



# GIS & AFFORDABLE HOUSING

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ANALYZING THE ISSUES

# HOW CAN GIS BE USED TO MAP AND ANALYZE AFFORDABLE HOUSING ISSUES?

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- Location/availability of affordable housing
- Property values (by land use type)
- Eviction rates
- Homelessness
- Neighborhood Livability
  - Distance to job centers
  - Transportation accessibility
  - Food deserts



# Homelessness Hub at UC San Diego

Advancing Research, Education and Policy  
on Housing and Homelessness

<https://homelessnesshub.ucsd.edu/>

Special Guest: Zhongqi Zheng



## Homelessness & Data: Need for H-Hub

The San Diego region's homelessness crisis is complex and ever-pressing. Our responses to it can only be made more effective and efficient through data.

- The County lacks a centralized location to share data among service providers, policymakers, community members, academics, and other stakeholders; **data is vital to knowing where and how to help.**
- Further, homelessness is not just a problem of who; the “**where**” of homelessness is important to policymaking, interventions, and investments
- While spatial data on homelessness exists (e.g. National Point-in-Time Counts), smaller-scale lenses are not the focus (but could and should be!)

**How can we best use and share spatial data as it relates to homelessness?**



## What is H-Hub San Diego?

H-Hub is the result of both UCSD's longstanding commitment to San Diego's housing crisis and the synergistic collaboration between the campus leaders in Urban Studies and Planning (USP) and GIS.

H-Hub is made possible by the generous support of the Lucky Duck Foundation and the Yankelovich Center for Social Science Research for start up funding and recently Mark and Hanna Gleiberman and Dan and Phyllis Epstein to bolster and extend for 5 years.

- Continually collecting, refining, and democratizing data from a variety of sources.
- Our aim is to make this **user friendly, accessible and free** - we have staff in place to guide anyone to data they seek.





## Data Bank: Access Cleaned & Standardized Datasets

# Data Bank

Find all of our publicly-available datasets here - streamlined, organized, and ready for use.

Filters

[Reset](#)

1 - 20 of 79 results

Relevance ▼

### Content Type



- ☐ Feature Layer
- ☐ Feature Service
- ☐ Feature Collection

### Sharing



- ☐ Team
- ☐ Organization
- ☐ Public



Data

### [State Highway Bridges, San Diego County, 2020](#)

University of California San Diego | HHub\_SanDiego

The bridge inventory data was obtained from Caltrans Structure Maintenance and Investigations (SMI) Database, as of December, 2018. SMI performs bridge inspections in accordance with federal...

