

Objective

Develop a “Suitability Mapping” Tool that will allow users to evaluate vacant lots and other potential sites for urban agriculture uses utilizing CommunityViz.

Background

- Urban Agriculture (UA) addresses food disparities, improves social environmental and health conditions in disadvantaged communities
- Southeast San Diego is considered a food desert whose residents have high exposure to cumulative environmental risk factors
- CA State Bill AB 551 aims to create Urban Agriculture incentive zones
- This suitability mapping tool will be utilized to identify parcels suitable and available for UA and match those parcels with UA farmers
- Identifying suitable parcels will help focus limited city resources for soil testing
- Vacant parcels in Southeast San Diego total 65 acres



Methods

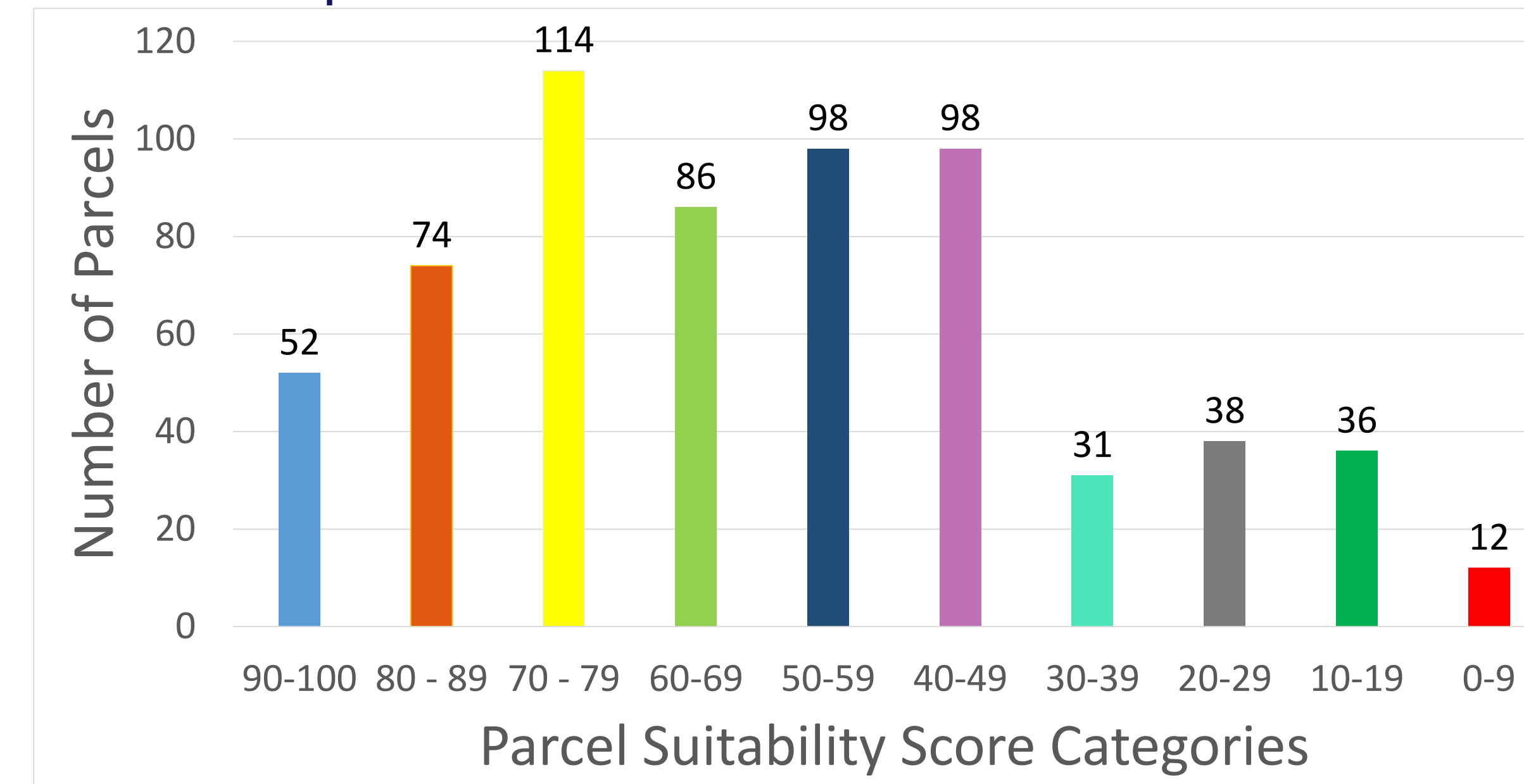
- Define suitability factors
- Identify GIS layers, LIDAR data, and algorithms to calculate outputs for suitability factors
- Obtain GIS layers
- Interpret and integrate city EIR data to identify potential hazards and contaminant risks
- Conduct field work to confirm results

