



# Carlsbad TOMORROW

Growth Management Citizens Committee

Meeting 5  
July 28, 2022





# Call to Order & Roll Call

# Approval of Minutes

# Public Comment





# Welcome & Introductions

Carlsbad  
TOMORROW 

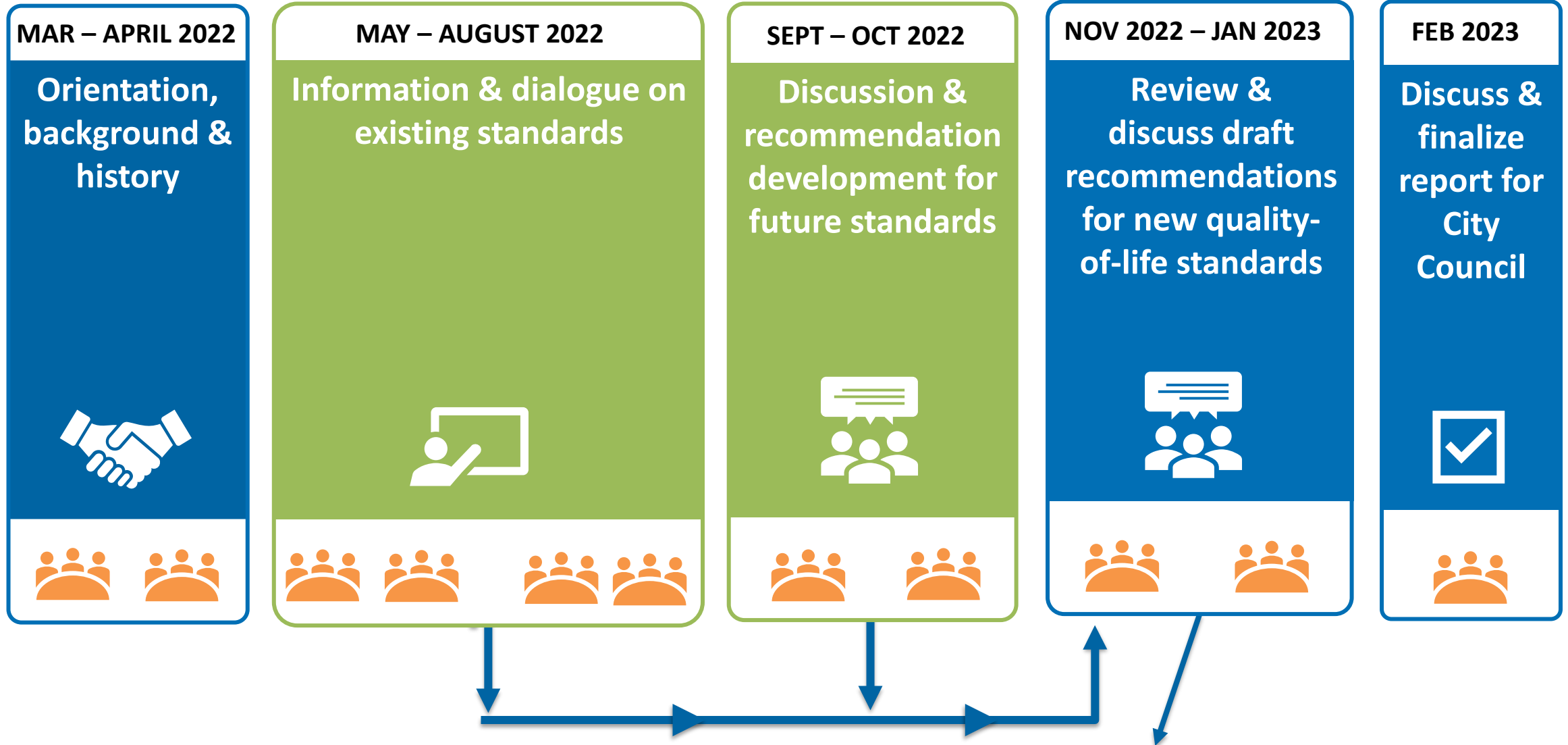
## COMMITTEE PURPOSE

Promote balanced consideration of a range of perspectives on issues affecting the future growth and quality of life in Carlsbad and identify the key elements of a new plan to manage growth in Carlsbad in a way that maintains an excellent quality of life while also complying with state law.

