

# Innovation & Technology GIS



CUPERTINO

# WHAT IS GIS?

GEOGRAPHIC INFORMATION SYSTEMS





And more!

Trees

Signs

Sign Supports

Storm Drain

Legends

Roads

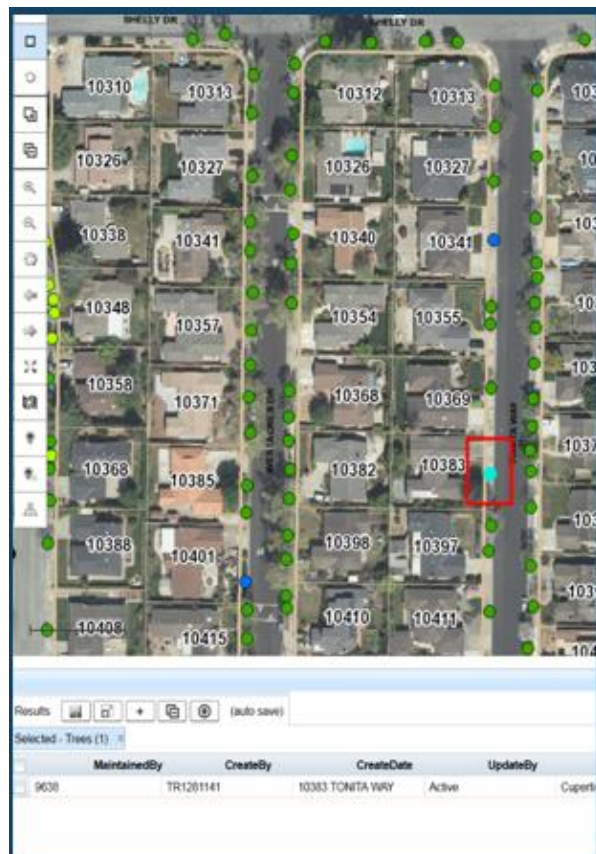
Median

Street Striping

Edge of Pavement

Sidewalk





View of Tree on Cityworks



Tree on 10383 Tonia Way



Work history on Tree

# Data



CUPERTINO

# Data and GIS



Gathering and Collection



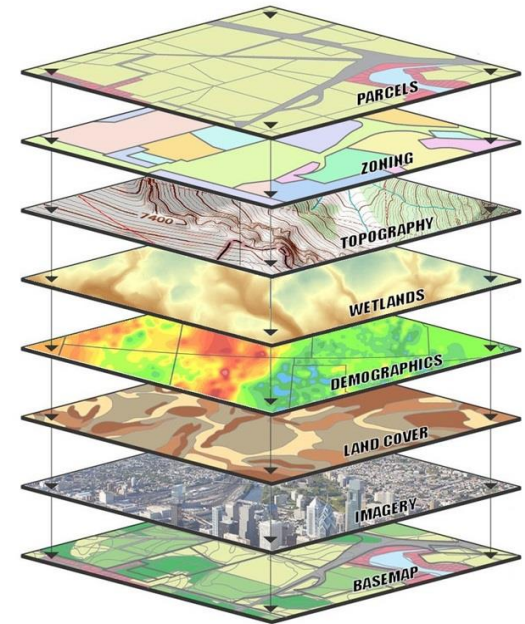
Maintenance



Analysis



Reporting and Visualization



# Data and GIS



Gathering and Collection



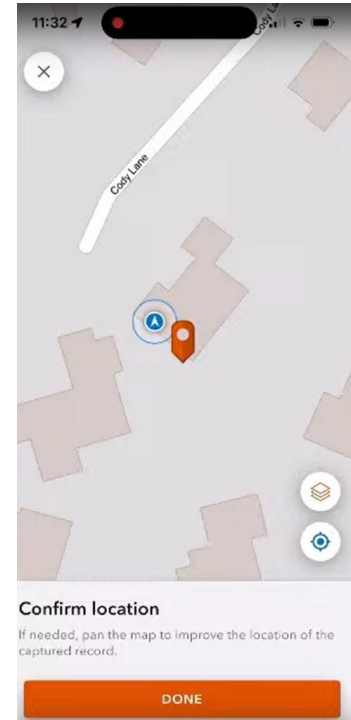
Maintenance



Analysis



Reporting and Visualization



Mobile Data Collection

# Data and GIS



Gathering and Collection



Maintenance



Analysis



Reporting and Visualization

```
del cursor

# Delete records in Accela_Addresses SDE and append new merge addresses
arcpy.DeleteRows_management(accela_addresses)
arcpy.Append_management(merge_adress, accela_addresses, "NO_TEST", "", "")

# Delete merged addresses
arcpy.Delete_management(merge_adress)

# PARCELS

# Clear old table and Export new table from Mapguide database
if arcpy.Exists(pqTable):
    arcpy.Delete_management(pqTable)
arcpy.TableToTable_conversion(original_ParcelQueries, scratch, pqTable)

# add and populate APN_Join field
arcpy.AddField_management(pqTable, "APN_Join", "TEXT", "", "", 10, "", "",
                           "", "")
apn_fields = ['APN', 'SECONDARY_APN', 'APN_JOIN']
with arcpy.da.UpdateCursor(pqTable, apn_fields) as cursor:
    for row in cursor:
        if row[1] is not None:
            row[2] = row[1]
        else:
            row[2] = row[0]
        cursor.updateRow(row)

# Make Table Layer and Feature layer for joins
table = arcpy.MakeTableView_management(pqTable, 'PQ_View')
layer = arcpy.MakeFeatureLayer_management(sde_parcelCondos, 'PC_layer')

# Join two layers and export to new feature class
arcpy.AddJoin_management(layer, "APN_SPACE", table, "APN_JOIN")
if arcpy.Exists(joined_parcel):
    arcpy.Delete_management(joined_parcel)
```

