

## Planning Advisory Committee

### MEETING AGENDA

*June 16, 2016 – 9:30 a.m.*

Sonoma County Transportation Authority  
SCTA Large Conference Room  
490 Mendocino Avenue, Suite 206  
Santa Rosa, California 95401

#### ITEM

1. Introductions
  2. Public Comment
  3. Administrative
    - 3.1. Approval of the agenda – changes, additional discussion items- ACTION
    - 3.2. Review Meeting Notes from April 21, 2016\* – ACTION
  4. Plan Bay Area\* - update and information from MTC representative
  5. SCTA Comprehensive Transportation Plan update\*
  6. Shift Sonoma County – Mode Shift and Fuel Shift updates\*
  7. Round table members discussion
  8. Other Business /Next agenda
  9. Adjourn
- \*Attachment
- 

The next **SCTA** meeting will be held **July 11, 2016**

The next **PAC** meeting will be held **August 18, 2016**

DISABLED ACCOMMODATION: If you have a disability that requires the agenda materials to be in an alternate format or that requires an interpreter or other person to assist you while attending this meeting, please contact SCTA/RCPA at least 72 hours prior to the meeting to ensure arrangements for accommodation.

SB 343 DOCUMENTS RELATED TO OPEN SESSION AGENDAS: Materials related to an item on this agenda submitted to the Transit-Technical Advisory Committee after distribution of the agenda packet are available for public inspection in the Sonoma County Transportation Authority office at 490 Mendocino Ave., Suite 206, during normal business hours.

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TO: Planning Committee

DATE: May 6, 2016

FR: Executive Director

RE: Plan Bay Area 2040: Scenario Evaluation

### **Background**

MTC and ABAG have developed and evaluated three alternative land use and transportation scenarios illustrating the effects that different housing, land use and transportation strategies have on our adopted Plan Bay Area (PBA) 2040 goals and performance targets. This evaluation will inform the development of the region's "preferred scenario," which will incorporate some of the best aspects of the three scenarios and form the framework for PBA 2040.

### **Alternative Scenarios Descriptions**

The three scenarios describe different alternatives for how expected growth in population, jobs and housing units might be distributed, and the types of transportation investments needed to support these growth patterns. While the scenarios vary in terms of the intensity of development patterns and transportation investments, they maintain the same regional forecasts for jobs, population, households and transportation revenues. The scenarios are described in more detail in **Attachment 1**.

### **Land Use Strategies**

ABAG forecasts an additional 1.3 million jobs, 2.4 million people and therefore the need for approximately 820,000 housing units between 2010 and 2040. The scenarios vary in terms of the different combinations of strategies that can be used to accommodate this future growth. The strategies can affect land use patterns by changing a community's capacity for new development or incentivizing a particular type or location of growth. Each scenario builds on the Bay Area's existing land use pattern and transportation network, while also taking into account local plans for growth, historical trends, the results of the most recent PDA assessment. **Attachment 1** also includes the specific strategies included under each scenario.

The differing land use strategies work to vary the intensity and location of the future growth of housing and jobs. The tables in **Attachment 2** highlight the growth distribution within three distinct geographic regions:

- Big 3 (the region's three largest cities – San Jose, San Francisco, and Oakland)
- Bayside (generally cities directly adjacent to San Francisco Bay – e.g., Hayward, San Mateo, and Richmond)
- Inland, Coastal, and Delta (generally cities just outside of Bayside – e.g., Walnut Creek, Dublin, Santa Rosa, Antioch, Brentwood, Dixon)

### **Transportation Strategies**

PBA 2040 forecasts \$299 billion of federal, state, regional and local transportation revenues over the 24-year period. Of this amount, approximately \$44 billion (15% of total PBA revenues) is assumed to be discretionary. The three scenarios vary in terms of how this \$44 billion is distributed across maintenance, system enhancement and major capital projects. This distribution is shown in **Attachment 3**.

Each of the scenarios assumes a varying distribution of funding for major projects versus maintenance and to roads versus public transit. In the Main Streets scenario (scenario 1), over half of all discretionary investments are directed towards state of good repair, fully funding state highway pavement needs and moving the region much closer to a state of good repair on local streets. Major projects are more focused on highway improvements – which feature lower operating and maintenance costs than public transit – and thus constitute a smaller share of the distribution. In Connected Neighborhoods (scenario 2) and Big Cities (scenario 3), there are significantly greater needs for transit frequency increases and new core capacity transit lines, resulting a smaller share of funding going towards maintenance (in particular, highway and local streets maintenance).

The three scenarios maintain a consistent level of investment in system enhancements, comprising several discretionary funding sources including One Bay Area Grant, Regional Transportation Improvement Program and other sources for active transportation and goods movement. MTC and the congestion management agencies are working to develop more specific projects and program categories for the preferred scenario.

**Attachment 4** describes the types of major projects included under each scenario. These comprise capacity-adding projects above \$100 million analyzed in the PBA 2040 project performance assessment. While major projects only comprise 24 to 38 percent of total transportation investment across the three scenarios, these investments typically have the most pronounced impact on a scenario alternative's performance.

### **Performance Targets Overview**

After six months of public engagement and deliberation, MTC and ABAG adopted goals and performance targets in fall 2015, establishing the foundation of PBA 2040. Each of the 13 performance targets compares baseline conditions with conditions in the future to understand better whether the region is expected to move in the right direction or the wrong direction under each scenario. Oftentimes, the targets are aspirational in nature, making them quite difficult to achieve. For example, a given scenario may implement a suite of policy measures to address a particular issue, but available tools and funding remain too constrained to move the needle in the right direction. Results<sup>1</sup> for the performance targets for all seven goals are included in **Attachment 5**.

Only two targets are mandatory for the region to achieve under Senate Bill 375 – Climate Protection and Adequate Housing. The remaining 11 targets are voluntary, meaning that the adopted PBA does not have to achieve them. That said, the targets provide a useful reference point for policymakers and the public to consider when weighing the pros and cons of each scenario. As these are draft scenarios, there will be future opportunities to refine the strategies incorporated into a preferred scenario – and perhaps move closer to achieving some of the performance targets.

### **Key Findings from Performance Targets Results**

- **While all three scenarios achieve the greenhouse gas target, lower levels of driving in Connected Neighborhoods and Big Cities result in stronger performance.** Compared to the more dispersed land use pattern in Main Streets, these two scenarios have higher non-auto mode shares that yield additional greenhouse gas benefits and build upon the foundation of the Climate Initiative Program (which is included in all three scenarios).

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<sup>1</sup> Note that scenario performance target results shown in the attachment remain in draft form. Select target results reflect year 2035 performance, while the final target results available later this year will reflect the adopted horizon year of 2040.

- **The region’s ambitious public health target remains stubbornly out of reach across all scenarios.** Much higher levels of walking and bicycling, combined with significant reductions in traffic collisions, would be needed to improve residents’ health outcomes. Slightly stronger performance in Connected Neighborhoods and Big Cities indicates that a denser land use pattern better supports active transportation, and therefore public health outcomes, in the region.
- **Strict urban growth boundaries are effective in focusing growth within the existing urban footprint.** Connected Neighborhoods and Big Cities nearly achieve the Open Space and Agricultural Preservation target due to their inclusion of strict urban growth boundaries, while No Project and Main Streets fare worse on the target.
- **Significant housing affordability challenges exist in all three scenarios.** Challenges related to affordability and displacement risk increase in all three scenarios, with No Project and Big Cities resulting in the greatest adverse impacts. Despite various housing and land use strategies included across all the scenarios to make the region more affordable, housing costs continue to rise, reflecting an increasingly expensive Bay Area housing market.
- **Goods movement will benefit from regional transportation investments and smart land use decisions.** Main Streets’ investments in regional express lanes helps to reduce congestion on major truck corridors. Alternatively, Connected Neighborhoods and Big Cities succeed in improving goods movement by focusing growth in the urban core and encouraging use of non-auto modes through new transportation options.
- **Increasing funding to “Fix It First” leads to much smoother streets and more reliable transit.** Main Streets’ funding brings state highway pavement to ideal conditions while improving local streets as well, saving residents a significant amount of money each year. Big Cities achieves the greatest reduction in transit system breakdowns, thanks to its higher funding level for transit maintenance compared to the other scenarios.

### **Other Policies and Strategies**

PBA 2040’s scenario process uses only a small set of land use and transportation strategies to show different options for future land use patterns and the transportation investments and policies needed to support these distributions of future housing and employment growth. The combinations of strategies in the scenarios are included to enable a discussion about regional priorities, and do not represent all of the potential public policy interventions that regional, state, or local governments could use to accomplish the Plan’s goals. For instance, the specific structure of many potential state and local tax and regulatory policies falls largely outside the analytic scope of the scenario process, and requires a separate, more robust public policy analysis to determine costs and benefits. Once the preferred scenario is adopted, the final PBA 2040 document will describe a wider range of policies to support the Plan’s goals.

### **Environmental Assessment**

A programmatic Environmental Impact Report (EIR) will be prepared for PBA 2040, with the adoption of the preferred scenario as the basis for the California Environmental Quality Act (CEQA) “project.” This environmental assessment fulfills the requirements of the CEQA and is designed to inform decision-makers, responsible and trustee agencies, and Bay Area residents of the range of potential environmental impacts that could result from implementation of the proposed Plan. This EIR will also analyze a range of reasonable alternatives to the proposed project that could feasibly attain most of PBA 2040’s basic project objectives and would avoid or substantially lessen any of the significant environmental impacts. The three scenarios, as previously discussed, will be the basis for the initial CEQA alternatives.



METROPOLITAN  
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COMMISSION

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## *Memorandum*

TO: Bay Area Partnership Board

DATE: May 27, 2016

FR: Ken Kirkey, Director, Planning

RE: Plan Bay Area 2040: Scenarios, Performance Thresholds, and Investment Strategy Discussion

### **Background**

Plan Bay Area (PBA) 2040 has entered a critical phase in its development. MTC and ABAG have developed and evaluated three alternative land use and transportation scenarios illustrating the effects that different housing, land use and transportation strategies have on adopted goals and performance targets. MTC staff has also released final project performance results for major uncommitted projects and state of good repair investments. Lastly, staff has begun development of the Plan's investment strategy, which will apportion available regional discretionary revenues across operating and maintenance needs, system enhancements, and major projects.

### **Alternative Scenarios Descriptions**

The three scenarios describe different alternatives for how expected growth in population, jobs and housing units might be distributed, and the types of transportation investments needed to support these growth patterns. While the scenarios vary in terms of the intensity of development patterns and transportation investments, they maintain the same regional forecasts for jobs, population, households and transportation revenues. This evaluation will inform the development of the region's "preferred scenario," which will incorporate some of the best aspects of the three scenarios and form the framework for PBA 2040. Attachment A provides more background on the scenario evaluation.

### **Project Performance Results and Thresholds**

All major uncommitted investments, including projects that expand transit and road facilities, improve road or transit efficiency, and state of good repair investments, are subject to performance assessment per MTC Resolution No. 4182 and prioritization for the investment strategy of PBA 2040. The MTC Commission has adopted guidelines for applying the results. Staff has notified CMAs and sponsors of these guidelines and of the opportunity to submit a compelling case if project sponsors seek to include the "low performing" projects in the preferred transportation investment strategy. Attachment B provides more detail on the project performance results and thresholds.

### **Investment Strategy**

PBA 2040 forecasts \$298 billion of federal, state, regional and local transportation revenues over the 24-year period. Of this amount, approximately \$49 billion is assumed to be discretionary. Over the planning horizon, the region will also require significant investment to operate and maintain the existing system. Staff estimates that \$241 billion is required to achieve a state of good repair and \$217 billion is required to maintain existing conditions for transit operating, transit capital maintenance, regional and local bridges, state highways, and local streets and roads. Over the next several months, staff will be working to reconcile state of good repair needs with system enhancement and major project priorities through the development of the Plan's investment strategy. MTC staff will work closely with the CMAs and operators on the investment strategy, which will be presented concurrently with the Plan's preferred scenario in September 2016.

### **Next Steps**

MTC and ABAG are holding a series of public workshops through mid-June to discuss tradeoffs and gauge support among the land use scenarios and supportive transportation programs and projects. Input received will help us develop the region's draft preferred scenario (land use distribution and transportation investment strategy) for adoption by MTC and ABAG in September 2016. The draft preferred scenario will be subject to CEQA environmental review and other analyses throughout the remainder of 2016. PBA 2040 is slated for final adoption in summer 2017.

