



**Los Angeles County
Enterprise GIS**

Geospatial Government: Developing Location Intelligence for LA County

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What is geospatial data?

- *Relating to or denoting data that is associated with a **particular location**.*

In the business of government **ALMOST**
all our data is tied to place and time (x, y, z, t)

Can you think of any that are **NOT**?

But there is much more to the picture...





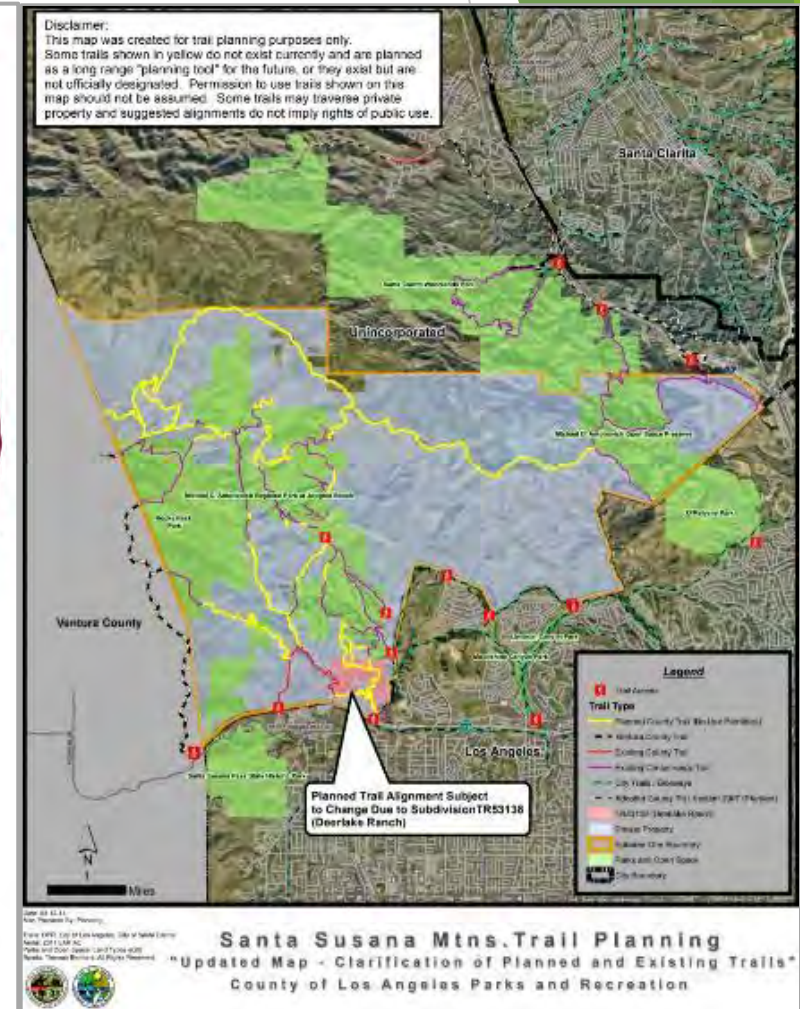
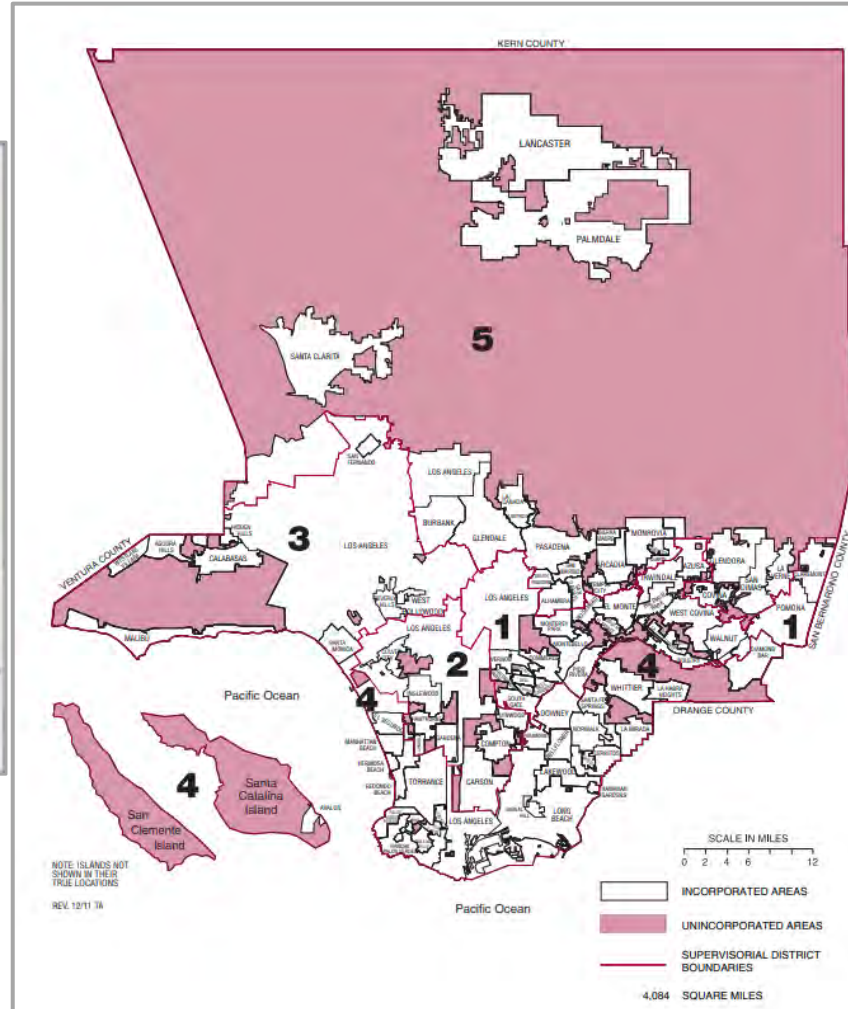
Integrative Technology

- ▶ Geospatial methods provide:
 - ▶ A means to *organize*, *manage*, and *track* information
 - ▶ A means to develop *situational awareness and understanding*
 - ▶ A platform to *obtain input* from stakeholders
 - ▶ *Engage with communities*





Geospatial = Maps (but it's far MORE than maps!)





Decision-making with location intelligence

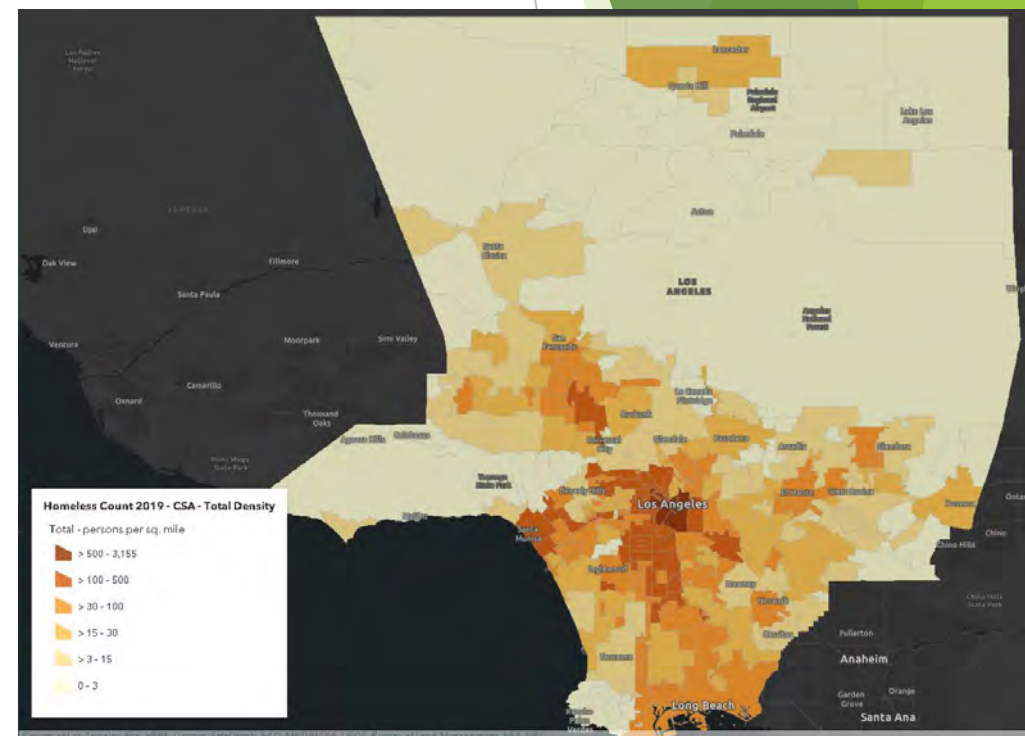
- ▶ Spatial data + spatial analytics = actionable intelligence
 - ▶ Where are needs and priorities?
 - ▶ Where are there gaps in our services?
 - ▶ What locations need additional focus or attention?
 - ▶ How can business processes be improved?
 - ▶ What can we do to optimize our use of resources?
 - ▶ How can we more effectively assist our stakeholders?
 - ▶ **And much more...**





What makes spatial, special?