Data Maintenance in Python



# Data and GIS



Gathering and Collection



Maintenance

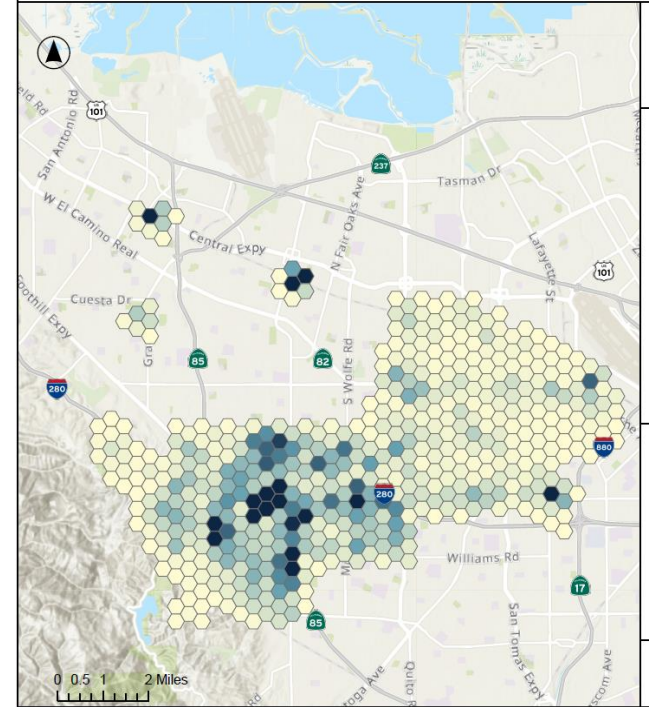


Analysis



Reporting and Visualization

SV Hopper: Kernel Density - Destinations  
*Exhibit X*



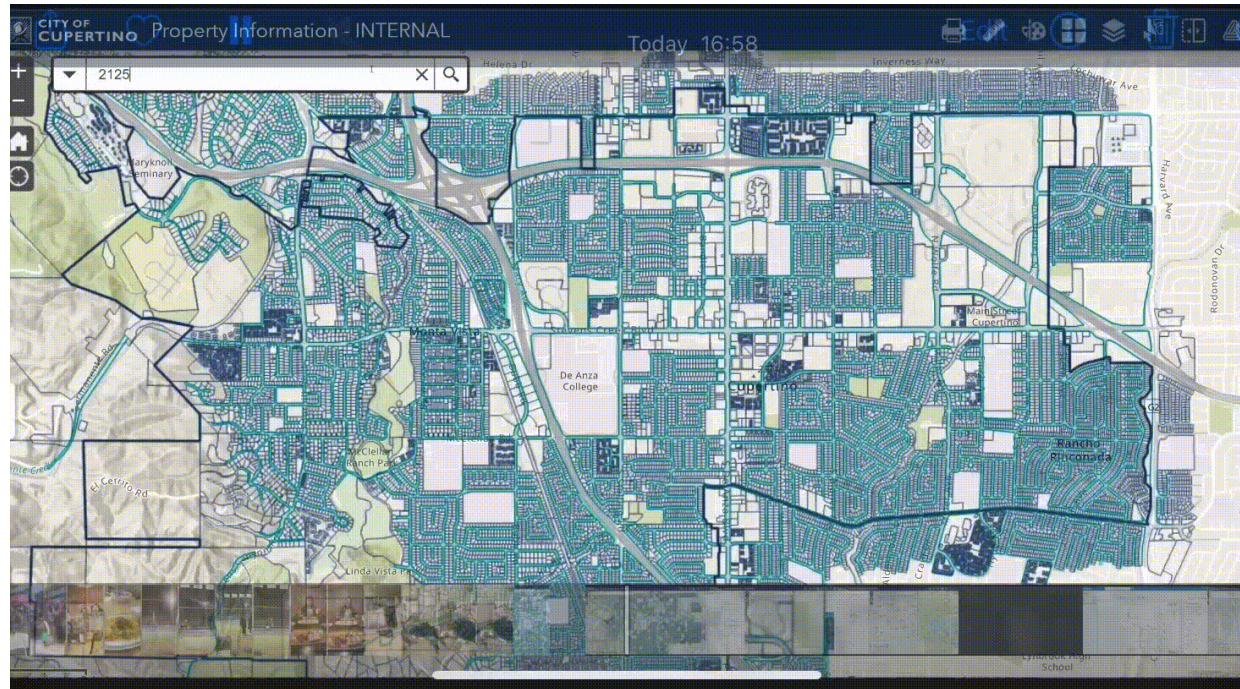
Map of Spatial Data Analysis

# Maps, Applications, and Reports



CUPERTINO

# Maps, Applications, and Reports



Internal Property Info



# Maps, Applications, and Reports

The screenshot displays the City of Cupertino Service Finder interface. On the left, there is a navigation menu with the following items: City Home, GIS Portal, 311, Upcoming Events (next 30 days), Upcoming Public Meeting (next 14 days), Hazard Awareness, Community Facilities, Parks + Trails, Cell Sites, Capital Improvement/CIP, Green Businesses, Electric Charging Stations, and Sheriff / Fire Stations. The main content area features a map of Cupertino, California, with a black outline highlighting a specific area. A pop-up window is overlaid on the map, providing details for an event: "Join A-Ranger: AR Guided Nature Walk". The event description states: "Join a Stevens Creek Corridor Ranger as they guide you around McClellan Ranch Preserve while showing off the City's new Augmented Reality App and your digital guide, Cooper." The location is listed as "Place: McClellan Ranch Preserve, 22221 McClellan Rd, 95014". The date and time are "Date: 3/8/2025(Sat) in 12 Days(s)" and "Time: 09:30 AM - 10:30 AM". A "more info" link is provided, and a "see more events" link is located at the bottom of the pop-up. The