Attachments: Presentation  
Attachment A: Plan Bay Area 2040: Scenario Evaluation  
Attachment B: Plan Bay Area 2040 Project Performance Assessment:  
Final Performance Results and Guidelines for Applying Results

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# Plan BayArea 2040



## The Bay Area Partnership

Ken Kirkey, Planning Director, MTC  
June 1, 2016



# 3 SCENARIOS



**Main Streets**



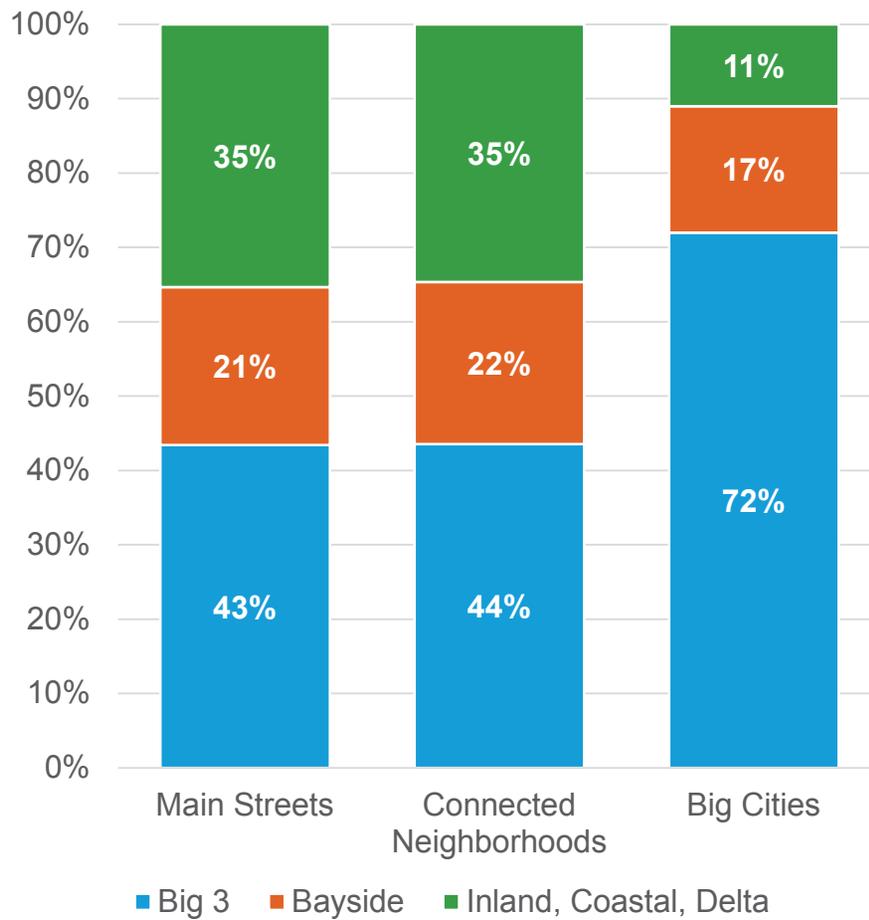
**Connected  
Neighborhoods**



**Big Cities**

# LAND USE DISTRIBUTIONS

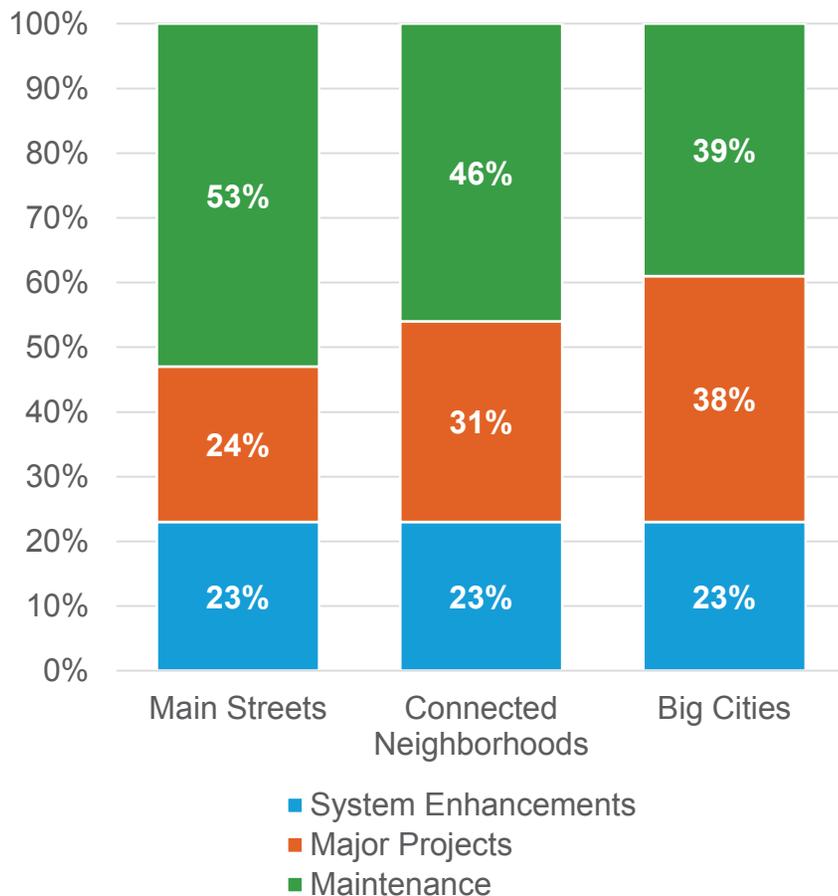
Share of Total Household Growth, 2040



- Main Streets- over a third of housing growth in inland, coastal, delta areas. Places most growth in high VMT parts of region, relative to other scenarios
- Big Cities- places most growth in big 3 cities and neighbors
- Connected Neighborhoods- places most growth in PDAs compared to other scenarios.

# TRANSPORTATION INVESTMENTS

## Share of Discretionary Investments

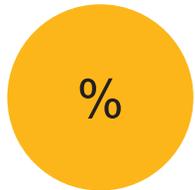


- Main Streets- over half the investment on state of good repair. More limited investment on major projects, especially highway capacity and express lanes
- Big Cities- makes largest investment in major capital projects, especially core capacity transit expansion
- Connected Neighborhoods- balanced focus on transit and highway efficiency improvements and state of good repair

Symbols used in summary tables shown below:



*performance moving in wrong direction from target*



*performance moving in right direction, but falls short of target achievement*



*target achieved*

# TARGETS - SUMMARY

Goal	TARGET	No Project	Scenario 1	Scenario 2	Scenario 3	
 Climate Projection	<b>1</b> Reduce per-capita CO <sub>2</sub> emissions*	-15%	-3%	15%	18%	20%
 Adequate Housing	<b>2</b> House the region's population	100%	100%	100%	100%	
 Healthy and Safe Communities	<b>3</b> Reduce adverse health impacts	-10%	-0%	-0%	-1%	-1%
 Open Space and Agricultural Preservation	<b>4</b> Direct development within urban footprint	100%	71%	77%	100%	100%
 Equitable Access	<b>5</b> Decrease H+T share for lower-income households	-10%	+15%	+13%	+13%	+13%

\* = includes Climate Initiatives in all three scenarios (-11.2% per-capita GHG reduction)

# TARGETS - SUMMARY

Goal	TARGET	No Project	Scenario 1	Scenario 2	Scenario 3	
 Equitable Access	<b>6</b> Increase share of affordable housing	+15%	-0%	-0%	+1%	+0%
 Equitable Access	<b>7</b> Do not increase share of households at risk of displacement	+0%	+20%	+9%	+8%	+15%
 Economic Vitality	<b>8</b> Increase share of jobs accessible in congested conditions	+20%	-3%	-1%	1%	-1%
 Economic Vitality	<b>9</b> Increase jobs in middle-wage industries	+38%	+43%	+43%	+43%	+43%
 Economic Vitality	<b>10</b> Reduce per-capita delay on freight network	-20%	+27%	-24%	21%	-38%

# TARGETS - SUMMARY

Goal	TARGET	No Project	Scenario 1	Scenario 2	Scenario 3
 Transportation System Effectiveness	<b>11</b> Increase non-auto mode share +10%	+1%	+2%	+3%	+3%
 Transportation System Effectiveness	<b>12</b> Reduce vehicle O&M costs due to pavement conditions -100%	+57%	-65%	-7%	+20%
 Transportation System Effectiveness	<b>13</b> Reduce per-rider transit delay due to aged infrastructure -100%	-56%	-76%	-77%	-83%

# TARGETS- PRIMARY TAKEAWAYS

- All three scenarios achieve the greenhouse gas target
- The public health target remains out of reach in all scenarios
- Strict urban growth boundaries are effective to focus growth within existing urban footprint
- Significant equity challenges exist across all three scenarios
- Goods movement will benefit from regional investment and smart land use decisions
- Increasing funding to “fix it first” leads to smoother streets and more reliable transit

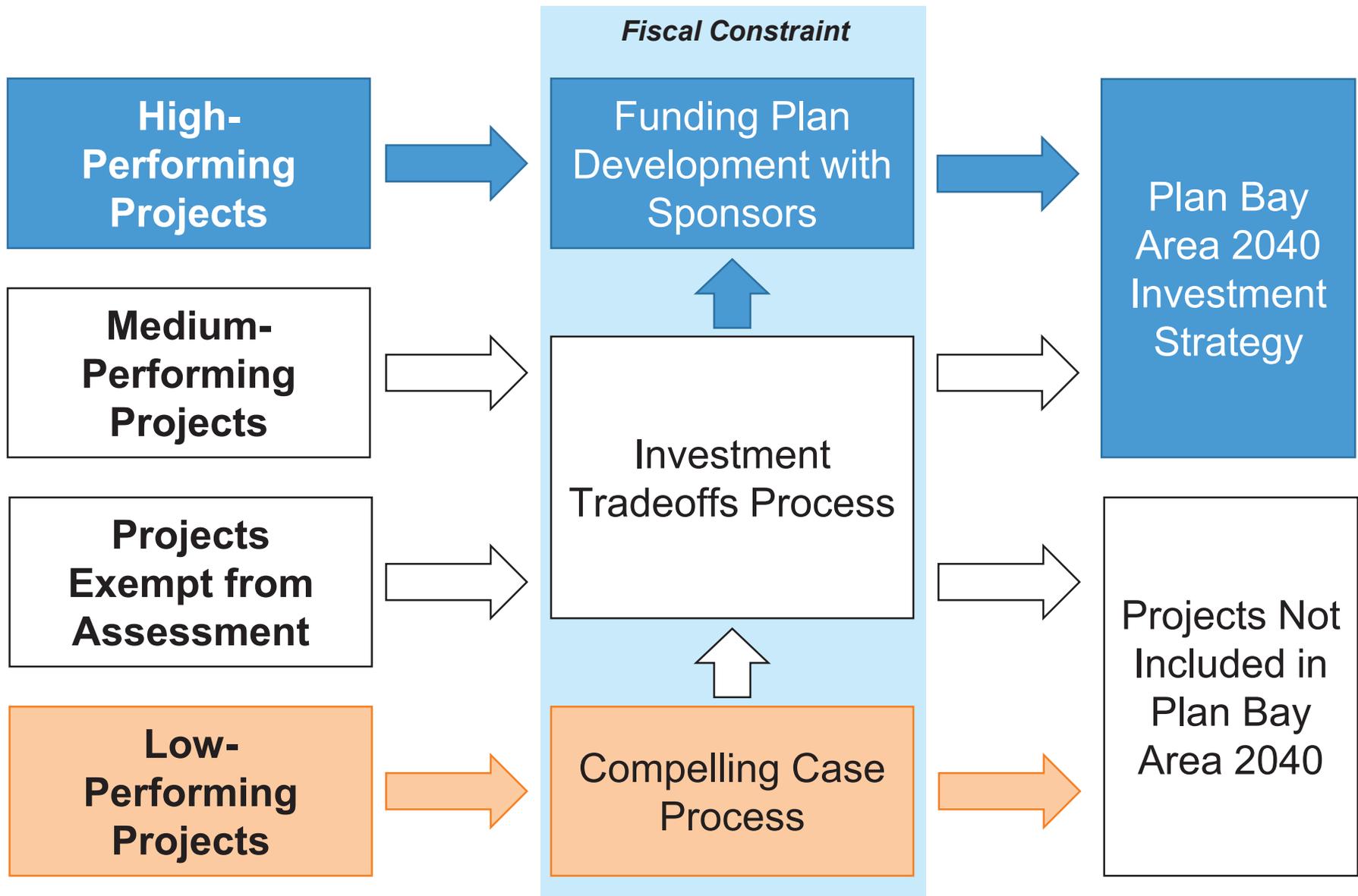
## Potential approaches to achieve targets:

- Health: much more aggressive bike/ped investments to increase physical activity; wide-scale deployment of autonomous vehicles to reduce crashes (off-model/safety benefits)
- Equity: focus growth in communities with minimal lower-income population today; significant increase of housing subsidies (rental subsidies; additional deed-restricted unit production); understand and test the impacts of additional anti-displacement policies

## Potential approaches to achieve targets:

- Access to Jobs/Non-Auto Mode Share: transformative transportation investments (complete regional bus/carpool lane network; high-speed transit expansion across the region); much more aggressive bike/ped investments (off-model); and comprehensive housing and job growth in job centers
- State of Good Repair: greater funding for local streets and roads to bring all streets to at least fair conditions; greater funding for transit assets to replace assets besides vehicles and guideways

# DEVELOPING A PREFERRED SCENARIO



# PROJECT PERFORMANCE ASSESSMENT

**High** benefit-cost ratio and **medium** targets score

- Plan Bay Area:  $B/C \geq 10$  and  $TS \geq 2$
- **Plan Bay Area 2040:  $B/C \geq 7$  and  $TS \geq 3$**

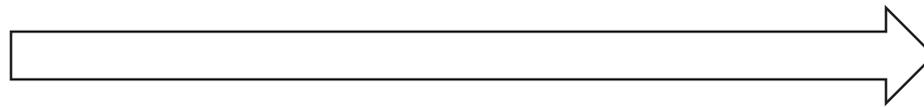


**Medium** benefit-cost ratio and **high** targets score

- Plan Bay Area:  $B/C \geq 5$  and  $TS \geq 6$
- **Plan Bay Area 2040:  $B/C \geq 3$  and  $TS \geq 7$**



All other projects



**Low** benefit-cost ratio or **low** targets score

- Plan Bay Area:  $B/C < 1$  or  $TS \leq -1$
- **Plan Bay Area 2040:  $B/C < 1$  or  $TS < 0$**



**High-Performing Project**

**Medium-Performing Project**

**Low-Performing Project**

PLAN BAY AREA 2040  
PROJECTS BREAKDOWN

**10**  
high-performers

**41**  
medium-performers

**18**  
low-performers

# HIGH-PERFORMING PROJECTS

1 Rail Maintenance

2 Bus Maintenance

3 Columbus Day Initiative

4 Downtown San Francisco Congestion Pricing

5 Treasure Island Congestion Pricing

6 BART to Silicon Valley: Phase 2

7 Caltrain Modernization + Downtown Extension

8 BART Metro Program

9 San Pablo BRT

10 Geary BRT

11 El Camino BRT



Image Source: [https://en.wikipedia.org/wiki/Sonoma\\_County\\_Transit#/media/File:Sonoma\\_County\\_Transit\\_245\\_a.jpg](https://en.wikipedia.org/wiki/Sonoma_County_Transit#/media/File:Sonoma_County_Transit_245_a.jpg)