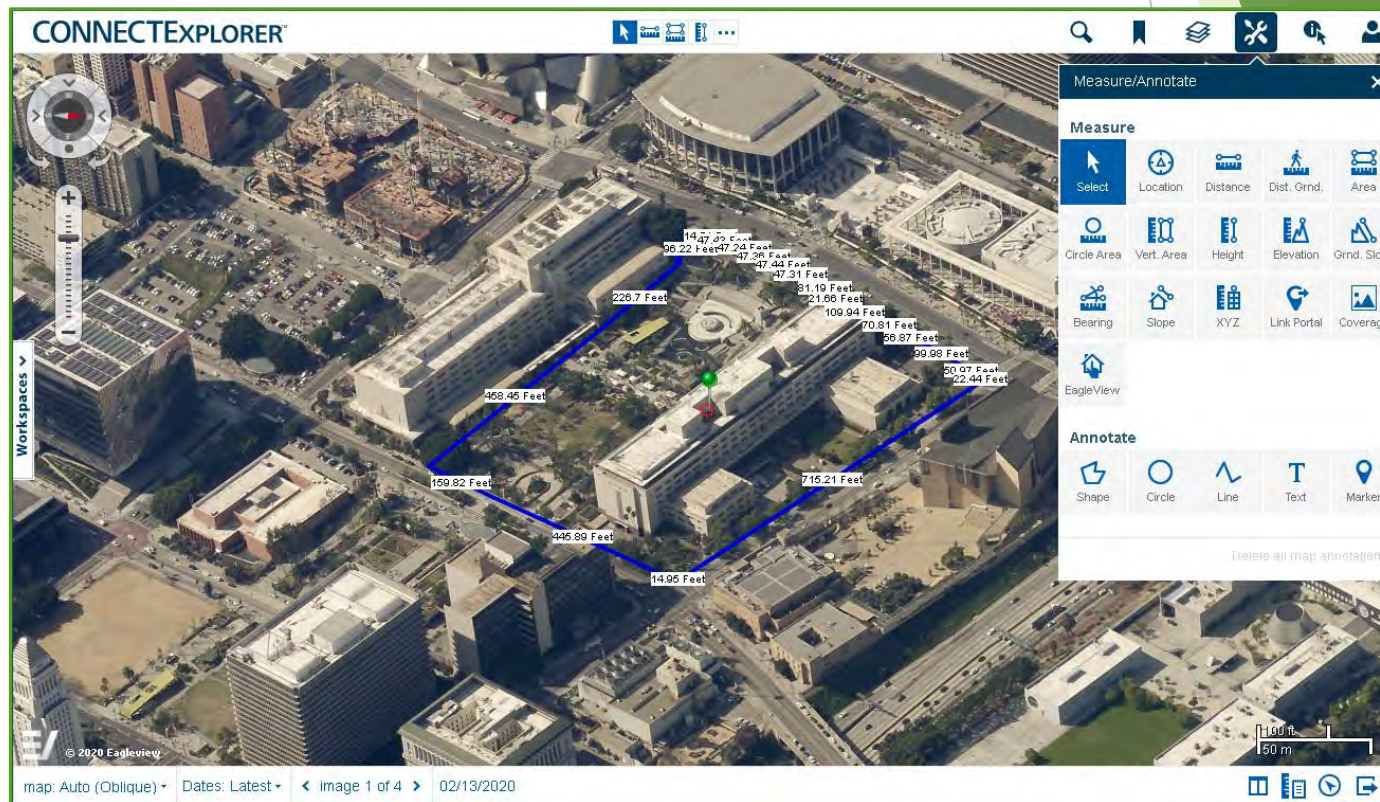
- ▶ **Spatial analysis methods allow us to...**
 - ▶ Add value by placing in context
 - ▶ Visualize patterns in the data
 - ▶ Inform decision-making
- ▶ Data organized in a spatial framework
 - ▶ Street addresses
 - ▶ Parcel APN
 - ▶ Census tracts
 - ▶ Service areas





Geospatial data also = images

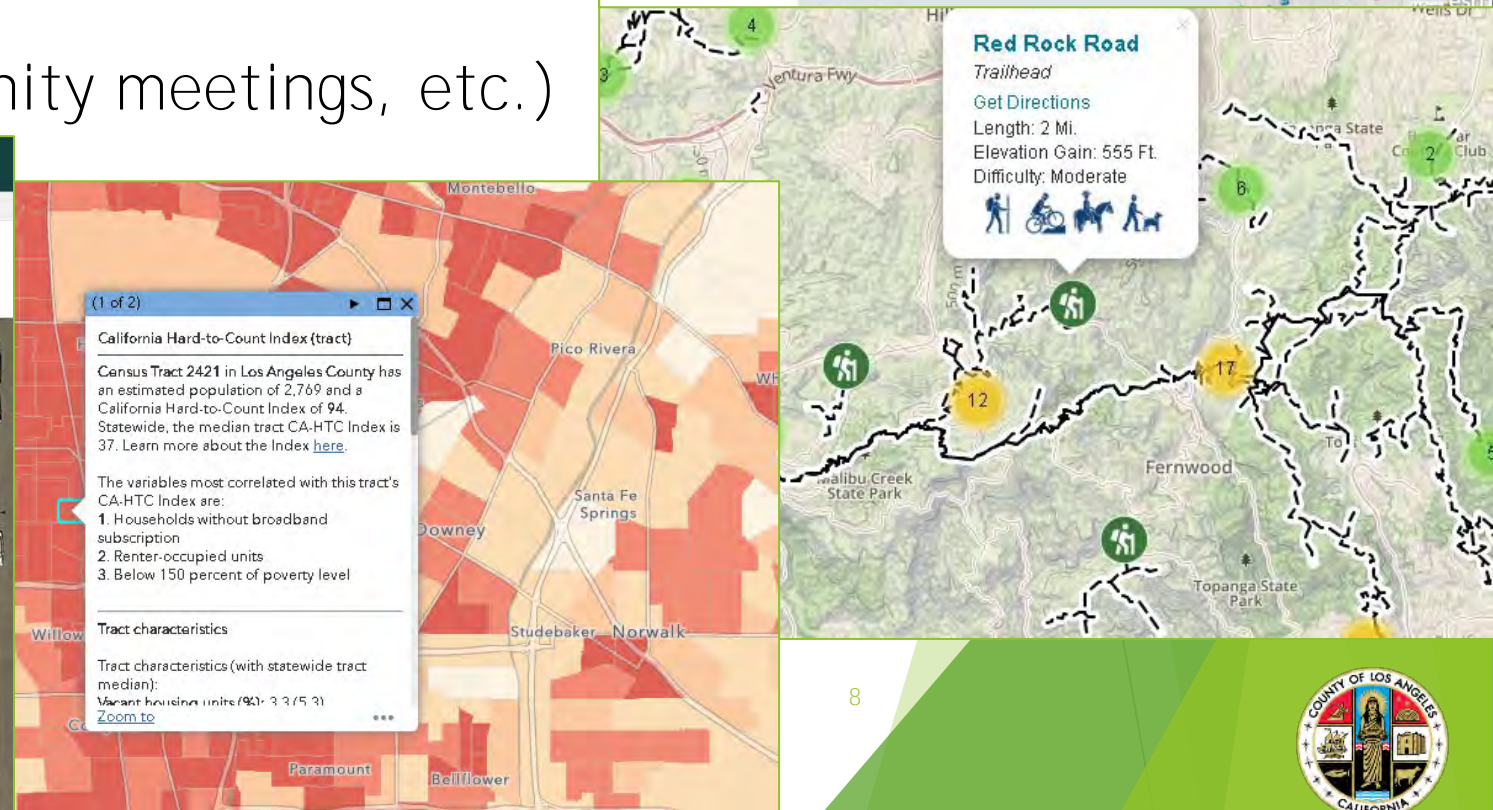
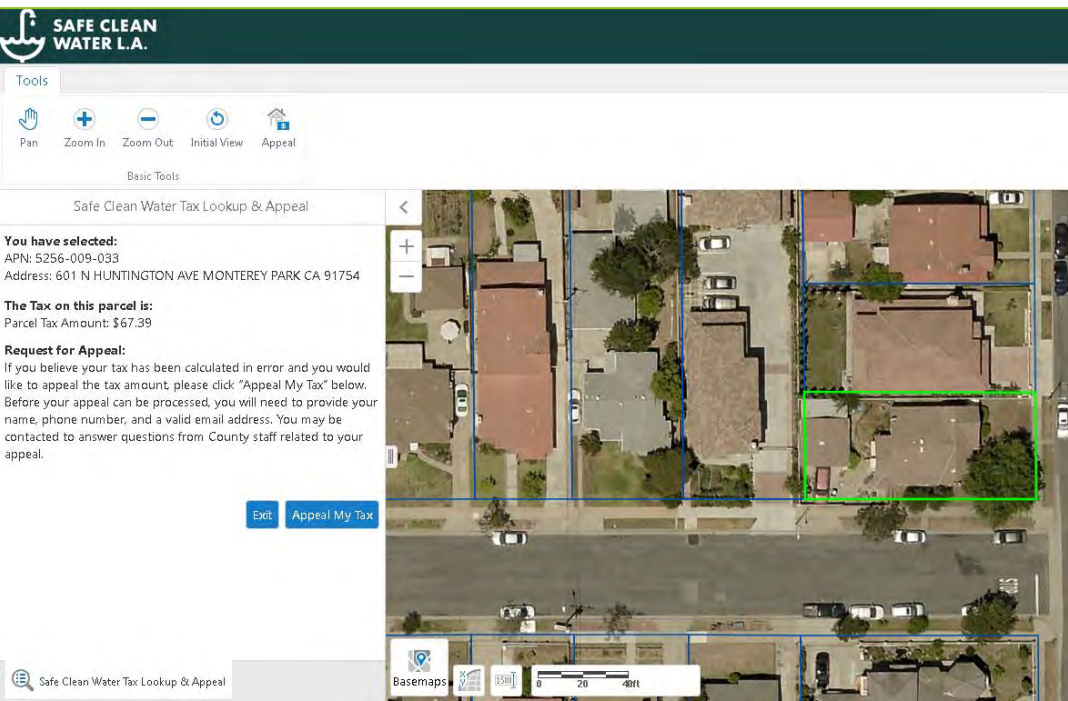
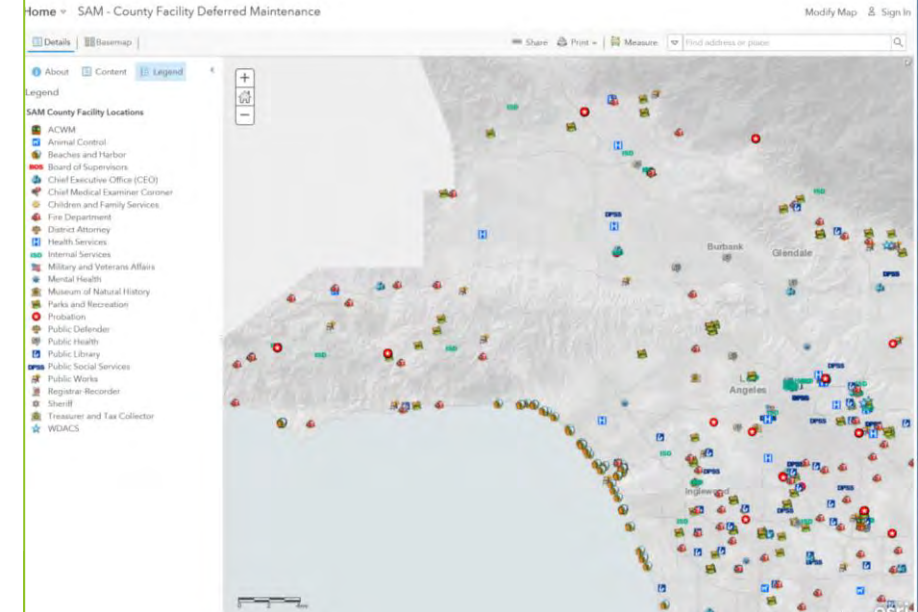
- These are “maps” too ... and provide a lot of additional information beyond traditional maps