map shows various landmarks, including Rancho San Antonio County Park, Stevens Creek Reservoir, and McClellan Ranch Preserve. Major roads like Junipero Serra Freeway and West Valley Freeway are also visible. The bottom right corner of the map includes the text "Leaflet | Powered by Esri | ©".

<https://gis.cupertino.org/servicefinder/>

# Maps, Applications, and Reports

The screenshot displays the 'SERVICE FINDER' interface on the City of Cupertino website. The left sidebar contains a search bar and several menu items: City Home, GIS Portal, 311, Upcoming Events (next 30 days), Upcoming Public Meeting (next 14 days), Hazard Awareness, and Community Facilities. The Hazard Awareness section is expanded, showing options for PG&E Outage (CAL OES), Current Air Quality (AirNow), Water Sensors (SCVWD), Steven Creek Reservoir Inundation (CA Dept of Water Resource), ARKs (What is an Ark?), Evacuation Zone (Genasys), and Weather Warning (NWS). The Community Facilities section includes Parks + Trails, Cell Sites, Capital Improvement/CIP, Green Businesses, and Electric Charging Stations. The main map area shows a geographic view of the San Jose area, with a black outline highlighting the Cupertino city boundary. Several orange circular markers are scattered across the Cupertino area. A white pop-up window is overlaid on the map, displaying air quality information: AQI: 36 (Good), a statement that air quality is satisfactory, and a last update time of 2025-2-24T18:00. The map also shows major roads like the West Valley Freeway and Santa Clara University.