Image Source: <https://www.flickr.com/photos/cobrasick/5297980956>

# LOW-PERFORMING PROJECTS

PLAN BAY AREA 2040  
PROJECTS BREAKDOWN

**10**  
high-performers

**41**  
medium-performers

**18**  
low-performers

## Compelling Case Framework

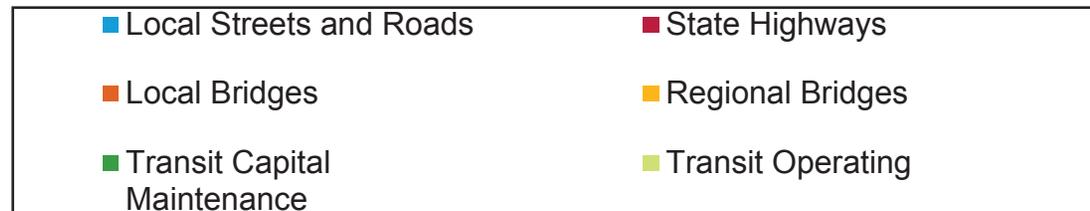
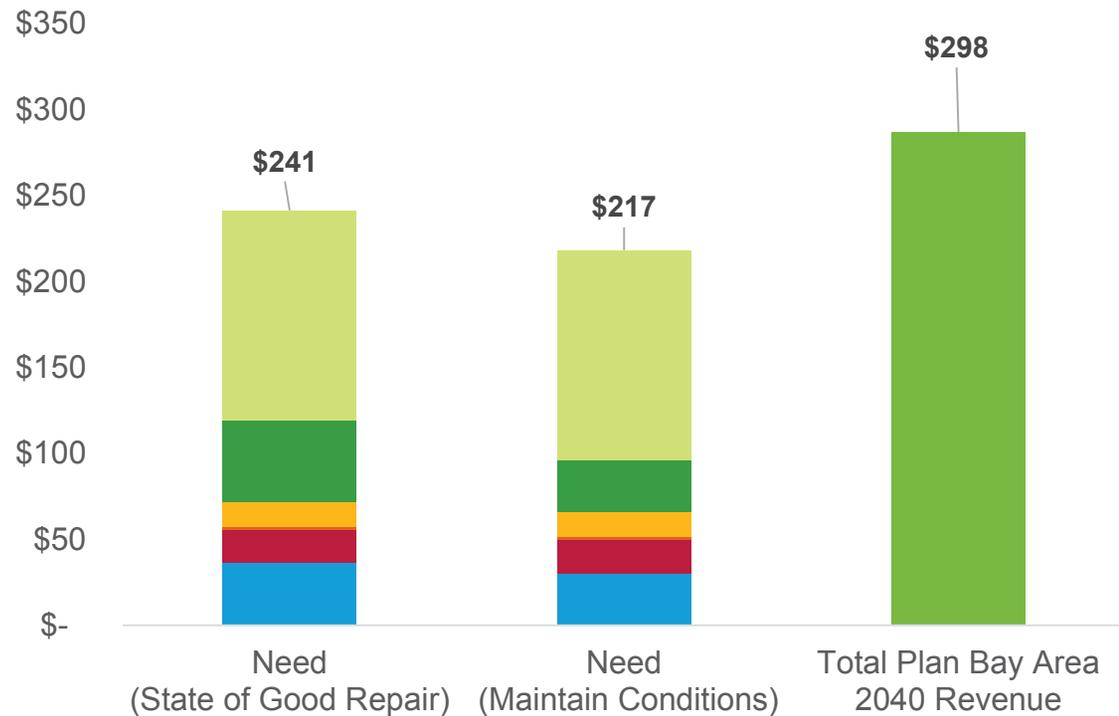


<b>CATEGORY 1</b> <b>Benefits Not Captured by the Travel Model</b>	<b>CATEGORY 2</b> <b>Federal Requirements</b>
<ul style="list-style-type: none"> <li>a) interregional or recreational corridor</li> <li>b) provides significant goods movement benefits</li> <li>c) project benefits accrue from reductions in weaving, transit vehicle crowding, or other travel behaviors not well represented in the travel model</li> <li>d) enhances system performance based on complementary new funded investments</li> </ul>	<ul style="list-style-type: none"> <li>a) cost-effective means of reducing CO<sub>2</sub>, PM, or ozone precursor emissions</li> <li>b) improves transportation mobility/reduces air toxics and PM emissions in communities of concern</li> </ul>

# REGIONAL NEEDS SUMMARY

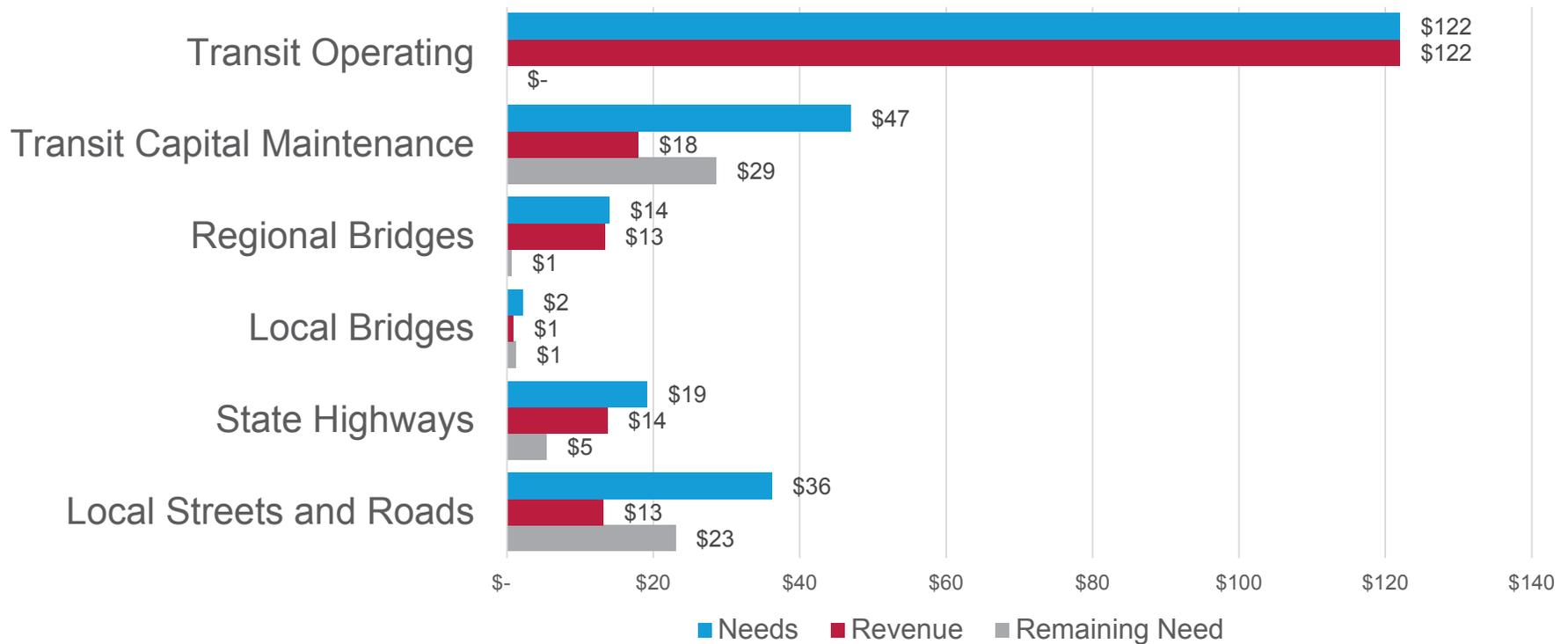
- State of Good Repair Need = \$241 Billion
- Maintain Existing Conditions Need = \$217 Billion
- Total Draft Revenue Forecast for Plan Bay Area 2040 = \$298 Billion
- Approximately 16% (~\$49 billion) of Plan revenue is expected to be “discretionary”

Draft Plan Bay Area 2040 Operations and Maintenance Needs Financial Envelope (In Billions)



# REGIONAL NEEDS SUMMARY

## Plan Bay Area 2040 24-Year Transit Operating & State of Good Repair Capital Maintenance Needs (In Billions)



- Total “State of Good Repair” Remaining Need = \$59 Billion (shown above)
- Total “Maintain Existing Conditions” Remaining Need = \$36 Billion

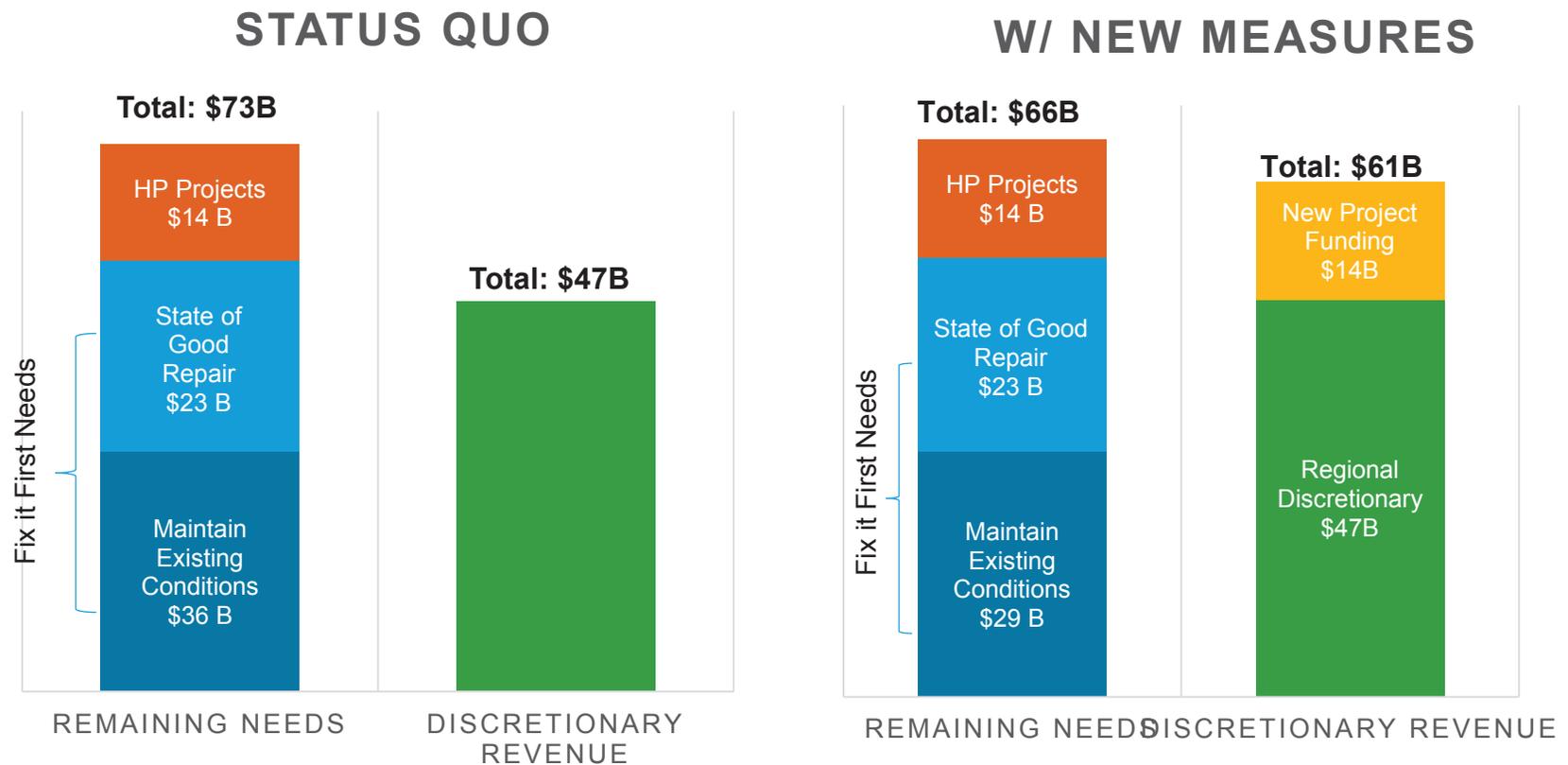
Total Plan Revenues: \$298 Billion

Regional Discretionary Funding  
available: ~\$49 Billion

- Discretionary funding Required to Maintain Existing Conditions = \$36 Billion
- Discretionary funding required for High-Performing Projects = ~\$14 Billion

# FUNDING DISCUSSION

- Potential funding from upcoming ballot initiatives = \$21 Billion
  - Would reduce State of Repair remaining by \$7 Billion
  - Additional funding for new projects/programs = \$14 Billion



- Open Houses / Public Workshops
- Develop the Preferred Scenario
- Environmental Assessment (EIR)
  - Posted Notice of Preparation (NOP) on May 16
  - 3 scoping sessions beginning in late May and into early June

**Thank  
You**



## Plan Bay Area 2040 Housing Growth by Jurisdiction and Scenario

jurisdiction	2010				2040 No Project/BAU					2040 Main Streets				
	Households		Housing Units		Households		Housing Units			Households		Housing Units		
	HH	HU	SF %	MF %	HH	HU	% Growth	SF %	MF %	HH	HU	% Growth	SF %	MF %
Cloverdale	2,935	3,529	78.5%	21.5%	3,400	3,666	3.9%	79.27%	20.73%	3,775	4,083	15.7%	67.87%	32.13%
Cotati	2,925	3,247	66.1%	33.9%	3,794	3,949	21.6%	72.45%	27.55%	3,775	3,919	20.7%	57.46%	42.54%
Healdsburg	4,169	4,930	77.4%	22.6%	5,019	5,310	7.7%	79.49%	20.51%	4,762	5,009	1.6%	77.80%	22.20%
Petaluma	21,035	22,975	79.7%	20.3%	26,334	27,023	17.6%	82.18%	17.82%	23,501	24,039	4.6%	80.01%	19.99%
Rohnert Park	14,055	15,865	60.6%	39.4%	16,573	17,156	8.1%	61.87%	38.13%	16,566	17,154	8.1%	57.21%	42.79%
Santa Rosa	59,671	67,941	69.6%	30.4%	84,352	88,649	30.5%	59.96%	40.04%	101,110	107,829	58.7%	46.74%	53.26%
Sebastopol	3,024	3,532	67.8%	32.2%	3,503	3,664	3.7%	67.14%	32.86%	4,010	4,216	19.4%	59.58%	40.42%
Sonoma	4,690	5,494	67.9%	32.1%	5,824	6,026	9.7%	70.84%	29.16%	5,495	5,680	3.4%	69.03%	30.97%
Windsor	8,543	9,837	84.5%	15.5%	10,028	10,456	6.3%	85.45%	14.55%	10,554	11,054	12.4%	79.48%	20.52%
Unincorporated Sonoma County	56,616	67,418	83.9%	16.1%	128,545	138,907	106.0%	75.23%	24.77%	91,096	96,957	43.8%	78.28%	21.72%
<b>TOTAL</b>	<b>177,663</b>	<b>204,768</b>	<b>75.7%</b>	<b>24.3%</b>	<b>287,372</b>	<b>304,806</b>	<b>48.9%</b>	<b>70.9%</b>	<b>29.1%</b>	<b>264,644</b>	<b>279,940</b>	<b>36.7%</b>	<b>64.1%</b>	<b>35.9%</b>

jurisdiction	2040 Connected Neighborhoods					2040 Big Cities				
	Households		Housing Units			Households		Housing Units		
	HH	HU	% Growth	SF %	MF %	HH	HU	% Growth	SF %	MF %
Cloverdale	4,251	4,697	60.0%	59.14%	40.86%	3,214	3,546	0.5%	78.57%	21.43%
Cotati	4,116	4,260	45.6%	53.50%	46.50%	3,180	3,306	1.8%	66.67%	33.33%
Healdsburg	4,857	5,166	23.9%	78.47%	21.53%	4,645	4,975	0.9%	77.65%	22.35%
Petaluma	24,048	24,708	17.5%	75.55%	24.45%	23,049	23,700	3.2%	79.72%	20.28%
Rohnert Park	24,912	27,023	92.3%	36.42%	63.58%	15,557	16,192	2.1%	59.75%	40.25%
Santa Rosa	112,628	120,120	101.3%	42.54%	57.46%	69,394	73,029	7.5%	67.93%	32.07%
Sebastopol	4,521	4,783	58.2%	52.87%	47.13%	3,576	3,746	6.1%	64.28%	35.72%
Sonoma	5,991	6,245	33.2%	71.80%	28.20%	5,286	5,517	0.4%	68.12%	31.88%
Windsor	10,214	10,729	25.6%	78.30%	21.70%	9,357	9,874	0.4%	84.59%	15.41%
Unincorporated Sonoma County	72,452	77,034	36.1%	76.48%	23.52%	63,602	67,794	0.6%	83.69%	16.31%
<b>TOTAL</b>	<b>267,990</b>	<b>284,765</b>	<b>60.3%</b>	<b>57.3%</b>	<b>42.7%</b>	<b>200,860</b>	<b>211,679</b>	<b>3.4%</b>	<b>74.8%</b>	<b>25.2%</b>