Why does government care about maps?

- ▶ Tax and fee assessment
- ▶ Service provision (parks, clinics, schools, etc)
- ▶ Public Participation
(e.g. voting, census, community meetings, etc.)





Geospatial also = Community Engagement

- ▶ By nature we...
 - ▶ Have strong attachment to place
 - ▶ Engage with information **visually**
 - ▶ Think spatially
- ▶ Public Participation GIS (PPGIS)
 - ▶ An effective means to collect input from diverse stakeholders





Case study: Access to WiFi

- ▶ LA County Library contacts eGIS team via email:

Sent: Friday, March 27, 2020 1:48:55 PM

Subject: WiFi Hotspot Map

In light of what's happening with the virus, many doors are closed and residents have no places to apply for jobs, unemployment; students have no access to use online resources or distance learning. **We would like to find out if ISD has maps providing information on locations of free WiFi for the general public?**





Where's WiFi in LA County?

- ▶ We **know** the County of Los Angeles provides free, public WiFi in a variety of locations:
 - ▶ County Parks (some)
 - ▶ County libraries (most)
 - ▶ Other County offices and facilities (many)
- ▶ Other jurisdictions also provide free public WiFi
- ▶ So do a variety of private entities (Coffee Shops, restaurants, etc.)





But who ^{really} knows where?

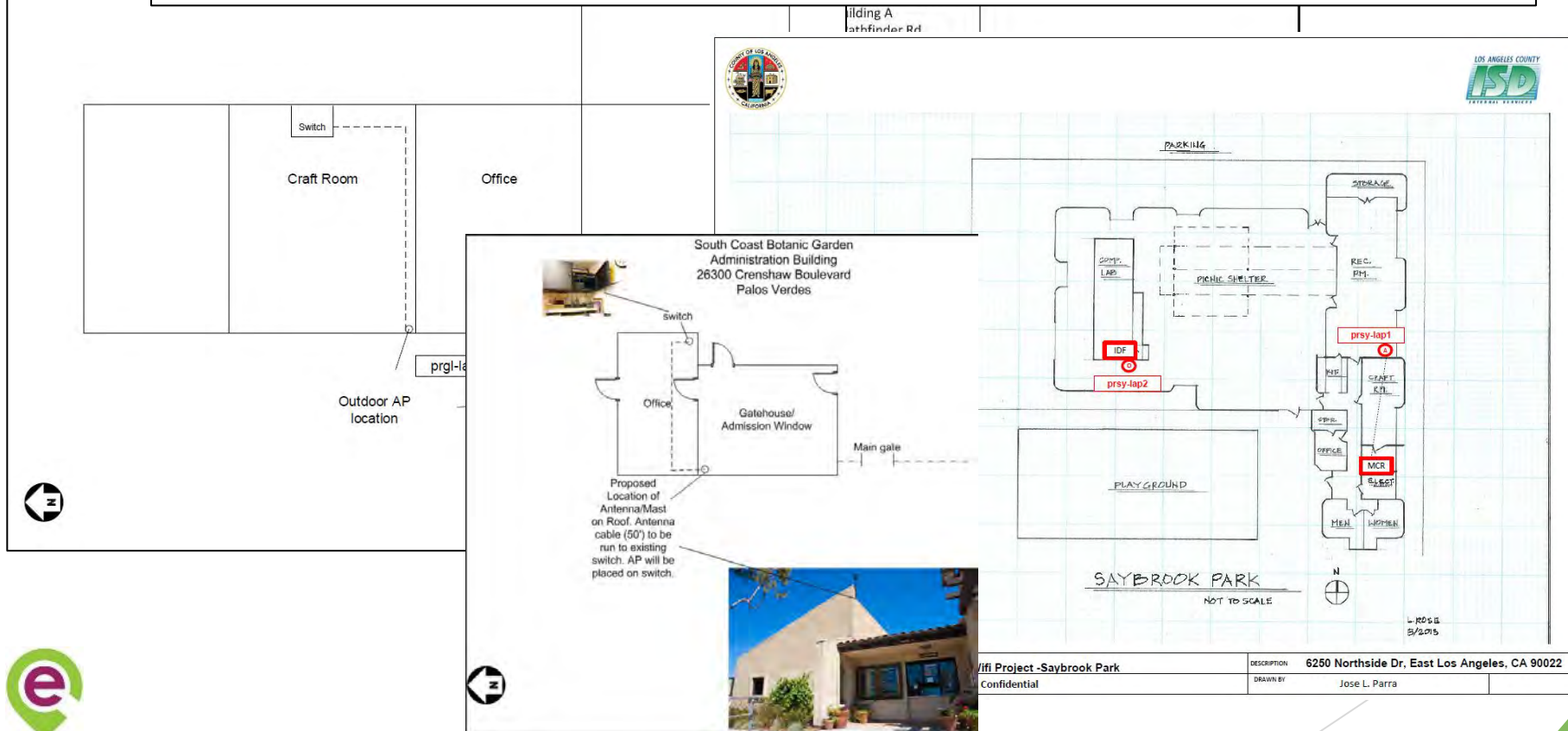
- ▶ Data resides in a variety of formats and locations
 - ▶ We know where County libraries are located (but have limited details about their WiFi capacity)
 - ▶ We know many parks have WiFi, but those can be large. More than 50 site drawings representing indoor and outdoor WiFi at each county park
 - ▶ Websites for each school district informed us what districts were doing to support students.





