Sustainability Commission

April 17, 2025

CUPERTINO

Chair and Vice Chair Elections

CUPERTINO

Why are we voting for a Chairperson and Vice Chairperson?

2.94.040 Chairperson.

The Commission shall elect its chairperson and vice-chairperson from among its members and shall appoint a secretary. Terms of the chair and vice-chair shall be for one year and shall be complete on January 30th.

What is the responsibility of the chair?

- Facilitate the Commission Meetings
  - Start and close the meeting, follow the agenda, call on other commissioners to speak
- Work with the Liaison to create the agenda
- Represent the Commission at the Mayor's Commission Meetings (2nd Wednesday every other month)

Discussion prompts

- Nominate yourself or another member of the commission to be the chair with an explanation why.
- Accept or decline the nomination.
- More than one nomination can be made.

When you are ready, make a motion to vote.

CAPITAL IMPROVEMENT PROGRAMS
FY25-26 and 5-YEAR PLAN

Sustainability Commission

April 17, 2025

CUPERTINO

Tonight's Action

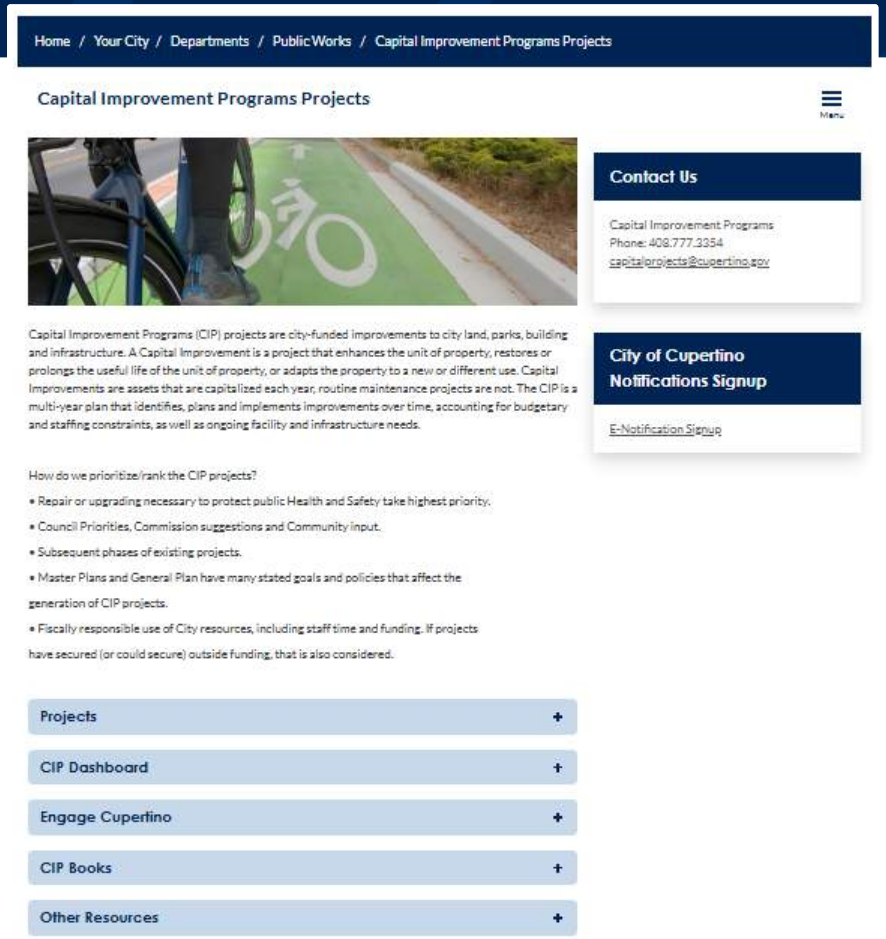
Subject: Fiscal Year 2025-2026 Capital Improvement Programs and Five-year Plan.

Recommended Action: Receive presentation and provide input on the development of the proposed Fiscal Year 2025-2026 Capital Improvement Programs and Five-year Plan as Related to Sustainability Projects.

CIP webpage

For more detail on the status of current CIP projects, refer to the CIP page found under Public Works

Navigation: *Cupertino.gov > Your City > Departments > Public Works > Capital Improvement Programs Projects*



FY25-26 CIP

Agenda

1. FY24-25 Achievements
2. Existing CIP Projects status
3. Proposed FY 25-26 CIP and 5-Year Plan
4. Next Steps

FY24-25 Achievements

Achievements: Completed projects

McClellan Rd/De Anza Intersection

Vai Avenue Storm Drain Outfall repair

Achievements: Completed projects

DeAnza Bike Lanes

Blackberry Farms Pools

Achievements: [Nearly] Completed projects

Jollyman All-Inclusive Playground

Existing CIP Projects

Existing CIP Projects

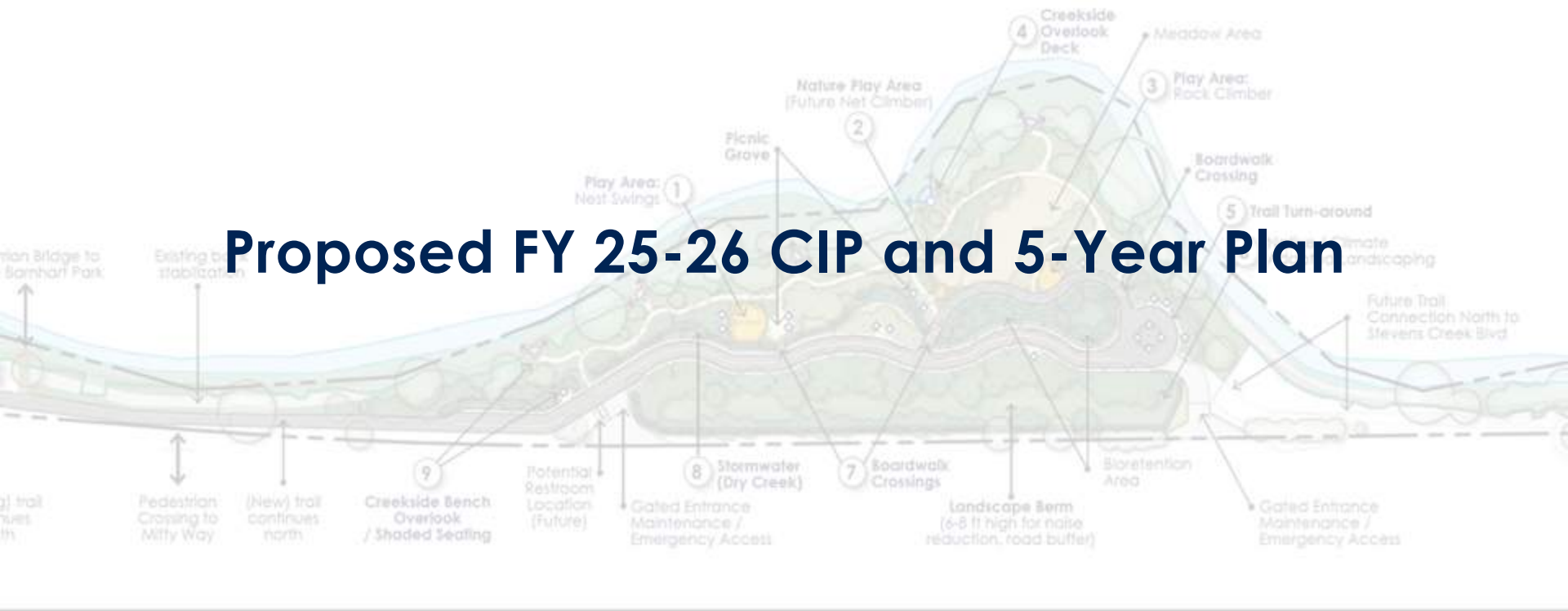
1	ADA Improvements (Annually funded)
2	Facilities Condition Assessment (FCA) Implementation
3	City Hall Annex
4	City Hall Improvements
5	Library Expansion Project: landscaping & courtyard
6	All Inclusive Play Area & Adult-Assistive Bathroom Facility (Jollyman Park)
7	Lawrence-Mitty Park and Trail Plan
8	Park Amenity Improvements
9	MRP West Parking Lot Improvements (Habitat monitoring)
10	Annual Playground Replacement
11	Stevens Creek Bridge Repair
12	McClellan Road Bridge Reconstruction
13	City Lighting LED improvements
14	City Bridge Maintenance Repairs (BPMP)
15	Street Light Installation - Annual Infill (Annually funded)
16	Vai Avenue Outfall

17	Stevens Creek Blvd CL IV Bikeway - Phase 2A & Design
18	Stevens Creek Blvd CL IV Bikeway - Phase 2B Design (included in Phase 2A)
19	Stevens Creek Blvd CL IV Bikeway - Bandley Dr. Signal
20	Bollinger Road Corridor Study
21	Roadway Safety Improvements - High Friction Pavement & Speed Feedback Signage (HSIP)
22	Tamien Innu - East Segment
23	Tamien Innu - Central Segment
24	Tamien Innu - West Segment
25	School Walk Audit Implementation
26	Electric Vehicle Charging Station (EVCS) expansion - Service Center
27	Photovoltaic Systems Design and Installation
28	Silicon Valley Hopper EV Parking

28 projects: 5 Facilities, 5 Parks & Recreation, 6 Streets & Infrastructure, 9 Bike/Ped/Transportation and 3 Sustainability

*Yellow = Facilities *Green = Parks *Orange = Streets & Infrastructure *Blue = Transportation *Magenta = Sustainability

Proposed FY 25-26 CIP and 5-Year Plan



How do we prioritize the CIP projects?

Repair or upgrading necessary to protect public **Health and Safety** take highest priority.

Council Priorities, **Commission suggestions** and **Community input**.

Master Plans and General Plan have many stated goals and policies that affect the generation of CIP projects. This prioritization also includes Facility, Storm Drain and other Condition Assessment Reports.

Subsequent phases of existing projects, or projects in the queue that need to be activated.