# 11 PERFORMANCE STANDARDS

- City Administrative Facilities
- Libraries
- Parks
- Drainage
- Circulation
- Fire Response
- Open Space
- Sewer Collection System
- Schools
- Water Distribution System
- Wastewater Treatment

# COMMITTEE PROCESS



Committee meetings are open to the public and livestreamed.

Draft recommendations available for public review



# TODAY'S AGENDA

## Discussion Items

- Committee business
  - Fire performance standard
- SANDAG Presentation – Population statistics and trends
- Committee business
  - “Committee housekeeping”
  - Circulation performance standard
- Committee member requests for future agenda items
- Public comment (continued if needed)
- Adjourn





# 1. Committee Business



# Fire Performance Standard

Carlsbad  
TOMORROW 



## FIRE PERFORMANCE STANDARD

No more than 1,500 dwelling units outside of a five-minute response time.



## INTENT OF FIRE STANDARD



- Distribute fire stations based on response distance
- Consistent with best practices when standard established in 1986
- Allows up to 1,500 homes outside 5-minute reach



# FIRE STANDARD COMPLIANCE



- No more than 1,500 homes outside 5-minute response – today and planned buildout

Fire Station #	Homes outside 5 minutes at buildout
1, 3 & 4	1,227
2	902
5	392
6	1,185



## CONCERNS WITH CURRENT STANDARD

- Sole focus is on geographic location of stations
- Does not measure performance
- Does not factor in call volume or call saturation

# OPTIONS AND CONSIDERATIONS



- Should Fire be included in Growth Management Plan?
- Adopt complete performance measures to aid deployment planning and to monitor performance
- Measures of time should be designed to:
  - Deliver outcomes that save patients when possible
  - Keep small serious fires from becoming more serious



# MEDICAL EMERGENCIES & SMALL FIRES



Treat pre-hospital **medical emergencies** and control **small fires**:

- First-due unit should arrive within 7.5 minutes. 90% of the time from receipt of 9-1-1 call at fire dispatch
  - 90-second dispatch time
  - 2-minute company turnout time
  - 4-minute travel time

\*Medical emergencies will be determined by the national dispatch criteria for determinant dispatching and will consist of “Echo” level calls.

# MULTIPLE-UNIT EFFECTIVE RESPONSE FORCE



Multiple-Unit Effective Response Force should arrive within 11.5 minutes. 90% of the time from the receipt of the 9-1-1 call at fire dispatch to:

- Confine **building fires** near the room of origin
- Keep **vegetation fires** under five acres in size
- Extricate **trapped victims** within 30 minutes
- Treat **multiple medical patients** at a single incident

# HAZARDOUS MATERIALS RESPONSE



The fundamental mission of the Department's **Haz-Mat** response is to isolate the hazard, deny entry into the hazard zone, and notify appropriate officials/resources to minimize impacts on the community.

- First-due unit should arrive within 7.5 minutes. 90% of the time from the receipt of the 9-1-1 call at fire dispatch.
- Provide initial hazard evaluation and/or mitigation actions
- Determination can be made whether to request additional resources from the regional hazardous materials team

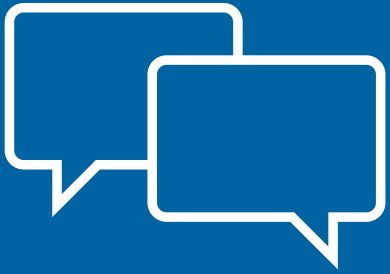
# TECHNICAL RESCUE RESPONSE



Respond to **technical rescue** emergencies as efficiently and effectively as possible with enough trained personnel to facilitate a successful rescue

- First-due total response time of 7.5 minutes. 90% of the time from the receipt of the 9-1-1 call at fire dispatch to:
  - Evaluate the situation and/or initiate rescue actions.
  - Assemble additional resources as needed within a total response time of 11.5 minutes. 90% of the time from the receipt of the 9-1-1 call at fire dispatch
  - Safely complete rescue/extrication and provide medical transport

# DISCUSSION QUESTIONS



- Is this standard important to quality of life in Carlsbad?
- Should this standard be re-evaluated in any way?



