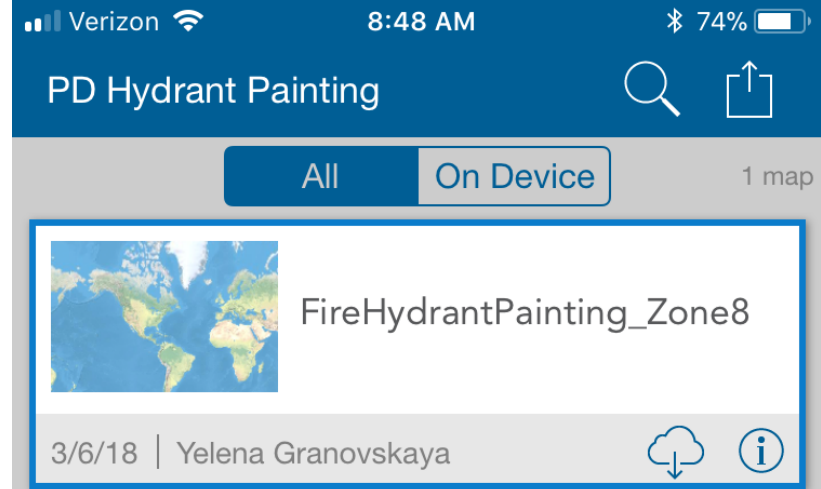
Bookmarked places

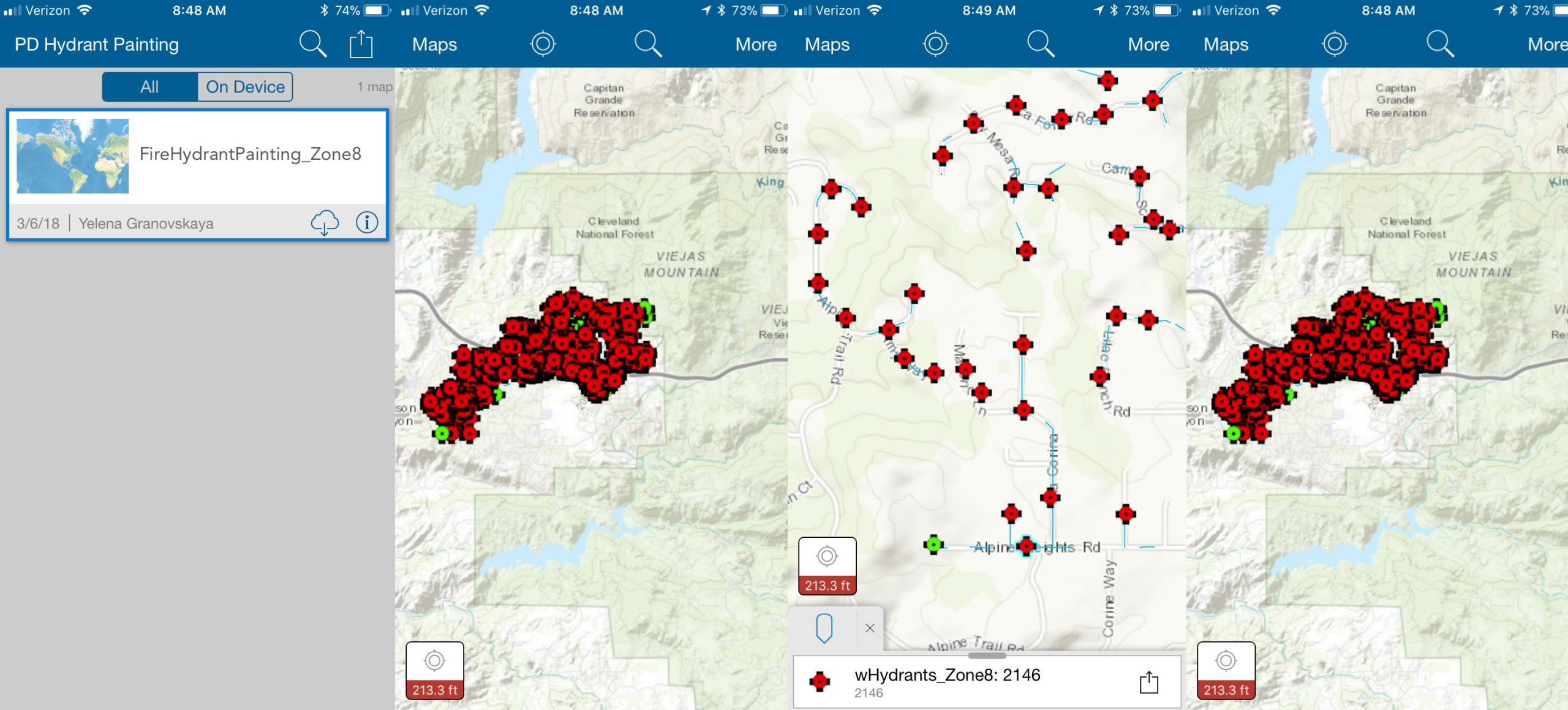
- Zone 10
- [Add Bookmark](#)

SanGIS, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, USGS, MET/NASA, EPA, USDA, Esri

- Webmap for Collector
- View for Dashboard

Collector App





Cancel

Settings

Map

Camera

Update

Location

Lat: 32.81900856° Long: -116.80388550°

213.3 ft

wHydrants_Zone8: 2146

PAINTED

No

>

Paint_Date


>

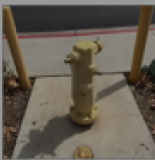
Paint_Comment

>

Done

Attachments





Add

Take Photo or Video

Choose From Library

Cancel

Map

Details

Share

Maps

Location

Lat: 32.81900856° Long: -116.80388550°

wHydrants_Zone8: 2146

Facility Identifier

2146

Hydrant Type

Fire Hydrant

Hydrant Configuration

1-4" & 2-2.5" (STEAMER)

PaintZone

8

PAINTED

Yes


Paint_Date

3/9/2018 8:50 AM

Paint_Comment


Neighbor fence is encroaching the concrete slab; FH appears to leak from valve stem.