**Type:** Feature Layer

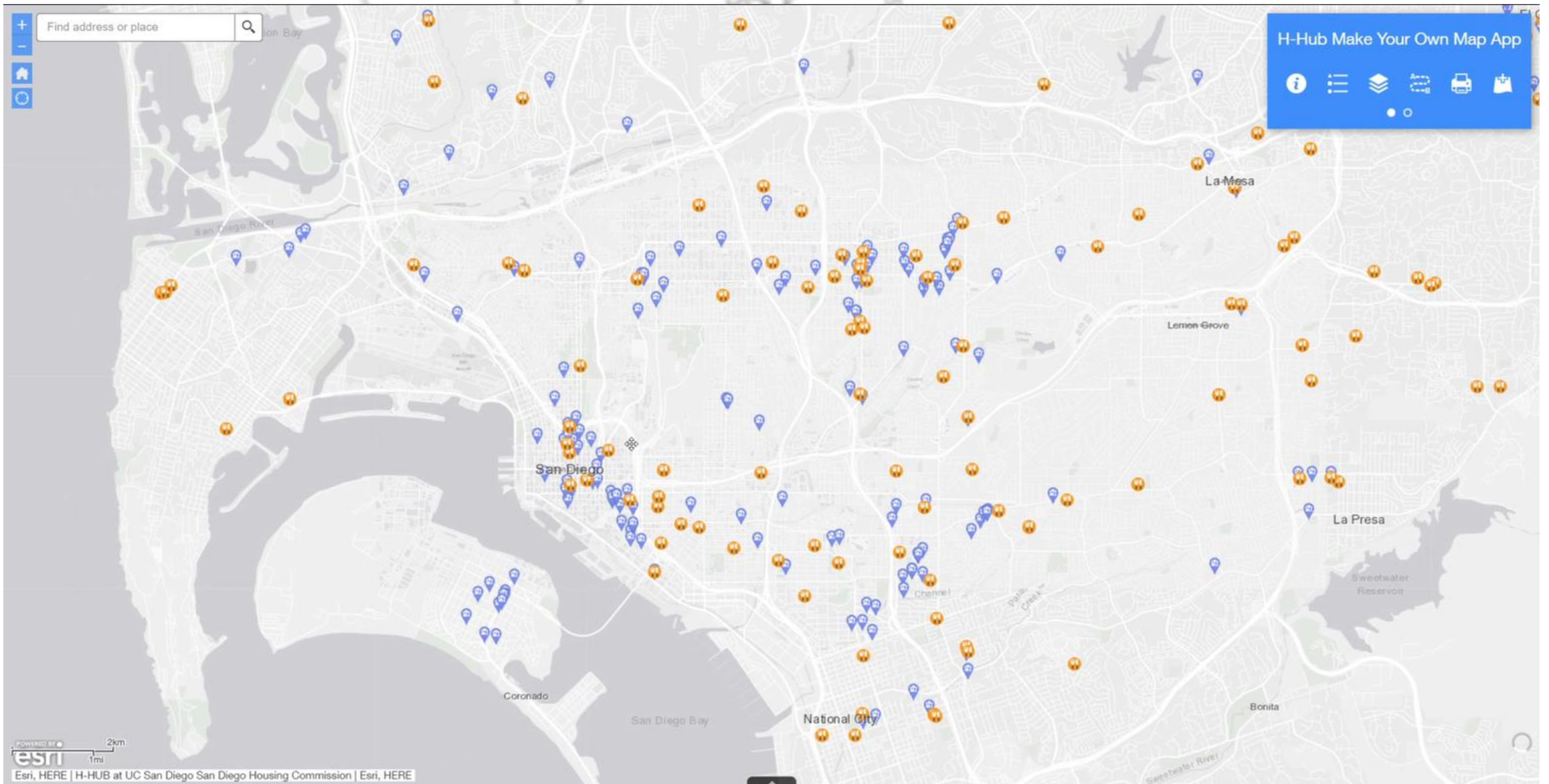
**Last Updated:** September 16, 2020

**Rows:** 1,075

**Tags:** CAOpenData, Caltrans, Bridges, infrastructure, Transpo...



# Make Your Own Map with MYMapp





## Partnering with government, non-profits and researchers

SD River Park  
Foundation

People Assisting the  
Homeless (PATH)