## 2. Presentation: Population Stats and Trends



# Regional Economic Update

City of Carlsbad

Presented by  
Marcia Smith, Associate Economic Research Analyst  
July 28, 2022

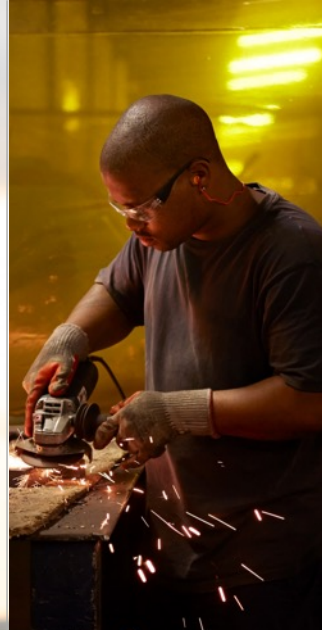
# San Diego Region

## Continued growth



### Population

Annual growth rate is less than 0.5% for the region of 3.4 million. Peak of 3.6 million forecasted for 2055.



### Jobs

Slowing growth of a diversified and balanced economy.



### Housing

More than 10,000 homes were built in 2021 – a 15-year high but still well short of demand.

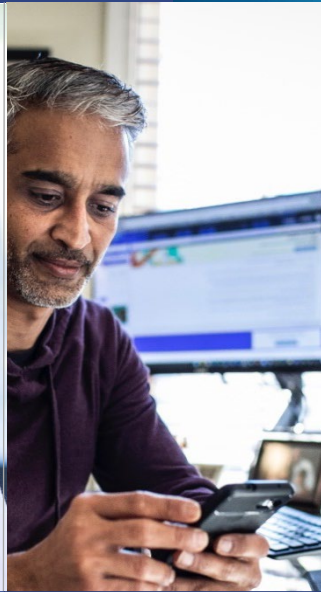


# How Does Carlsbad Compare?



## Population

- **115,585** persons (2022)<sup>1</sup>  
3.5% of regional population
- **0.2%** annual growth rate  
2016-2050<sup>2</sup>
- **120,313** forecasted for 2050<sup>2</sup>



## Jobs

- **81,507** jobs (2020)<sup>2</sup>  
4.7% of regional jobs
- **1.1%** annual growth rate  
2016-2050<sup>2</sup>
- **103,979** forecasted for 2050<sup>2</sup>