Attachments

Photo2.jpg

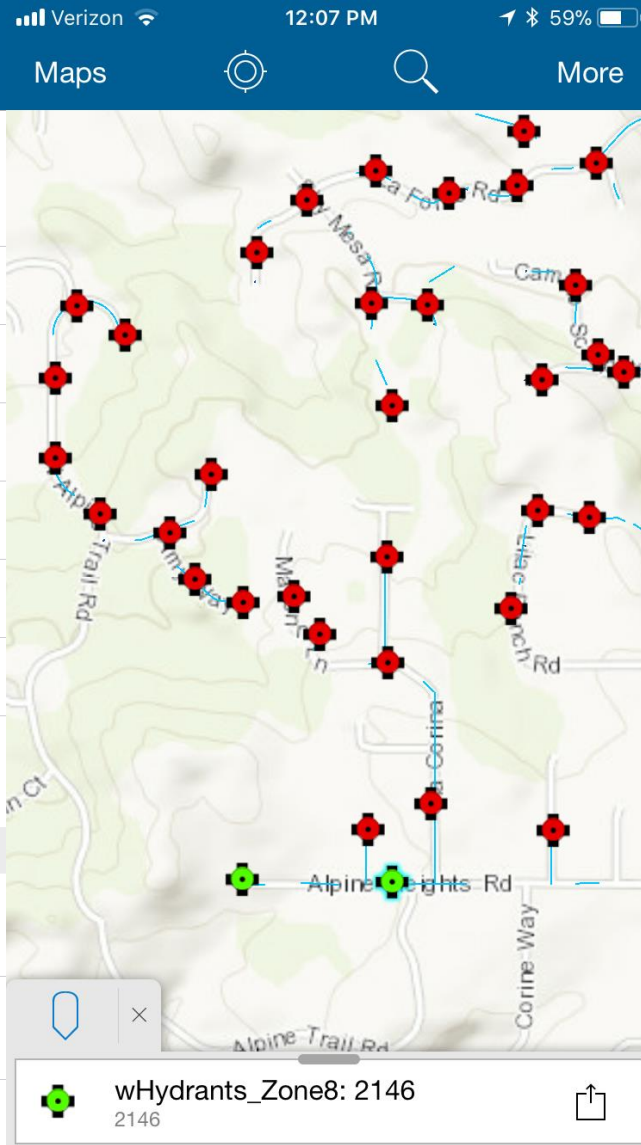
406.5 KB

>

Photo1.jpg

567.2 KB

>



Cancel

Download

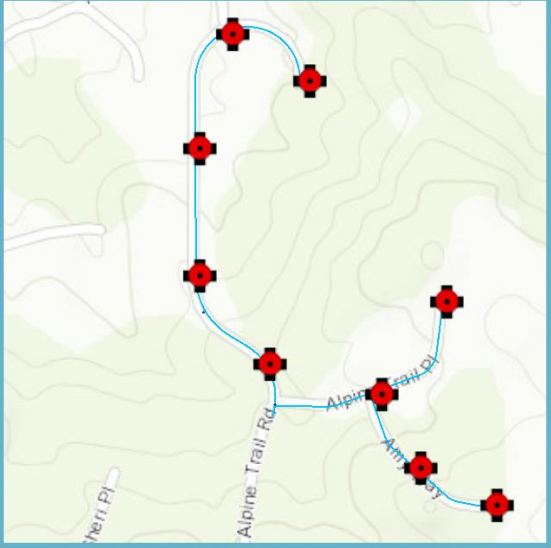
PD Hydrant Painting

1 map