<https://gis.cupertino.org/servicefinder/>



# Maps, Applications, and Reports

The screenshot displays the 'SERVICE FINDER' web application interface. On the left, a navigation sidebar includes a search bar, 'City Home', 'GIS Portal', and '311' buttons. Below these are sections for 'Upcoming Events (next 30 days)', 'Upcoming Public Meeting (next 14 days)', 'Hazard Awareness', 'Community Facilities', and 'Parks + Trails'. The 'Parks + Trails' section is expanded to show a list of parks: 1. Creekside Park, 2. Hoover Park, 3. Jollyman Park, 4. Somerset Square Park, 5. Sports Center, and 6. Wilson Park. Other categories include Cell Sites, Capital Improvement/CIP, Green Businesses, and Electric Charging Stations.

The main map area shows a map of Cupertino, California, with a yellow circle highlighting Creekside Park. A pop-up window for Creekside Park is open, featuring a photo of the park's playground and the following details:

- Open: 6am to 10pm
- ADA Compliant
- Basketball
- BBQ Pit
- Reservable Picnic
- Picnic (First Come First Serve)
- Playground
- Restroom
- Soccer

Buttons for 'Site Map' and 'PDF map' are located at the bottom of the pop-up. The map background shows various streets, including Grant Road, Wright Avenue, Junipero Sierra Freeway, and West Valley Freeway, as well as landmarks like De Anza College and Santa Clara Medical Center.

<https://gis.cupertino.org/servicefinder/>

# Maps, Applications, and Reports

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<https://gis.cupertino.org/servicefinder/>

# Maps, Applications, and Reports



**CITY OF CUPERTINO**

## GIS Open Data Portal

Welcome to the City of Cupertino GIS Open Data Portal

The City of Cupertino has created this open data portal to allow our Geographic Information Systems (GIS) data to be as transparent, discoverable, and usable as possible. To view spatial data, select a category below or search for a layer by name using the search bar.

## Explore Data Categories



[GIS Boundary Layers](#)



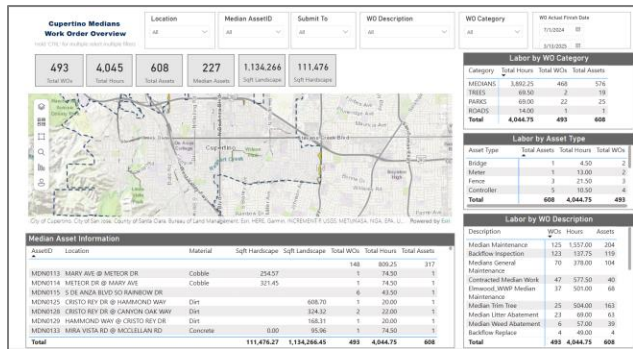
[GIS Environmental Layers](#)



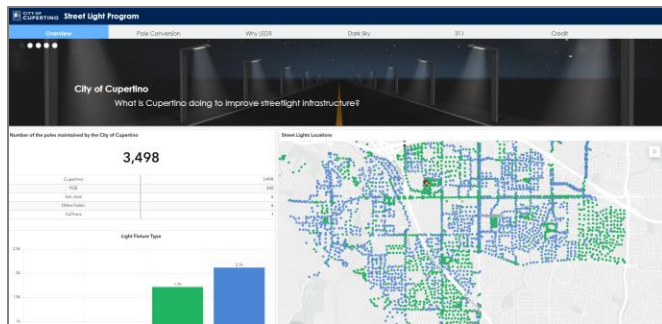
[GIS Recreation Layers](#)