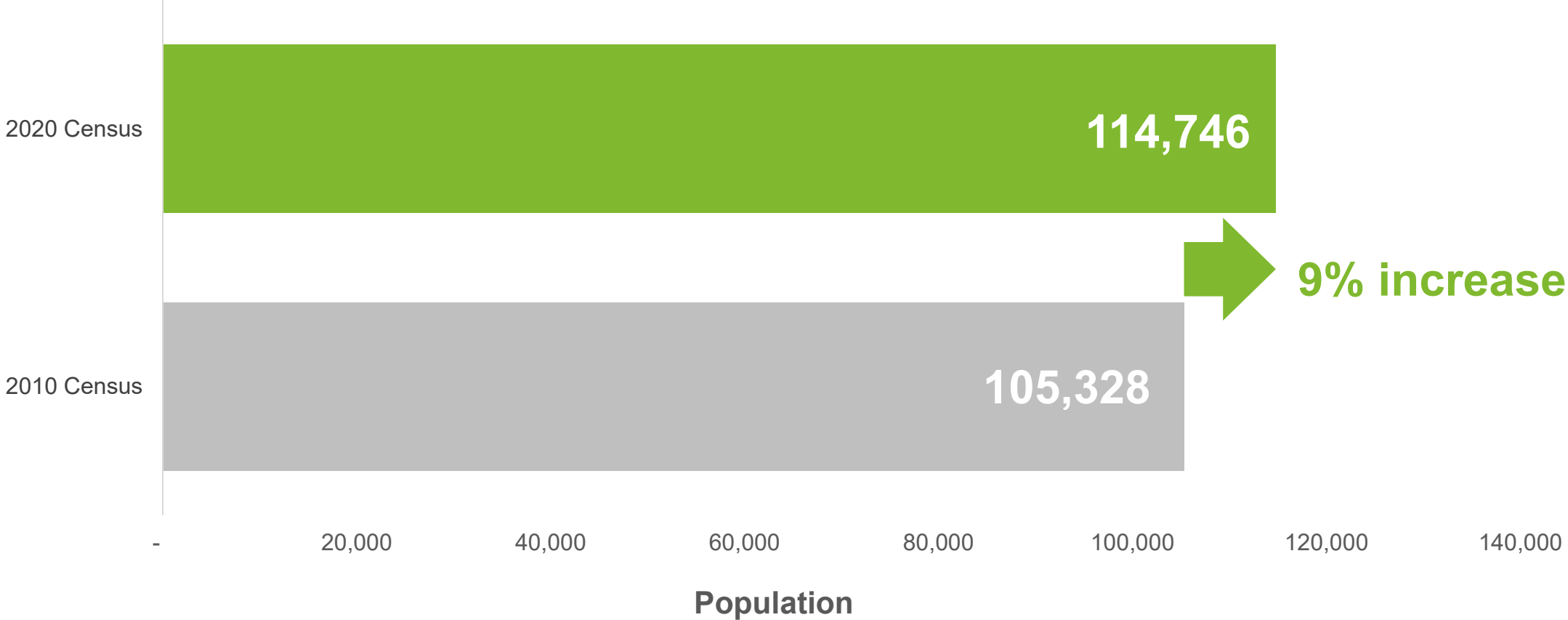
## Housing

- **47,734** units (2020)<sup>3</sup>  
3.9% of regional housing
- **0.4%** annual growth rate  
2016-2050<sup>2</sup>
- **52,494** forecasted for 2050<sup>2</sup>