Southern CA  
Coastal Water  
Research Project

Eviction Prevention  
Collaborative

UCSD Extension

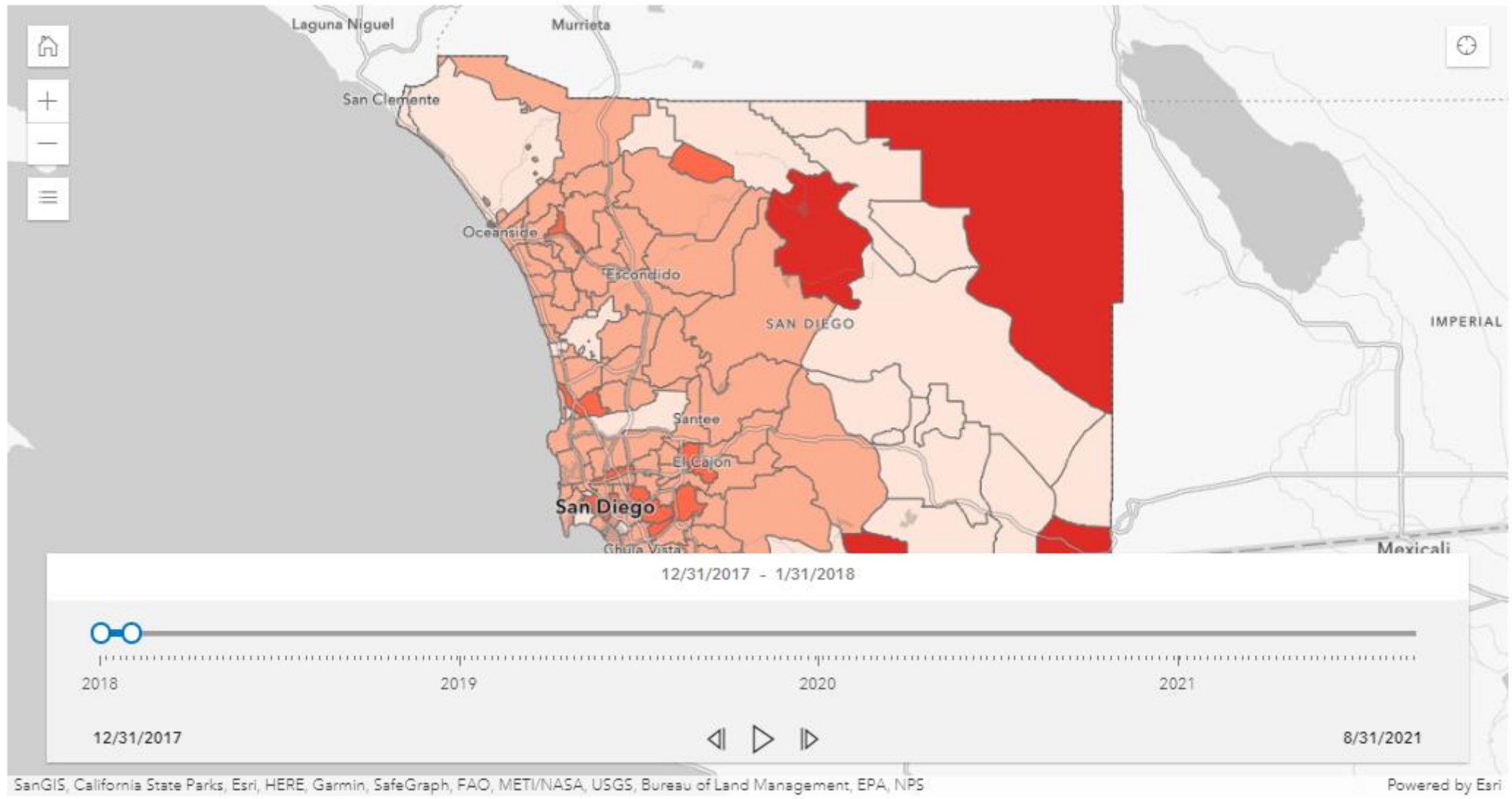
UC Institute of  
Transportation  
Studies





## Collaborative data collection and analysis with EPC

Evictions, San Diego County, Jan 2018 - Sept 2021 (Web App)