Fiscally responsible use of City resources, including staff time and funding. Projects that have secured external funding, or which can result in positive fiscal impacts to the City.

Proposed FY 25-26: **Storm Drain Outfall Repairs**

The 2024 Storm Drain Outfall Condition Assessment report identified multiple structural defects of existing storm drain pipelines that need to be rehabilitated. These defects pose a significant risk to the integrity of the storm drain system. Addressing the issues through timely rehabilitation is crucial to maintain the functionality of the system. This funding will address the three outfalls with the most severe damage and present as imminent failures. In following years, additional funding will be requested to address deficiencies noted in the report.

$950,000 City Funding
$0 External Funding
$950,000 Total

Proposed FY 25-26: **Additional Funding for Existing projects**

ADA Improvements:
$110,000
(Funded Annually)

Facilities Condition Assessment (FCA) Implementation: $940,000

Proposed FY25-26 Projects

Project name	Project Description	INTERNAL	EXTERNAL	**FY25-26 Funding**
Storm Drain Outfalls Repairs	*New Project* Following the recommendations of the 2024 Outfalls Report	$950,000	$0	**$950,000**
ADA Improvements *(Annually funded)*	*Additional Funding* This is an ongoing program, funded annually, to improve accessibility at all public facilities throughout the City.	$110,000	$0	**$110,000**
Citywide Facilities Condition Assessment (FCA) Implementation	*Additional Funding* Implement priority recommendations identified in the Facility Condition Assessment reports.	$940,000	$0	**$940,000**
		$2,000,000	$0	**$2,000,000**

*Yellow = Facilities *Green = Parks *Orange = Streets & Infrastructure *Blue = Transportation *Magenta = Sustainability

Proposed CIP 5-year plan

Project	FY25-26 Funding	Year 2 FY26-27	Year 3 FY27-28	Year 4 FY28-29	Year 5 FY29-30
ADA Improvements (Annually funded)	110,000	115,000	120,000	125,000	130,000
Facilities Condition Assessment (FCA) Implementation	940,000	2,300,000	1,000,000	1,000,000	1,000,000
Outfalls Repairs	950,000	600,000	600,000	600,000	600,000
BBF Golf Course Irrigation Renovation				1,580,150	
totals	**2,000,000**	**3,015,000****	**1,720,000**	**3,305,150****	**1,730,000**

***This total exceeds the capacity of the current Capital Reserve. Additional external funding will be required.*

*Yellow = Facilities *Green = Parks *Orange = Streets & Infrastructure *Blue = Transportation *Magenta = Sustainability

Next Steps

Next Steps

- **PROPOSAL DEVELOPED/STAFF & CMO REVIEWS**
  FY25-26 and 5-year CIP proposal developed in February 2025, following input from Staff and Commissions. Staff reviews proposal with Senior Leadership and the City Manager.

- **COUNCIL – April 2**
  FY25-26 and 5-year CIP proposal previewed at [this] 4/02 City Council meeting.

- **COMMISSIONS April 3, 16 and 17**
  FY25-26 CIP proposal will be reviewed at 4/03 Parks & Rec, 4/16 Bike Ped, and 4/17 Sustainability Commission meetings.

- **PLANNING COMMISSION – April 22**
  FY25-26 CIP proposal presented at the Planning Commission, to review for conformance to the General Plan.

- **CITY COUNCIL – May/June**
  CIP will be proposed as part of City's Annual Budget review

Thank You!

Commercial Building Decarbonization (Electrification) Options

Sustainability Commission
April 17, 2025

raimi + associates

Agenda

I. Background

II. Flex Path Reach Code

III. Benchmarking and Building Performance Standards

IV. Questions for the Commission

Decarbonization Background

FY 24-25 City Work Program

Conduct **public outreach, policy research, and coordinate with regional efforts** to develop policy options for electrification of Cupertino's buildings in light of recent legal rulings inhibiting certain electrification efforts.

- [x] New Buildings (Commercial & Residential Reach Code Replacement)
- [ ] Existing Commercial Buildings
- [ ] Existing Residential Buildings

Climate Action Plan 2.0 – Building Energy

No.	Measure	MT CO2e Reduction Per Person*
BE-1	Reduce non-SVCE usage rate to 2% for residential and 10% for commercial by 2030 and maintain through 2040	2030: 0.012 2040: 0.004
BE-2	Electrify existing residential buildings to reduce annual residential natural gas usage from 129 therms per person in 2018 to at most 71 therms per person in 2030 and 16 therms per person in 2040	2030: 0.290 2040: 0.566
BE-3	Electrify existing commercial buildings to reduce annual commercial natural gas usage from 119 therms per person in 2018 to at most 90 therms per person in 2030 and 54 therms per person in 2040	2030: 0.190 2040: 0.366
BE-4	Require new residential and commercial development to be all-electric at time of construction	2030: 0.067 2040: 0.221
BE-5	Develop specific requirements for procurement of carbon-free fuels in lieu of natural gas for new projects that cannot be electrified	Supportive

Table ES-2 No. CAP 2.0 GHG Emissions Reduction Measures Overview

BE 1.3 Establish an **energy benchmarking program** in Cupertino that requires large commercial entities (over **10,000 square feet**) to report their energy usage and energy procurement details

BE 3.2 Develop a commercial building electrification strategy (CBES), building on the existing Baseline Buildings Study from SVCE (2020).

BE 3.3 Conduct engagement for the commercial sector to understand potential concerns and barriers to commercial electrification.

BE 3.5 Adopt an electrification ordinance for existing commercial buildings**, which bans expansion of natural gas infrastructure**, requires electrification of natural gas appliances at **time of major renovation and time of replacement.**

(Ban on infrastructure is not legally allowed)

BE 3.7 Conduct engagement efforts for the commercial sector to identify ways the City can support commercial battery storage installations and improve local grid resiliency.

Key Considerations

- California cities have the authority to adopt local requirements that are more stringent than state standards.
    - The Building Code, Title 24, includes the Energy Code (Part 6) and CalGreen (Part 11)
- CEC requires a cost-effectiveness analysis for local requirement: measures must provide cost savings in parity with the incremental cost of a higher efficiency equipment.
    - Not all efficient electric appliances are deemed to be cost-effective.
- The Energy Policy and Conservation Act (EPCA): gives the federal government authority to set standards for certain appliances and equipment including HVAC and water heaters.
    - Local governments cannot require that applicants use equipment that is more efficient than Federal standards.
- **A local ordinance must provide at least one compliance pathway that is both in cost-effective and in compliance with EPCA.**

Regional and State Context for Electrification

2026 | 2027 | 2029 | 2030 | 2045

2025 California Energy Code takes effect January 1, 2026

Heat pumps for space and water heating, and when replacing rooftop HVAC. Electric ready and solar+storage rqmts.

BAAQMD low NOx water heater requirements

Residential gas tank water heaters no longer sold in Bay Area.

BAAQMD low NOx space heater requirements

Residential and commercial gas space heaters no longer sold in Bay Area.

CARB Zero-Emission Appliance Standards

Residential and commercial gas water and space heaters no longer sold statewide.

California achieves carbon neutrality

Transition away from fossil gas end use by 2045.

Decarbonization Options

Electrification Options – Flex Path

	Description	Advantages	Challenges	Who's done it?
AC to HP and/or Gas WH to HPWH 	A **"Time of Replacement"** reach code that requires property owners at the time of AC and/or water heater equipment replacement (upgrades or burnouts) to install either: 1. A heat pump or like-for-like gas + solar thermal 2. Efficiency measures	• Originates from the 2025 CALGreen Tier 1 Voluntary Pathway • Widely LSC cost-effective under variety of existing conditions and equipment types (e.g. 120V)	• While it's close, On-Bill cost-effective is challenging without incentives • Emergency replacements • May result in some bypassing the permit process	General "time of replacement": San Mateo, Portola Valley, Marin County, Palo Alto
Flex Path 	A **"Time of Renovation"** reach code that requires applicants that are already pulling a permit to abide by a flexible menu of energy efficiency measures, electrification measures and/or electric readiness requirements.	• Potential for high GHG impact • Highly customizable policy • Unlikely to impact small or low-cost renovation projects • Unlikely to bypass the permit process	• More complex policy • Clarity of permit data • Low renovation rates	Piedmont, Marin County, Carlsbad, Encinitas, San Anselmo, San Luis Obispo, San Rafael, Corte Madre
BPS 	Require property owners to regularly report energy- or emissions-use intensity (EUI). In addition, the policies require incremental reductions in EUI over a set time horizon.	• Monitor building stock • Customizable triggers • Regular enforcement cycles	• Large administrative burden (cost/time)	**BPS:** Denver, Reno, Chula Vista, St. Louis, New York City **Benchmarking:** San Francisco, Berkeley, Brisbane, San Jose, LA

Flex Path Approach

- Provides flexibility to applicants - several compliance pathways available: energy efficiency, electrification, solar.
- Trigger is typically a large renovation.
- At least one pathway both complies with EPCA and is cost-effective
- Cost effectiveness studies prepared by the State
- Points are based on Btu savings: 1 point = 1,000,000 Btu savings
- Energy savings are adjusted for the climate zone
- Can include optional items that are not cost-effective due to lifetime cost savings or limited impact in given climate zone.