# Population

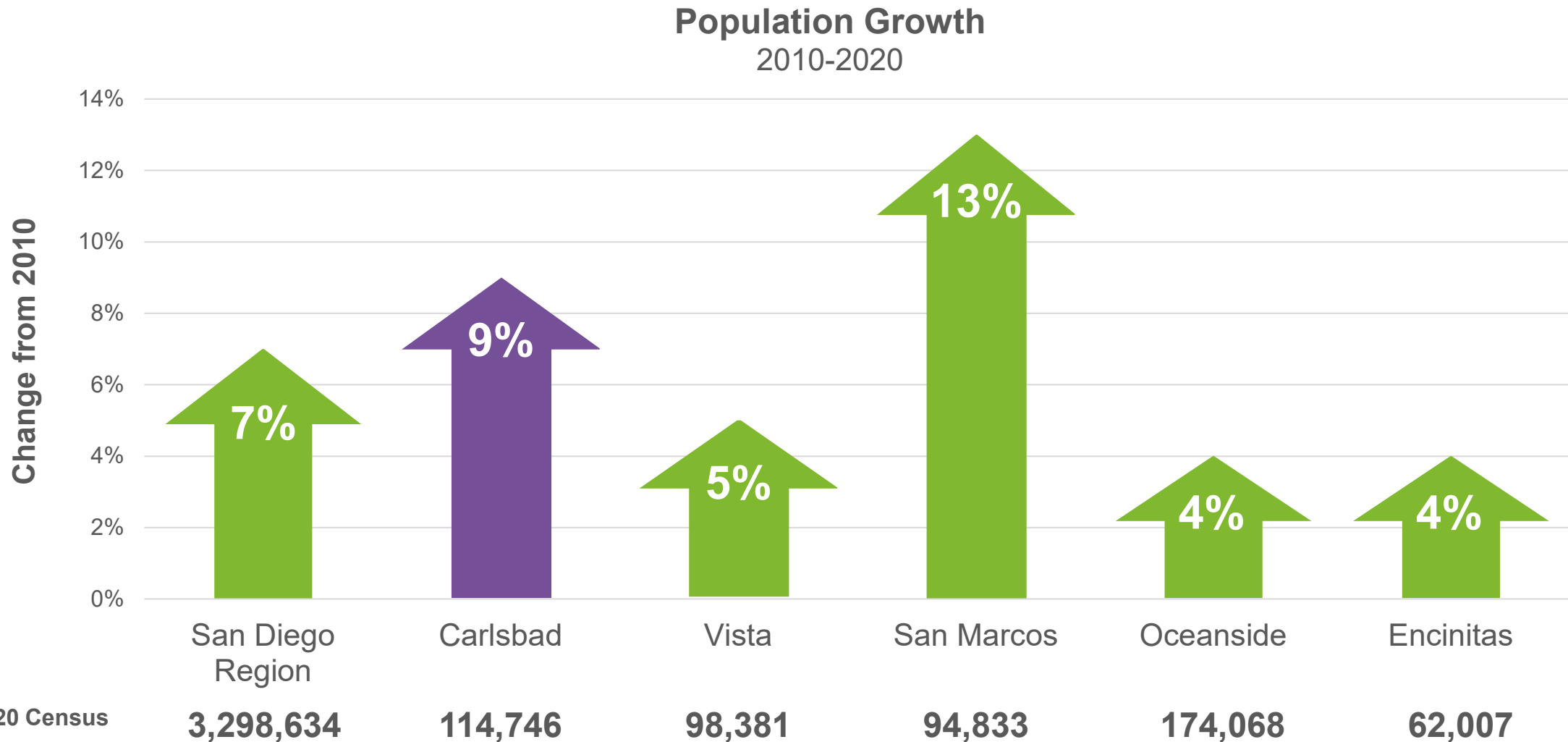
# A Decade of Growth

Carlsbad Population  
2010 and 2020



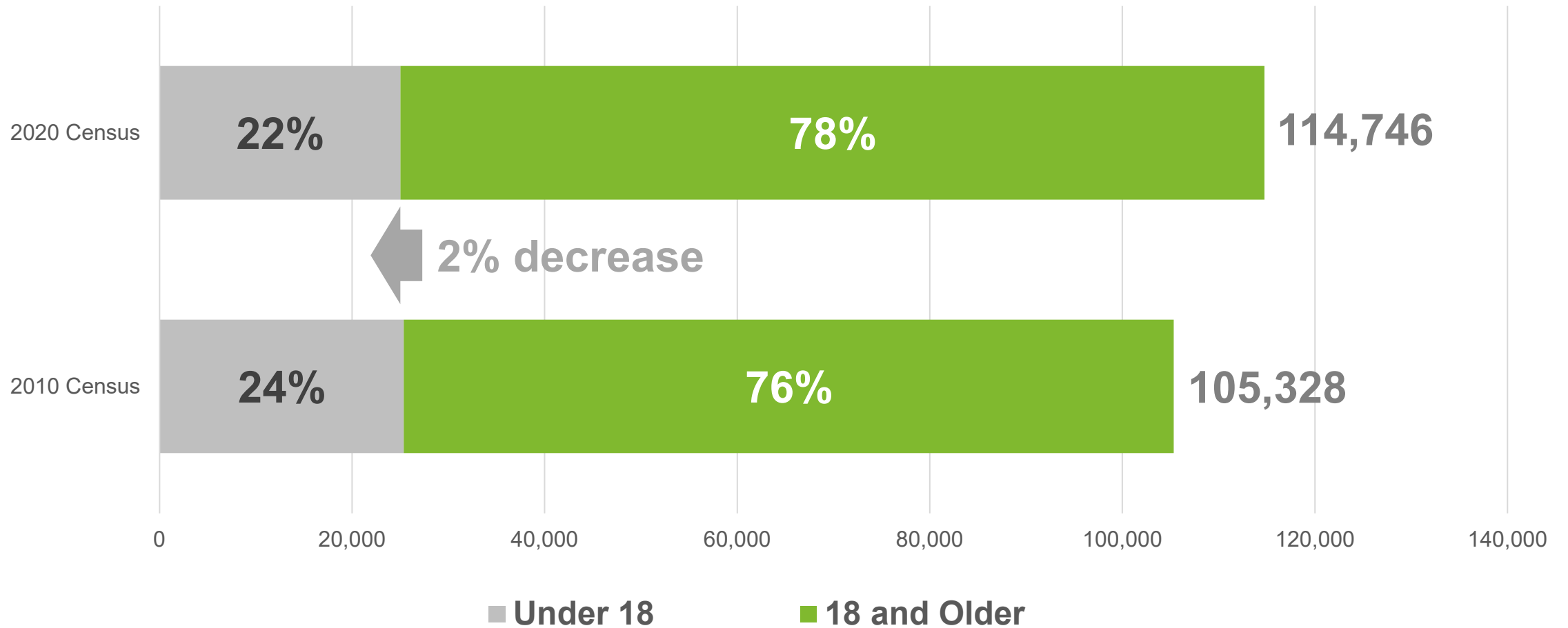
Source: 2010 Census and 2020 Census

# Population Gains: Comparing Carlsbad