## Collaborative data collection, analysis and visualization with EPC

Requirements

Survey  
Development

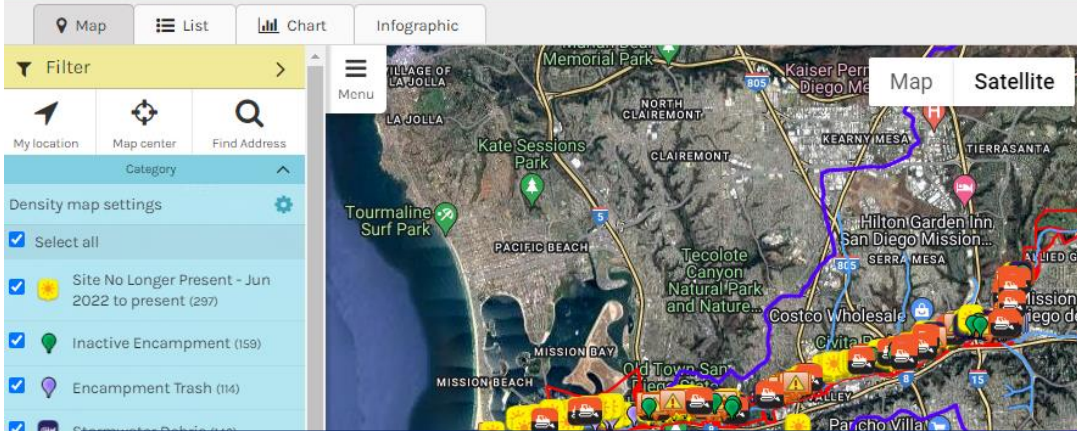
Dashboard  
Development



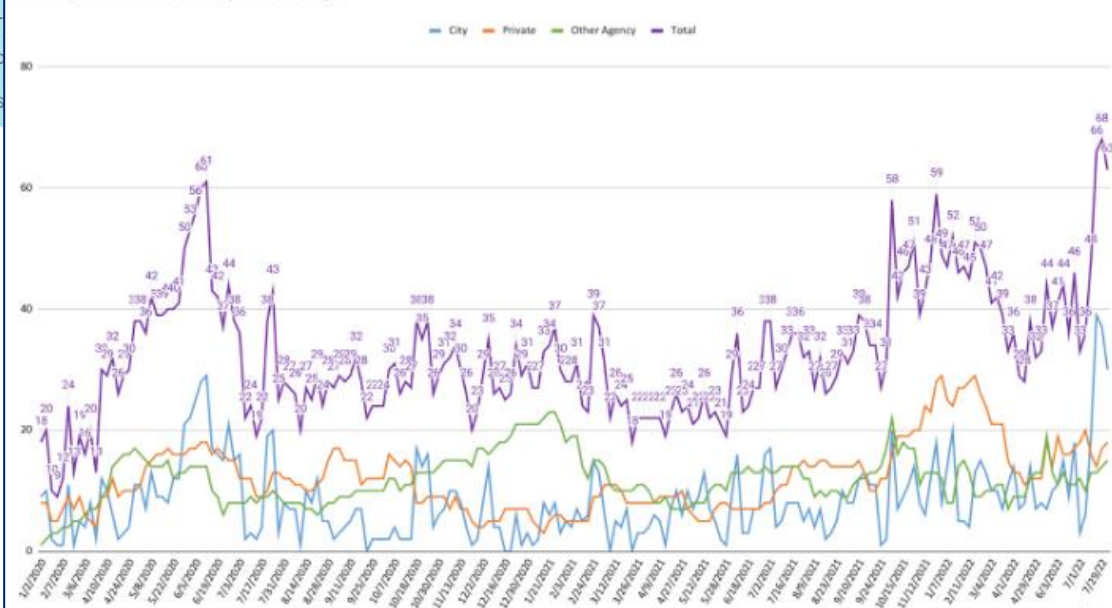
# Collaborative data collection and analysis in the San Diego Riverbed