## Plan Bay Area 2040 Employment Growth by Jurisdiction and Scenario

### JOB

Jurisdiction	2010	2040 No Project/BAU	% Growth	2040 Main Streets	% Growth	2040 Connected Neighborhoods	% Growth	2040 Big Cities	% Growth
Cloverdale	1,548	2,886	86.4%	2,936	89.7%	2,928	89.1%	2,911	88.0%
Cotati	2,125	3,245	52.7%	3,176	49.5%	2,993	40.8%	3,368	58.5%
Healdsburg	6,720	10,165	51.3%	10,262	52.7%	10,302	53.3%	10,269	52.8%
Petaluma	26,878	38,172	42.0%	38,078	41.7%	37,985	41.3%	38,499	43.2%
Rohnert Park	11,335	17,250	52.2%	16,976	49.8%	15,806	39.4%	17,391	53.4%
Santa Rosa	67,328	103,055	53.1%	99,033	47.1%	98,700	46.6%	106,898	58.8%
Sebastopol	3,621	5,634	55.6%	5,468	51.0%	4,988	37.8%	5,509	52.1%
Sonoma	5,621	7,779	38.4%	8,199	45.9%	8,155	45.1%	8,150	45.0%
Windsor	6,332	9,474	49.6%	9,885	56.1%	9,800	54.8%	9,645	52.3%
Unincorporated Sonoma County	45,445	83,055	82.8%	81,406	79.1%	79,973	76.0%	77,291	70.1%
<b>TOTAL</b>	<b>176,953</b>	<b>280,715</b>	<b>58.6%</b>	<b>275,419</b>	<b>55.6%</b>	<b>271,630</b>	<b>53.5%</b>	<b>279,931</b>	<b>58.2%</b>

## Staff Report

**To: Planning Advisory Committee**

**From: Janet Spilman, Director of Planning**

**Item: Draft Comprehensive Transportation Plan – Moving Forward 2020**

**Date: June 16, 2016**

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### **Issue:**

What feedback does the PAC have on the Draft Comprehensive Transportation Plan?

### **Background:**

A link to the Comprehensive Transportation Plan (CTP) Administrative Draft was sent to committee members on May 20. Staff has requested that changes (be tracked in the Word document) and be delivered to [janet.spilman@scta.ca.gov](mailto:janet.spilman@scta.ca.gov) with the Subject heading Admin Draft Review. The deadline for your comments was Tuesday, June 14, 2016. This administrative draft was for SCTA advisory committee members and partners only, and was is not for public review.

The document will be fully formatted after comments are received. The project list is available for review at the SCTA website here <http://scta.ca.gov/planning/comprehensive-transportation-plan/> (scroll down). It has not changed, although some changes regarding project details will made before the public review period. On July 11, 2016, the Draft Plan will be presented to the SCTA and released to the public for presentation and review. At the end of that review time it will be presented to the SCTA for adoption.

### **Schedule and Next Steps in 2016**

May 20 – Advisory Committee members are invited to review and comment on the Administrative Draft.

June 14– Comments are due to SCTA staff.

July 11– Draft CTP presented to the Board and public for review.

July, mid-month – open house at 490 Mendocino, Santa Rosa

September 12 – Adoption of CTP and EIR Addendum

### **Policy Impacts:**

The CTP serves as guidance for transportation projects and policies.

**Fiscal Impacts:**

The CTP, to date, has been produced entirely by SCTA staff. Limited costs for outreach have been incurred. The Addendum to the EIR will require staff time and at least a minimal amount of technical consulting work. Precise costs are unknown at this time but is in the range of \$50,000 for an Addendum. Funding for consultant work on environmental review of the CTP will need to come from existing sources such as Planning, Programming and Management (PPM) or MTC funding currently included in the FY15/16 budget.

**Staff Recommendation:**

Consider providing feedback and direction to staff on the Draft CTP.

## Staff Report

**To: SCTA/RCPA Board of Directors**  
**From: Lauren Casey, Director of Climate Programs**  
**Item: 4.1 – Shift Sonoma County – Low Carbon Transportation Planning Update**  
**Date: June 13, 2016**

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### **Issue:**

Information only.

### **Background:**

In 2014, the SCTA and RCPA applied for and were awarded a Strategic Growth Council Planning Grant to develop Shift Sonoma County – a strategic action plan to promote a shift in both the mode and fuel used for personal transportation in Sonoma County. Through this project the agencies are working together with consultants and stakeholders to better define the role of local government in accelerating the transition to low carbon transportation.

This planning effort was identified as the crucial next step towards implementation of the SCTA Comprehensive Transportation Plan, Climate Action 2020, and the regional Plan Bay Area. In order to implement these plans, more information is needed about the state of low carbon transportation, barriers to use, strategies for local government to address those barriers, and the details needed in order to move forward with implementation of those strategies. The emphasis of the planning project is on developing tools and recommendations that can inform future grant applications and investments in programs, policies, government operations, and infrastructure.

Staff from the SCTA and RCPA will jointly provide the attached presentation. It offers an overview of the Shift Sonoma County project, a status update, and an introduction to two interim project deliverables:

- The Draft Bike Share Feasibility Study is posted at: <http://bit.ly/bikesharestudy>.
- Draft Electric Vehicle Infrastructure Siting Framework will be posted at: <http://scta.ca.gov/shift>.

### **Policy Impacts:**

Shift Sonoma County is providing tools for the SCTA, RCPA, and partners to implement measures included in the Comprehensive Transportation Plan and Climate Action 2020.

### **Fiscal Impacts:**

The project was funded by a planning grant of \$868,463 from the Strategic Growth Council that includes budget for SCTA and RCPA personnel and consulting services.

### **Staff Recommendation:**

Information only.



# Shift Sonoma County

A Low Carbon Transportation Action Plan

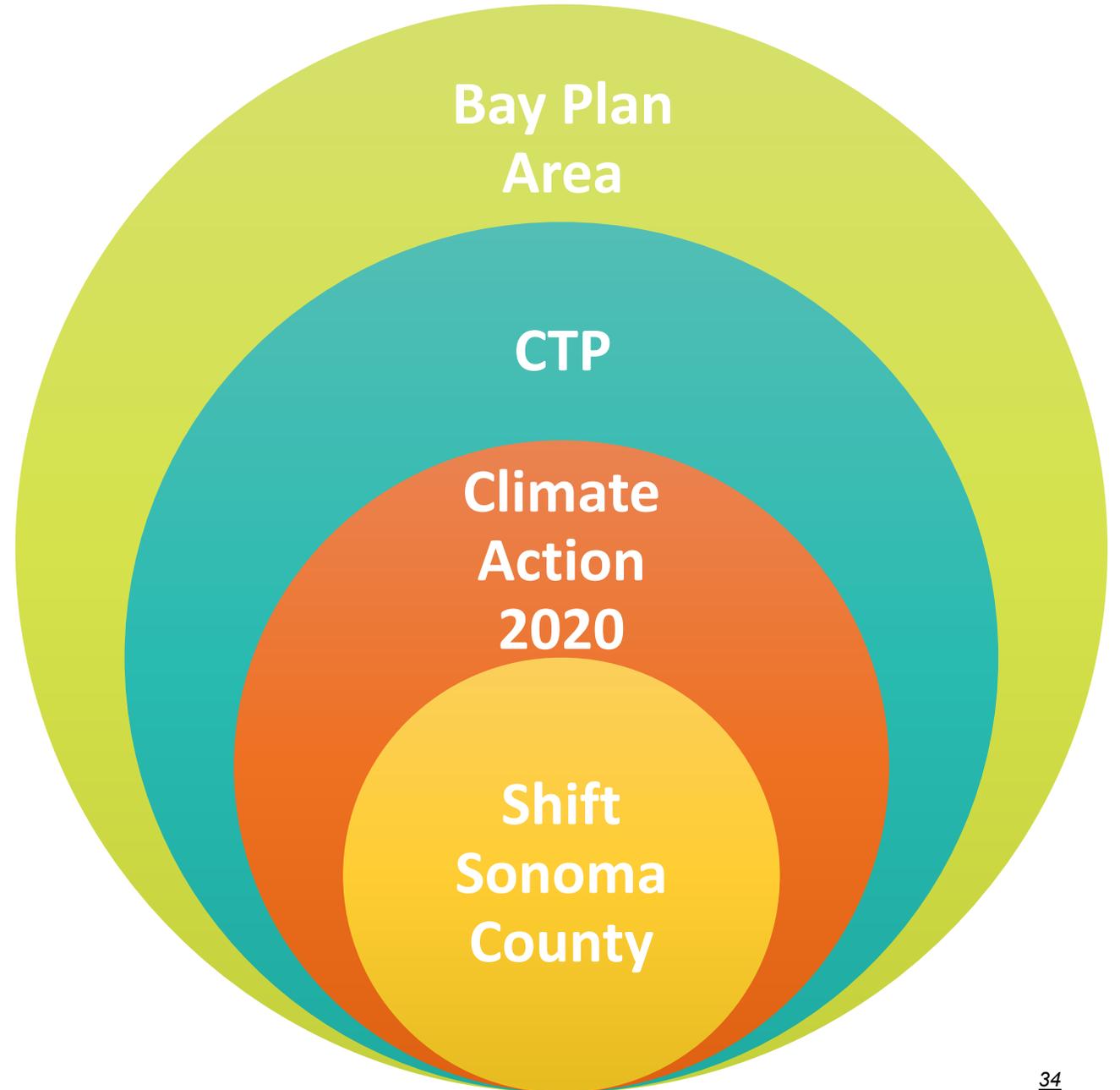
## Project Update

**SCTA/RCPA Board – June 13, 2016**

# Why Shift?

## Put regional and local plans into action to:

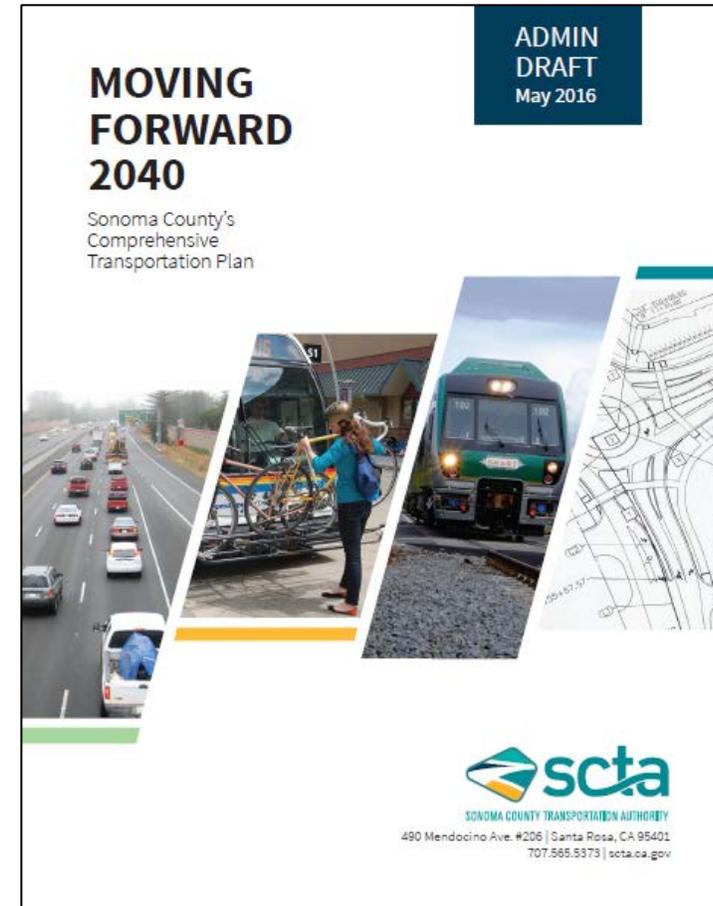
- Reduce vehicle miles traveled (VMT)
- Accelerate use of plug-in electric vehicles (EVs)
- Reduce greenhouse gas emissions (GHGs)



# Comprehensive Transportation Plan

## Goals

1. Maintain the System
2. *Relieve Congestion*
3. *Reduce Greenhouse Gas Emissions*
4. *Plan for Safety and Health*
5. *Promote Economic Vitality*



# Moving Forward 2040: Vision Scenario

## Success depends on:

- **Fuel Economy**

- 55 mpg average by 2040
- *Total EVs over 139,000*

- **Mode Shift**

- SOV trips down by 4%
- Per capita VMT down by 32%
- Maximize our transit system



**Population and Employment Growth** through 2040 located in UGBs and centered on PDAs, maintain current jobs-housing balance with neighboring counties.



**Construct Selected CTP Vision Large Road and Highway Projects.** Examples include HWY 101 HOV lane completion, SMART Pathway, and other highway and large local road projects.