# The Aging Population

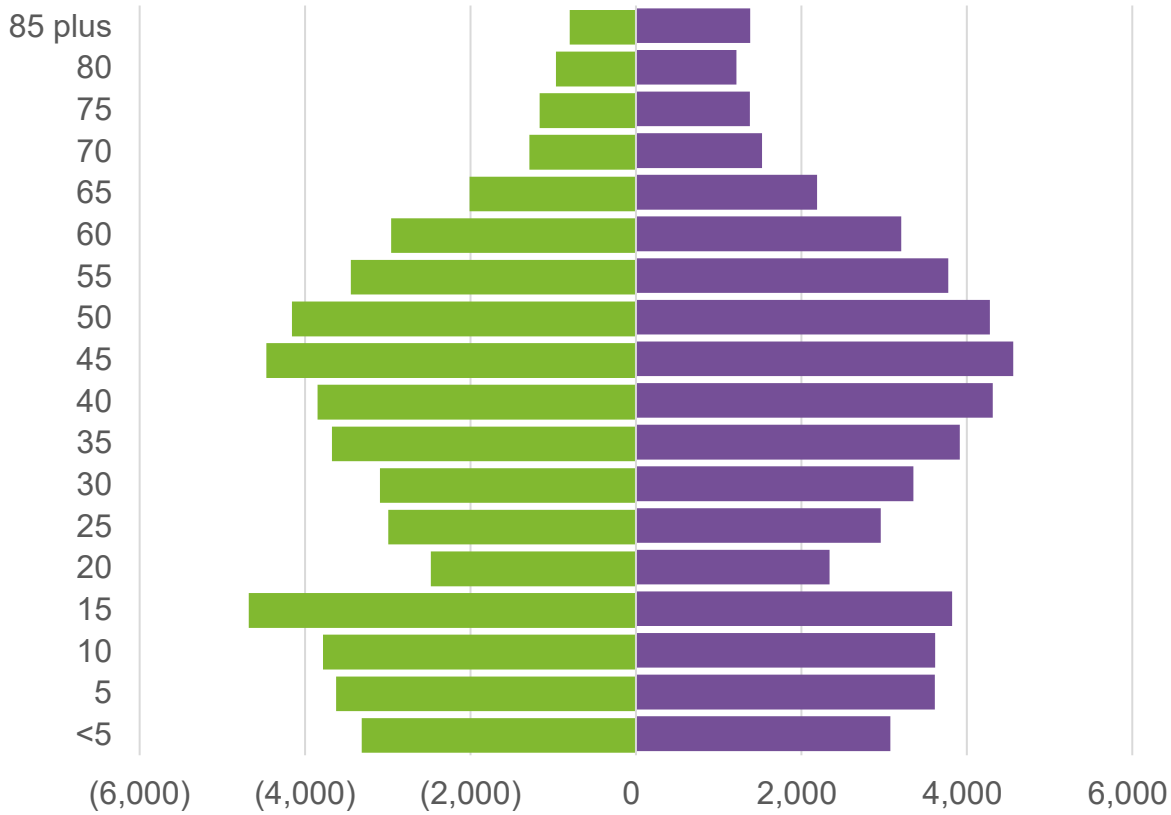
Population by Age Category  
2010 and 2020



Source: 2010 Census and 2020 Census

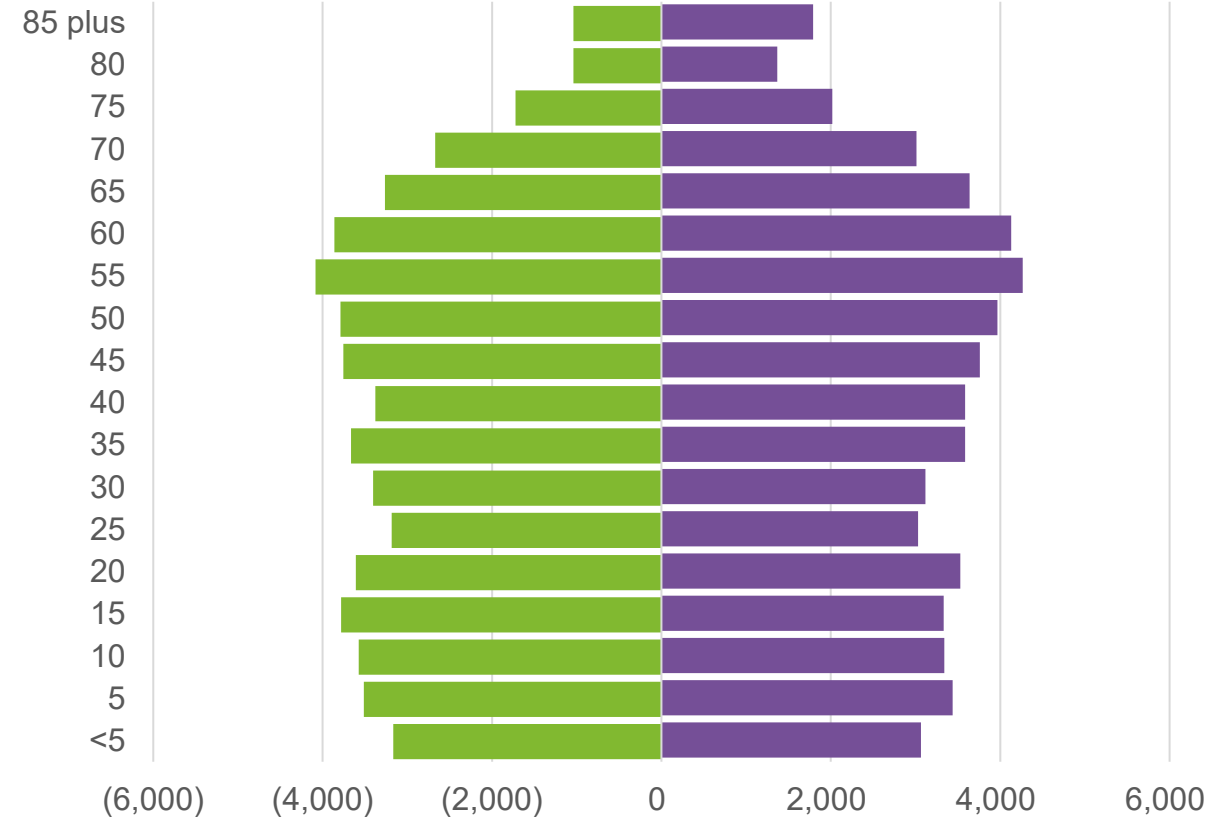
# Population Pyramids: Carlsbad 2010 and 2020