## San Diego River Trash Cleanup 2022

Powered by Mapper technology

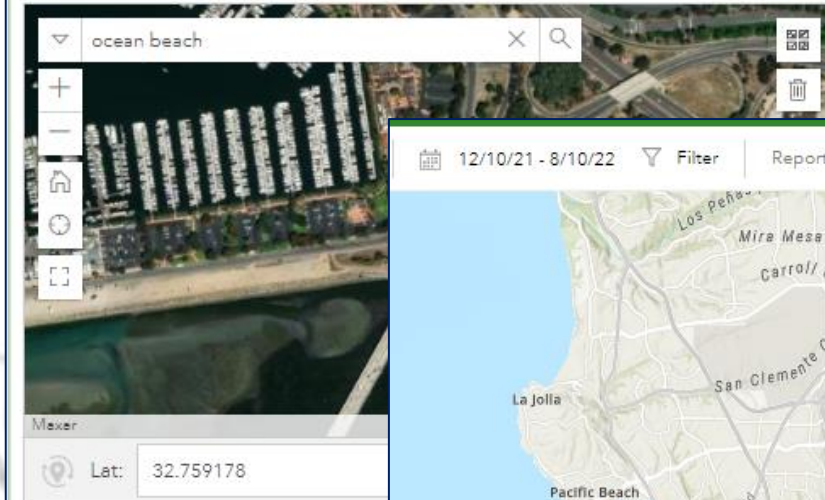


### Encampment Trends in City of San Diego



### Location of encampment\*

Enable location of device to provide coordinate information of encampment



### Images of encampment

Upload up to five images

1 Select image file (maximum 5)

### Number of individuals sleeping

If you are unsure, leave blank

123

12/10/21 - 8/10/22	Filter	Report	Export	Open in Map Viewer	Form view
Room	Port-a-potty	Private businesses' restrooms (e.g. gas station, coffee shop, restaurant, hotel, mall, etc.)	Outdoors, within this are where you usually stay at night/spend most of your time when you're here	Other comments/narrative	
Yes	Yes	Yes	Yes		
Yes	Yes	Yes	Yes		



# H-HUB DATA CASE STUDY

*Affordable Housing in San Diego*





# Who has data on affordable housing in San Diego County?

## City of San Diego

- Affordable housing properties, public
- In PDF form
- Updated yearly
- <https://www.sdhc.org/wp-content/uploads/2018/07/Affordable-Housing-Resource-Guide.pdf>

## Regional Task Force on the Homeless

- Provider programs for unhoused, public
- In spreadsheet form
- Updated yearly
- <https://www.rtfhsd.org/wp-content/uploads/Inventory-List-for-CA-601-San-Diego-City-and-County-CoC-2020.xlsx>

## County of San Diego - HHSA

- List of affordable housing properties
- In PDF form, public
- Updated yearly
- [https://www.sandiegocounty.gov/content/dam/sdc/sdhcd/docs/rental-assistance/housing\\_resource.pdf](https://www.sandiegocounty.gov/content/dam/sdc/sdhcd/docs/rental-assistance/housing_resource.pdf)

## County of San Diego - HHSA

- Internal spreadsheet compiled from several publicly-available sources, including various city housing commissions
- Produced for a pilot effort to create a tool with Tablecloth
- Only completed once in Feb. 2020

**211 San Diego:** public website of affordable housing properties, linked to an interactive map

- Not easily machine-readable / pulled from website
- Update cycle not clear
- <https://my211.force.com/s/search#keyword=Low%20Income/Subsidized%20Private%20Rental%20Housing&sortby=relevancy>



# What information is in each source?

## City of San Diego

- Name
- Address
- Phone
- # of BR
- Accessible
- Units
- Preferred clientele

## County of San Diego – RTFH

- Proj. Type
- Organization Name
- Project Name
- Location
- Inventory Type
- Bed Type
- Target Pop.
- Beds HH w/ Children
- Units HH w/ Children
- Beds HH w/o Children
- Beds HH w/ only Children
- Veteran Beds HH w/ Children
- Youth Beds HH w/ Children
- CH Beds HH w/ Children
- Veteran Beds HH w/o Children
- Youth Beds HH w/o Children
- CH Beds HH w/o Children
- CH Beds HH w/ only Children
- Housing Type
- Year-Round Beds
- Total Seasonal Beds
- Availability Start Date
- Availability End Date
- Overflow Beds
- PIT Count
- Total Beds
- Utilization Rate