Measures	Points
Water Heating Package	1
Induction Cooktop	1
Heat Pump Clothes Dryer	1
Air Sealing	1
Duct Sealing	3
R-49 Attic Insulation	5
Windows	5
R-13 Wall Insulation	3
New Ducts + Duct Sealing	6
R-19 Floor Insulation	1
R-30 Floor Insulation	2
Heat Pump Water Heater (HPWH)	12
Solar PV + Electric Ready Pre-Wire	17
Heat Pump Space Heater	7
Utility Room, Kitchen & Laundry-Related Electric Ready Pre-Wire	Mandatory
Panel-Related Electric Ready Pre-Wire	Mandatory
Electric Vehicle Infrastructure Pre-Wire for Parking Additions or Panel Upgrade	Mandatory

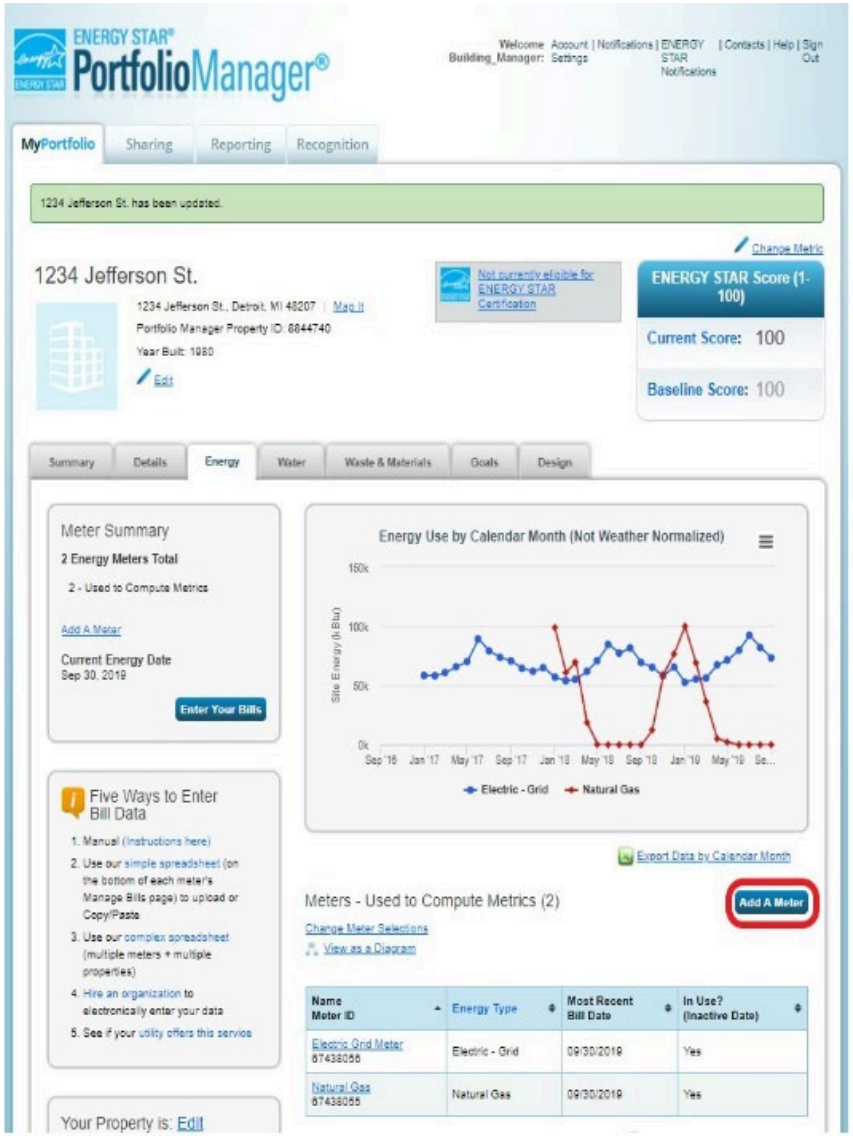
Flex Path Outcomes + Considerations

Flex Path Reach Code	
Number of buildings covered/impacted annually	<100
GHG reduction potential	Low
Cost to property owner	Low-High
Equity considerations	Costs could create a significant financial burden on low- or fixed-income property owners or result in increases in rent for tenants. Policies should be structured to provide protection for vulnerable populations through the inclusion of green leases, pass-through cost prohibitions, etc.
Municipal administrative impact	Low
Code amendment	Building Code (Title 24 part 11) and/or Energy Code (Title 24 Part 6)
Who has done it?	None for commercial Residential: Santa Cruz, CA; Santa Monica, CA

Electrification Options – Benchmarking and BPS

	Description	Advantages	Challenges	Who's done it?
AC to HP and/or Gas WH to HPWH 	A **"Time of Replacement"** reach code that requires property owners at the time of AC and/or water heater equipment replacement (upgrades or burnouts) to install either: 1. A heat pump or Like-for-like gas + solar thermal 2. Efficiency measures	• Originates from the 2025 CALGreen Tier 1 Voluntary Pathway • Widely LSC cost-effective under variety of existing conditions and equipment types (e.g. 120V)	• While it's close, On-Bill cost-effective is challenging without incentives • Emergency replacements • May result in some bypassing the permit process	General "time of replacement": San Mateo, Portola Valley, Marin County, Palo Alto
Flex Path 	A **"Time of Renovation"** reach code that requires applicants that are already pulling a permit to abide by a flexible menu of energy efficiency measures, electrification measures and/or electric readiness requirements.	• Potential for high GHG impact • Highly customizable policy • Unlikely to impact small or low-cost renovation projects • Unlikely to bypass the permit process	• More complex policy • Clarity of permit data • Low renovation rates	Piedmont, Marin County, Carlsbad, Encinitas, San Anselmo, San Luis Obispo, San Rafael, Corte Madre
BPS 	Require property owners to regularly report energy- or emissions-use intensity (EUI). In addition, the policies require incremental reductions in EUI over a set time horizon.	• Monitor building stock • Customizable triggers • Regular enforcement cycles	• Large administrative burden (cost/time)	**BPS:** Denver, Reno, Chula Vista, St. Louis, New York City **Benchmarking:** San Francisco, Berkeley, Brisbane, San Jose, LA

Energy Benchmarking Overview



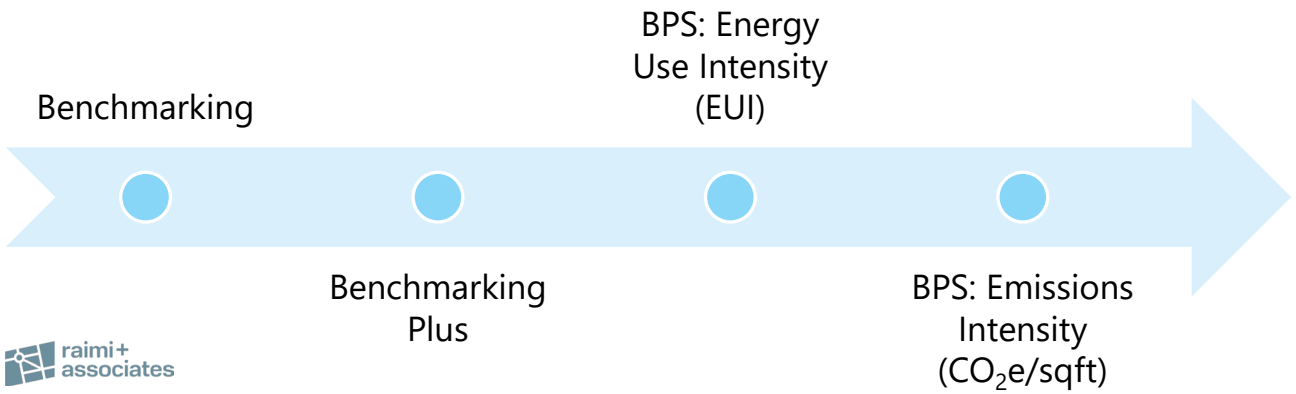
- Benchmark= **Reporting Only**
  - measure and compare your building's energy to similar buildings, past consumption, or a reference performance level.
- First Step to a Building Performance Standard (BPS)
- AB 802 – State Reporting Requirement
  - - Over 50,000 sq ft
  - Energy Use Intensity (EUI)
  - Energy Star Reporting Platform
- Reporting is done through a website - ENERGY STAR score compares your building's energy performance to similar buildings nationwide.

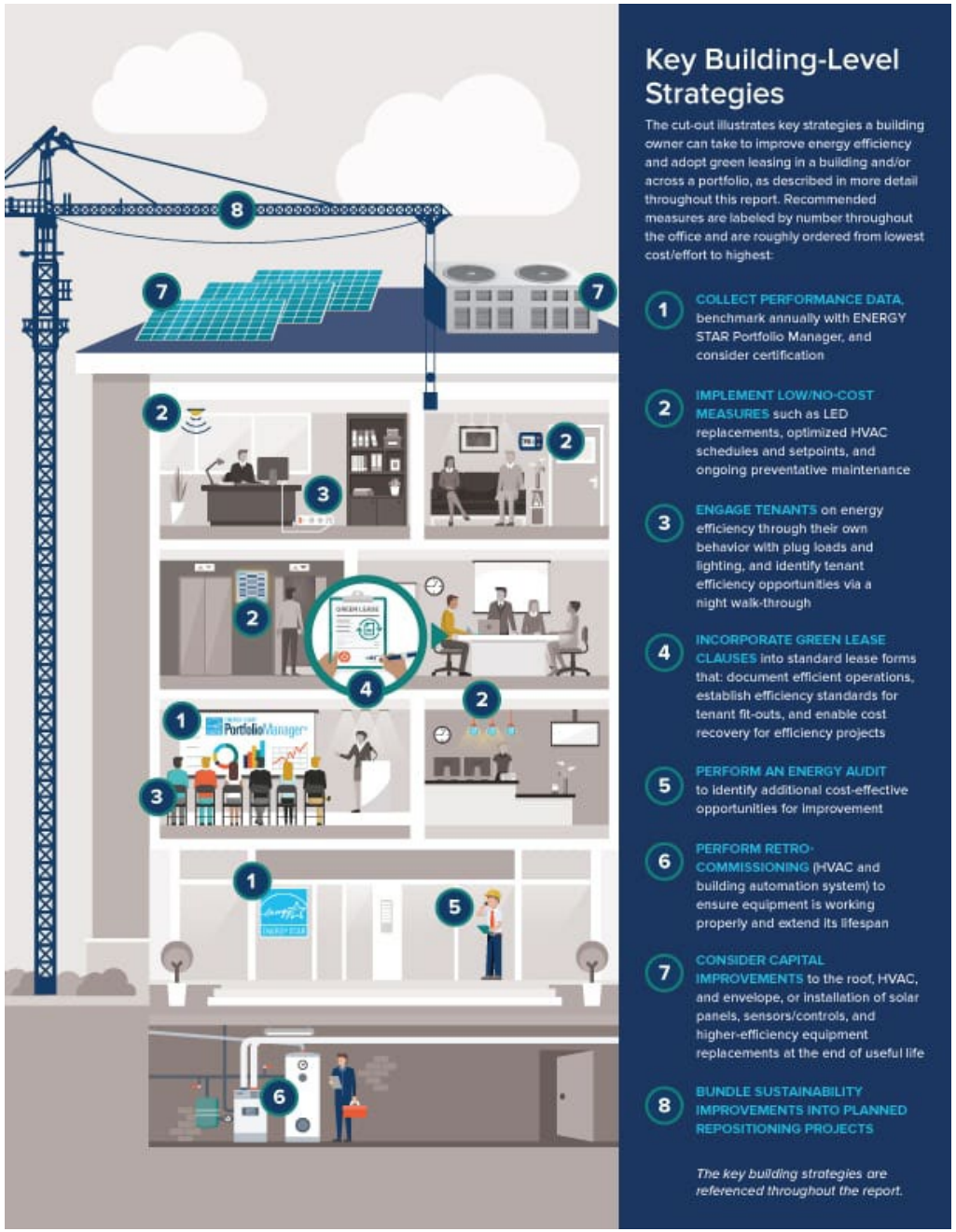
Electrification Options – BPS

A policy that requires commercial and multifamily buildings over a specified size to **meet certain established performance levels for energy use (EUI) or greenhouse gas emissions ($kgCO_2e$)** per square foot. Components include:

1. Annual Benchmarking of energy and water consumption with EPA Portfolio Manager
2. Results are reported to the City/State
3. Buildings need to meet an established performance standard over time

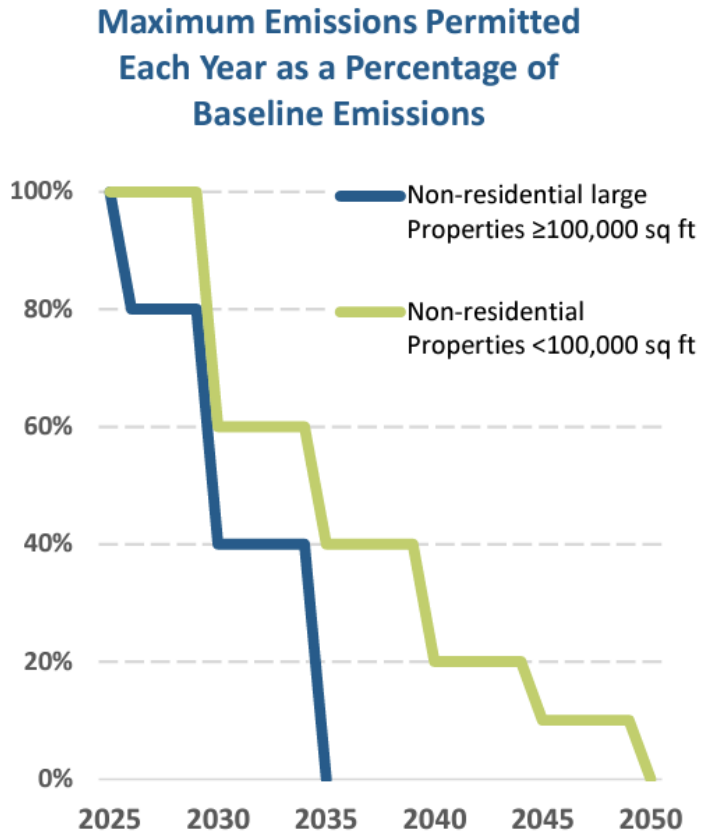
Spectrum of Standards





Benchmarking and BPS Examples

EPA Portfolio Manager Building Type	2030 EUI Target (kBtu/sf/yr.)
Adult Education	37.2
Ambulatory Surgical Center	60.7
Aquarium	30% EUI Reduction
Automobile Dealership	42.8
Bank Branch	63.6
Bar/Nightclub	86.6
Barracks	46.3
Bowling Alley	50.5
College/University	60.6
Convention Center	30% EUI Reduction
Courthouse	51.2
Distribution Center	25.4
Enclosed Mall	45.6
Fast Food Restaurant	311.3
Financial Office	48.3
Fire Station	45.6
Fitness Center/Health Club/Gym	50.5
Food Sales	144.3
Food Service	76.9
Hospital (General Medical & Surgical)	165.2
Hotel	61.1



Denver, CO (2021)
Trajectory Approach (25,000+ sq ft) requires buildings to meet a maximum site EUI based on building type by 2030 with interim targets in 2024 and 2027.

Cambridge, MA
BPS evolved from a Building Energy Use Disclosure Ordinance and requires buildings to meet emissions reduction requirements over time.

Total Buildings in Cupertino Impacted by BPS

Building Size	Total Number of Commercial/ Multifamily Buildings reporting	Comments
Total commercial buildings	3,280	Total excluding schools, parking lots, playgrounds, multifamily with < 5 units, and public facilities
Above 50,000 sq ft	127	Currently reporting to state
Above 20,000 sq ft	314	
Above 15,000 sq ft	504	
Above 10,000 sq ft	923	Threshold that is indicated in CAP 2.0

Benchmarking and BPS Outcomes + Considerations

	Benchmarking only	Building Performance Standard
Number of buildings covered/impacted annually	127-923	
GHG reduction potential	Low	High
Cost to property owner	Low-Medium	Medium-High
Equity considerations	Costs could create a significant financial burden on low- or fixed-income property owners or result in increases in rent for tenants. Policies should be structured to provide protection for vulnerable populations through the inclusion of green leases, pass-through cost prohibitions, etc.	
Municipal administrative impact	Medium	High
Code amendment	Municipal Code	
Who has done it?	San Francisco, CA; Berkeley, CA; Brisbane, CA; San Jose, CA; Los Angeles, CA	Brisbane, CA; San Jose, CA; Denver, CO; Cambridge, MA; New York, NY

Public Outreach Outcomes

Outreach Actives

- Stakeholder roundtable in September 2024
  - Retail
  - Office
  - Large multi-family properties
- Small business resource fair in December 2024
- Small business survey December 2024
- Additional unsuccessful outreach attempts to:
  - Strip mall owners and tenants
  - Small commercial properties

Key Takeaways

- Many property owners are already benchmarking with EnergyStar Portfolio Manager.
- Concerns about meeting performance requirements due to constraints such as fixed annual O&M budgets and organizational structure.
- 64% of attendees were supportive or very supportive of a new annual energy reporting requirement. The remaining attendees were neutral.
- 29% of attendees have already made energy efficiency improvements to their buildings.

Questions for the Commission

Question 1: Should the City pursue a Flex Path Building Energy Code?

Question 2: Should the City pursue an Energy Benchmarking Ordinance?

Question 3: What size buildings should be required to report? (Note: This question is only applicable if the City chooses to pursue a benchmarking ordinance.)

Question 4: Should the City pursue a Building Performance Standard (BPS) as part of the benchmarking ordinance?

Recommendation

Receive presentation and recommend that City Council direct staff to pursue adoption of a Flex Path reach code for commercial buildings and develop an ordinance establishing an Energy Benchmarking requirement for buildings 10,000 square feet and larger, with the intent to phase in a Building Performance Standard to support the City's Climate Action Plan's existing commercial buildings emission reduction goal.

Thank you!

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Residential Existing Building Policy Options

Sustainability Commission

April 17, 2025

CUPERTINO

Agenda

- Background
- Policy Options
- AB 306
- Outreach
- Next Steps

FY 24-25 City Work Program

Conduct **public outreach, policy research, and coordinate with regional efforts** to develop policy options for electrification of Cupertino's buildings in light of recent legal rulings inhibiting certain electrification efforts.

- [x] New Buildings (Commercial & Residential Reach Code Replacement)
- [ ] Existing Commercial Buildings
- [ ] Existing Residential Buildings

Climate Action Plan 2.0 – Building Energy

BE 2.1 Develop a residential building electrification strategy (RBES) to aid in development of a **residential building electrification ordinance**

BE 2.2 Identify and partner with local community-based organizations with connections to low-income and fixed income people, historically underserved communities, elders, disabled individuals with access needs to assist in development of the RBES.

BE 2.3 Conduct engagement efforts for the public and targeted to low-income and fixed income people, historically underserved communities, elders, disabled individuals with access needs during development of the RBES to understand the community's concerns around electrification.

BE 2.4 Adopt an **electrification ordinance for existing residential buildings by 2023 to be implemented through the building permit process** which bans expansion of natural gas infrastructure and requires either electrification of appliances or a disconnect from the gas system at **time of replacement and major renovation -** (Ban on infrastructure is not legally allowed)

Regional and State Context for Electrification

2026 | 2027 | 2029 | 2030 | 2045

2025 California Energy Code takes effect January 1, 2026

Heat pumps for space and water heating, and when replacing rooftop HVAC. Electric ready and solar+storage rqmts.

BAAQMD low NOx water heater requirements

Residential gas tank water heaters no longer sold in Bay Area.

BAAQMD low NOx space heater requirements

Residential and commercial gas space heaters no longer sold in Bay Area.

CARB Zero-Emission Appliance Standards

Residential and commercial gas water and space heaters no longer sold statewide.

California achieves carbon neutrality

Transition away from fossil gas end use by 2045.