Will this help with Park WiFi?

All 50+ of these site drawings required parks GIS staff to develop data that could be assessed in a meaningful way. All mapped by April, 7.





What we knew about school district WiFi plans?

County library research librarians tracked down details for 76 school districts across the county to develop data that could be added to maps of school district boundaries which we received by mid-April, 2020.



Upd

WE'RE IN THIS TOGETHER

Castañe Union School District

We realize that the outbreak of the coronavirus and its impact worldwide has created many concerns for you and your family. At Castañe Union School District, we want to help alleviate some of that anxiety by providing as much

Hacienda La Puente Unified School District
15959 E. Gale Ave., City of Industry, CA 91745 • (626) 933-3800
info@hpued.k12.ca.us

HOME DISTRICT STUDENTS STAFF PARENTS COMMUNITY CVRA DISTANCE LEARNING MYLPUED

News

Hacienda La Puente Unified to Provide Laptops, Hotspots to Ensure Connectivity for 18,000 Students during Extended Dismissal

Posted 4/3/20

HACIENDA LA PUENTE UNIFIED SCHOOL DISTRICT
15959 EAST GALE AVENUE • P.O. BOX 60002 • CITY OF INDUSTRY, CA 91716-0002 • (626) 933-3800
FOR IMMEDIATE RELEASE

MEDIA CONTACT: Superintendent's Office: (626) 933-3801
MARCH 27, 2020

Hacienda La Puente Unified to Provide Laptops, Hotspots to Ensure Connectivity for 18,000 Students during Extended Dismissal

CITY OF INDUSTRY - Hacienda La Puente Unified has launched an effort to provide laptops and Internet connectivity to students who lack home access during the extended school dismissal, drawing on resources from its 1:1 laptop program.

The tools will ensure students in preschool through high school can access online instructional materials until classes resume. Tentatively expected Tuesday, May 5. The closure is part of efforts to slow the spread of COVID-19.

"Our goal is to continue delivering the same high-quality instruction during this dismissal that has always been a hallmark of Hacienda La Puente Unified," Interim Superintendent Annlie Bul said. "We are prepared to do whatever it takes to serve our students."

Home internet access will be delivered through wireless mobile access points - or hotspots - connected to local telecommunications providers.

To determine which students require assistance, the District began an online survey on March 20. Survey details have been shared via email in English, Spanish and Chinese. In the first week, more than 2,400 families filled out the form.

C	D	E	F	G
Internet Provider	Notes			
Lack of Hotspot Provision	No webpage for Wi-Fi or Internet resources (called and confirmed with Asst Superintendent on 4/9)			
Lack of Hotspot Provision	Hotspot was offered to families when they picked up their Chromebooks and is done on a case-by-case basis.			
Lack of Hotspot Provision	Offering 60 days of internet access through Charter/Spectrum, indicated on the "Healthy Families Update" PDF.			
Lack of Hotspot Provision	Scroll down to section on "Internet Access". Offering discounted internet services through Internet Essentials by Charter, Comcast, and Spectrum.			
Lack of Hotspot Provision	Scroll down and click "Wi-Fi Resources". Offering free/low cost internet through various providers			
Lack of Hotspot Provision	Offering free internet for 60 days through Spectrum and Giggle Fiber			
Lack of Hotspot Provision	Scroll down and click "Internet Connectivity for Students and Families". Offering free/low cost internet through various providers			
Lack of Hotspot Provision	No information on internet/wifi access provided on website. Could not contact as the school is on break. https://sites.google.com/mtviewschools.net/mvssd-remote-learning/home?authuser=0			
Lack of Hotspot Provision	Already distributed over 650 hotspots to families. Families are asked to check communications (email, phone, etc.) for further information.			
Lack of Hotspot Provision	Under "Parent Communication" heading, click on "Distance Learning Plan" which provides PDF of information. https://www.newhallsschools.net/cms/lib/CA01902607/Centricity/Domain/35/Distance%20Learning%20Plan%20final.pdf			
Lack of Hotspot Provision	Scroll down to "Wireless Internet Access" section. Offering various providers through EveryoneOn.			
Lack of Hotspot Provision	Offering various providers through EveryoneOn. Spectrum offering free 60 day internet access.			
Lack of Hotspot Provision	Offering free/low cost internet through AT&T, Cox			





A preliminary application

County of Los Angeles - Internet Locator

We also added in details for service territories of all commercial providers (fixed and mobile broadband) from the California Public Utilities Commission.

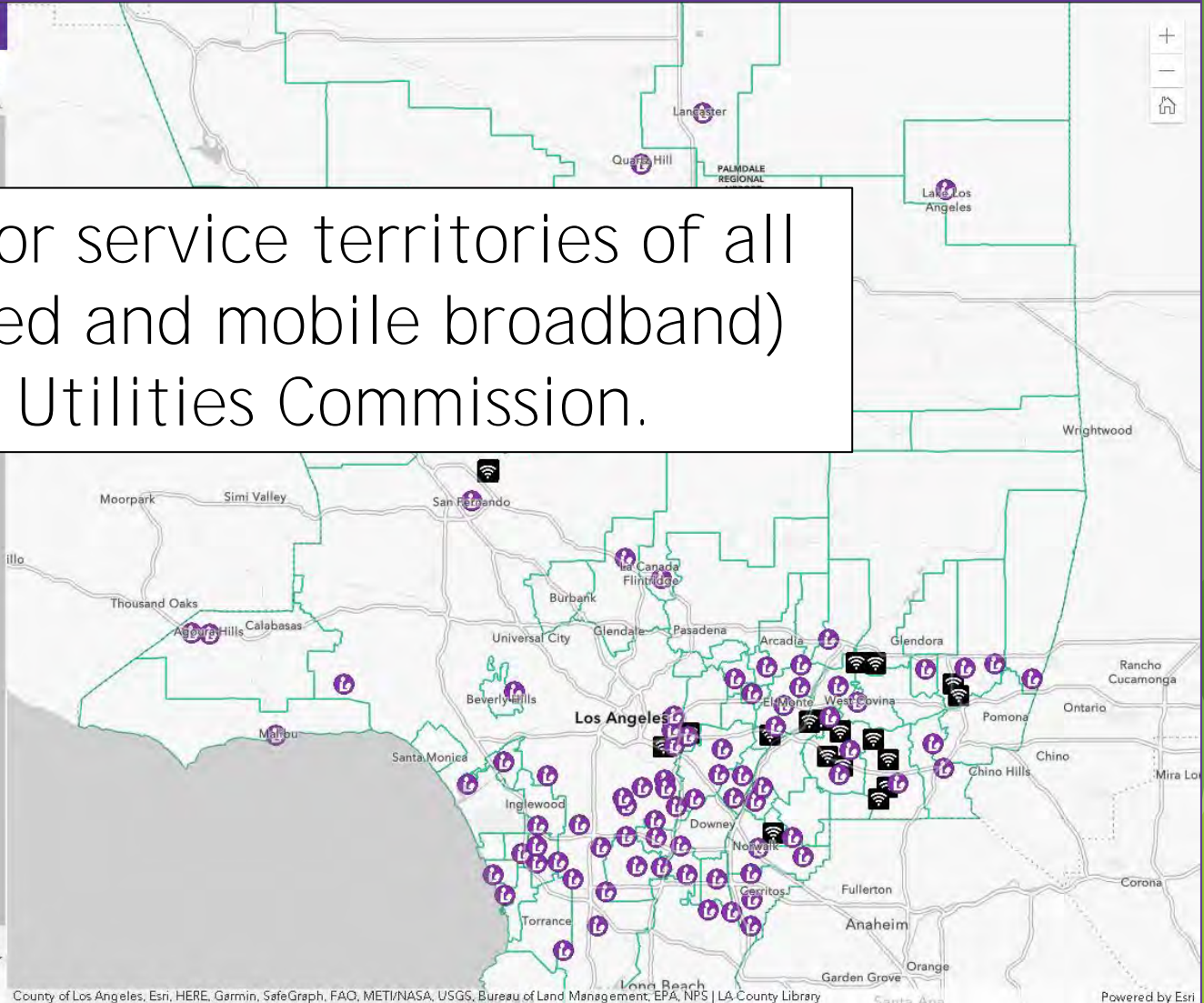
Click within the map.
Results will include information about features of interest.