## County of San Diego - HHSA

- Name
- Address
- Phone
- Clientele

## County of San Diego - HHSA

- Project Name
- Address
- City
- Zip Code
- Contact
- Application Stage
- Placed in Service (PIS) Date
- Last Building PIS Date
- Construction Type
- Housing Type
- Total Units
- Affordable Units
- AMI/Eligibility
- Affordability Range
- Units at 25% AMI
- Units at 35% AMI
- Units at 40% AMI
- Units at 45% AMI
- Units at 50% AMI
- Units at 55% AMI
- Units at 60% AMI
- Units at 70% AMI
- Units at 80% AMI
- Owner or Applicant Name
- Owner/Applicant Contact
- Owner/Applicant Address
- Owner/Applicant Phone
- General Partner (1-5)
- Management Company
- Management Company Contact
- Management Company Address
- Management Company Phone
- Developer
- Annual Federal Award
- Total State Award
- Units at 120% AMI
- PSH Units



# What are the challenges to map and analyze these data?

## Converting

- PDF to Excel
- Lots of formatting issues
- HTML to Excel (webscraping)
  - Reliability dependent on clean structure of HTML code
- More complex / scripted websites are harder to read
- Involved processed
- Manually transcribing information
- Time & energy intensive!

## Compiling

- Different categorizations of data from each source
- Must find ways to reconcile / streamline data without misrepresentation / reductionism
- Manual process -- prone to human error and very time intensive
- Compared to coding, harder to document step-by-step iterations and changes

## Verifying

- Must enlist the help of others
  - Service providers
  - Developers
  - Affordable housing experts

## Keeping Current

- Each entity/source has a different update cycle (which may not be delineated clearly)
- Even checking for updates is time- and energy-intensive; updating the data itself is even moreso



# What information is in each source?

## City of San Diego

### Affordable Housing Inventory

Carlsbad			
Name/Agency	Address	Phone Number	Clientele
Bluwater Crossing Apartments	6797 Embarcadero Lane	(760) 942-9719	
Carlsbad Sunset Seniors	1003-1011 Chiquapin Avenue	(760) 729-0311	
Cassia Heights Apartments	2029 Cassia Road	(760) 476-0546	
Glen Ridge Apartments	3555 Glen Avenue	(760) 729-0700	
Hunter's Pointe Apartments	7270 Calle Plata	(760) 744-5766	

## County of San Diego - RTFH

Inventory Type	Bed Type	Target Pop.	Beds HH w/ Children	Units HH w/ Children	Beds HH w/o Children	Beds HH w/ only Children	Veteran Beds HH w/ Children
C		NA	0	0	201	0	0
C		NA	0	0	15	0	0
C		NA	3	1	17	0	0
C		NA	61	20	20	0	0
C		NA	7	3	6	0	0
C		NA	3	1	23	0	0

## County of San Diego - HHSA

### Citywide Affordable Rental Housing



This list provides information on housing complexes in San Diego County where some or all of the housing units are affordable for lower income households. The "Unit's" column shows the housing units in the apartment complex that have affordable rents. You will need to contact the housing complexes for specific information on rents, income requirements, or vacancies. Handicapped accessible units may or may not be affordable. Complexes have different income restrictions and may have waiting lists.

Apartments	Address	Zip Code	Contact	# of BDRMS	Handicapped Accessible	Units	Preferred Clientele
San Diego							
16th and Market St	1550 Market St	92101	619.645.3303	1,2,3		136	
Alabama Manor	3836 Alabama	92104	619.955.8075	1,2	✓	67	Seniors 55+
Alta Vista Apts	3535-3545 43rd St	92105	619.584.1535	2		12	
Arbor Terrace	3701 Florida St	92104	619.293.3612	2,3,4		69	Large Families
Arbor Village	4914-4998 Logan Ave	92113	619.263.4878	1,2,3	✓	112	
Atmosphere Apts	1453 Fourth Ave	92101	619.450.4499	0,1,2,3	✓	205	Families; Homeless
Auburn Park	5135 University Ave	92105	619.255.8767	0,1,2,3	✓	69	Families
Bandar Salaam	3810 Winona Ave	92105	619.563.5872	1,2,3,4,5	✓	68	
Barrio Senior Villas	2322 Newton Ave	92113	619.702.6595	1,2	✓	11	Seniors; Disabled
Bella Vista Apts	4742 Solola Ave	92113	619.527.8600	1,2,3	✓	169	