State Building Code

	Space Heating (AC-to-Heat Pump)	Electric Readiness	Flex Path (Menu Approach)
Trigger	AC replacement or remodel	Any renovation (e.g., kitchen, bath)	Remodels with permit
2022 State Code	Heat pumps allowed; gas still standard in many cases	No requirement	n/a
2025 State Code Requirement	Heat pumps allowed, with: – Backup heat lockout >35°F – Resistance heat ≤ 2.7kW/ton – New sizing rules (Manual S)	None required unless appliance is changed	n/a
Optional Reach Code Add-On	Require **heat pump** instead of AC (AC-to-HP Reach Code)	Require **240V outlets and panel space** for: – Electric cooktop – Dryer – Water heater	Requires **menu of actions**: – Electrify an appliance – Improve efficiency – Add electric readiness

Existing Building Policy Options

	Space Heating (AC-to-Heat Pump)	Electric Readiness	Flex Path (Menu Approach)
Trigger	🔁 **Time of Replacement** — when AC is upgraded or added	🛠️ **Time of Renovation** — during additions or alterations	🛠️ **Time of Renovation** — when pulling a permit for a remodel
What It Requires	Must install a heat pump	Must include **electric readiness infrastructure**, such as 240V circuits and panel capacity	Choose from a **menu of options**: 1. Efficiency upgrades 2. Electrification upgrades 3. Electric readiness
Policy Origin	Based on 2025 CALGreen Tier 1 Voluntary Pathway	Often a standalone **local reach code** or part of Flex Path	Customizable **local reach code framework**

Policy Option Comparison

	Space Heating (AC-to-Heat Pump)	Electric Readiness	Flex Path (menu approach)
Climate Impact	✅ **Big immediate impact** — removes gas heating	⏳ **Long-term impact** — prepares homes to electrify later	⚖️ **Moderate to big** — depends on chosen upgrade
Cost to Residents	❗ **High upfront** — $10K–$20K depending on upgrades needed	✅ **Low to moderate** — often <$2K per circuit	⚖️ **Flexible** — cost depends on choice
Affordability Over Time	✅ **Bill savings** — average $20 per month	⏳ **Future cost savings** when switching to electric	⚖️ **Resident-controlled** — can align with budget
Equity & Flexibility	❗ **Challenging** — needs strong rebates for low-income households	✅ **Equity-friendly** — no forced upgrades	✅ **Strong** — adaptable to income, choice-driven
Rebate Alignment	✅ **Strong** — SVCE, TECH Clean CA, IRA tax credits	⚠️ **Limited**, but supported with some programs	✅ **Good match** — rebates can align with options
Ease of Implementation	❗ **Challenging** — outreach burden	✅ **Simple** — easy to check at permit	⚠️ **Moderate** — needs admin setup & menu design

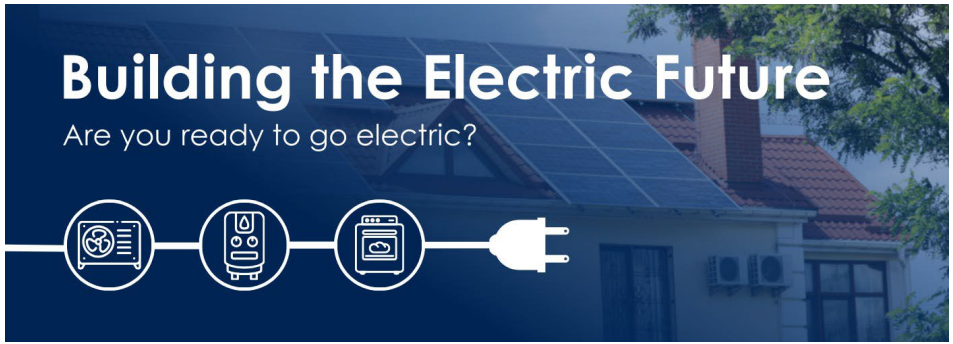
AB 306 – Building Standards Moratorium

- Supports new housing streamlined process
- Single-family and multi-family buildings
- No building code updates until 2031 for residential (SF & MF).
- Passed Assembly Floor.
- No date assigned for Senate consideration.

Survey – cupertino.gov/goelectricsurvey

- Translated into Chinese and Hindi.
- Targeting renters, at-risk, low or fixed income, seniors, etc.
- Closes **May 5**.

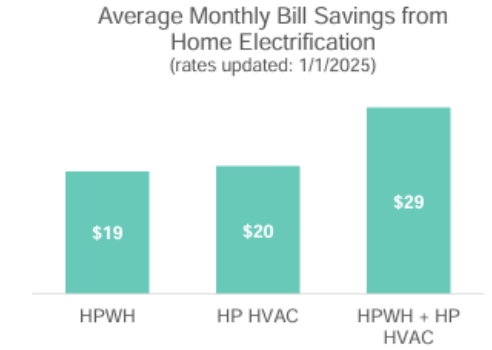
- Earth Day Fest
- Holi Fest
- Cherry Blossom
- Farmers Market
- Senior Center
- Door-to-Door
- Youth Groups
- Rotary Club



Programs and Affordability

SILICON VALLEY CLEAN ENERGY | Go Electric Advisor

- Technical Assistance
- Virtual Energy Audits
- Go Electric Plan Development
- Finding a Contractor
- Reviewing Project Quotes
- Incentive Information & Applications
- SVCE Program Referrals



THE SWITCH IS ON

Next steps -

- Analyze Survey Results
- Wait for Senate Vote
- Memo to City Council to complete City Work Program item
- Continue education and outreach efforts

ZeroQuest

EV Charger Study

City of Cupertino
Sustainability Council
April 17, 2025

Objectives of Today's Presentation

1) Not to review the full study or specific data points
2) Instead, to review the basic approach, flow, and content
3) Discuss next steps relative to implementation

Objectives of the Study

Main objective was to complete **Action ID TR 3.1** from the City of Cupertino Climate Action Plan (CAP) Version 2.0.

> *TR 3.1* ***Conduct a survey of existing publicly accessible electric vehicle chargers****, their locations, and their kW hour charging speed, and* ***identify a prioritized list of locations for new electric vehicle charging stations*** *with* ***consideration for equitable distribution of chargers*** *to residents of multi-family homes, low income and fixed income people, historically underserved communities, elders, and disabled individuals with access needs.*

A secondary, parallel objective was to lay the groundwork for the related CAP 2.0 **Action ID TR 3.2**, which states:

> *TR 3.2 Leverage public and private partnerships to add 719 new publicly accessible Level 2 and 3 electric vehicle charging stations to the City by 2030.*

Study Outline

Growth in Adoption of Electric Vehicles

Significant Shift Toward Electric Vehicles

- 26.4% of new vehicles sold in 2024
- 24,359 light duty EV and PHEV vehicles registered in Cupertino as of Q3 of 2024

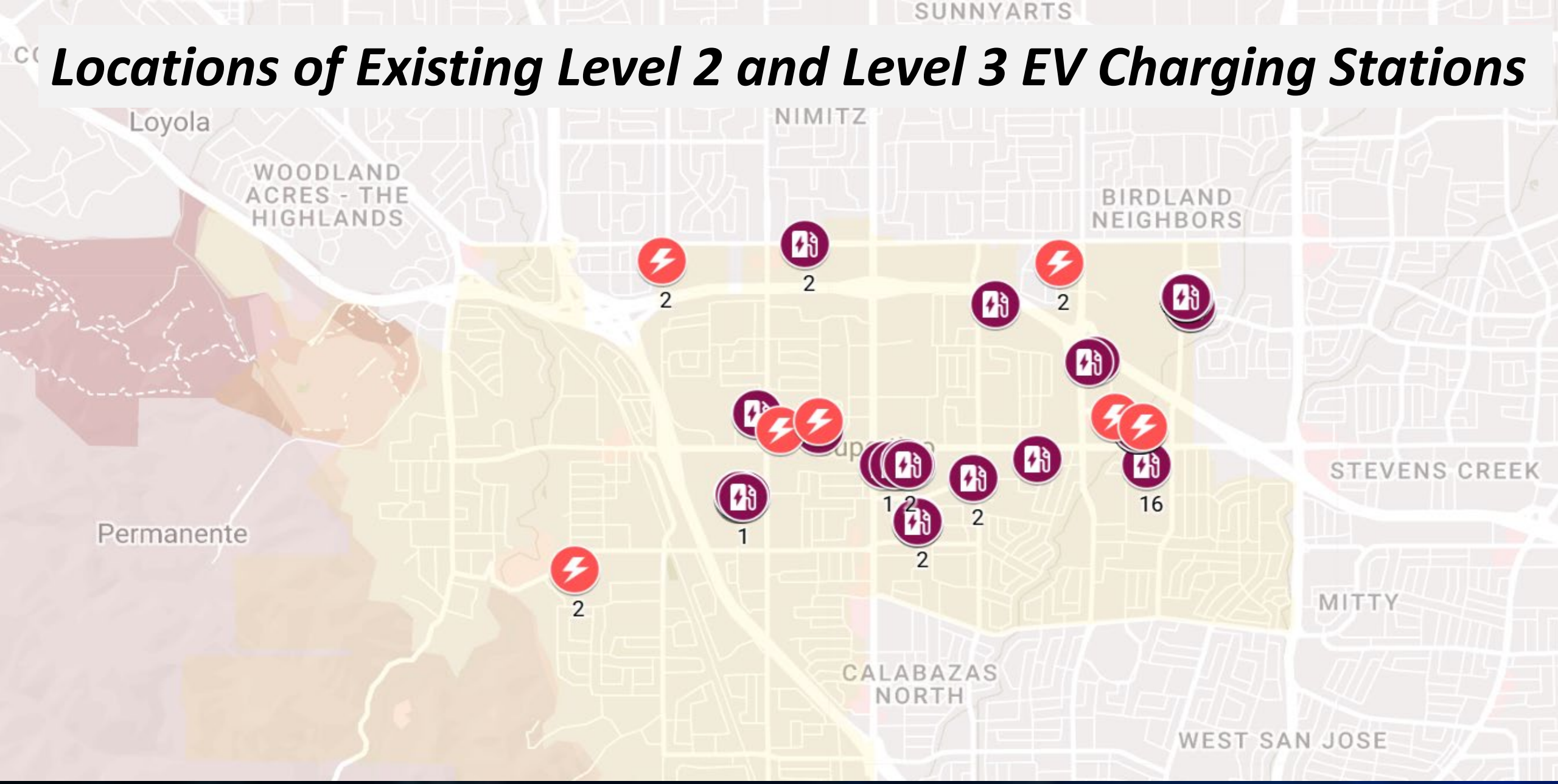
Driven By:

- Incentives
- Tech-savvy population
- Increasing availability/affordability
- California mandate 100% sales by 2035