<https://gis-cupertino.opendata.arcgis.com/>

# Maps, Applications, and Reports

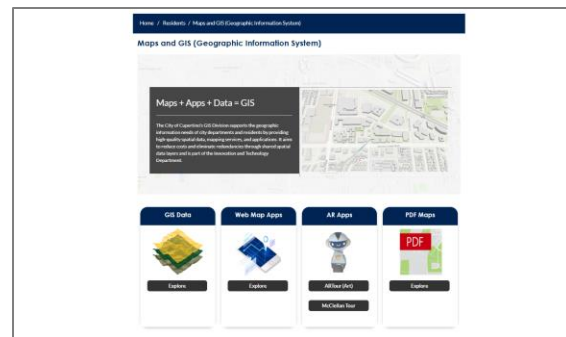


## Quinlan Interactive Kiosk



## Street Light Story Map

## Median Labor Dashboard



## Cupertino.Gov/GIS



# Upcoming Major Projects

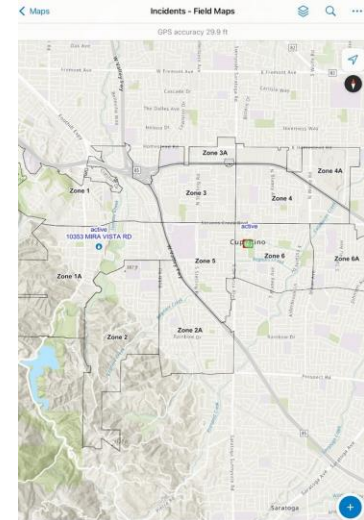
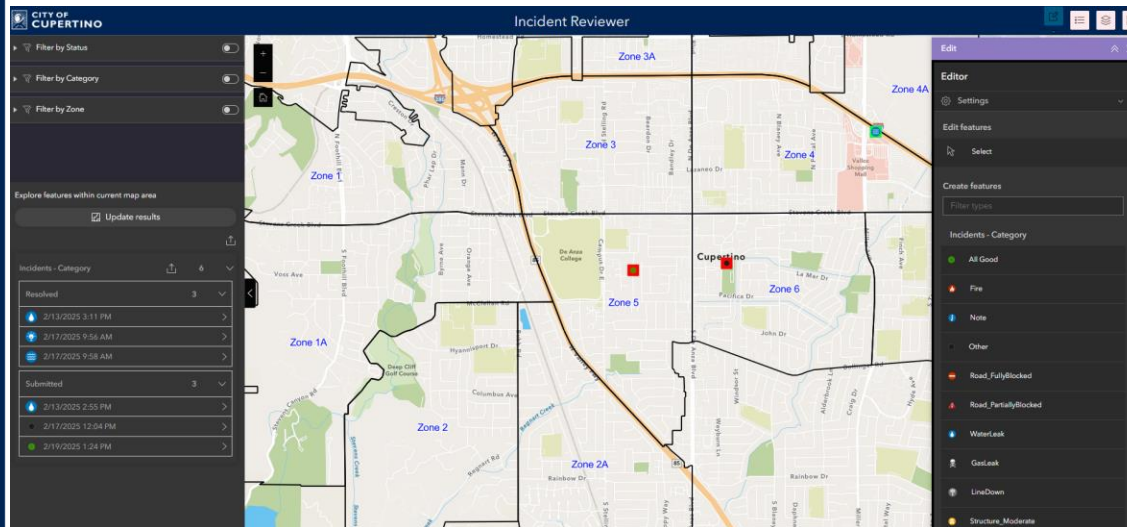