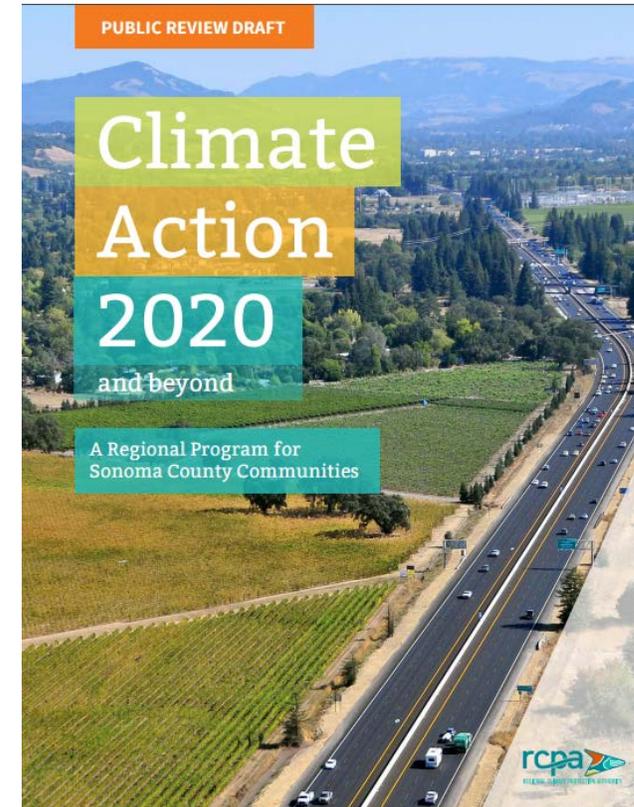


Implement all CTP **Vision Transit Improvements** including headway improvements, rapid bus service, and extended service.

# Climate Action 2020

## Goals

1. Reduce travel demand through focused growth
2. *Shift to low carbon transportation options*
3. *Increase fuel efficiency*
4. *Shift to low carbon transportation fuels*
5. Reduce idling

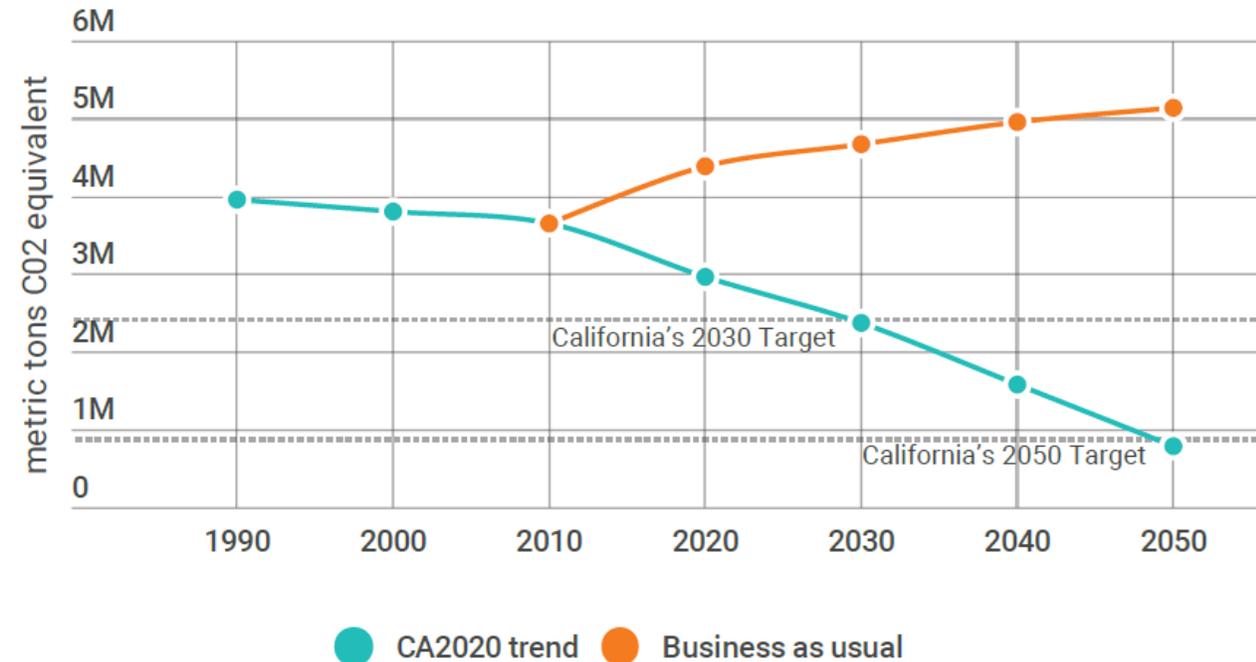


# Climate Action 2020 Strategies

## Success depends on:

- **Focused growth**
  - ~25% of new residential is mixed use, transit oriented
- **Mode Shift**
  - Expansion of: ride-share, bike share, car share, guaranteed ride home, active transportation infrastructure, transit
- **Fuel Shift**
  - Charging stations double
  - EVs up to 10,000

## Business as usual vs. CA2020 trend

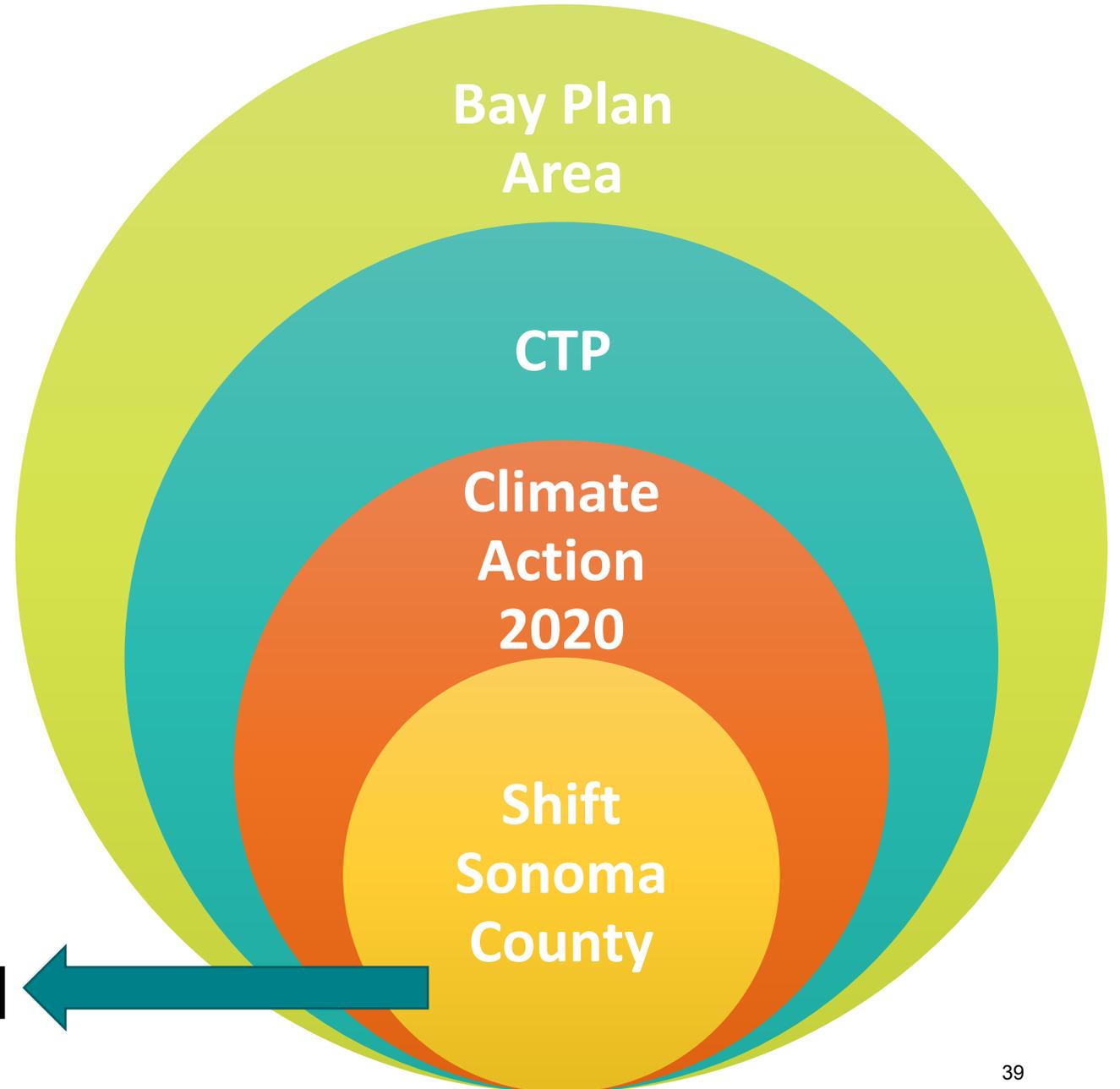


# Why Shift?

## Put regional and local plans into action to:

- Reduce vehicle miles traveled (VMT)
- Accelerate use of plug-in electric vehicles (EVs)
- Reduce greenhouse gas emissions (GHGs)

**TOOLS FOR ACTION**



# Shift Sonoma County Objectives

## **Identify:**

- Infrastructure and service gaps for low-carbon transportation
- Locations, models, and implementation strategies for car share, bike share, and EV charging infrastructure
- Policy and program gaps and key implementation strategies
- Tools needed to support local actions

# Process

Assess needs and gaps



```
graph TD; A[Assess needs and gaps] --> B[Engage experts and community members]; B --> C[Define opportunities]; C --> D[Develop implementation tools];
```

Engage experts and community members

Define opportunities

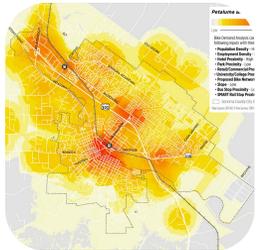
Develop implementation tools

# Work Products

## Mode Shift



*Bike Share Feasibility Study*

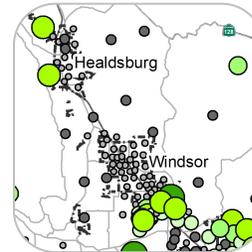


Car Share Feasibility Study



Transportation Demand Management Program Plan

## Fuel Shift



*EV Charging Infrastructure Siting Framework*



Local EV Readiness Policy Toolkit



Updated Guidance for Workplace Charging & EV Fleets

# Community Input

- Website updates
- Transportation survey
- Community meetings
- Committees:
  - SCTA Committees
  - RCPA Coordination Committee
  - Local Government EV Partnership
  - EV Stakeholder Advisory Group



# Preliminary Mode Shift Findings

# Mode Shift Goals: Reduce VMT

- Reduce single occupancy vehicles (SOVs) mode share
- Increase average vehicle occupancy
- Increase transit mode share
- Increase walk and bike commute mode share
- Increase overall walk and bike mode share
- Increase share of children walking and biking to school
- Reduce transportation costs by improving access to alternative modes
- Incent job growth and economic vitality in PDAs through mobility options

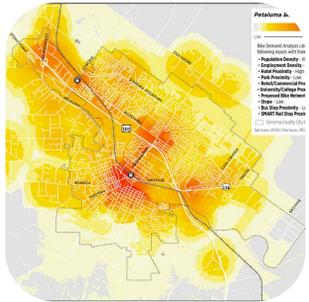
# Barriers to Use of Alternative Transportation

- Suburban and rural **land use** is not conducive
- **Bicycle network** is incomplete – dedicated space for bicyclists (Class I, II, and IV bikeways) is essential for safety and new riders
- **Transit viability** is low without supportive programs, frequent connections, and wide coverage
- **Consumer preference** based on convenience and price keep single occupancy vehicle use high

# High Priority Tools



## *Bike Share Feasibility Study*



## Car Share Feasibility Study



## TDM Program Plan

# Mode Shift Status and Next Steps

Task	Status
Needs Assessment	Mostly complete, prioritization under review
Bike Share Feasibility Study	Draft available
Car Share Feasibility Study	Under development
Transportation Demand Management Program Plan	To be developed
Mode Shift Action Plan	To be developed

# Draft Bike Share Feasibility Study

# What is bike sharing?

- Innovative and flexible public service that provides on-demand access to a network of publicly-rentable bicycles.
- Bike share can provide a solution to the last mile from bus and train
- Bike share systems may allow people to pick up a bicycle from point “A” and drop it off at point “B” stations, or may be stationed at any approved bike rack.
- Bike share systems allow various payment options, including per-minute or hour rental and subscriptions.



# Market Analysis

## POTENTIAL USER MARKETS

Employment centers near dense residential areas and locations immediately surrounding high-volume transit stops such as:

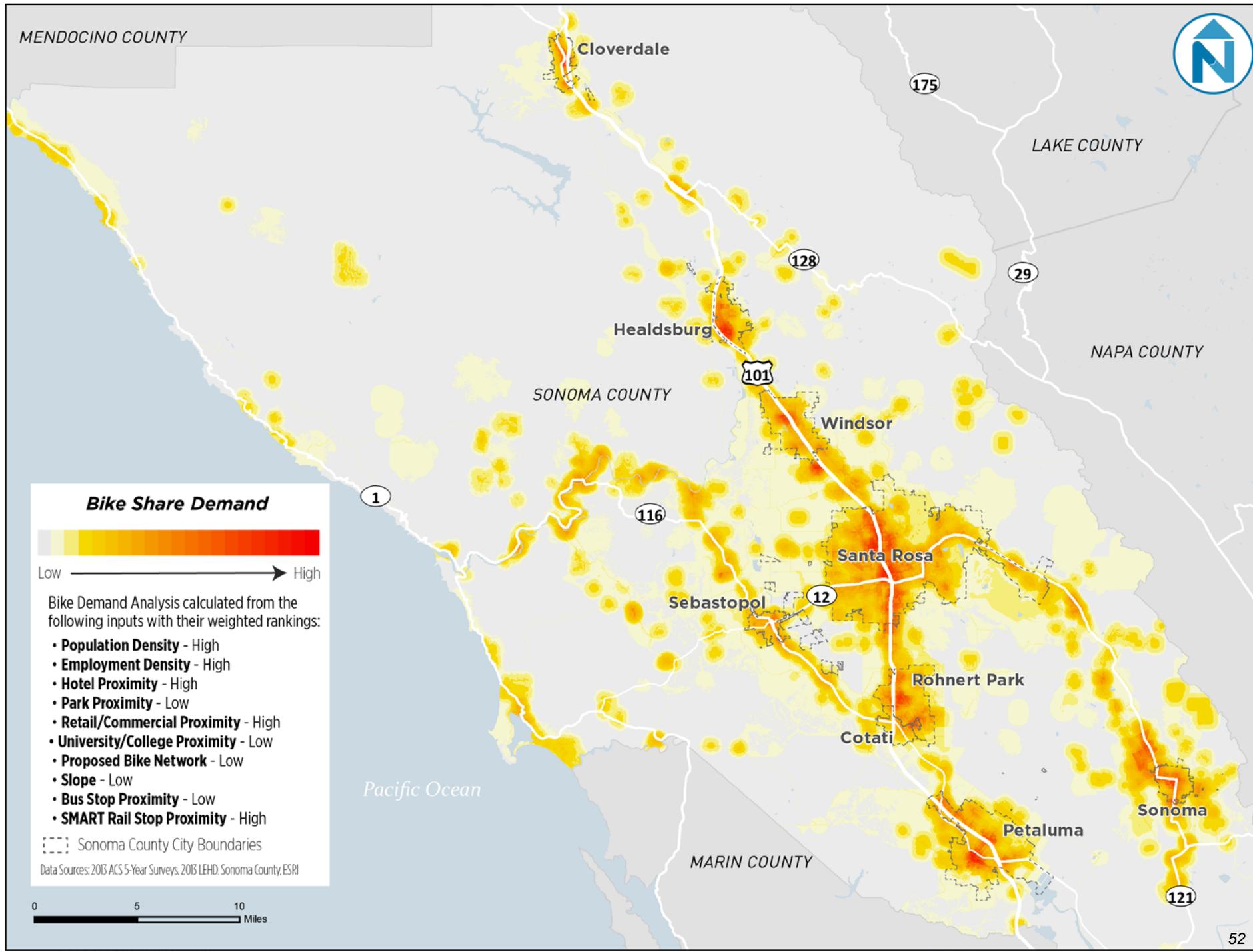
- The Santa Rosa Transit Mall
- SMART Stations, such as in Santa Rosa and Airport Boulevard
- Petaluma River Walk
- Santa Rosa Junior College and Sonoma State University