## County of San Diego - HHSA

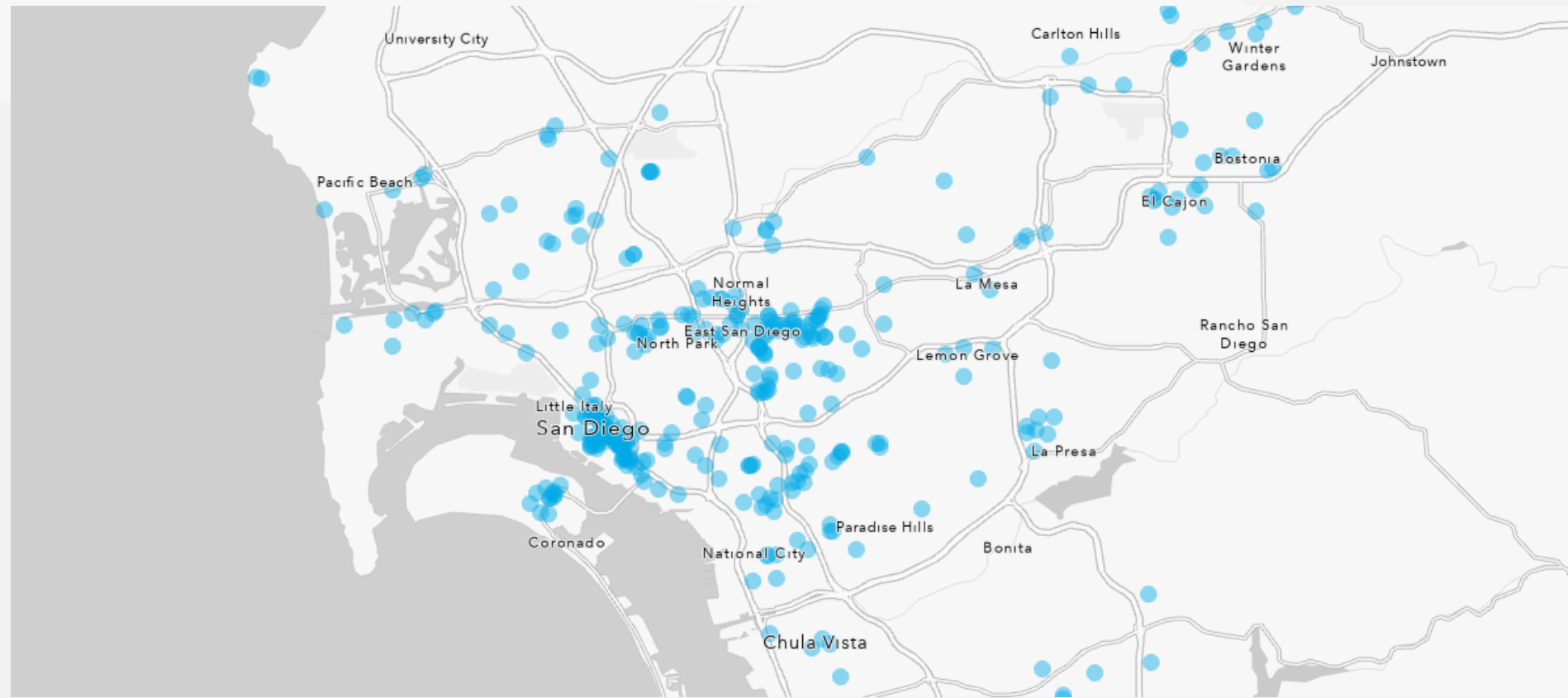
Project Name	Address	Zip Code	City	Contact	Housing Type	Total Units	Affordable Units	Affordability Range
Cassia Heights Apartments	2029 Cassia Road	92009	Carlsbad	760-476-0546	Multi-family	56	55	
Glen Ridge Apartments	3555 Glen Ave	92010	Carlsbad	760-729-0700	Multi-family	78	77	35% AMI to 55% AMI
Hunters Pointe Apartments	7270 Calle Plata	92009	Carlsbad	760-356-5970	Multi-family	168	166	50% AMI to 60% AMI
La Costa Paloma	1953 Dove Lane	92009	Carlsbad	(760) 476-9860	Multi-family	180	178	
Laurel Tree Apartments	1307 Laurel Tree Lane	92008	Carlsbad	760.918.1780	Multi-family	138	136	
Mariposa Apartments	4651 Red Bluff Place	92008	Carlsbad	760-729-9300	Multi-family	106	105	