Download

Cancel Download

Choose your work area



Estimated size: < 5 MB

Work Area

Map Detail

All

On Device

1 map

Download

FireHydrantPainting_Zone8

Downloaded 3/9/18

Cancel Download

All

On Device

1 map

On Device

FireHydrantPainting_Zone8

Downloaded 3/9/18

Cancel Download

All

On Device

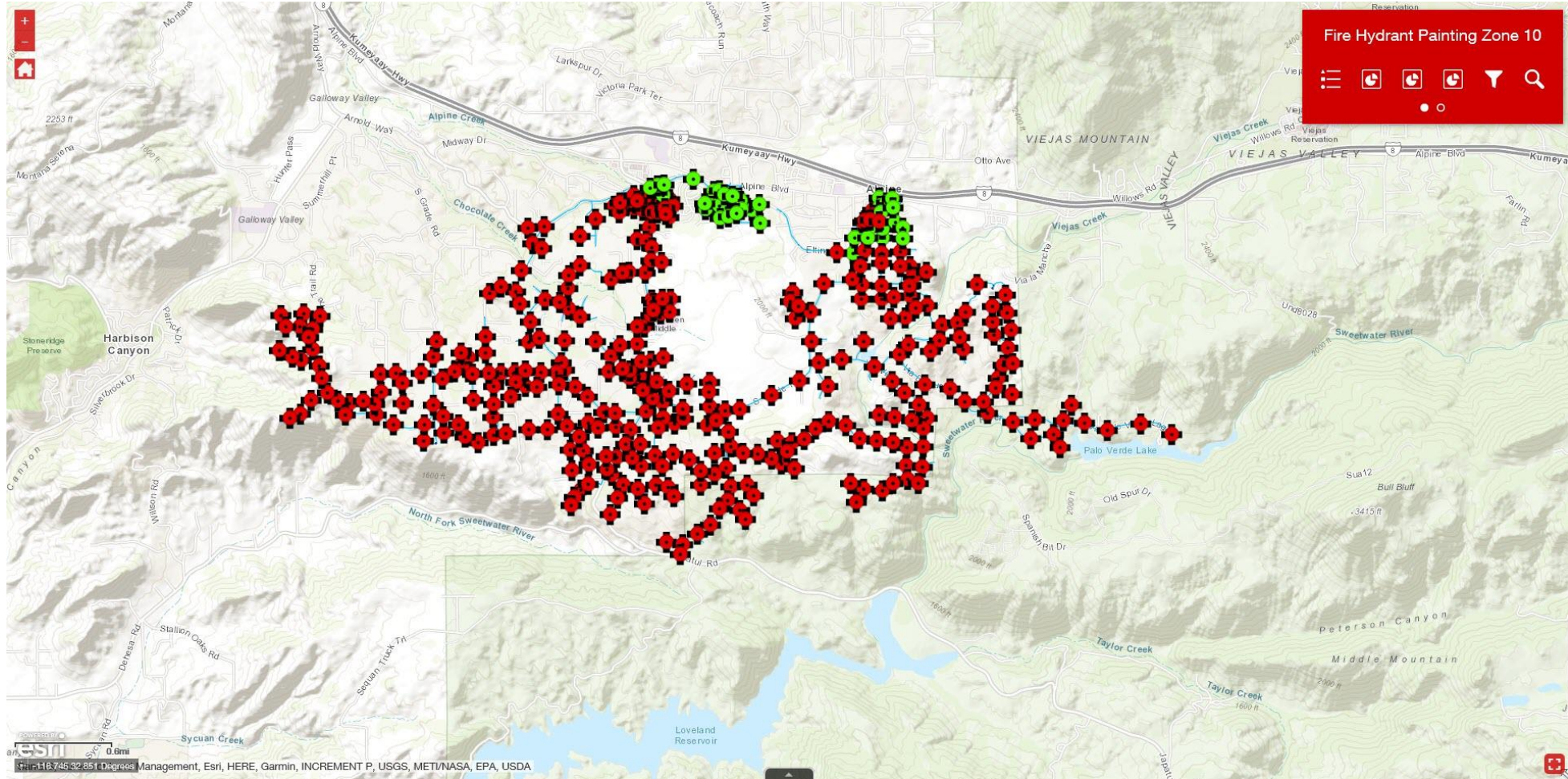
1 map

Syncing

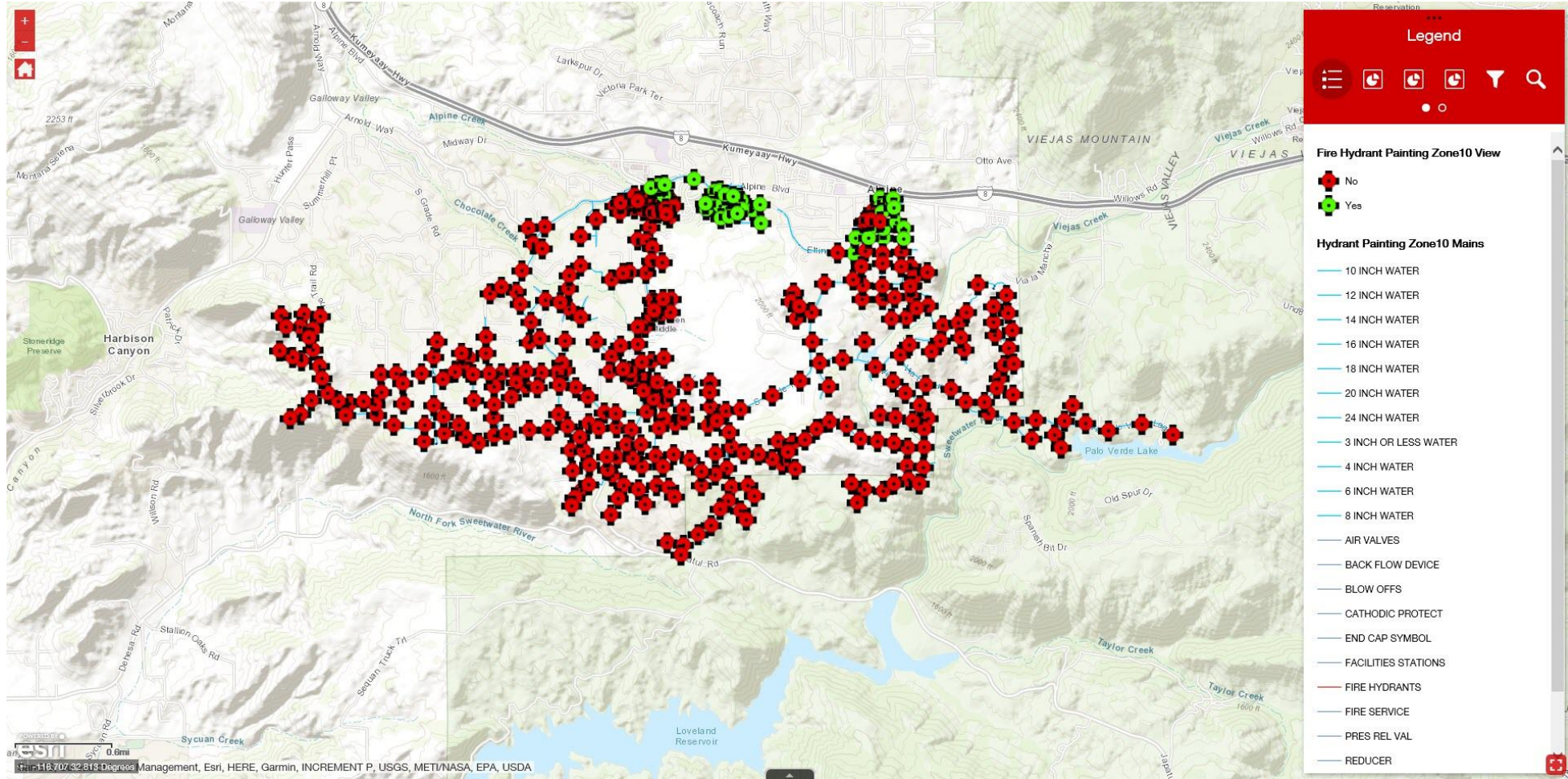