Priority Ranking of Potential EV Charger Sites

Category	Definition	Priority
Grant Eligible	NEVI Formula Program Grant Area	1
Tax Credit Eligible	IRS 30C Eligible	1
Accessible to General Public	Desirable locations on city-owned sites	2
Private but Accessible to General Public	Publicly accessible but privately-owned sites	3
Privately Accessible and Owned Sites	Privately-owned sites not accessible to public	4
Serving Specific Communities	Seniors	5
Serving Specific Communities	Underserved	5
Serving Specific Communities	Disabled	5
Serving Specific Communities	Low Income	5
Serving Specific Communities	Fixed Income	5
Serving Specific Communities	Multifamily	5
Serving Specific Communities	Cal-Enviro Screen Priority Area	5

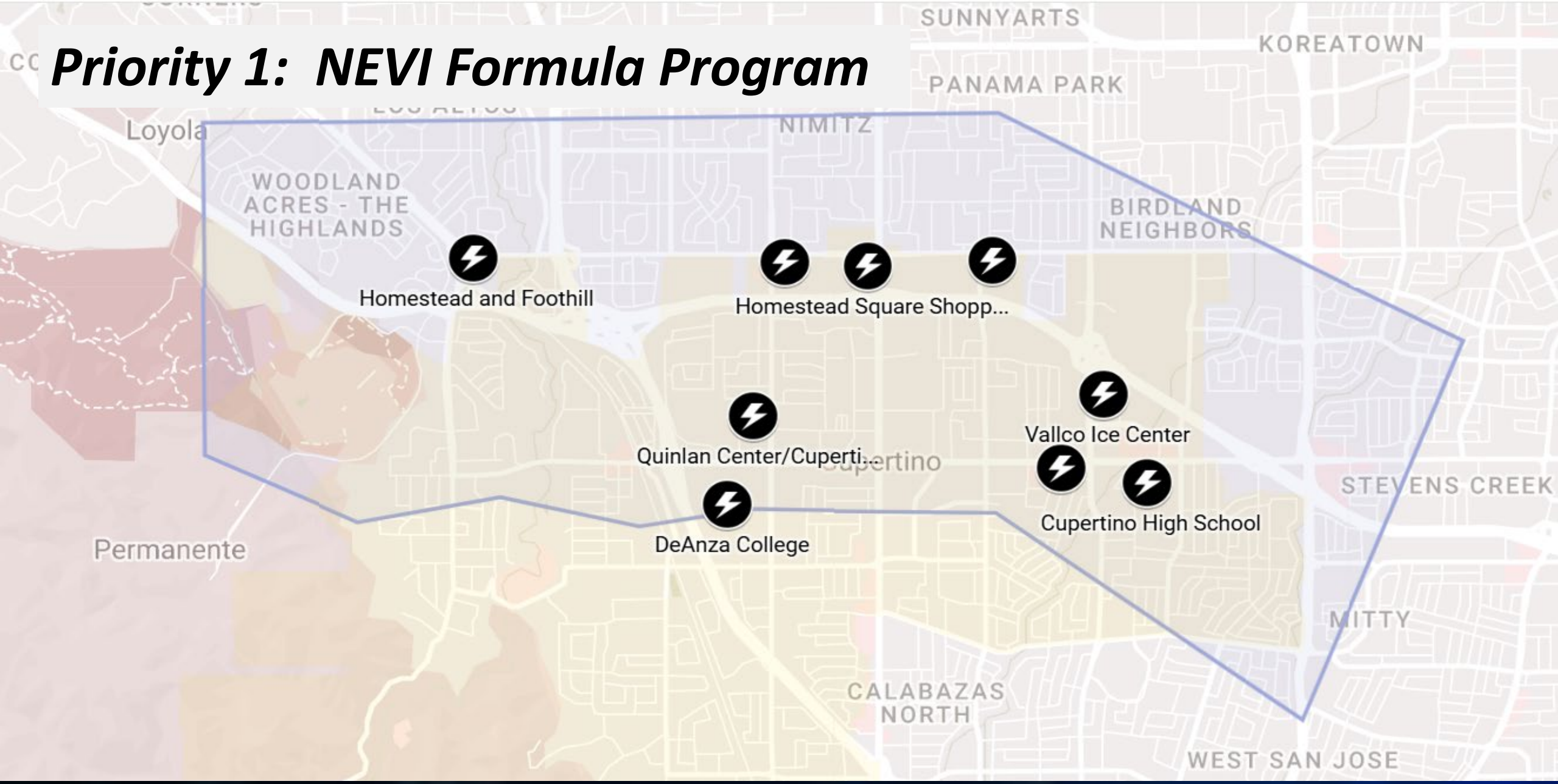
Locations of Existing Level 2 and Level 3 EV Charging Stations



Map Data Also Provided in Tabular Form

Station Name	Street Address	Level 2	Level 3
The Markham	20800 Homestead Rd	2	
Main Street Cupertino - Tesla SC	19500 Vallco Parkway		10
Juniper Cupertino, Tesla Destination	10050 S De Anza Blvd	1	
Ridge Vineyards - Tesla Destination	17100 Montebello Rd	2	
Hyatt House San Jose/Cupertino - Tesla Destination	10380 Perimeter Rd	8	
The Marketplace KCR	19620 Stevens Creek Blvd	2	
ESSEX POINTE	19900-19918 Olivewood St	2	
PROMETHEUS BILTMORE	10159 S Blaney Ave	2	
MAIN STREET MSC 7	19500 Stevens Creek Blvd	2	
CUPERTINO STATION 01	10800 Torre Ave	2	
CUPERTINO QUINLAN 1, 2	10185 Stelling Rd	4	
Target - Tesla Supercharger	20745 Stevens Creek Boulevard		28
Cupertino High School	10100 Finch Ave	16	
Monta Vista High School	21840 McClellan Rd	14	2