Suitability Factors

- Percent slope
- Current land use and ownership
- Parcel size
- Zoning
- Frontage on public right-of-way
- Availability of nearby roofs for rain water harvesting
- Public safety and lighting levels
- Environmental hazards and potential contaminants
- Parking availability
- Curb cuts

Results

- 1,063 parcels identified and scored
- The 70-79 category had the most parcels



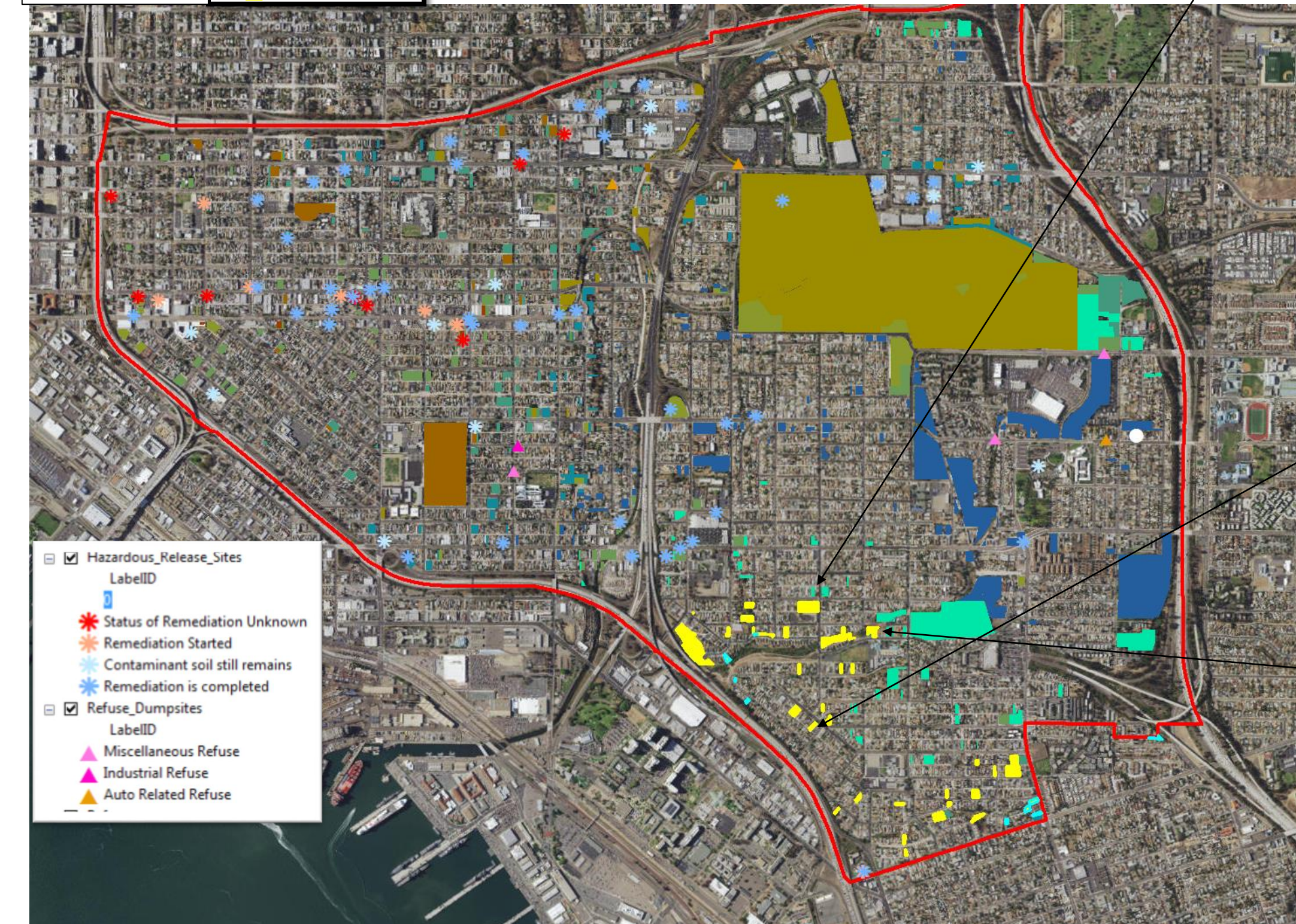
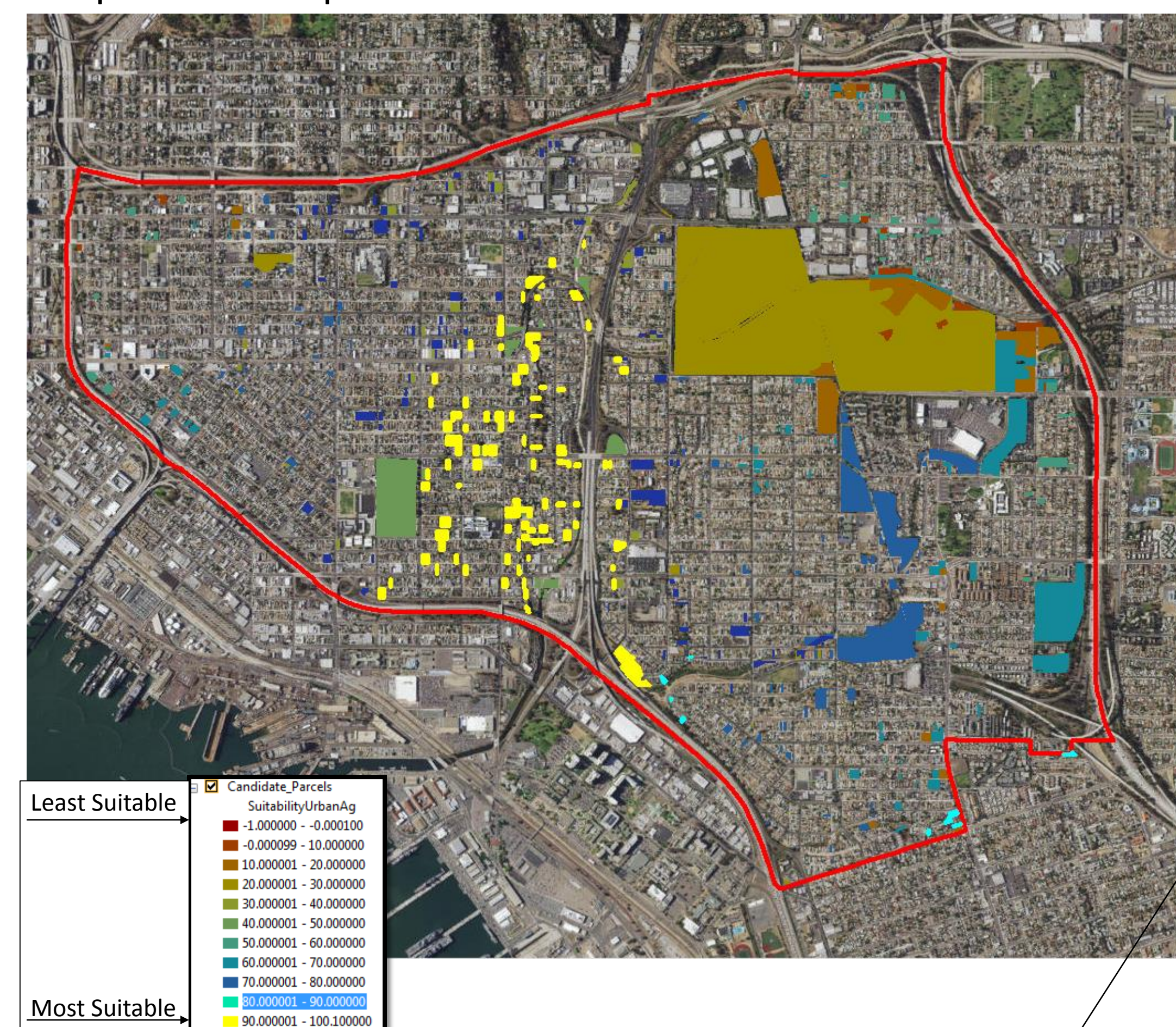
Conclusions

- Many vacant parcels are suitable for urban agriculture
- Vacant parcel data is not real time data, parcels identified in analysis as vacant may currently be in use
- Suitability factors can be adjusted to identify parcels for specific urban agriculture uses from food forests to urban farming
- Adding environmental hazard and contaminant data to the analysis lowered suitability scores and shifted the ideal parcels to areas with less commercial and industrial uses

Parcel Suitability for Southeast San Diego

Note the difference between Map1 and Map 2 in which parcels are considered most suitable when environmental hazard data is factored into the analysis