CUPERTINO



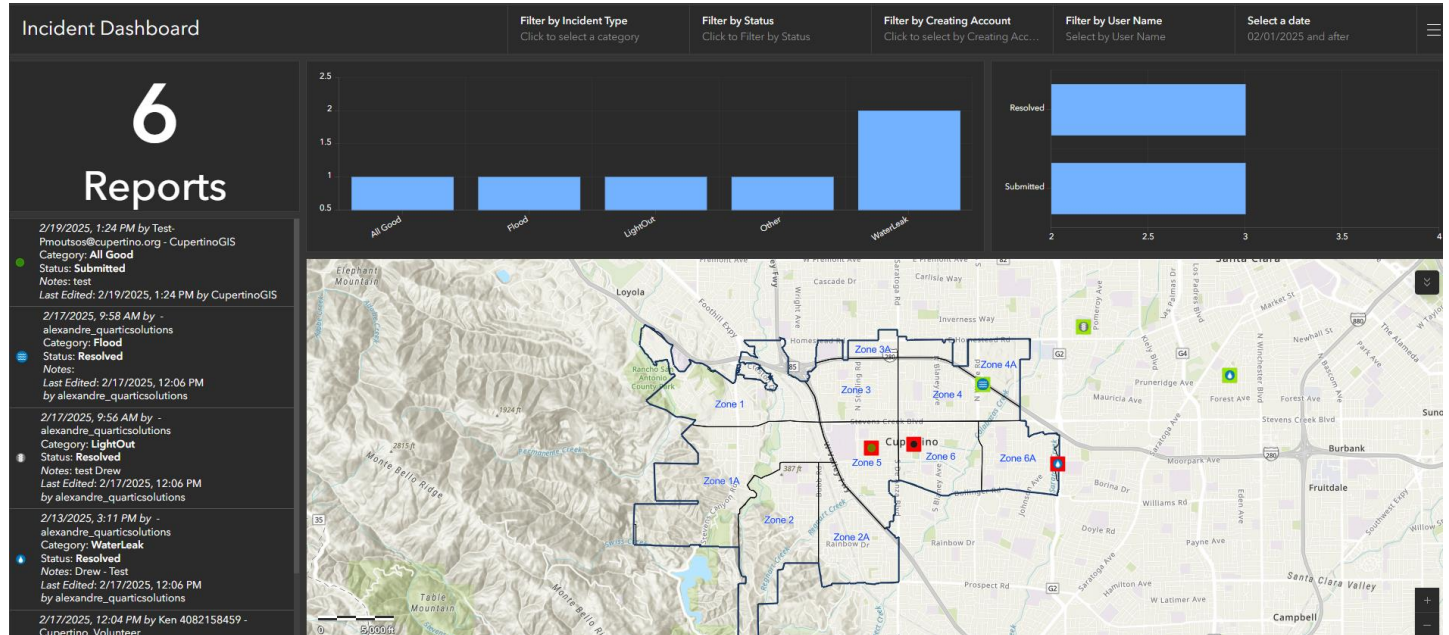
# Major Projects

- Disaster Preparedness



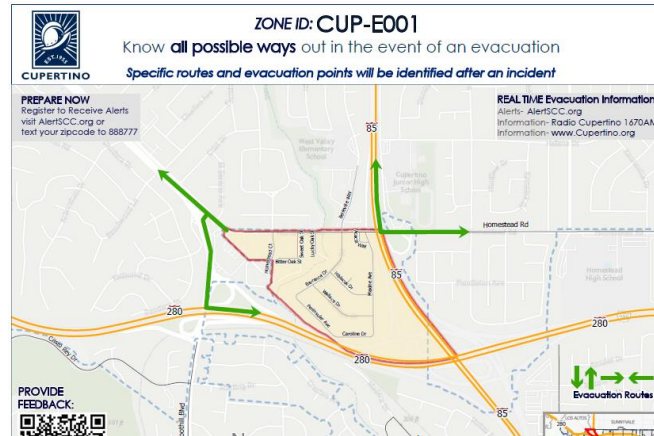
# Major Projects

- Disaster Preparedness



# Major Projects

- Disaster Preparedness



1:07

×

ATC-20 Detailed

ATC-20 Detailed Evaluation Safety Assessment Form, City of Cupertino