## DEMAND ANALYSIS CONSIDERATIONS

- Trip patterns
- Trip length
- Disadvantaged communities
- Planned Development Areas
- Population density
- Employment density
- Hotels
- Parks
- Retail/commercial hubs
- Slopes
- Proximity to bus/rail stop
- Universities/Colleges

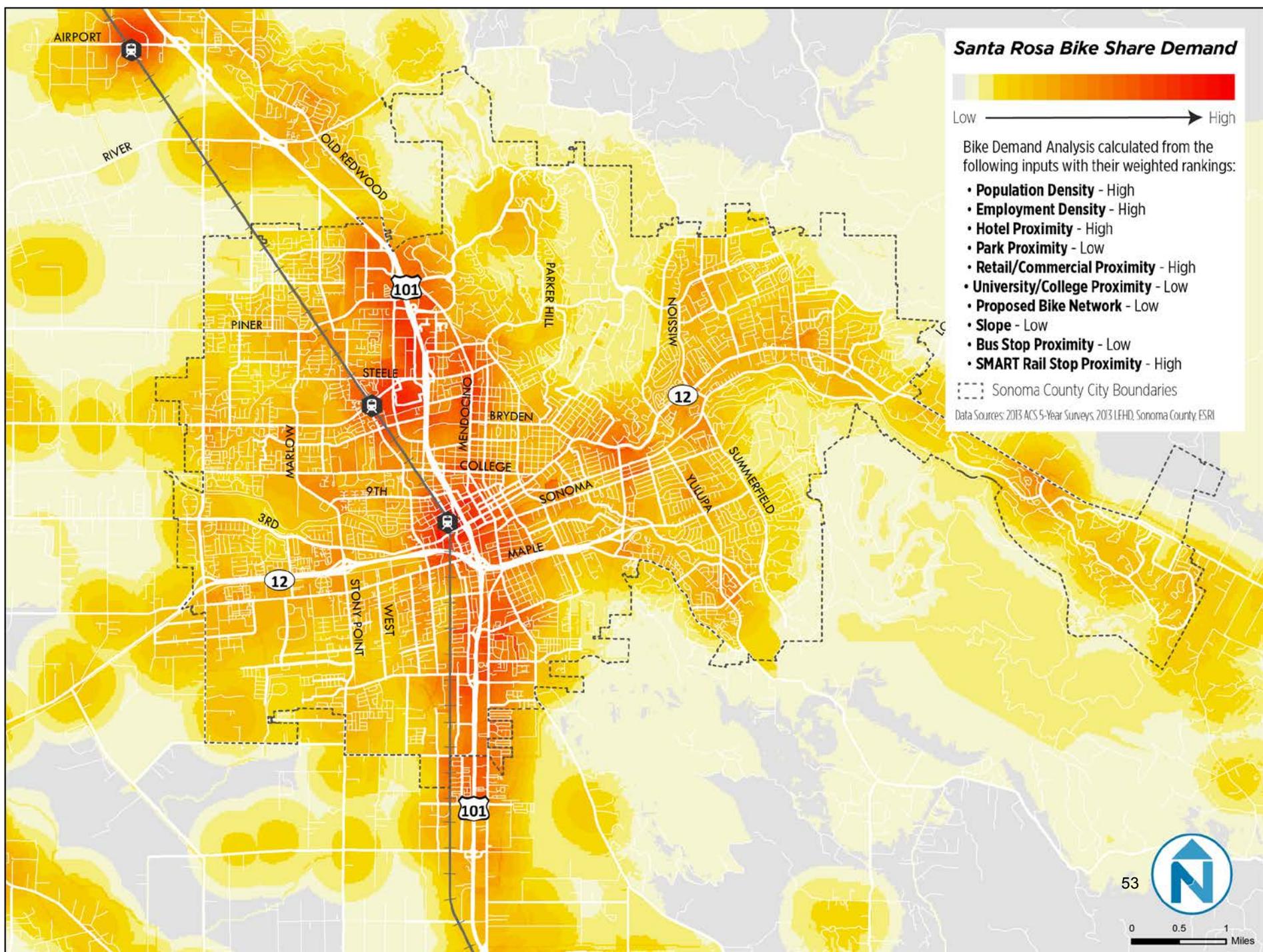
# Countywide Demand

Hotspots concentrated in city centers along Highway 101



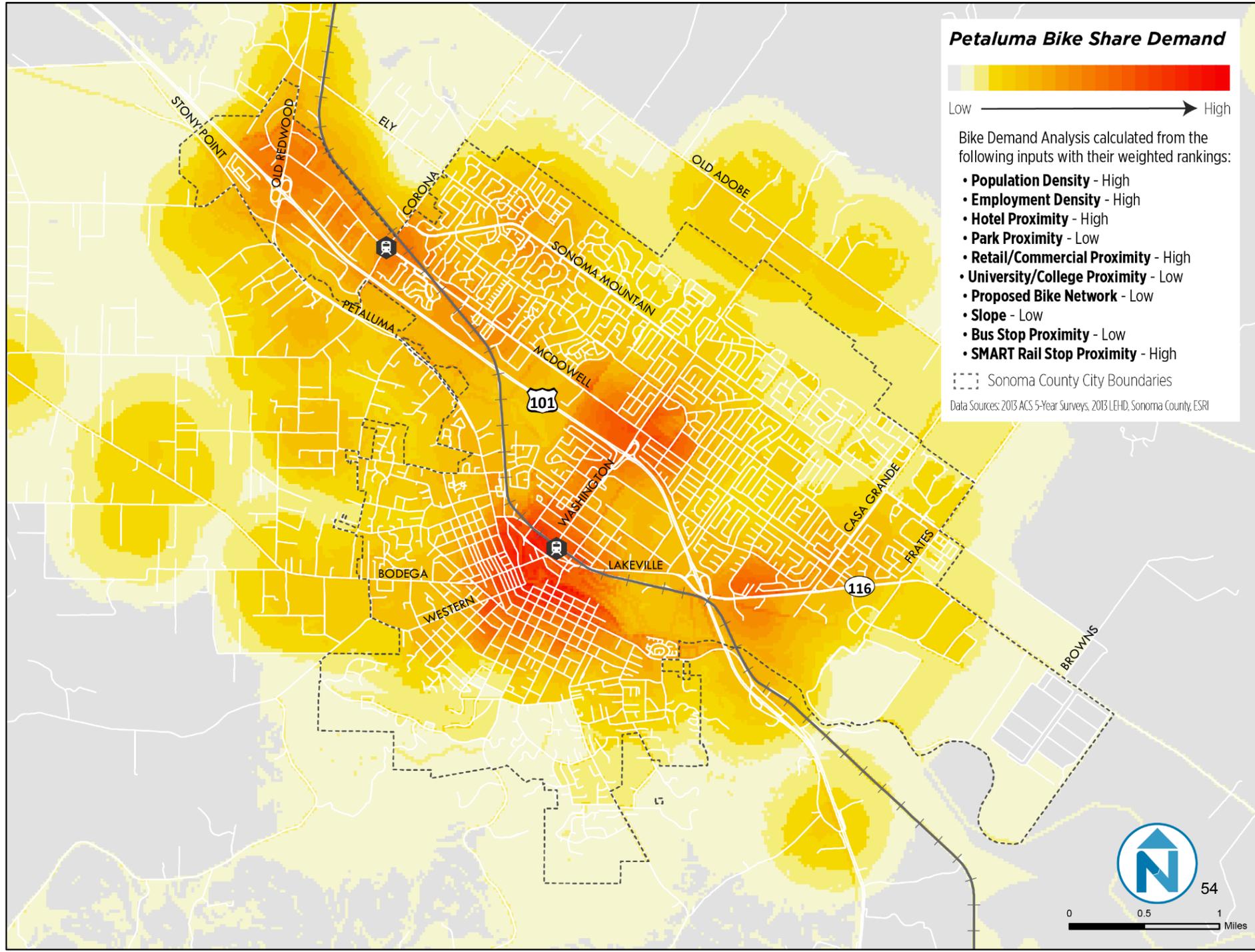
# Santa Rosa Demand

**Hot spots in Downtown, Railroad Square, Santa Rosa Junior College, North Santa Rosa SMART Station area, Airport SMART Station area**



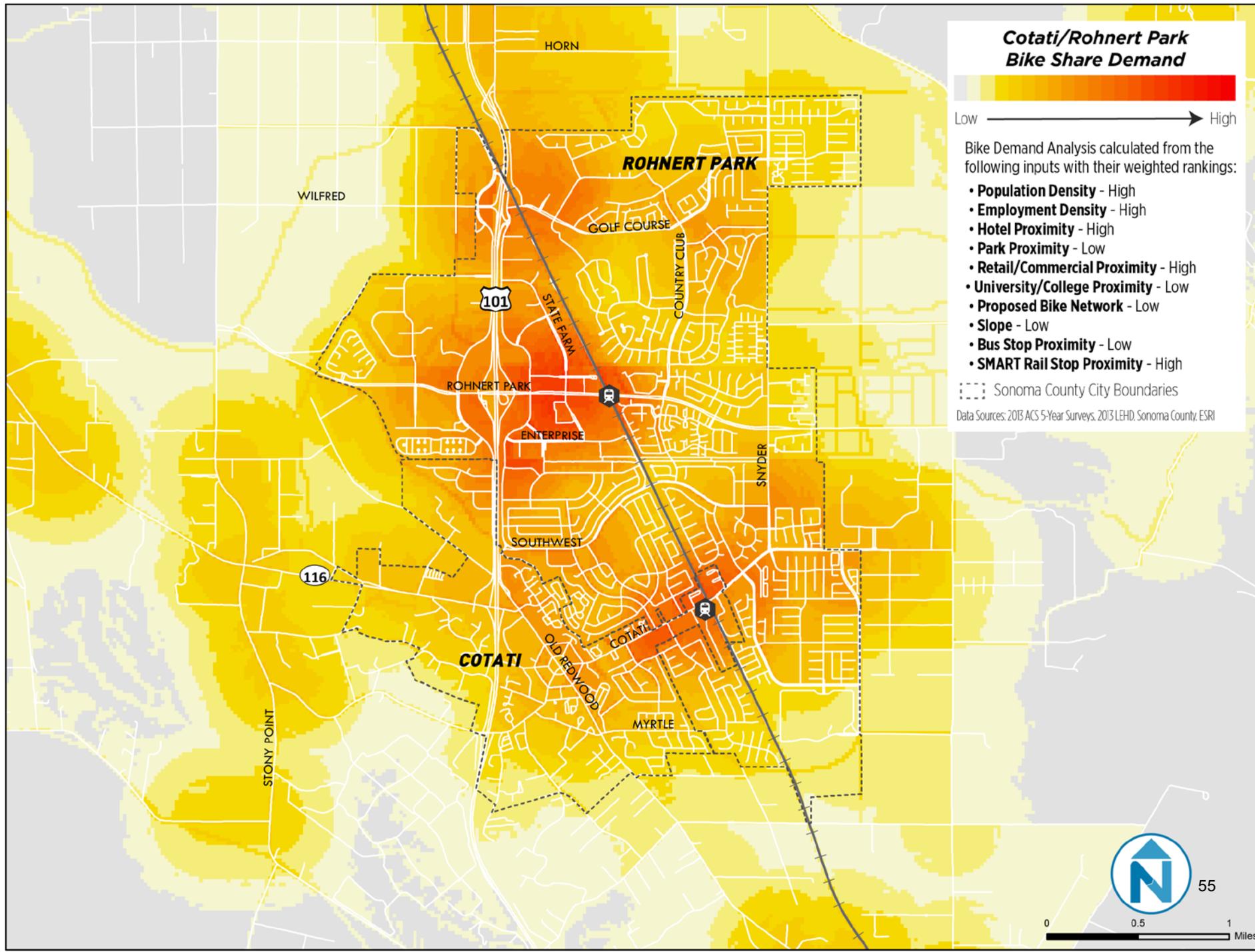
# Petaluma Demand

Hot spot in Downtown areas including Riverwalk, marina, SMART Station, and surrounding residential district