FireHydrantPainting_Zone8

Cancel Sync

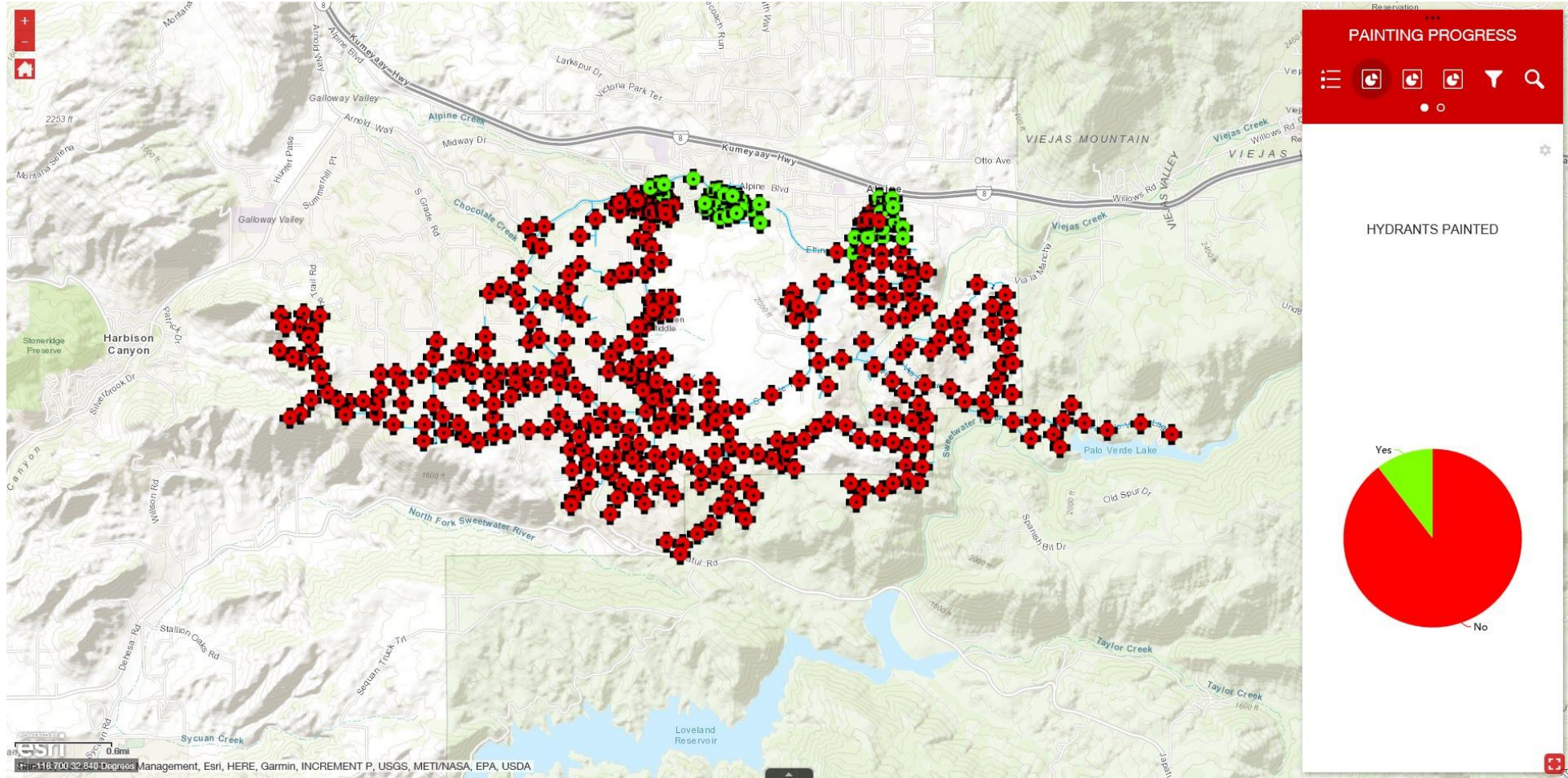
Dashboard



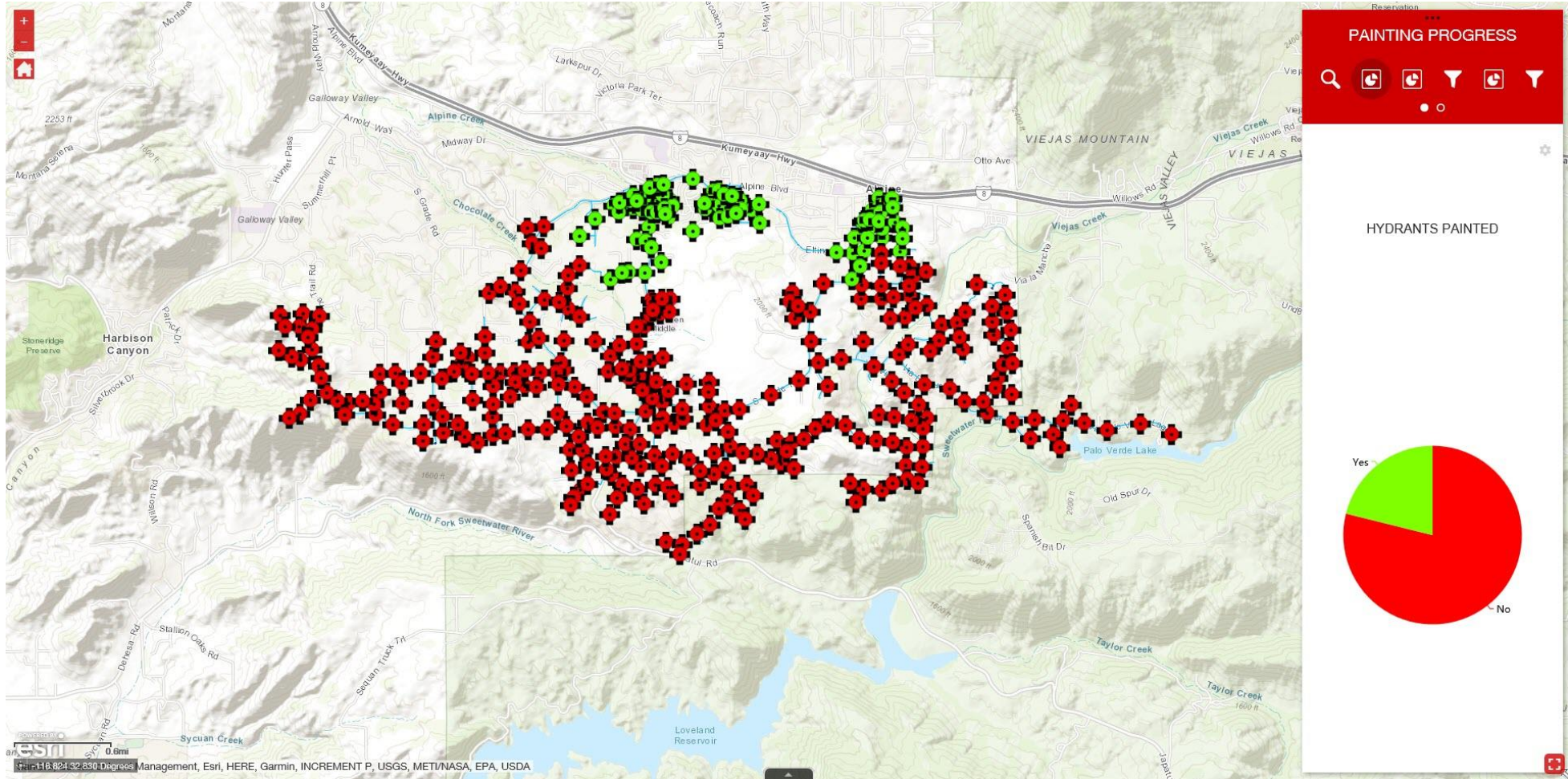
Dashboard



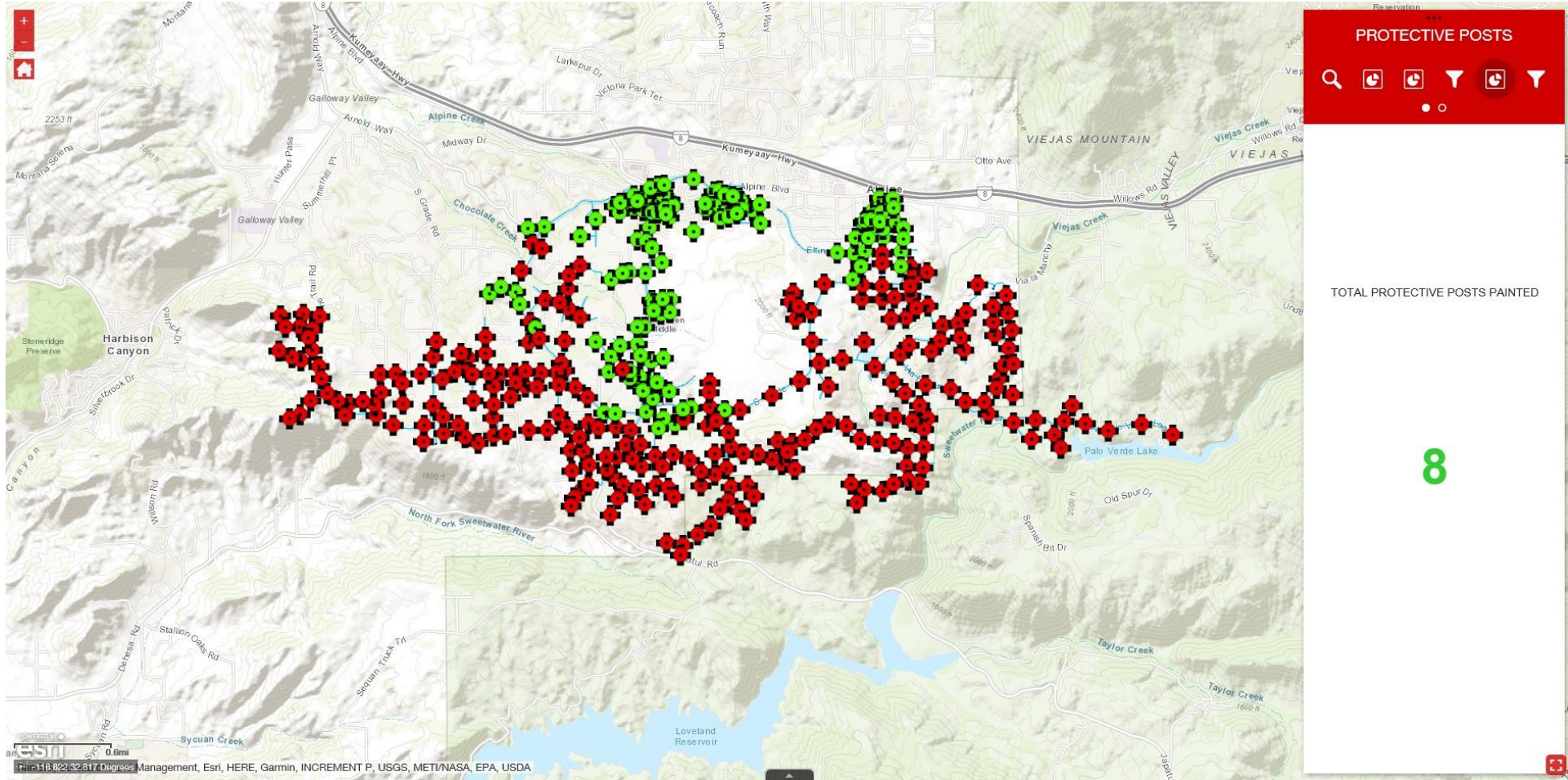