An LA County Library Card is required to login to the public library WiFi.

Best viewed in Google Chrome.

Please remember to maintain physical distancing at all times, stay at least 6 feet from others, and wear a face covering when necessary.

This interactive map shows possible WiFi locations throughout LA County, however, we cannot guarantee accessibility at all locations. You can locate WiFi hotspots by searching by an address or if using a mobile device, your current location.





May 15, 2020 the site goes live
(About 6 weeks from initial ask)

Version 1.0 site
Remained live from
May 15 to July 31
(~10 weeks) and
received over
15,000 visits

But we could do better!





More Excel sheets (ugh!)

- ▶ Cities have WiFi?
 - ▶ We reached out to every city (and got some info)
- ▶ Added in additional county sites (WDACS)
- ▶ **Still** large gaps

	A	B	C	D	E	F
	Facility Name	Street Address	City	State	ZIP	URL
1						
2	Altadena Library Main	600 E Mariposa St	Altadena	CA	91001	https://www.altadenalibrary.org
3	Bob Lucas Memorial Library	2659 Lincoln Avenue	Altadena	CA	91001	https://www.altadenalibrary.org
4	Arcadia Public Library	20 W Duarte Road	Arcadia	CA	91006	https://www.arcadialibrary.org/enrich/arcadia_public_library/index.php
5	El Segundo Public Library	111 W Mariposa Avenue	El Segundo	CA	90245	https://www.elsegundolibrary.org
6	Brand Library & Art Center	1601 W Mountain St	Glendale	CA	91201	https://www.brandlibrary.org/
7	Casa Verdugo Library	1151 North Brand Boulevard	Glendale	CA	91202	https://www.glendaleca.gov/government/departments/library-arts-culture/locations-hours/casa-verdugo-library
8	Chevy Chase Library	3301 East Chevy Chase Drive	Glendale	CA	91206	https://www.glendaleca.gov/government/departments/library-arts-culture/locations-hours/chevy-chase-library
9	Glendale Central Library	222 E Harvard St	Glendale	CA	91205	https://www.glendaleca.gov/government/departments/library-arts-culture/locations-hours/central-library
10	Grandview Library	1535 Fifth Street	Glendale	CA	91201	https://www.glendaleca.gov/government/departments/library-arts-culture/locations-hours/grandview-library
11	Library Connection	1100 E Chevy Chase Drive	Glendale	CA	91205	https://www.glendaleca.gov/government/departments/library-arts-culture/locations-hours/library-connection-adams-square
12	Montrose Library	2465 Honolulu Avenue	Glendale	CA	91020	https://www.glendaleca.gov/government/departments/library-arts-culture/locations-hours/montrose-library
13	Pacific Park Library	501 S. Pacific Avenue	Glendale	CA	91204	https://www.glendaleca.gov/government/departments/library-arts-culture/locations-hours/pacific-park-library
14	Glendora Library	140 S Glendora Avenue	Glendora	CA	91741	http://www.cityofglendora.org/departments-services/library
15	Canyon Country Jo Anne Darcy Library	18601 Soledad Canyon Rd.	Santa Clarita	CA	91351	http://www.santadantalibrary.com/
16	Old Town Newhall Library	24500 Main St	Santa Clarita	CA	91321	http://www.santadantalibrary.com/
17	Valencia Library	23743 Valencia Blvd	Santa Clarita	CA	91355	http://www.santadantalibrary.com/
18	Fairview Branch Library	2101 Ocean Park Boulevard	Santa Monica	CA	90405	https://smpl.org/FairviewBranch.aspx
19	Montana Branch Library	1704 Montana Avenue	Santa Monica	CA	90403	https://smpl.org/MontanaBranch.aspx
20	Ocean Park Branch Library	2601 Main Street	Santa Monica	CA	90405	https://smpl.org/OceanParkBranch.aspx
21	Pico Branch Library	2201 Pico Boulevard	Santa Monica	CA	90405	https://smpl.org/PicoBranch.aspx
22	Santa Monica Main Library	601 Santa Monica Boulevard	Santa Monica	CA	90401	https://smpl.org/MainLibrary.aspx
23						
24						
25						
26						
27						
28						
29						
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31						





Can commercial data fill gaps?



AutoSave

usdr-los-angeles-county-wifis.csv - Excel

Search

Steve Steinberg

FileHomeInsertPage LayoutFormulasDataReviewViewDeveloperHelp

A1

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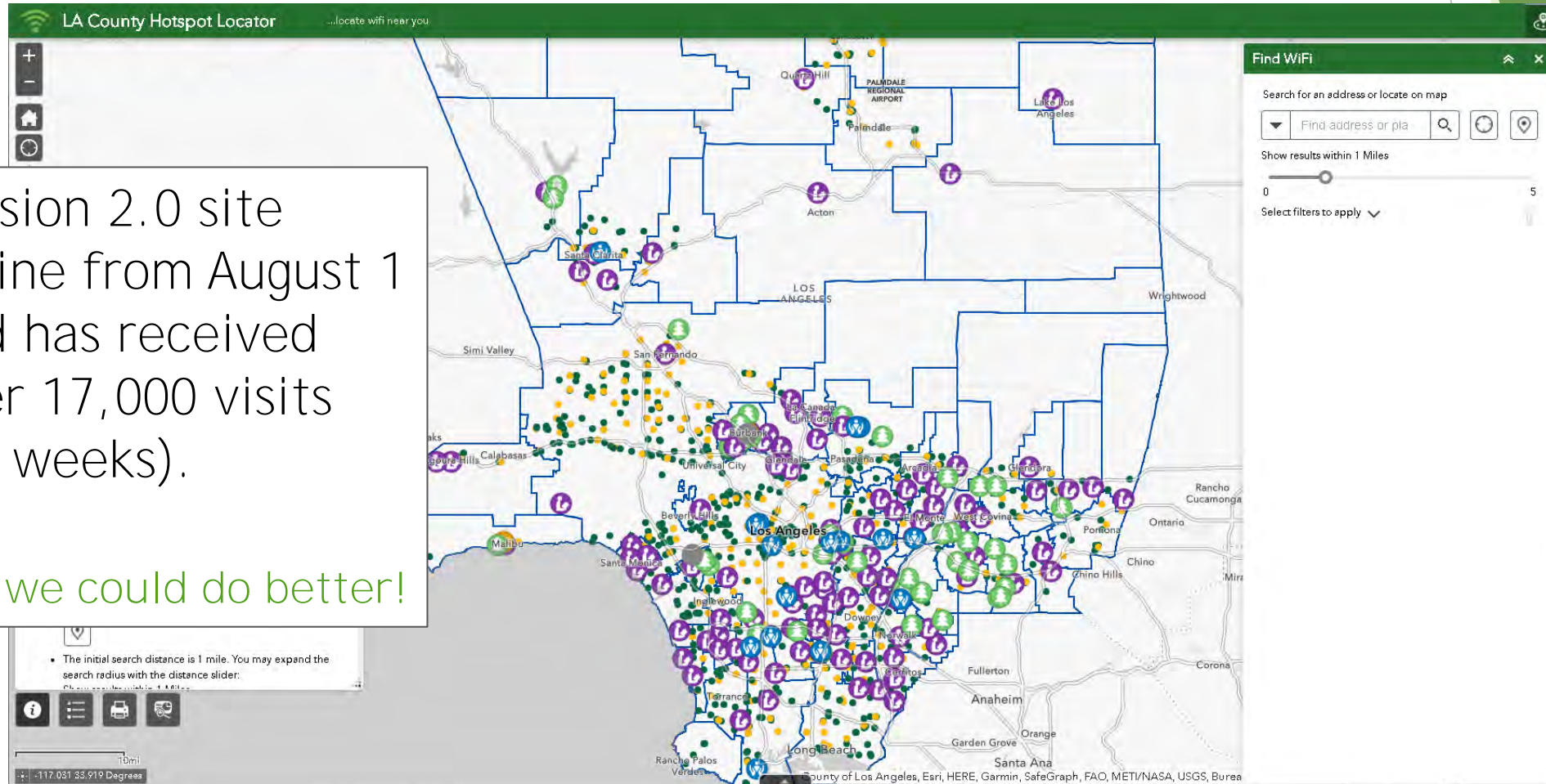


v2 site launched on August 1st

findwifi.lacounty.gov

Version 2.0 site
online from August 1
and has received
over 17,000 visits
(~8 weeks).