# Cotati / Rohnert Park Demand

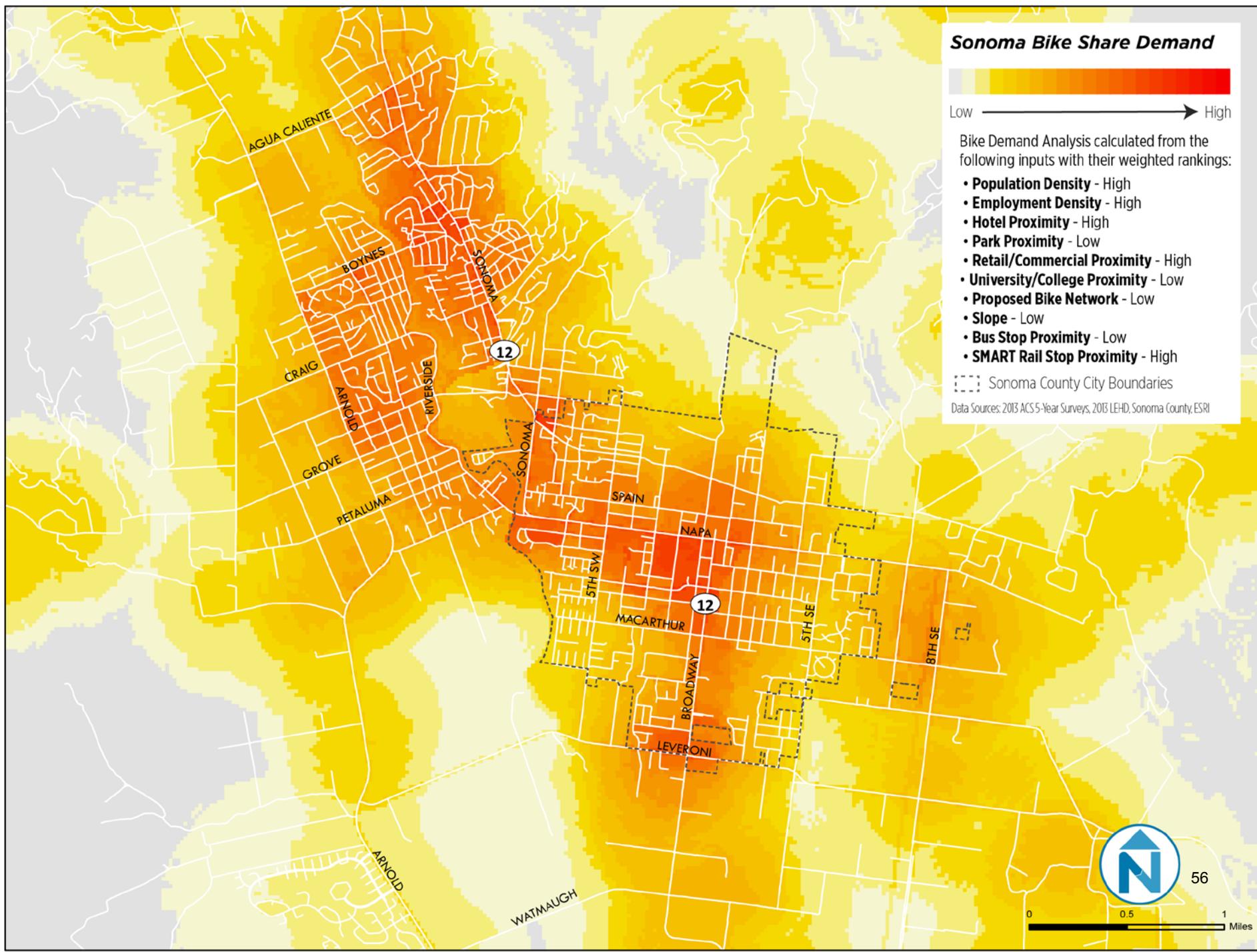
Hot spots around SMART Stations, Sonoma State University



# Sonoma Demand

Example of potential demand in smaller city

Hot spots near downtown, higher-density residential districts, wineries and hotels



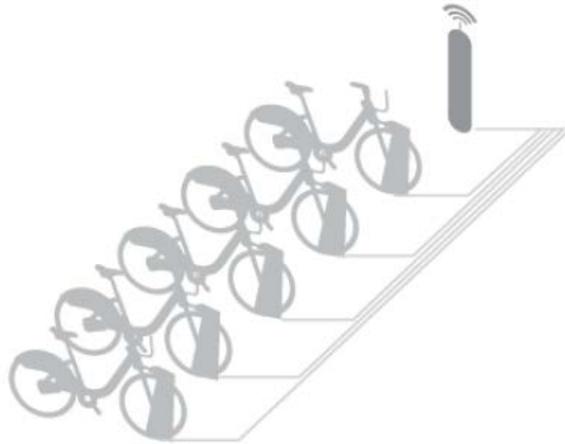
# Site Identification Interactive Map

- <https://goo.gl/SzzJzZ>

# Operating Models

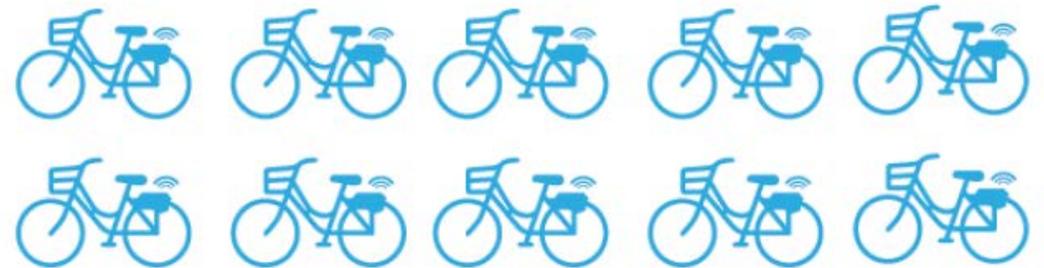
## Dock-based

- Traditional fixed dock system with technology built into the docking station



## Flexible

- Emerging flexible hub system with technology built into the bicycles themselves

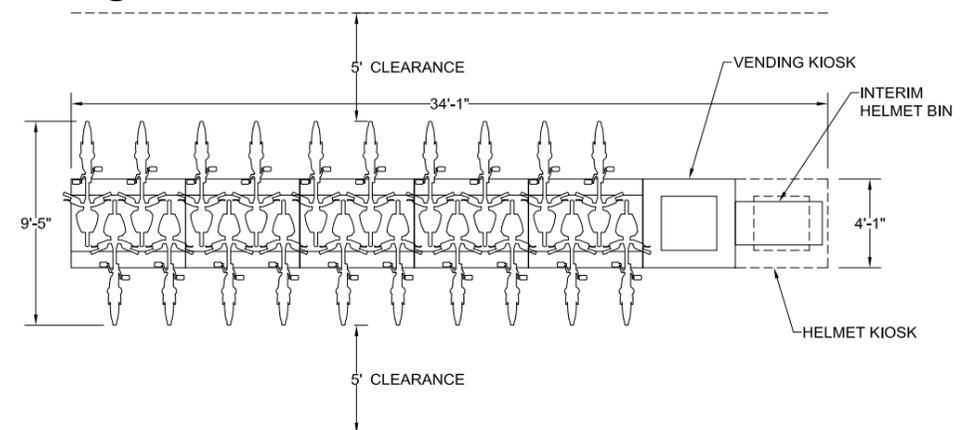


# Station Siting Considerations

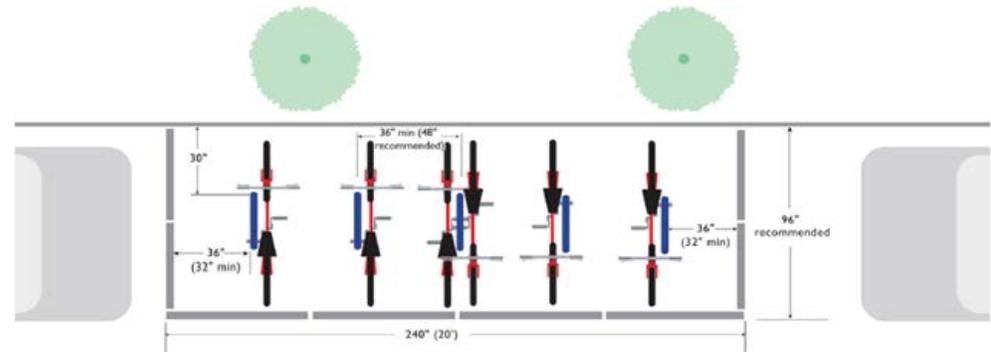
## GENERAL REQUIREMENTS

- Unrestricted access
- Highly visible and well-lit at nighttime
- Must not impede through-travelers on other modes, or other amenities
- Located on relatively flat surface
- Provide adequate clearance from driveways (about 5 feet)

Small Docking Station – 10-20 bikes



Standard Bike Corral for Flexible System – 10 bikes

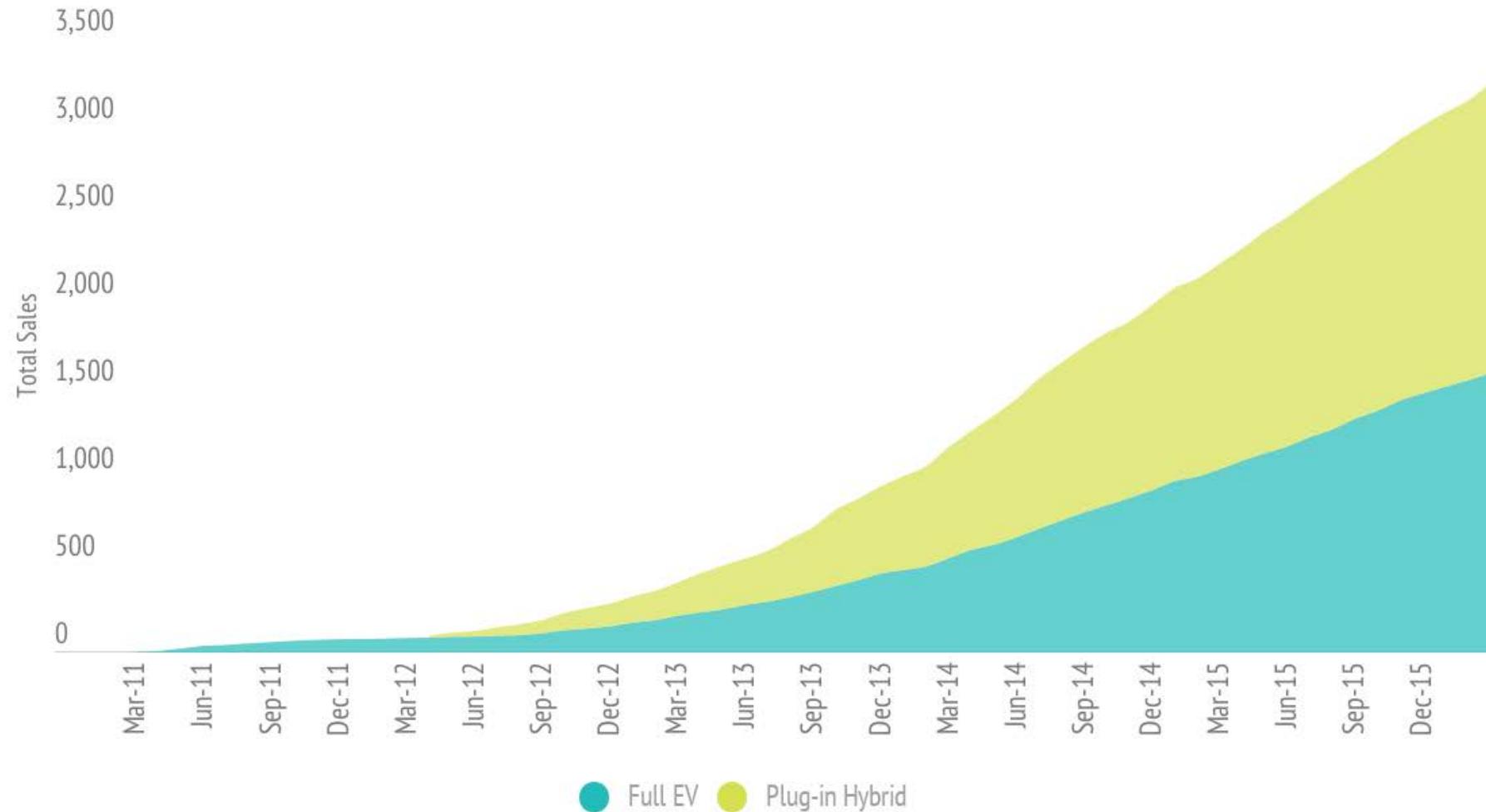


# Recommendations and Next Steps

- Recommend flexible bike share system
- Identify funding, partnership/sponsorship
- Gauge interest from bike share vendors
- Provide incentives for local developers to purchase stations or fund operations (reduced parking requirements)
- Consider mobility hubs at transit centers and in peripheral neighborhoods
- Combine bike share system with other improvements and/or programs
- Consider next steps for vendor and operator solicitation, marketing, siting, costs, etc.

# Preliminary Fuel Shift Findings

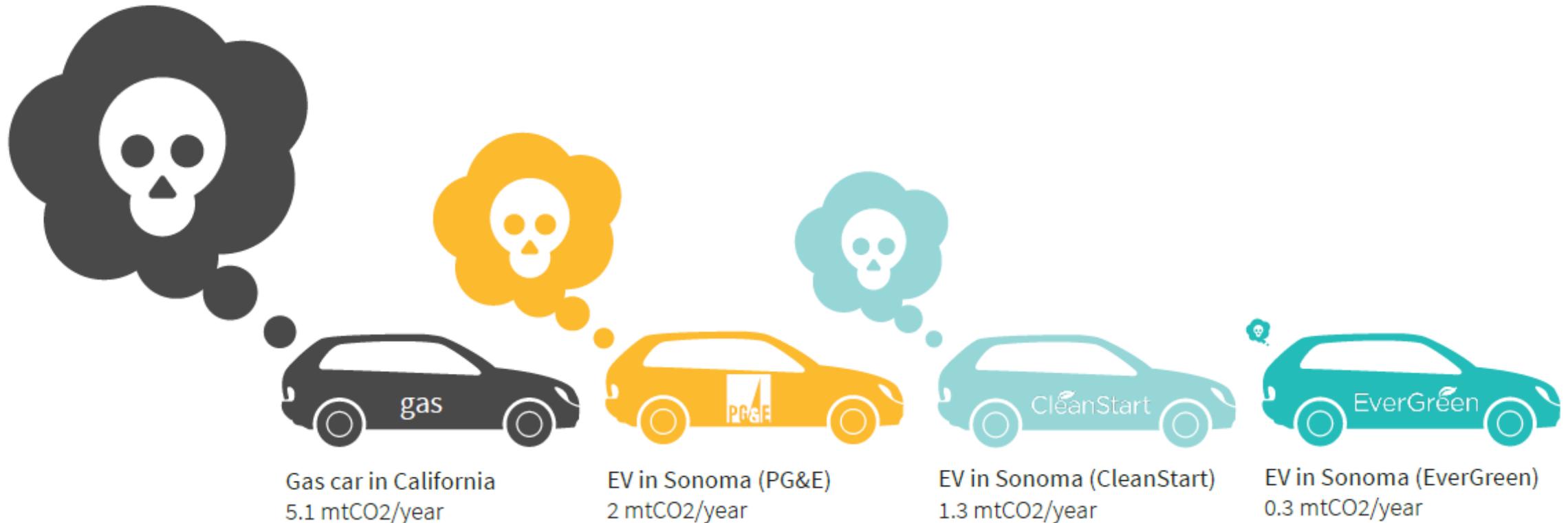
# Goal: 10,000 EVs by 2020



# EVs have BIG GHG impacts

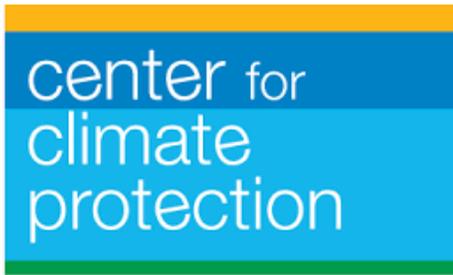
## Annual CO2 emissions from average Sonoma County vehicles