▼ Inspection

Inspector ID

Affiliation

Inspection Date

Sunday, January 29, 2023

Inspection Time

1:07 PM

▼ Building Description

Building Name

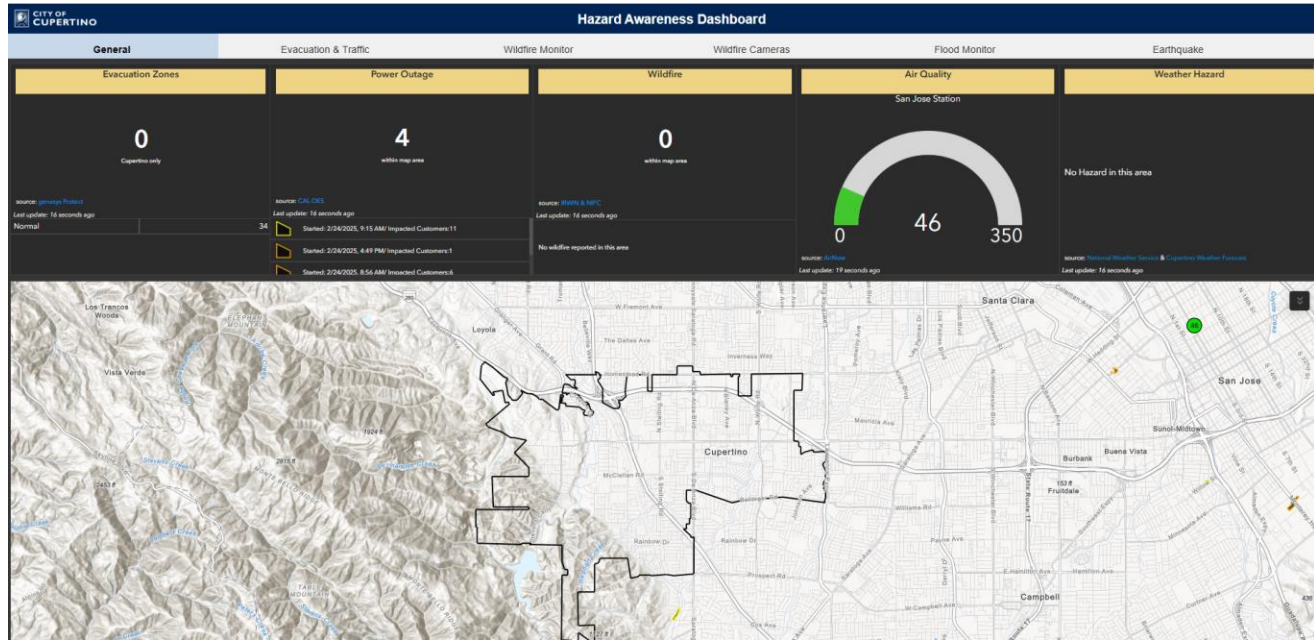
Address

Location

37°17'N 121°53'W ± 7 m

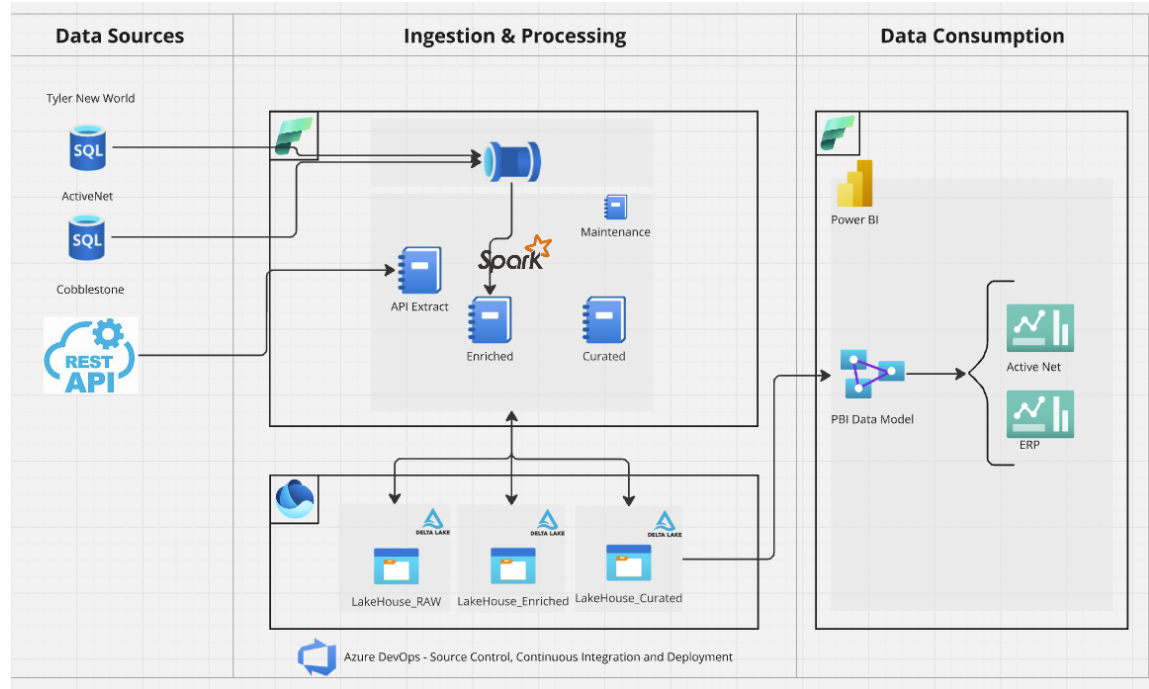