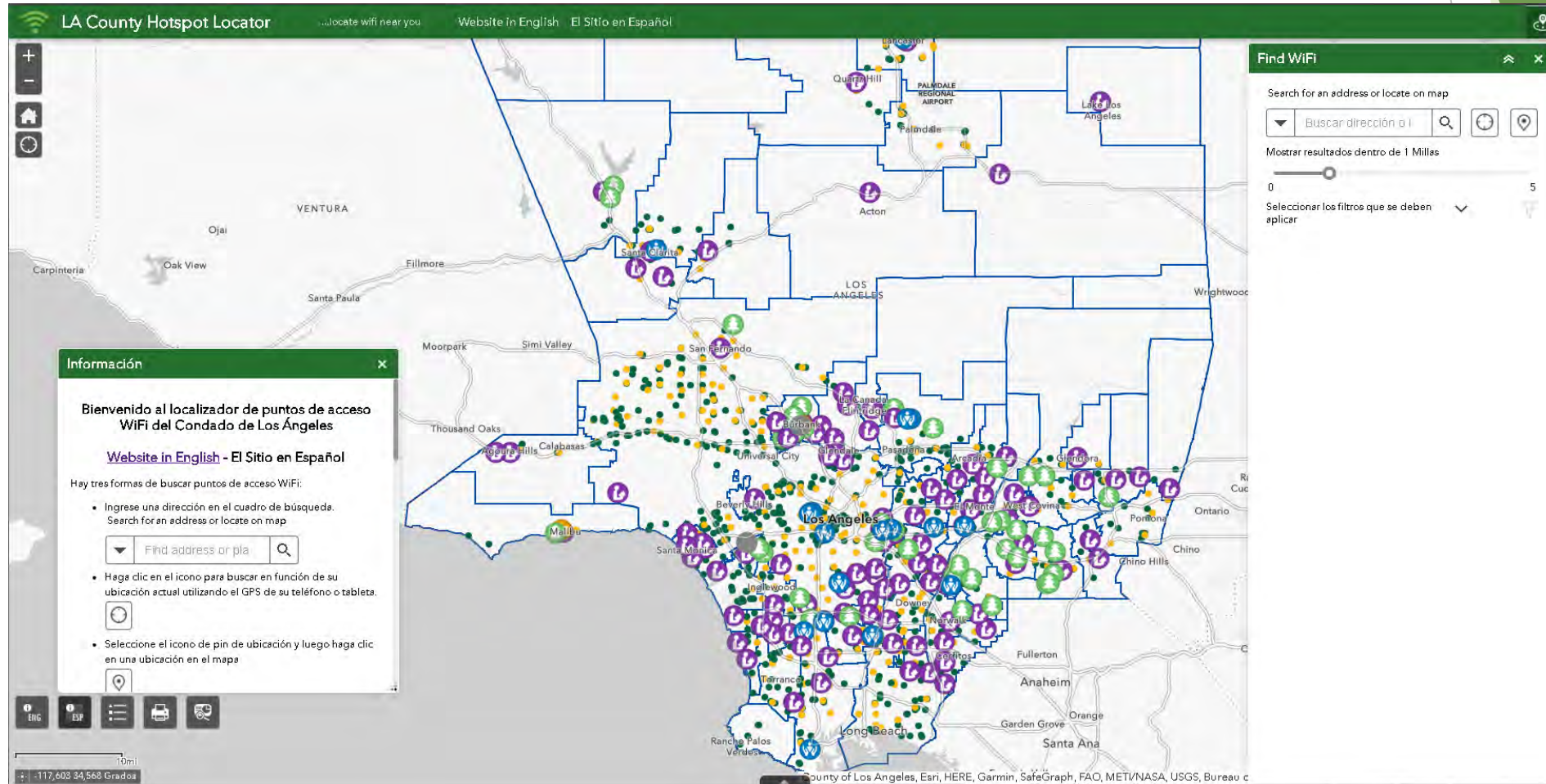
But we could do better!



Español

Bi-lingual on September 24th

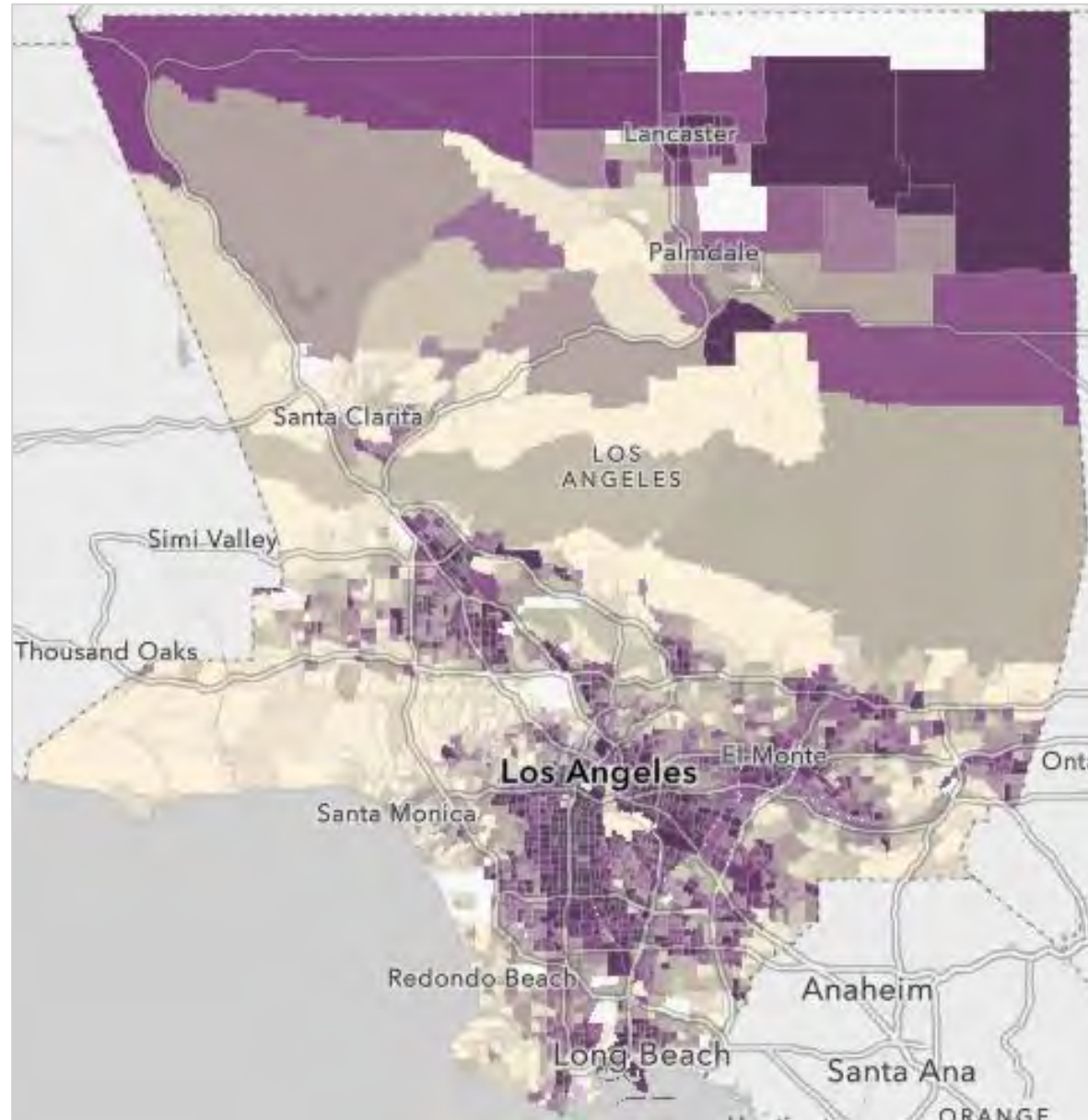
findwifi.lacounty.gov





We still face a Digital Divide

Percent of Households
with No Internet Access



21





What could access look like?

CALIFORNIA

Los Angeles Times

L.A. County could use parks, libraries as learning sites amid school closures



Parkgoers sit at a social distance in Vista Hermosa Natural Park on Tuesday. (Gabriella Angotti-Jones / Los Angeles Times)

By TOMÁS MIER
JULY 23, 2020 | 11:01 AM

Los Angeles County is considering using parks and libraries as alternative learning sites for students as most schools remain shuttered amid the COVID-19 pandemic, officials said.