Dashboard



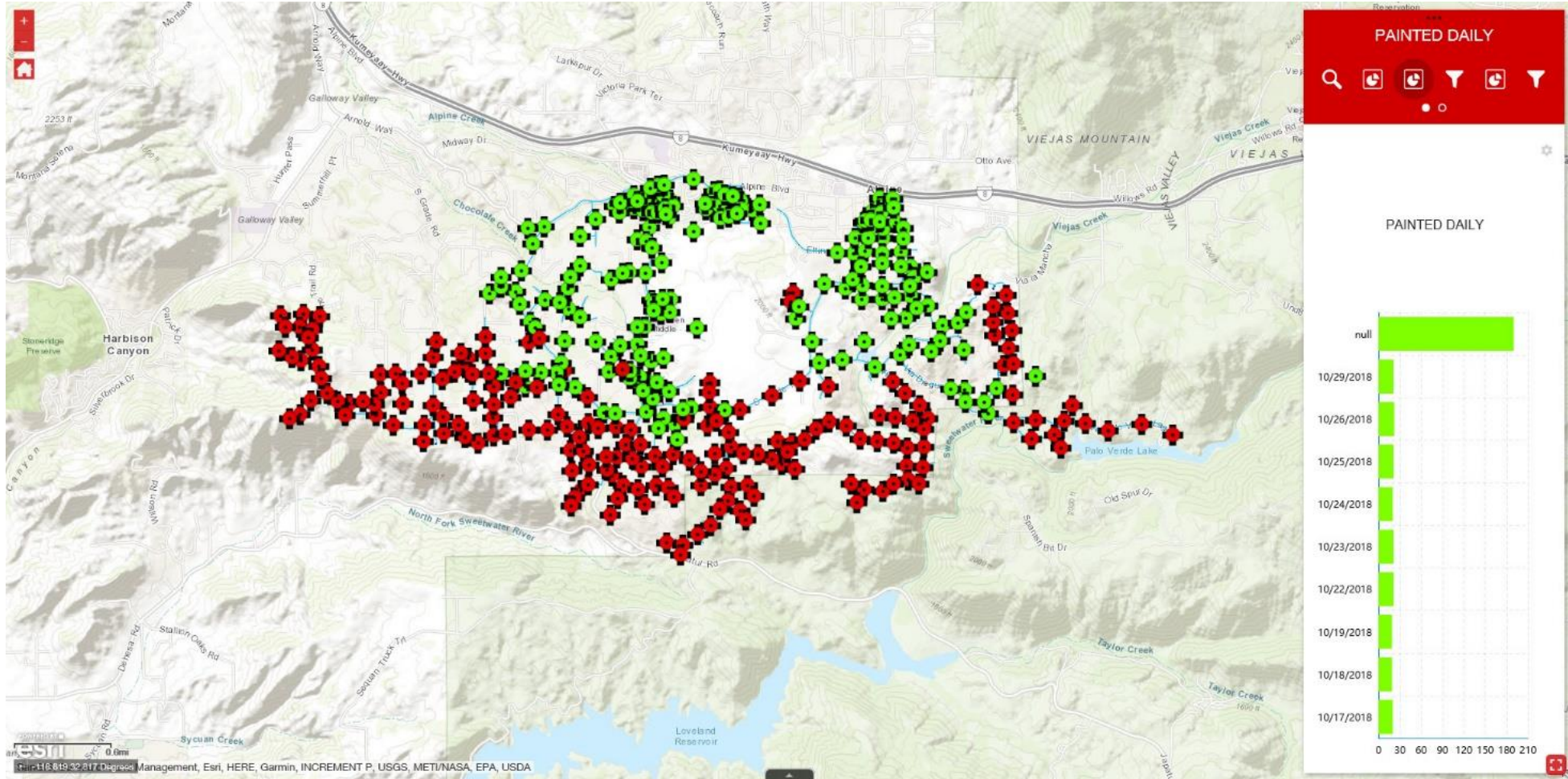
Dashboard



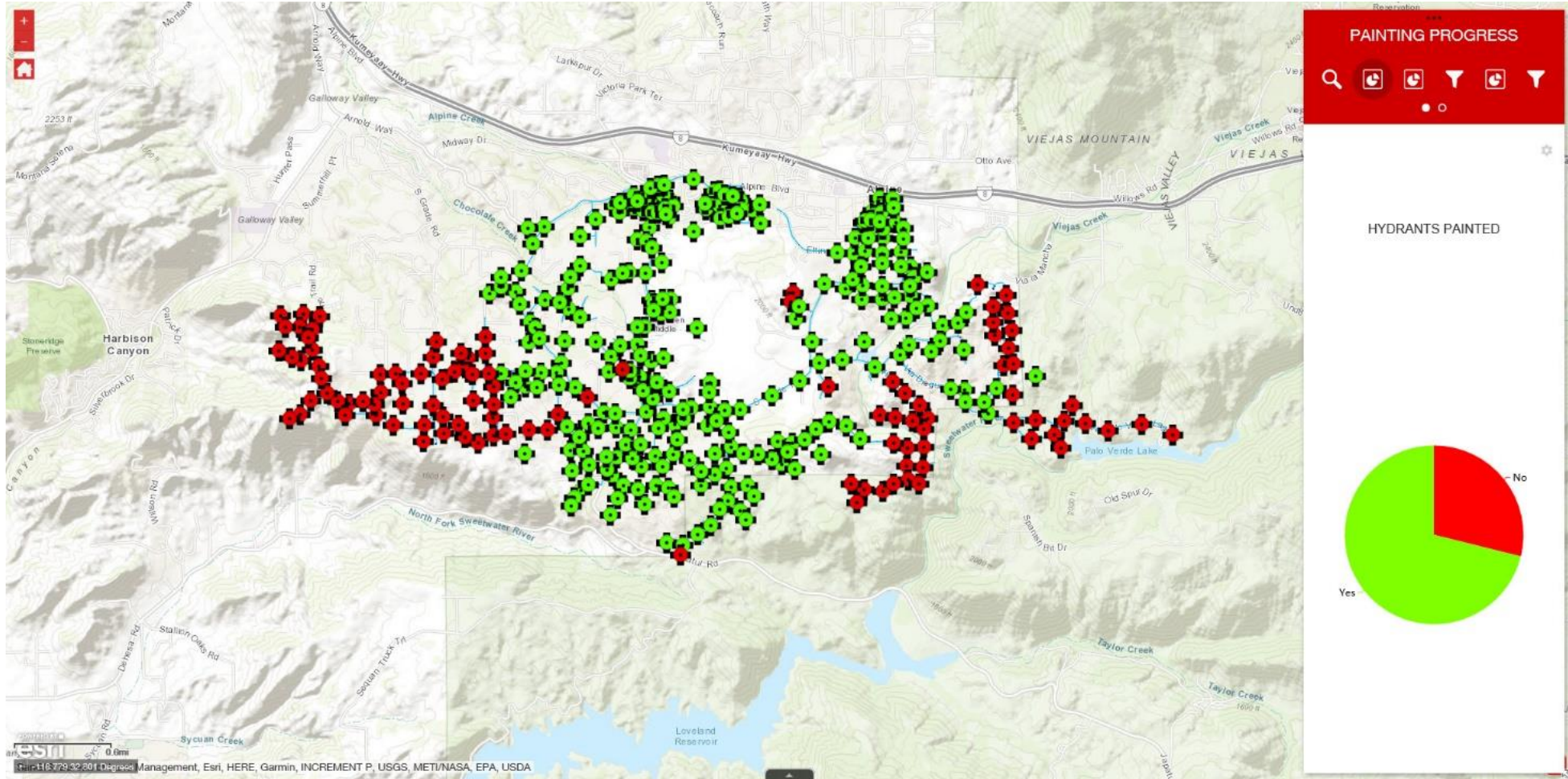
Dashboard



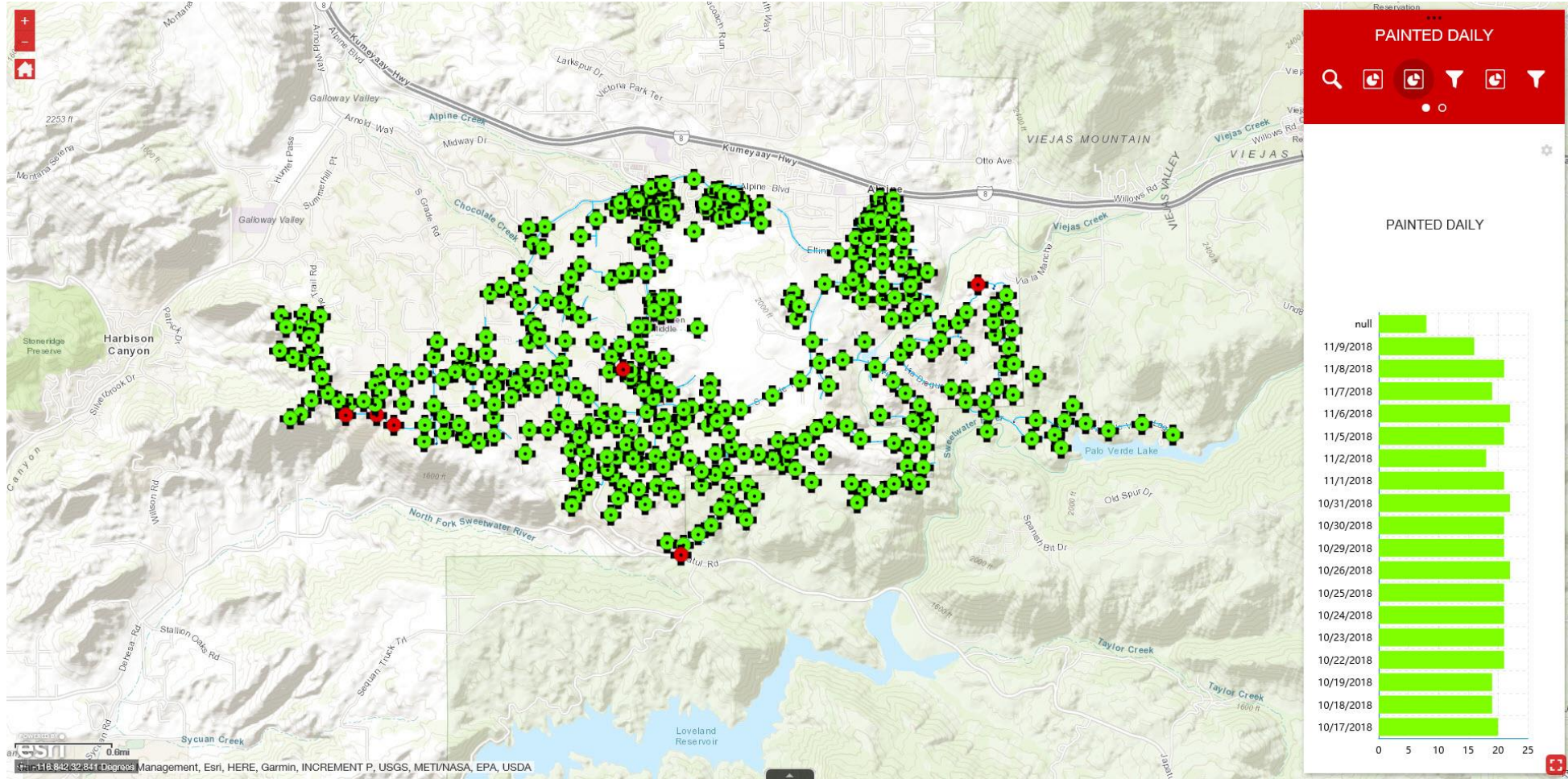
Dashboard