# Major Projects

- Disaster Preparedness



# Major Projects

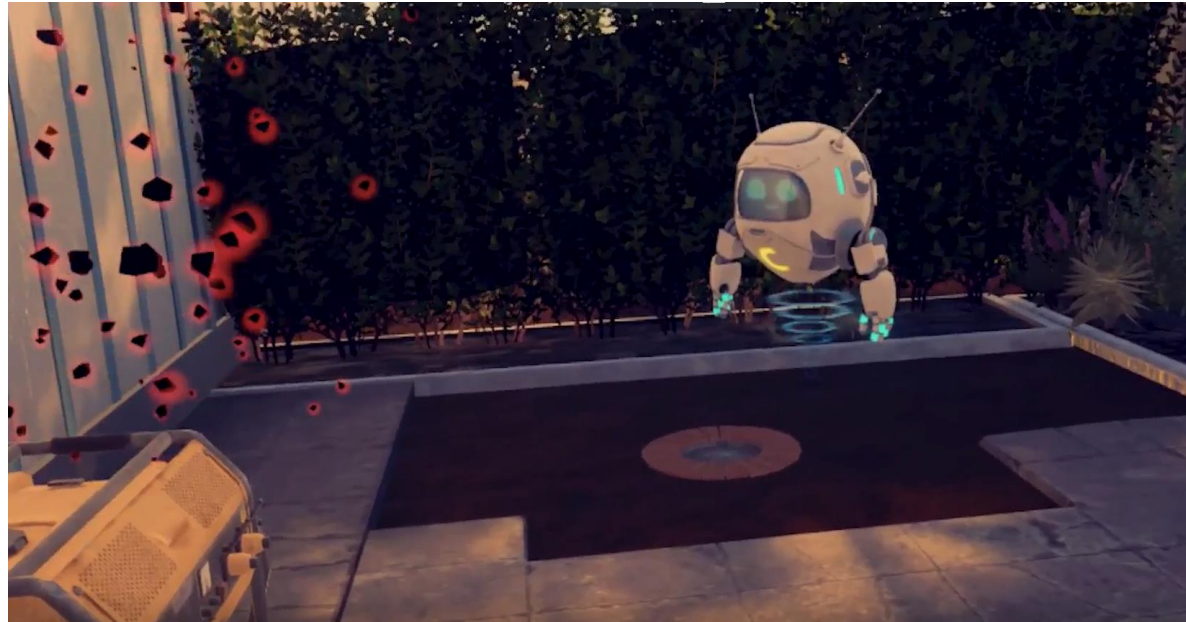
## Data Warehouse





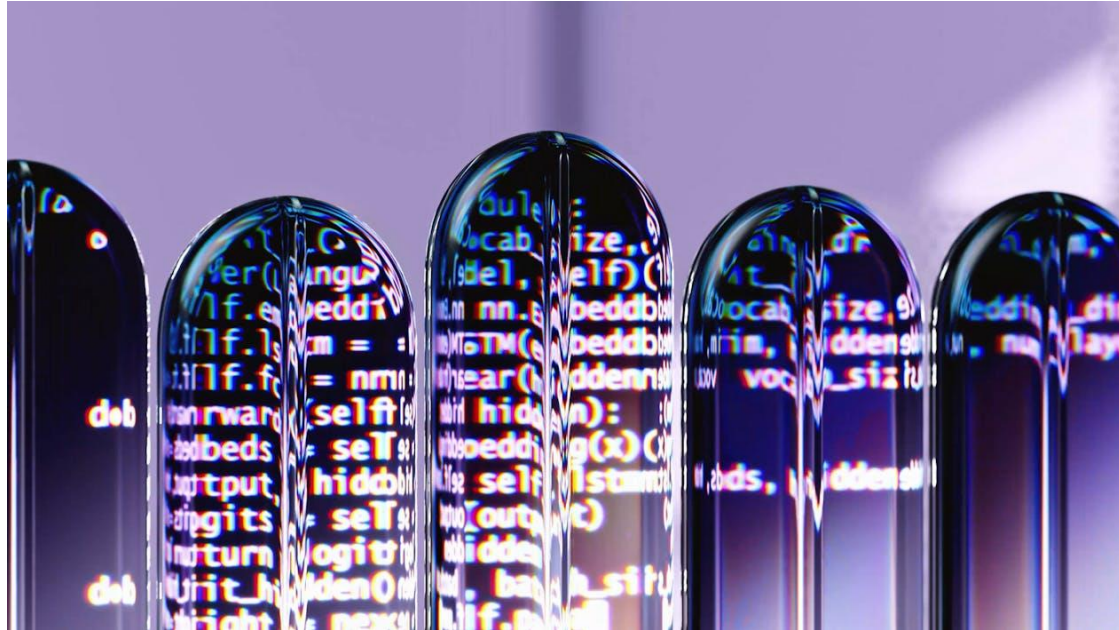
# Major Projects

## Virtual Reality Decarb Application



# Major Projects

AI Development





**Thank you**

Questions?