**Carlsbad 2010 Population**  
(107,257)



■ Male ■ Female

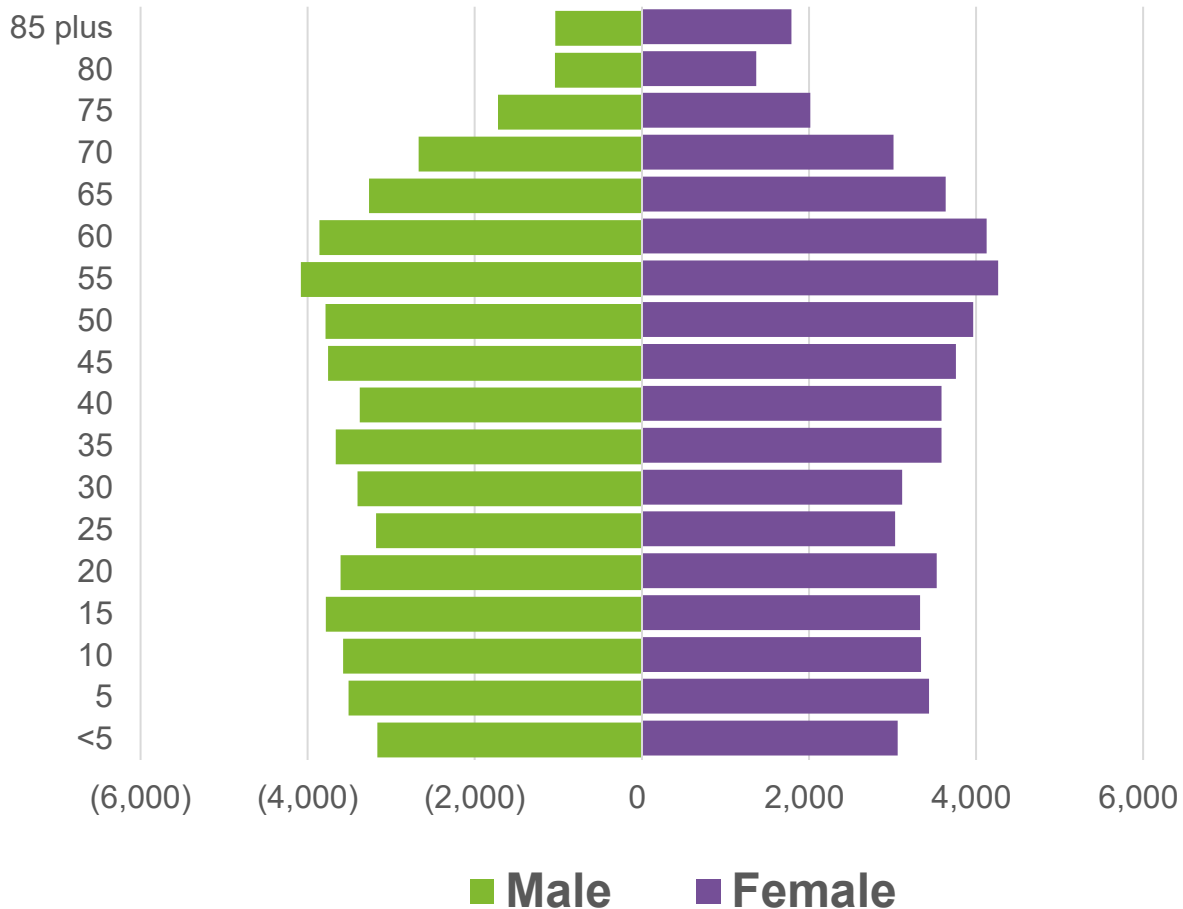
**Carlsbad 2020 Population**  
(114,463)