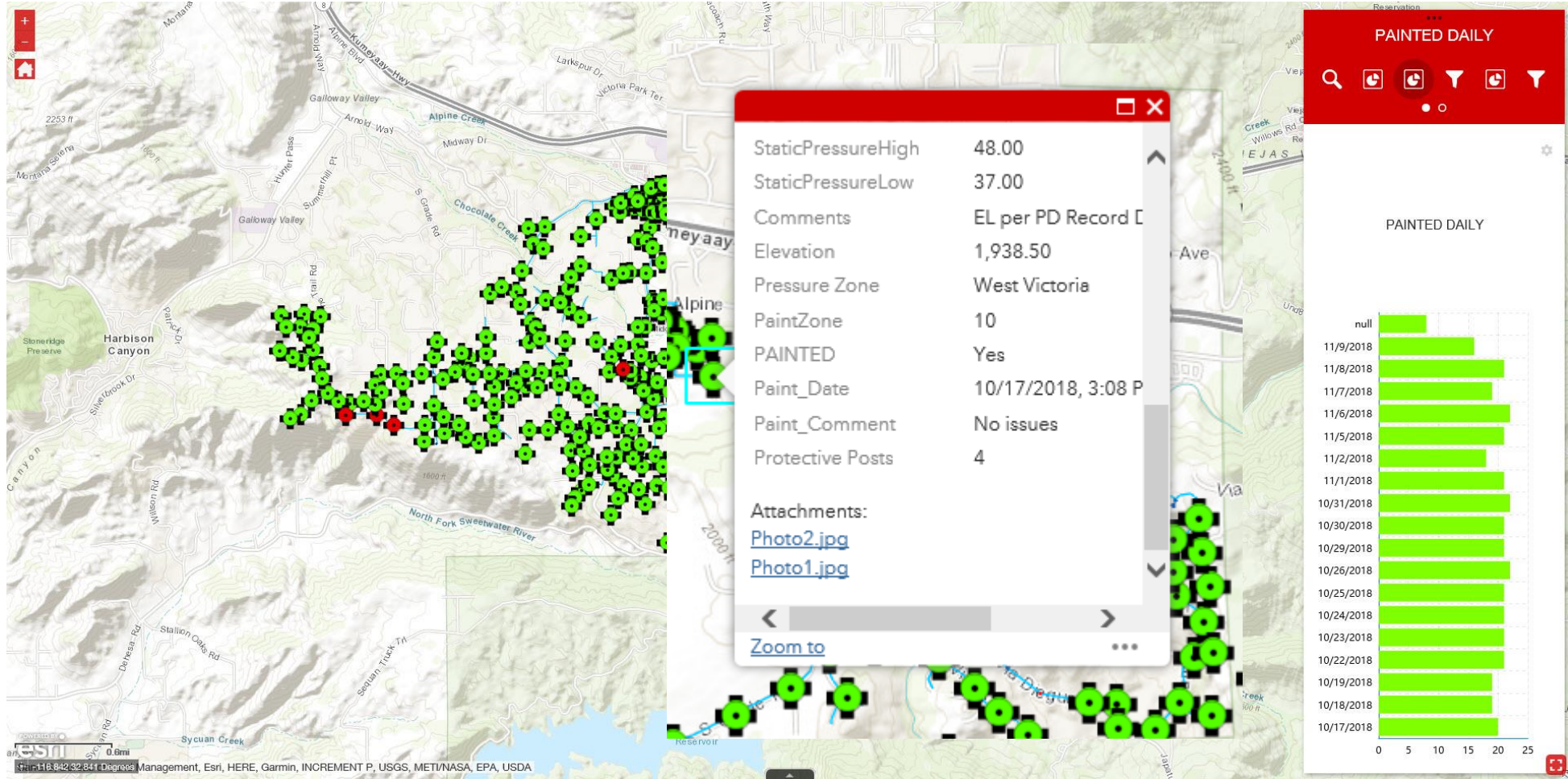
Dashboard



Dashboard



Dashboard



BEFORE



AFTER



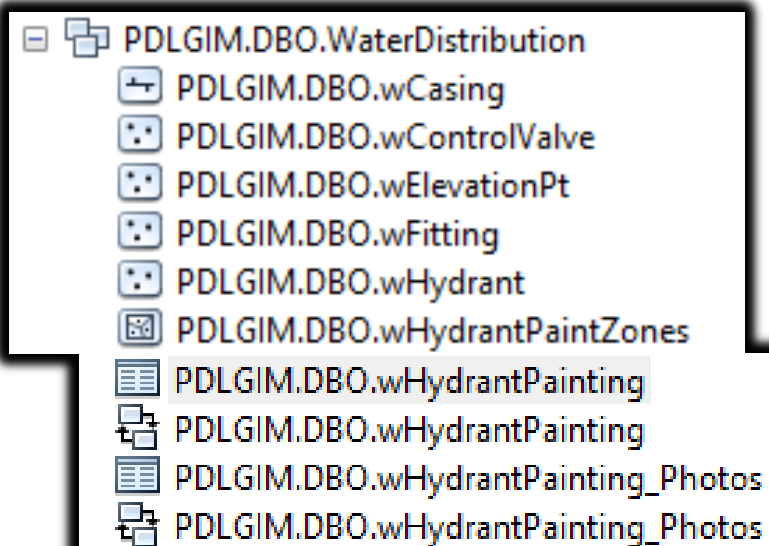
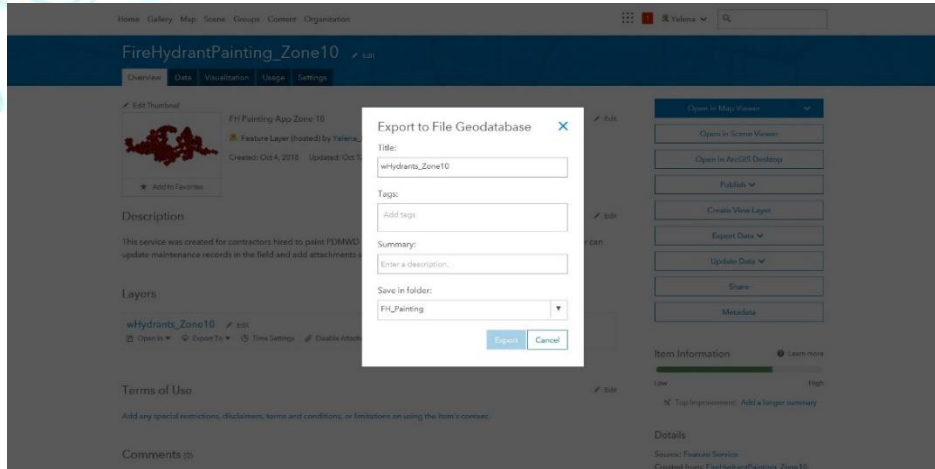
Gallery View