CORONAVIRUS AND PANDEMIC >

How is Little Saigon curbing coronavirus? By respecting elders, authorities and masks

'Tsunami' of hotel closures is coming, experts warn

Defying predictions of disaster, Africa's coronavirus response is receiving praise

Sweden has escaped a second coronavirus wave so far. The question is why

No place to study, hunger and inadequate computers hurt Eastside and South L.A. students

Cases statewide »

796,937 confirmed	15,314 deaths
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As of September 24, 9:47 a.m. Pacific





Location Analytics

County of Los Angeles Network & Technology Accessibility Dashboard

Created by the ISD Enterprise GIS Team

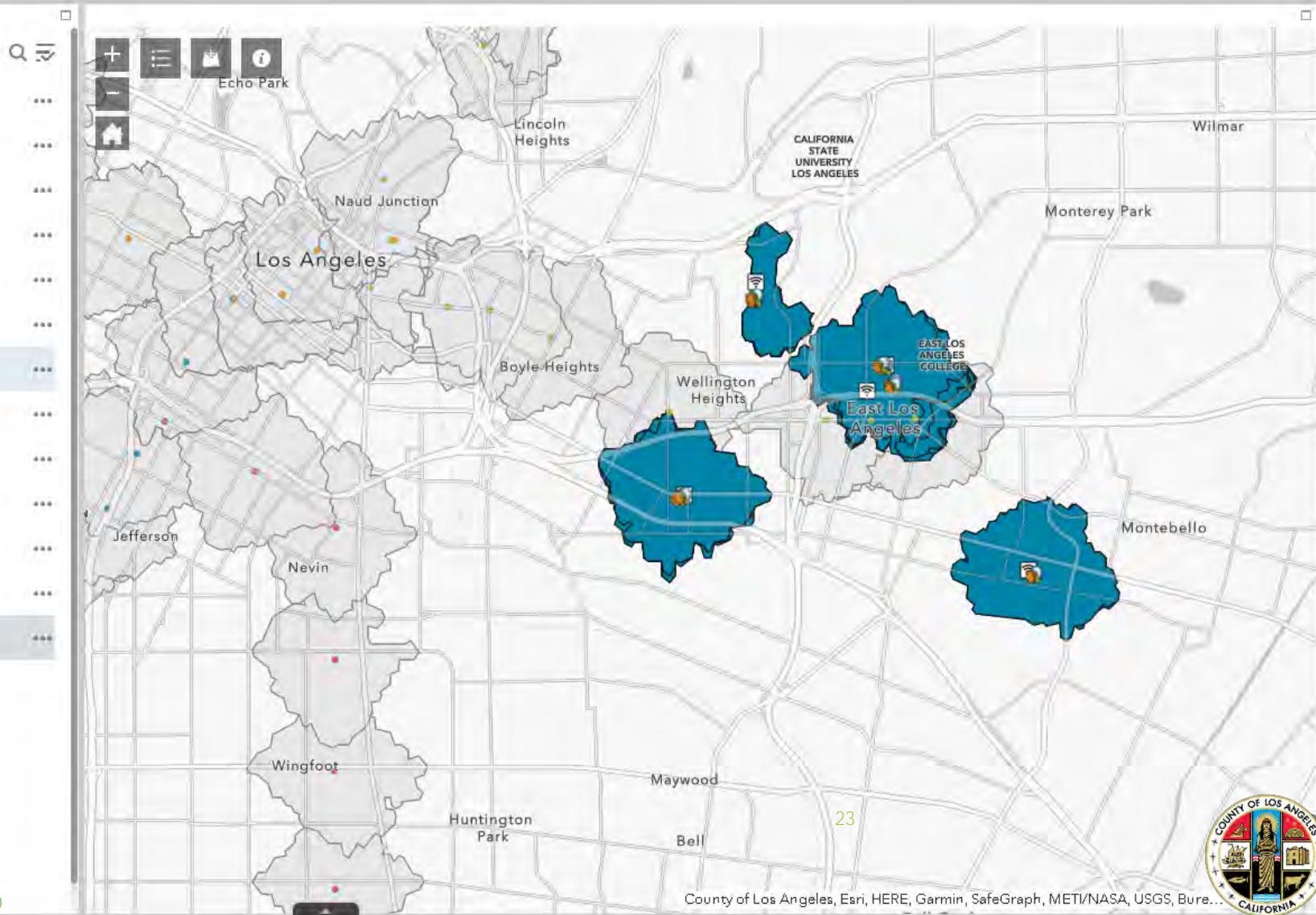
Layers List Filter Data Group Filter Potential Wireless Locations

Layers

- ☒ Parks Wifi Points
- ☒ EA Parks with WIFI
- ☐ Potential Wireless Facilities
- ☒ Metro Rail Lines Stops
- ☐ Metro Bus Lines
- ☒ Park Wifi Points Walk Time - 15 Minutes
- ☐ EA Parks With WIFI Walk Time - 15 Minutes
- ☐ Potential Wireless Locations Walk Time - 15 Minutes
- ☒ Metro Rail Lines Stops Walk Time - 15 Minutes
- ☐ LA County Supervisorial District - Supervisorial District (2011)
- ☐ LA County City Boundaries - City Boundaries
- ☐ ACS Internet Access by Age and Race Variables
- ☐ ACS Internet Connectivity Variables

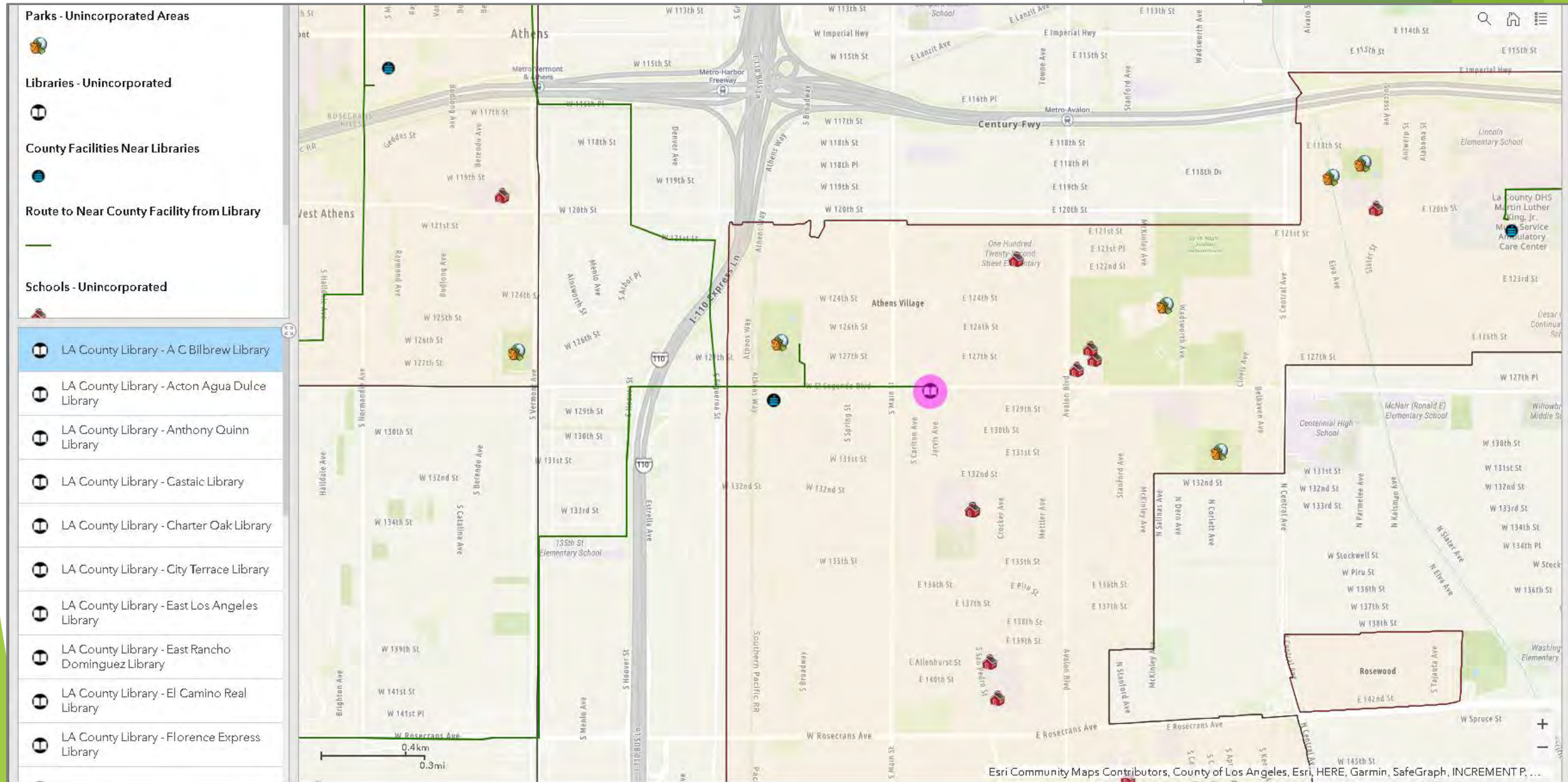
Percent of Households with No Internet Access