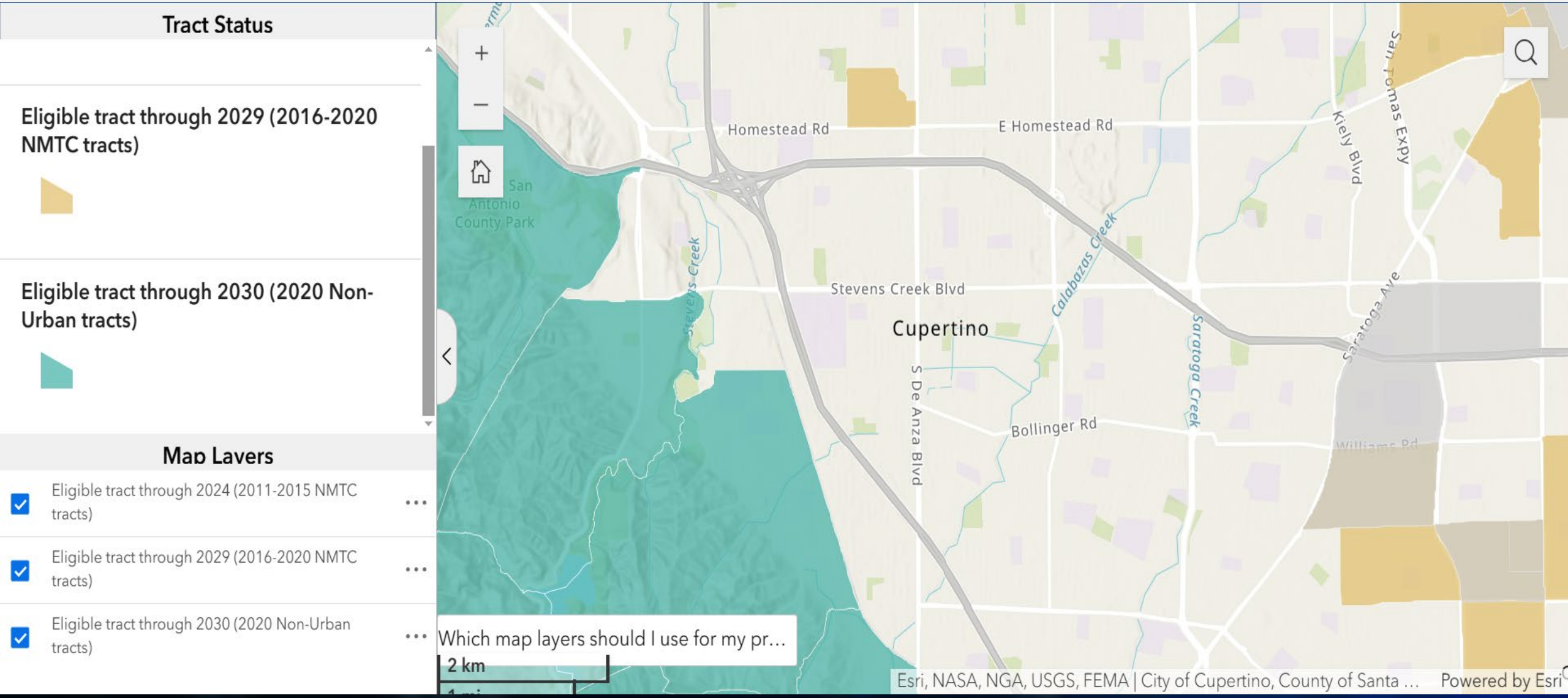
Priority 1: NEVI Formula Program



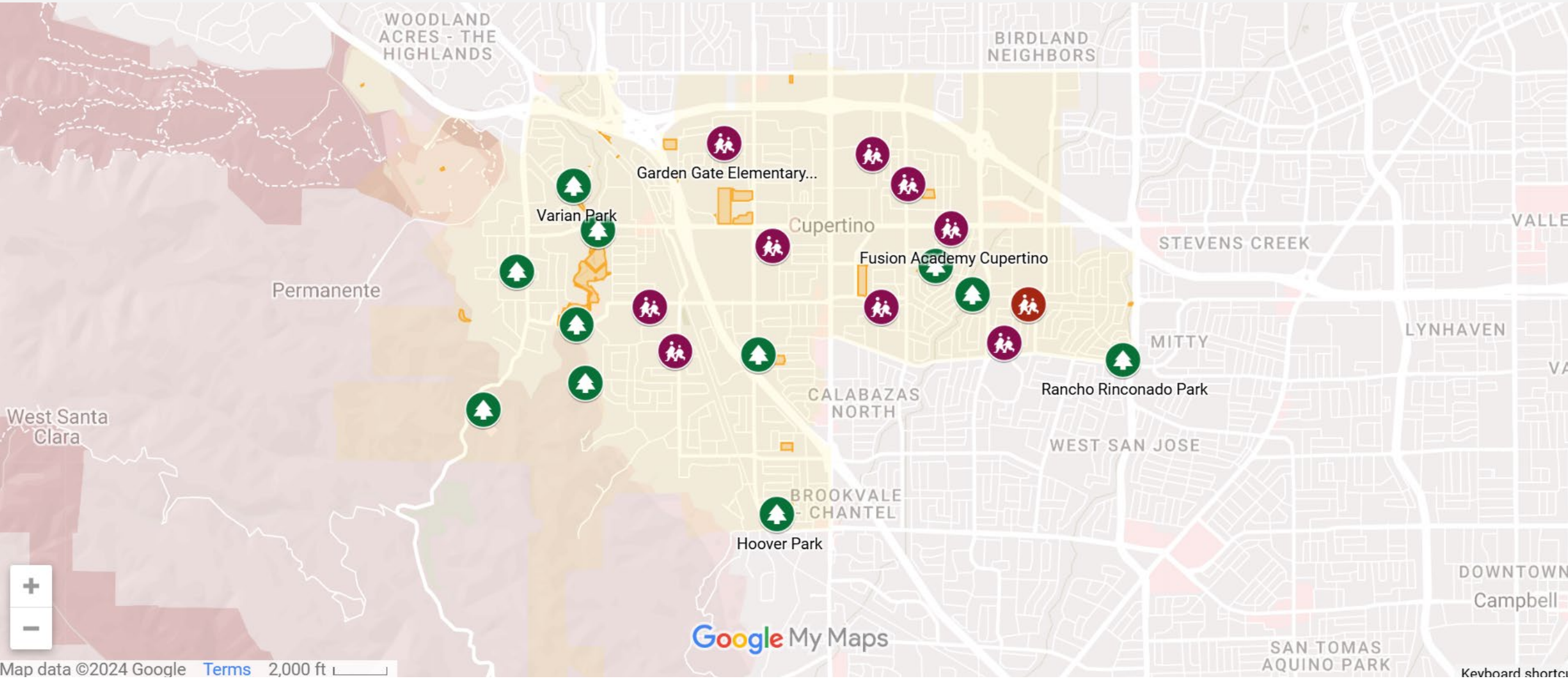
Priority 1: NEVI Formula Program

Location	Type of Location	Number of Ports
Quinlan Center/Cupertino Memorial Park	City Community Center	8
Cupertino High School	Public School	8
The Marketplace (Stevens Creek & Portal)	Shopping Center	8
Homestead Square	Shopping Center	8
Oakmont Square	Shopping Center	8
Homestead and Stelling	Shopping Center	8
Vallco Ice Center	Shopping Center	16
Homestead and Foothill	Shopping Center	8
De Anza College	Community College	16
	TOTAL	**88**

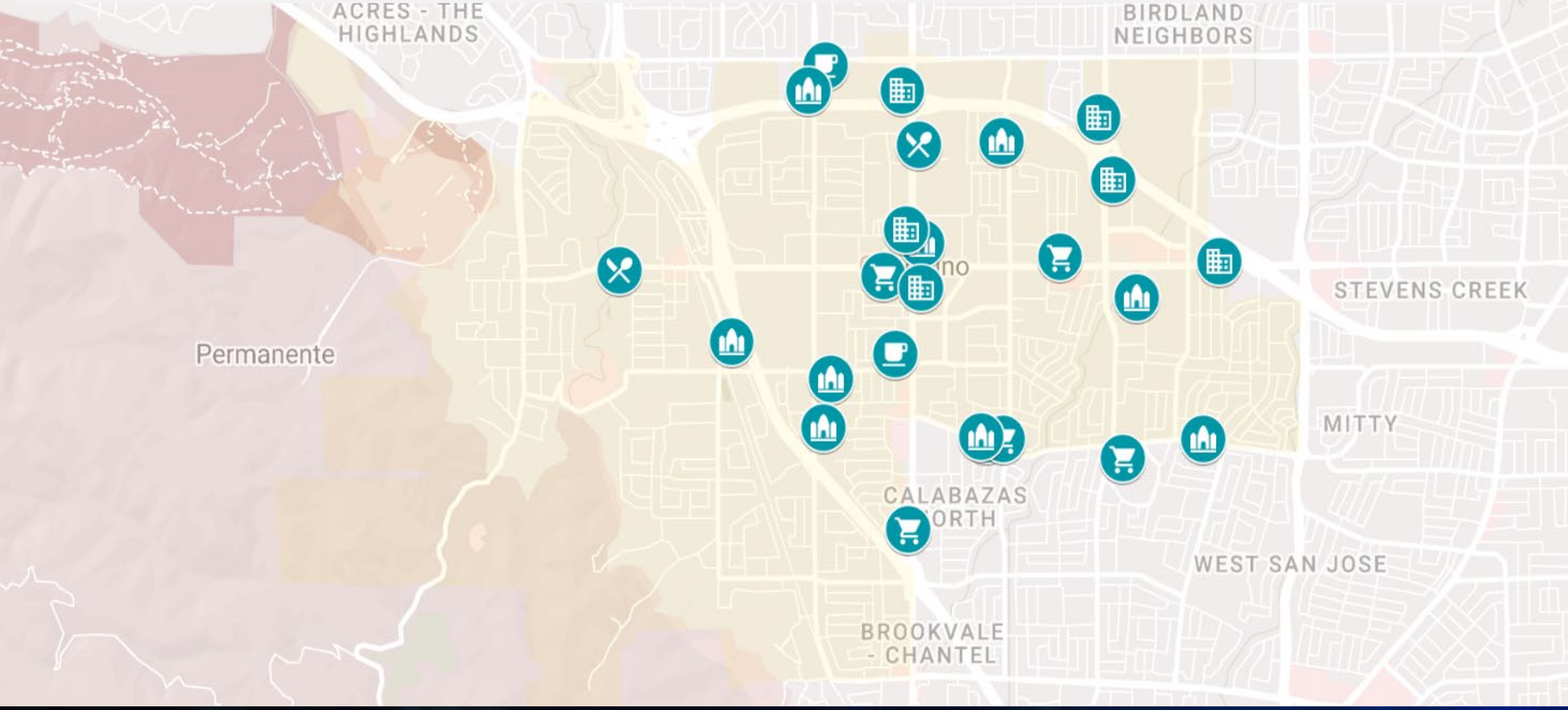
Priority 1: IRS 30C Tax Credit



Priority 2 – Desirable Locations City/County/State



Priority 3: Publicly Accessible, Privately Owned Locations

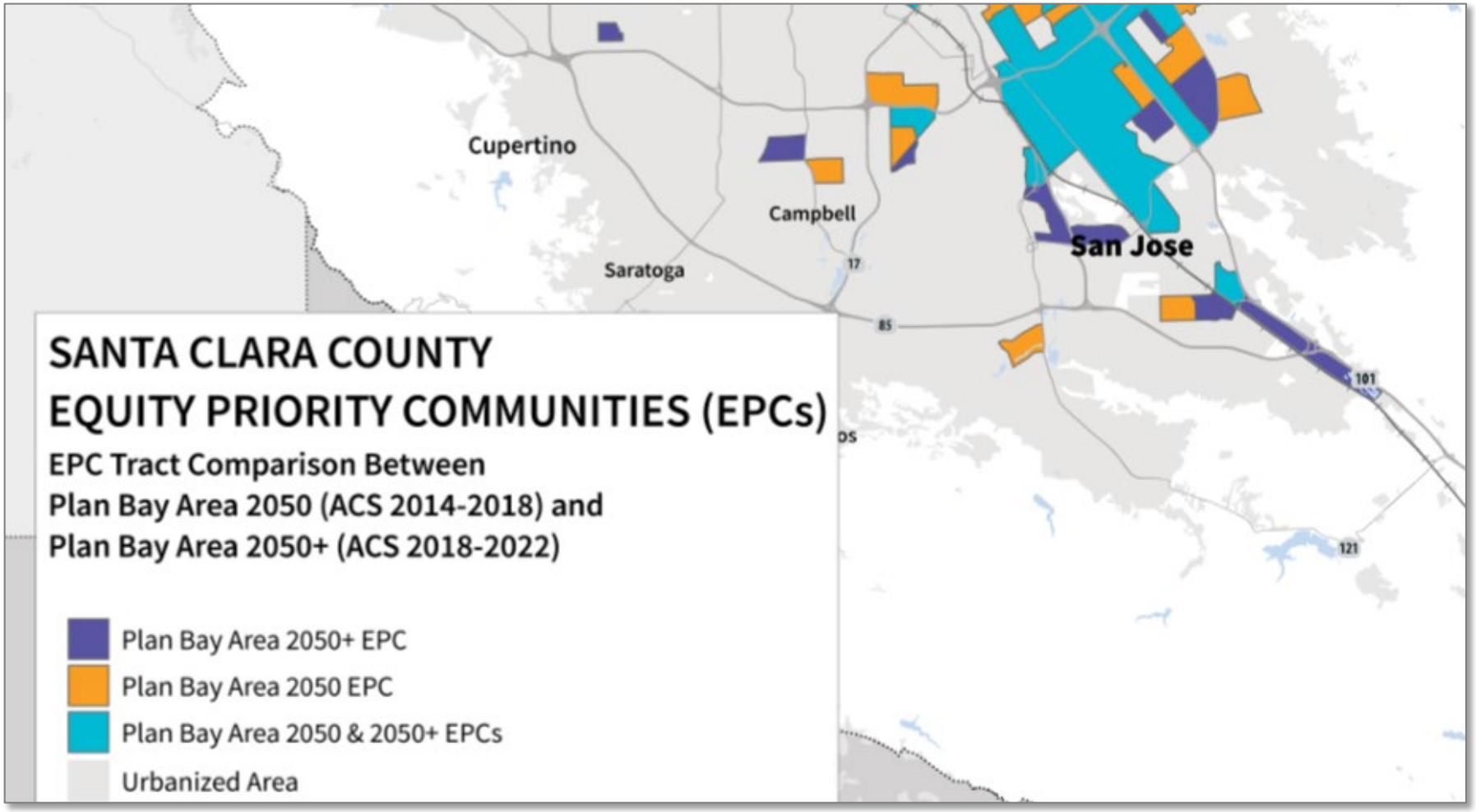


Priority 4: Privately Accessible Owned Sites (Employers)