- Script
- Rename with FH ID
- Export to Network Drive



Last Steps

- Export AGOL feature service

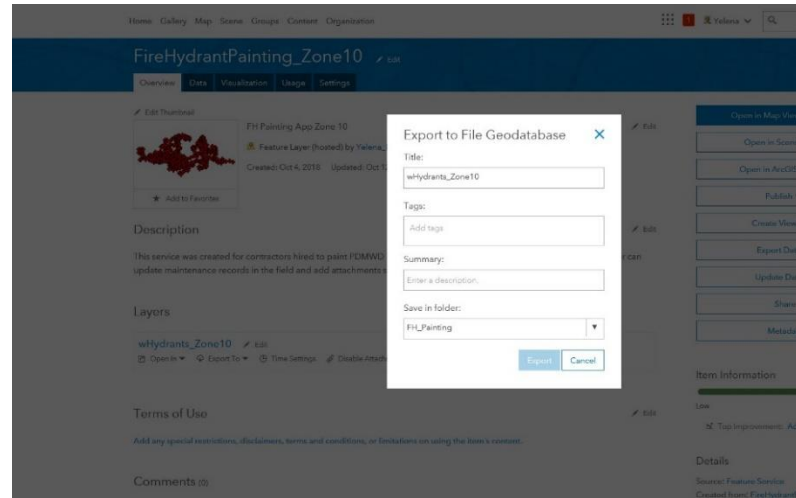


- Update system of record
 - Relationship classes
 - Attachment table
 - Maintenance table

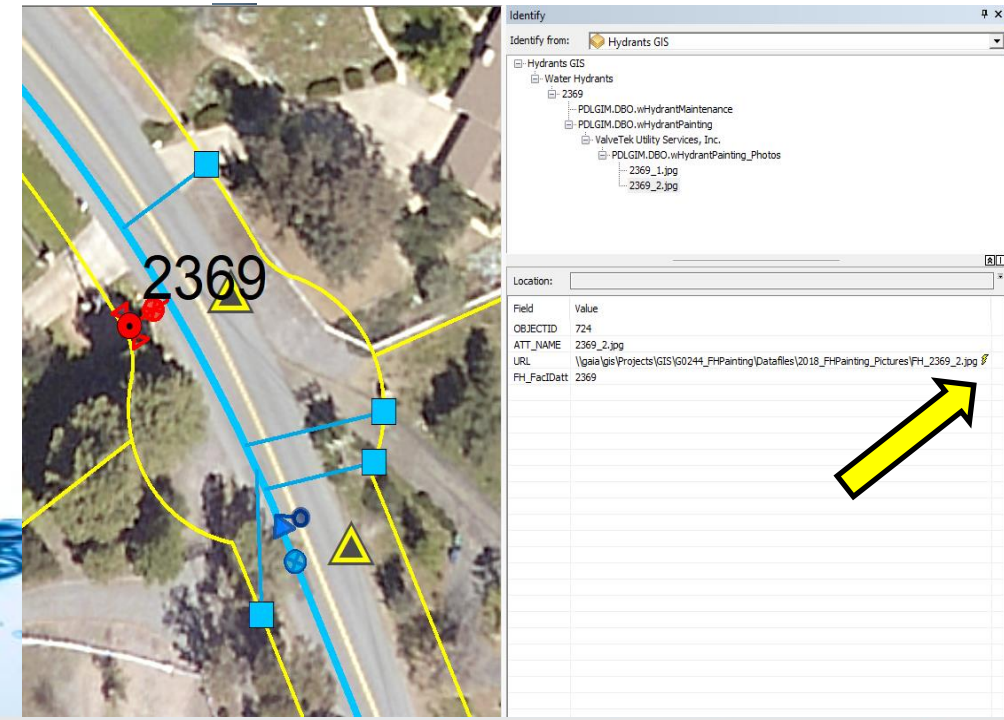


Last Steps

- Export AGOL feature service
- Update system of record
 - Relationship classes
 - Attachment table
 - Maintenance table
- Make it accessible through other applications



- PDLGIM.DBO.WaterDistribution
 - PDLGIM.DBO.wCasing
 - PDLGIM.DBO.wControlValve
 - PDLGIM.DBO.wElevationPt
 - PDLGIM.DBO.wFitting
 - PDLGIM.DBO.wHydrant
 - PDLGIM.DBO.wHydrantPaintZones
- PDLGIM.DBO.wHydrantPainting
- PDLGIM.DBO.wHydrantPainting
- PDLGIM.DBO.wHydrantPainting_Photos
- PDLGIM.DBO.wHydrantPainting_Photos



Last Steps - Documentation



Fire Hydrant Painting App
Instructions for iPhone

April 2018



5: Take the 'after' photo, enter comment if necessary, and click Update. You will now see the hydrant symbol turned green, signifying that the work is done.



Working offline and syncing data



2: Now the map is stored on your device. Take before and after photos and update records.



3: Sync your edits once you're back in area with cell service or Wi-Fi. Click the cloud icon (the red bubble shows how many hydrants were edited while in offline mode).



4: Last step is to clear out the stored map on your device. In main menu, click on the menu icon in upper right hand corner, select 'Manage', click 'Remove', select 'Remove features and basemap'.



5: You will now see the changes you made and be able to view them in the main map.



Conclusion

➤ Program Notes

- Completed 2/10 Painting Zones
- Improvements between the zones 1 and 2
 - Added Widget to Count # of Painted Posts
- Plan to add the Attachment Viewer Application to Dashboard

➤ Benefits

- Better accountability
- Increased efficiency = increased productivity
- Improved records management



Conclusion

ArcGIS Blog


OverviewTopics ▾

ArcGIS Online

Introducing Attachment Viewer!

Mapping and Visualization

June 25, 2019




Kelly Gerrow-Wilcox

Attachment Viewer is a new configurable app (introduced with the June 2019 update of ArcGIS Online) that makes it easier to work with images and features in a map. You can quickly build an app that presents spatial data with an intuitive feature-by-feature browsing experience and an image-centric display. Viewers of the app can navigate through each feature and view the attribute information and attached images. Whether you already have a feature layer with images associated with features or are including image collections in your data collection process, Attachment Viewer is a great companion for any dataset that contains images, videos, or PDFs as attachments.

Sunflower Valley Well Map ⓘ

6 of 16 locations

Search Well ID



Sunflower Valley Run

31701-32999 York Ave, Avenal, California, 93204

State Well Number: 24518E20N003M

Ground Surface Elevation: 679.08


Reference Point Elevation: 680.08

Reading at Reference Point: No


Measurement

No Measure Reason: Pumping

Comments:



2 of 2 attachments

 **PADRE DAM**
Municipal Water District

THANK YOU

cmael@padre.org

sweddle@padre.org

clarsen@padre.org

ygranovskaya@padre.org



padredam.org



twitter.com/PadreDam



instagram.com/padredammwd



facebook.com/PadreDam