## What was the end result?

HousingName	Address	City	ZIP	Contact	Clientele	PIS_Date	TotalUnits	AffordUnits	AffordRange	SRO_Studio	IBRUnit	2BRUnits
Alabama Manor Apartments	3836 Alabama Street	San Diego	92104	(619) 955-8075	Seniors 55+	10/23/2007	67	66	30% AMI to 60% AMI	1	60	6
Mayberry Townhomes	4422 Mayberry Street	San Diego	92113	(619) 756-6282 (619) 266-1661	Families		70	69 99		1	1	34
Regency Centre Apartments	4765 Home Avenue	San Diego	92105		Large Families	12/1/2000	100	92	50% AMI to 60% AMI	1	68	31
Del Sol Apartments	3606-3690 Del Sol Blvd	San Diego	92154	(619) 428-4721	Large Families	4/10/2007	93		30% AMI to 60% AMI	2	4	11
CCBA Senior Garden	438 Third Avenue	San Diego	92101	(619) 236-8130	Seniors 55+	10/21/1999	45	44		3	42	
Mesa Verde	7811 Mission Gorge Rd.	San Diego	92101	(619) 780-0199	Large Families		90	89 129		3	24	36
Canyon Vista	3429 43rd St	San Diego	92105	(619) 521-1263		11/12/2014	132		50% AMI to 65% AMI	4	46	73
North Park Senior Apartments	4200 Texas Street	San Diego	92104	(619) 282-6647	Seniors 55+		76	75		7	65	3
Auburn Park Apartments	5135 University Avenue	San Diego	92105	(619) 255-8767	Large Families	9/28/2007	69	67	30% AMI to 60% AMI	10	26	13



# USING GIS TO ANALYZE HEALTHY FOOD ACCESS

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- Finding a Health Future in Philadelphia (Geospatial Revolution, Episode 2) - <https://www.geospatialrevolution.psu.edu/>
- USDA Food Access Research Atlas - <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40>
- San Diego Food Bank's Food Locator Map - <https://sandiegofoodbank.org/gethelp/>

# GIS AND HOUSING RESOURCES

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- HUD's Geospatial Data Storefront - <https://hudgis-hud.opendata.arcgis.com/>
- Massachusetts Property Tax Parcels - <https://www.mass.gov/info-details/massgis-data-property-tax-parcels#attributes->
- San Diego Housing Affordability - <https://storymaps.arcgis.com/stories/ea69d671af3d4c15865401bb6459085b>
- San Diego County Housing Production and Capacity Portal (only unincorporated areas) - <https://www.sandiegocounty.gov/content/sdc/pds/HPCP-UA/HPCP-IT.html>
- Anti-eviction Mapping Project - <https://antievictionmap.com/>