Gas vs. electric vehicle using different power options



# Barriers to Growth in EVs

- **Vehicle cost** is still prohibitive for many drivers
- **Charging infrastructure** availability – at work, home, and along corridors
- Lack of **local government readiness** – supportive plans, policies, processes
- Lack of **consumer awareness** – of technology, benefits, and real vs. perceived risks
- Unmet potential in **fleets**
- Complexities associated with **installing and managing charging stations**



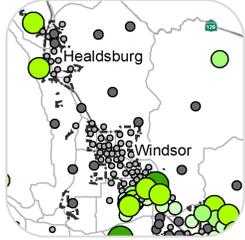
# Drive EverGreen

Sonoma County Collaboration to:

- Put **10,000 EVs** on the road by 2020
- **Reduce petroleum use by 50%** by 2030
- Make EVs more convenient, visible, and available to all drivers
- Integrate vehicles with the grid



## Shift focus on local: High Priority Tools



*Charging Infrastructure Siting Framework*



Local Government Readiness Toolkit



Local Guidance for Electrifying Fleets



Local Guidance for Workplace Charging

# Fuel Shift Status and Next Steps

Task	Status
Needs Assessment – stakeholder surveys	Mostly complete; a few interviews outstanding
Local opportunity identification	Complete
Communitywide Infrastructure Framework	Draft available, under partner review
Local Government Readiness Toolkit	Status update and recommendations under development
Local Guidance for Electrifying Fleets	Under development
Local Guidance for Workplace Charging	Under development
Fuel Shift Action Plan	To be developed

# Draft EV Infrastructure Siting Framework

# Types of charging

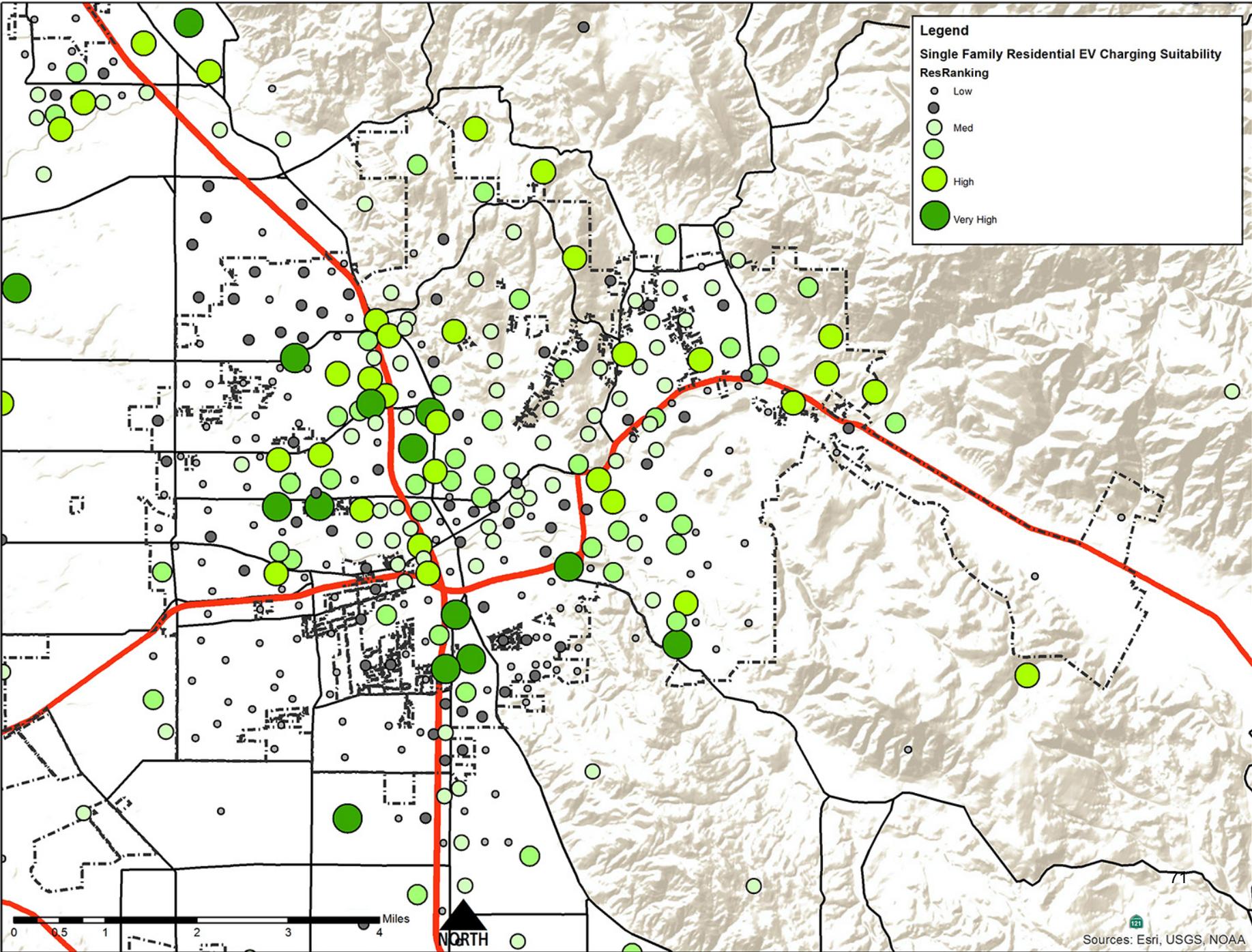
**Level 1:** EVs come with a cordset that plugs into a standard 110/120-volt AC three-prong wall outlet. It's often good enough for EVs that are parked at home or work for 8 hours/day.

**Level 2:** Uses 240-volt AC current and should be installed on a dedicated circuit by an electrician. Often used for EVs with larger batteries or plug-in hybrids that need a quick charge.

**DC Fast Charge:** Uses 440-volt or 480-volt devices with direct current (DC). Provides 50-64 miles of range for 30 minutes of charge. No PHEVs on the market use DC Fast Chargers and many BEVs come without this option.

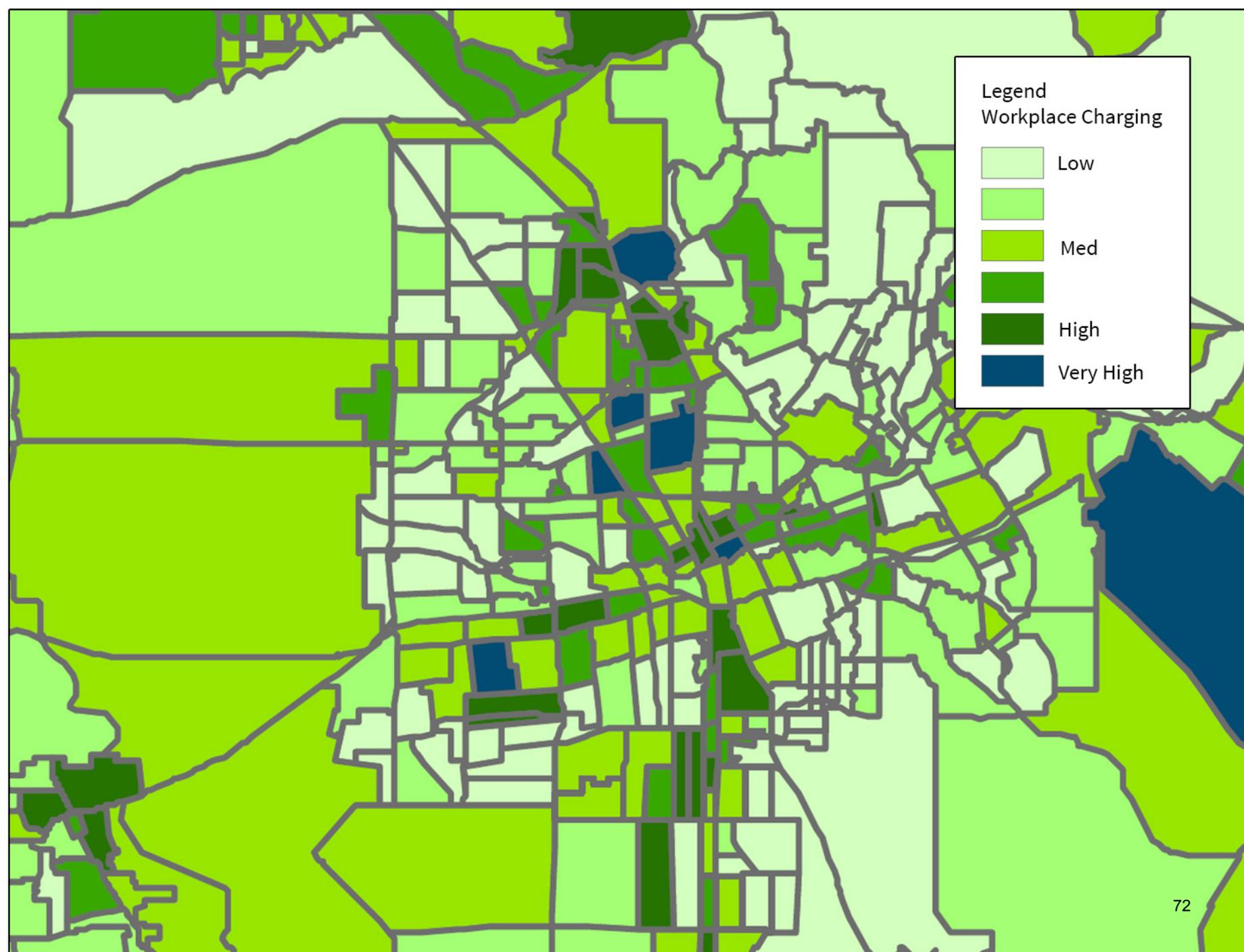
# Residential Charging

This map shows the likelihood of single family households acquiring an EV and needing home charging based on income, hybrid ownership, property ownership and housing type.



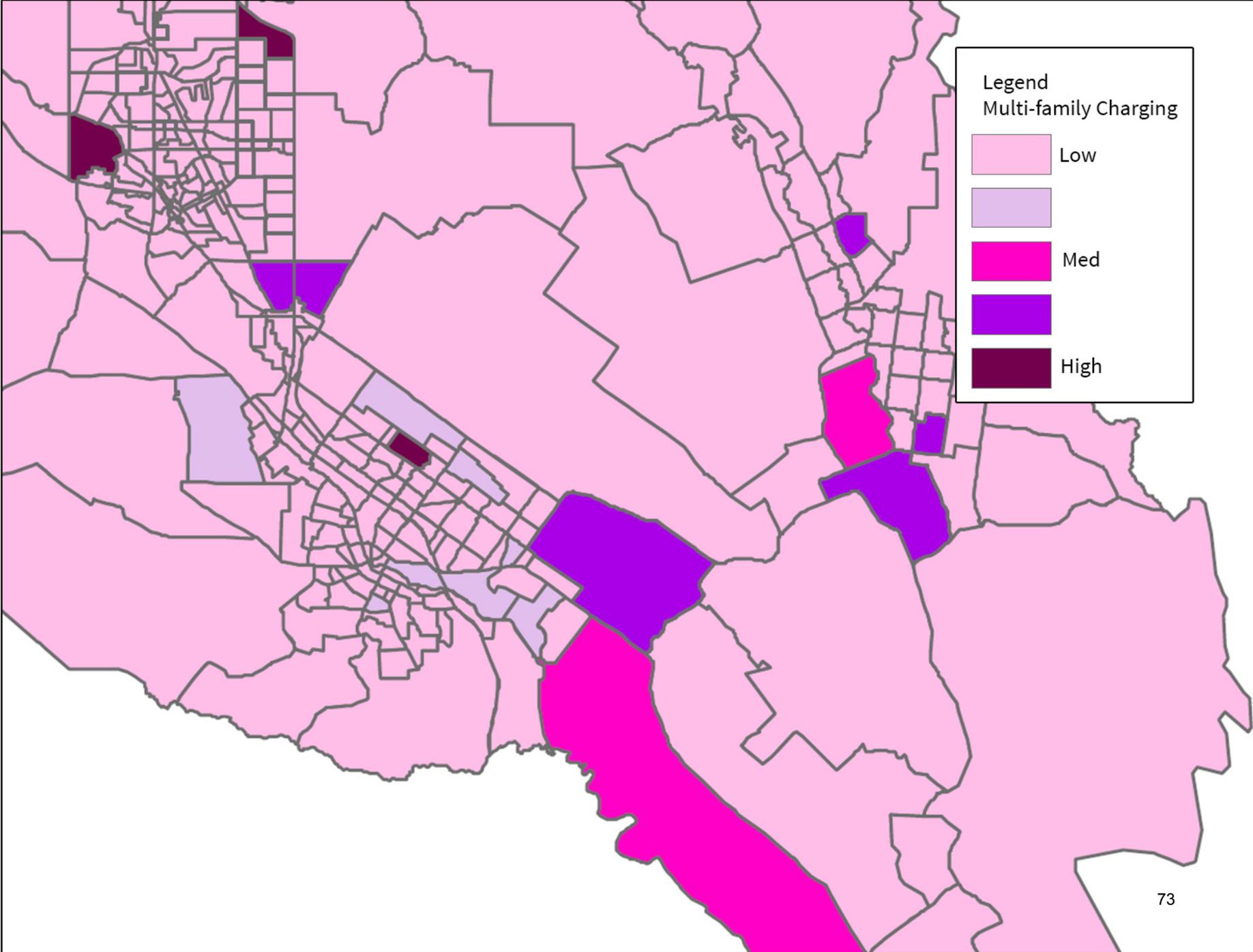
# Workplace Charging

This map starts with the data for residential charging and looks at corresponding work trips from the travel model. This shows areas with the most likely workplace charging needs.



# Multi-family Charging

This map filters for areas with high multi-family ownership and highlights areas with above median income, above median hybrid ownership, and a high share of multi-family dwellings (instead of a higher rate of single family units).



# Thank you

Questions?