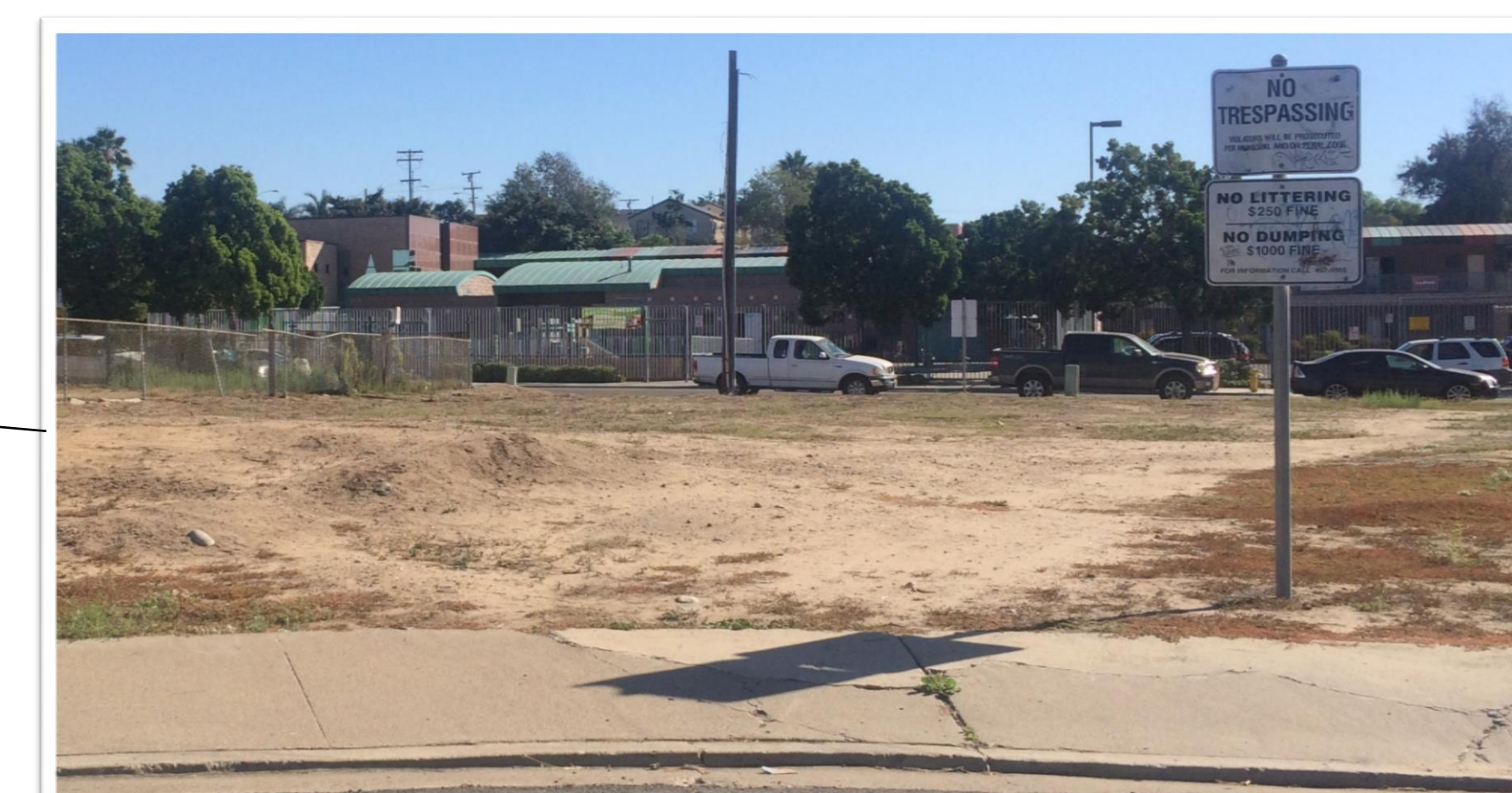
Map 1. Suitable parcels without environmental hazards factored in



Map 2. Suitable parcels with environmental hazards factored in

Suitable Parcels

Vacant lots below are highly suitable due to location, size, nearby roof tops for rain water harvesting. Being near a church (Lot 1), having mature trees (Lot 2), and being close to a school (Lot 3) make these parcels especially suitable



Science Communication

This tool will be made available to urban agriculture and community garden non-profit organizations as well as local government agencies including but not limited to:

- San Diego Food Systems Alliance
- San Diego Community Garden Network
- International Rescue San Diego Food Security and Community Health
- The City of San Diego



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