> 25





Nearest Location Analysis

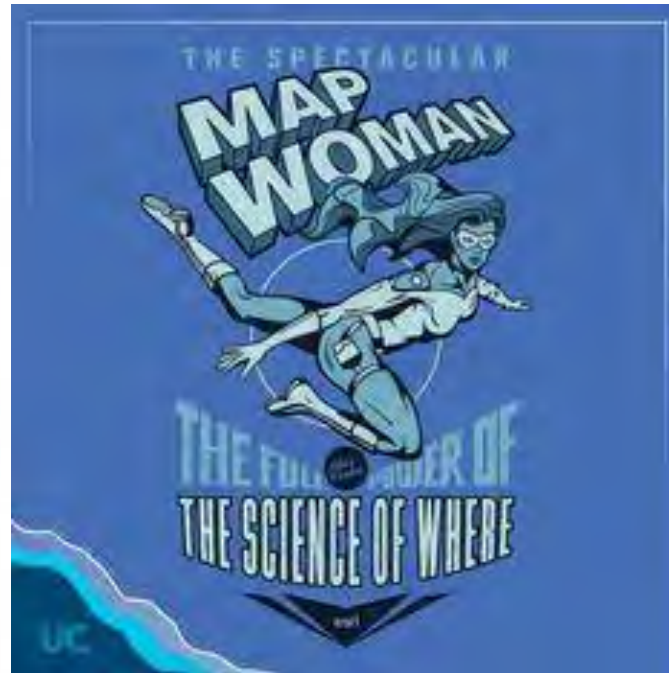




So Get Spatial!

Find out who does GIS in your organization...

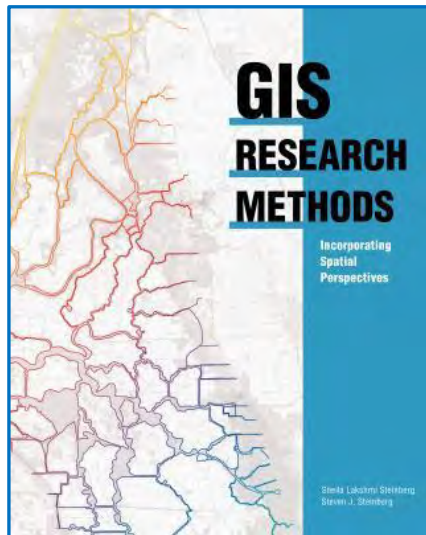
... and become best friends with them!



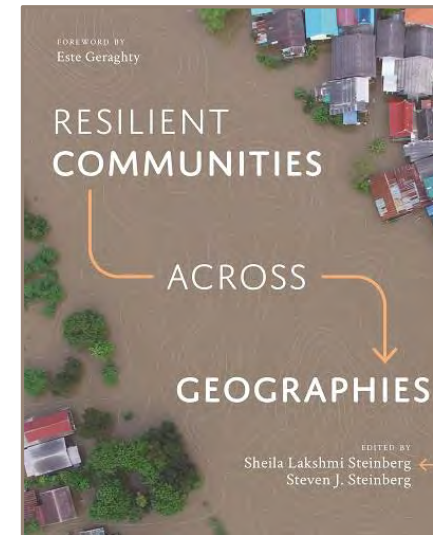


So Get Spatial!

... or just go out and buy a good book! [*shameless plug*]



S.L. Steinberg and S.J. Steinberg (2015)
GIS Research Methods: Incorporating Spatial Perspectives
Esri Press, Redlands, CA., ISBN: 9781589483781



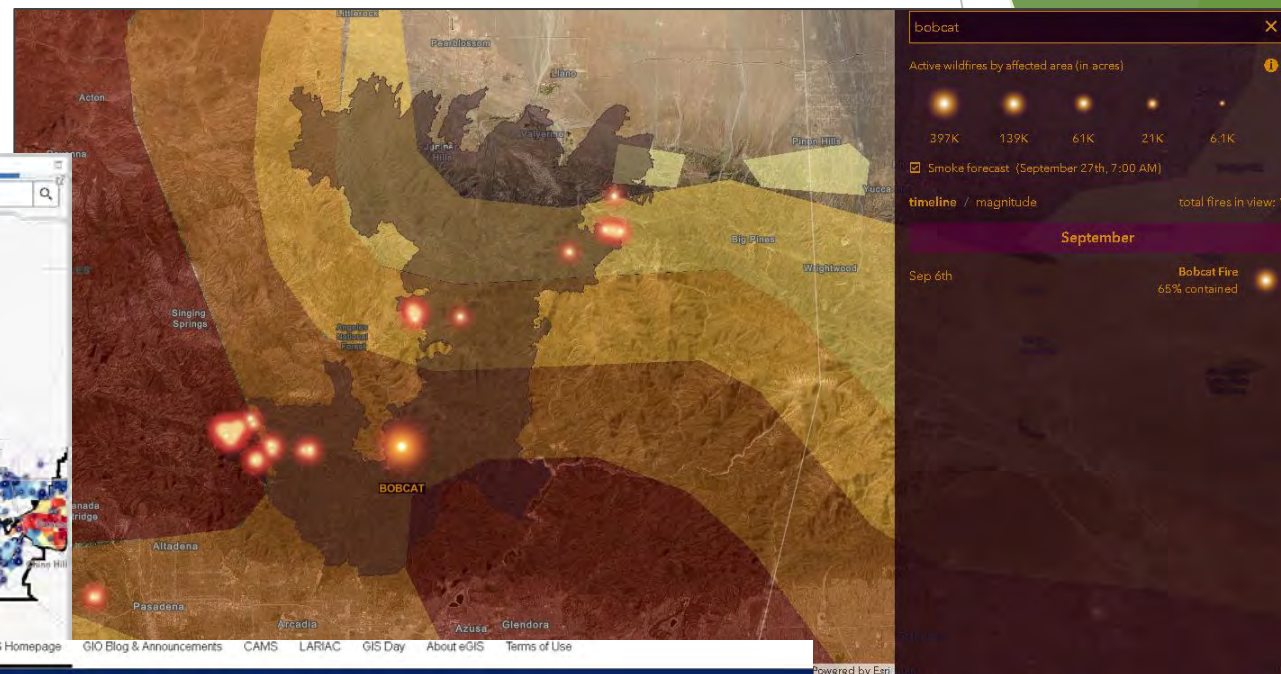
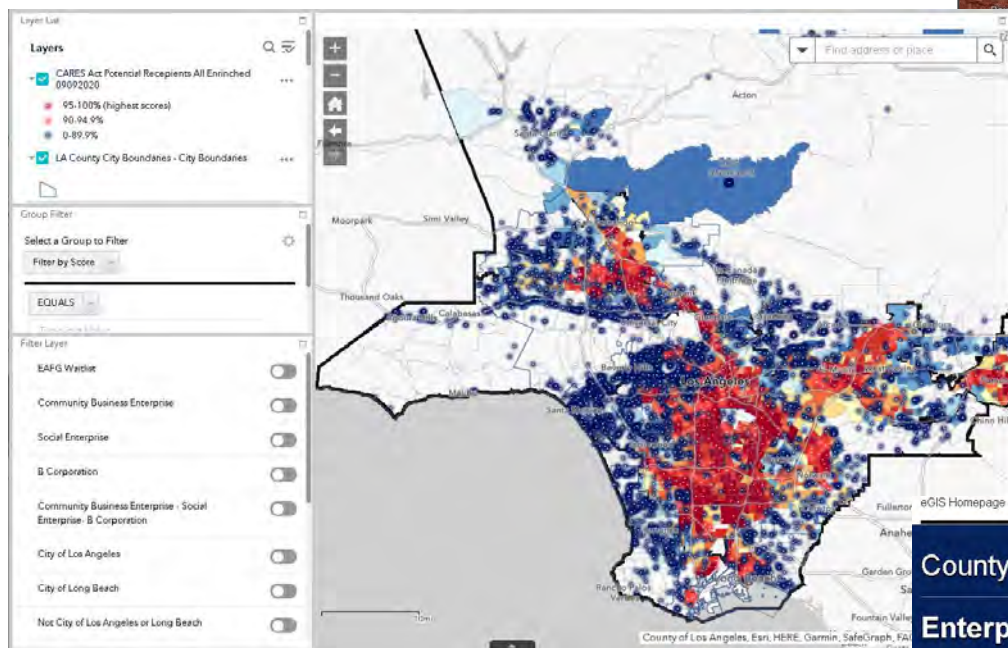
S.L. Steinberg and S.J. Steinberg (2020)
Resilient Communities across Geographies
Esri Press, Redlands, CA., ISBN: 9781589484818







Where do you need solutions? (leverage location and visualization!)



County of Los Angeles

Enterprise Geographic Information Systems





**Los Angeles County
Enterprise GIS**

Thank you!

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[@steinbergspace](https://twitter.com/steinbergspace)