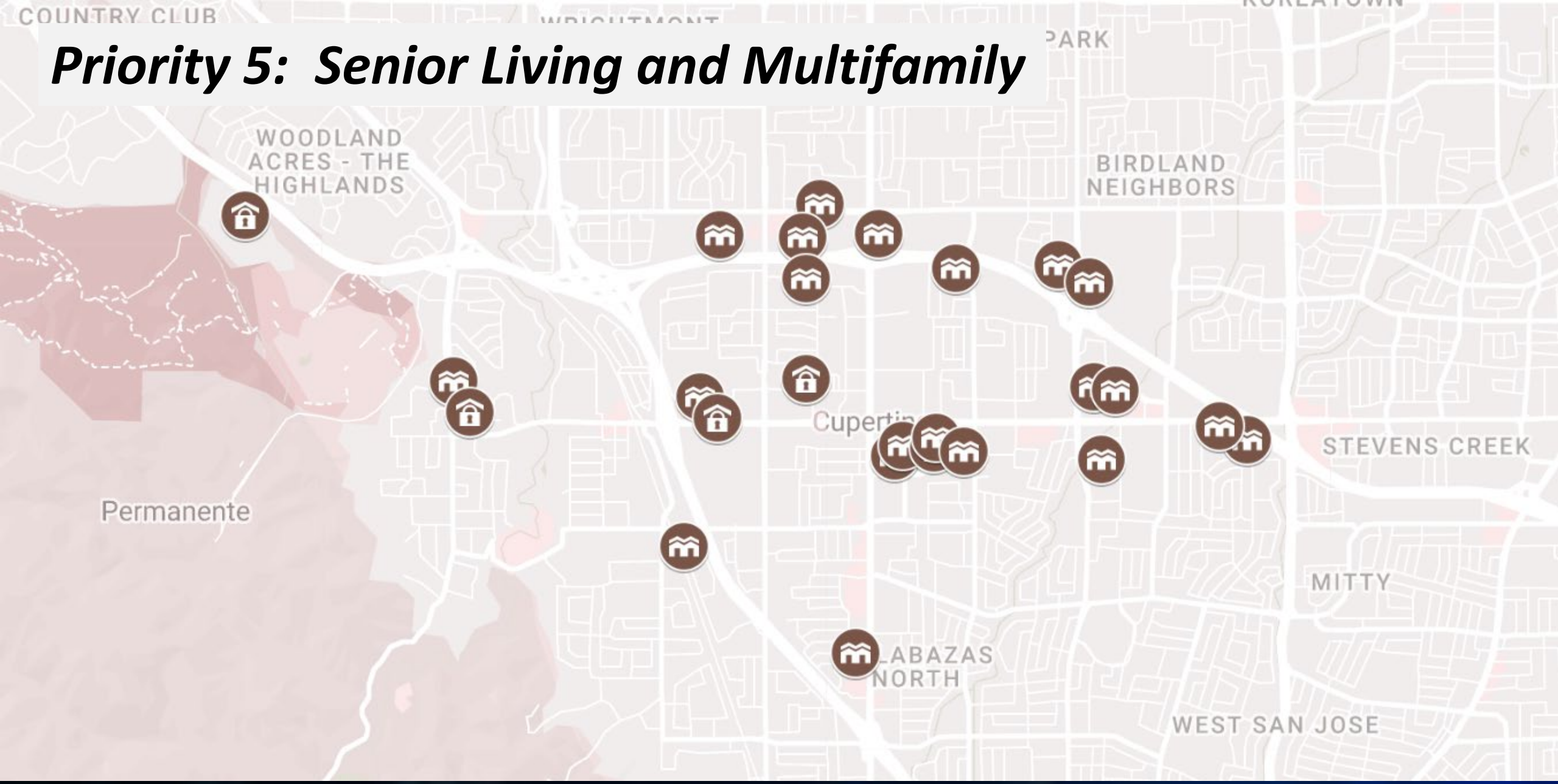
Major Employer	Location
Apple	Multiple
Amazon	10201 Torre Ave
Multiple	Various Office Parks

Note: Private chargers not necessarily visible in public databases

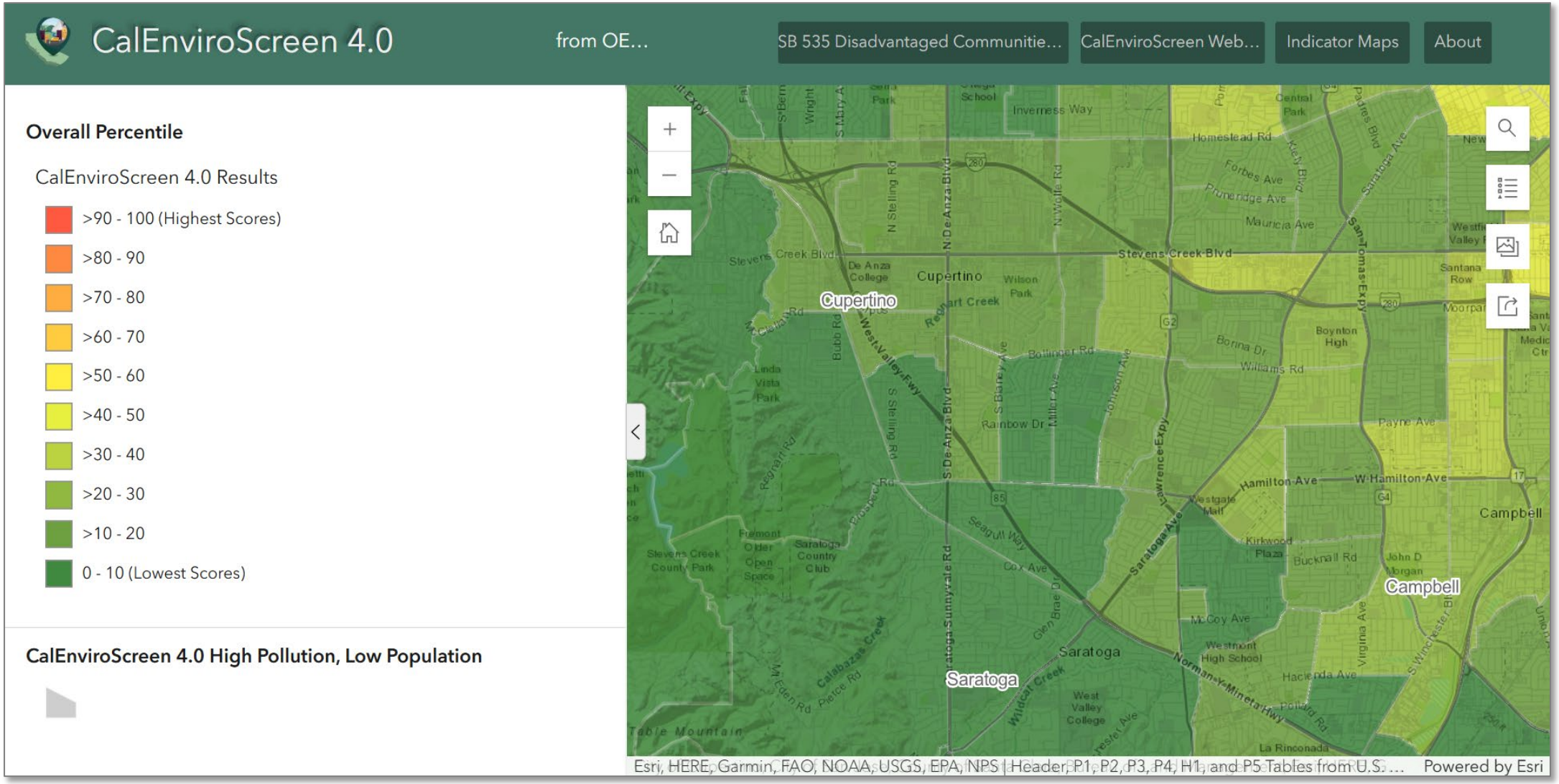
Priority 5: ABAG Equity Priority Communities



Priority 5: Senior Living and Multifamily



Priority 5: CalEnviroScreen



Summary of Results – Recommended New Chargers

Category	Priority	Level 2	Level 3
NEVI Formula Grant Area	1	N/A	94
IRS 30C Tax Credit	1	8	
Public Parks / City Properties	2	78	
Shops/Restaurants/Hotels/Places of Worship	3	208	64
Employers/Campuses/Offices	4	TBD	TBD
Seniors	5	48	4
Underserved/Disabled/Low/Fixed Income	5	See IRS 30C Above	
Multifamily	5	176	
CalEnviroScreen	5	N/A	N/A
	TOTAL	**518**	**162**

Next Steps Discussion Topics

1) Track the status of the NEVI program and apply for grants as available.

2) Collaborate with owner of Forge Homestead Apartments to pursue IRS 30C credit or a PG&E Multifamily Housing EV Charging Program grant for installation of Level 2 chargers.

3) Apply for CALeVIP 2.0 (California Energy Commission Center for Sustainable Energy) grant program recently opened for funding fast DC (Level 3) charging sites (some 1.0 Program Level 2 money also available).

4) Determine funding strategy for chargers on city-owned sites (primarily parks) per the map/table in report.

5) Develop program to encourage the installation of chargers on private property – including workplaces, retail establishments, hotels, and apartment buildings.

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Thank You