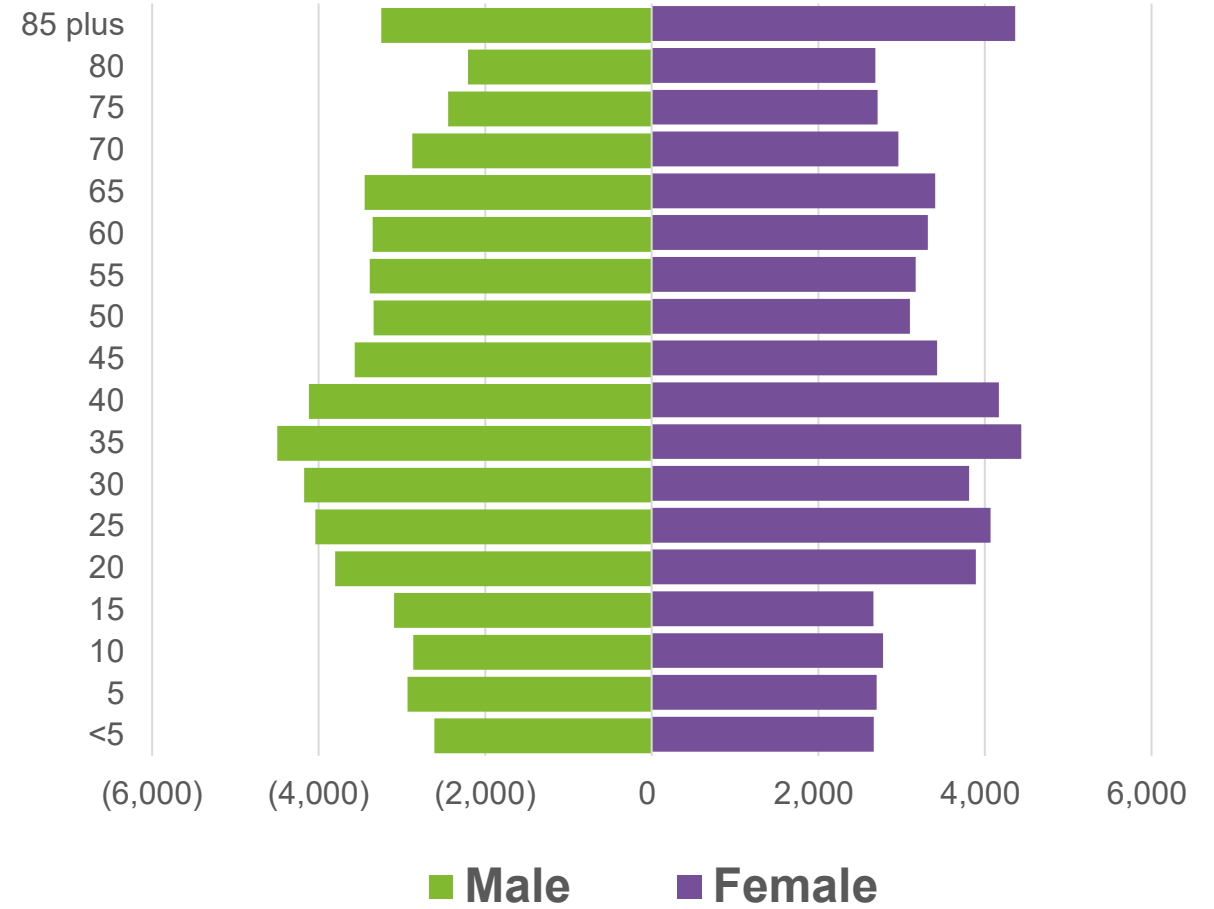
■ Male ■ Female

# Population Forecast: Carlsbad 2020 and 2050

**Carlsbad 2020 Population**  
(114,463)

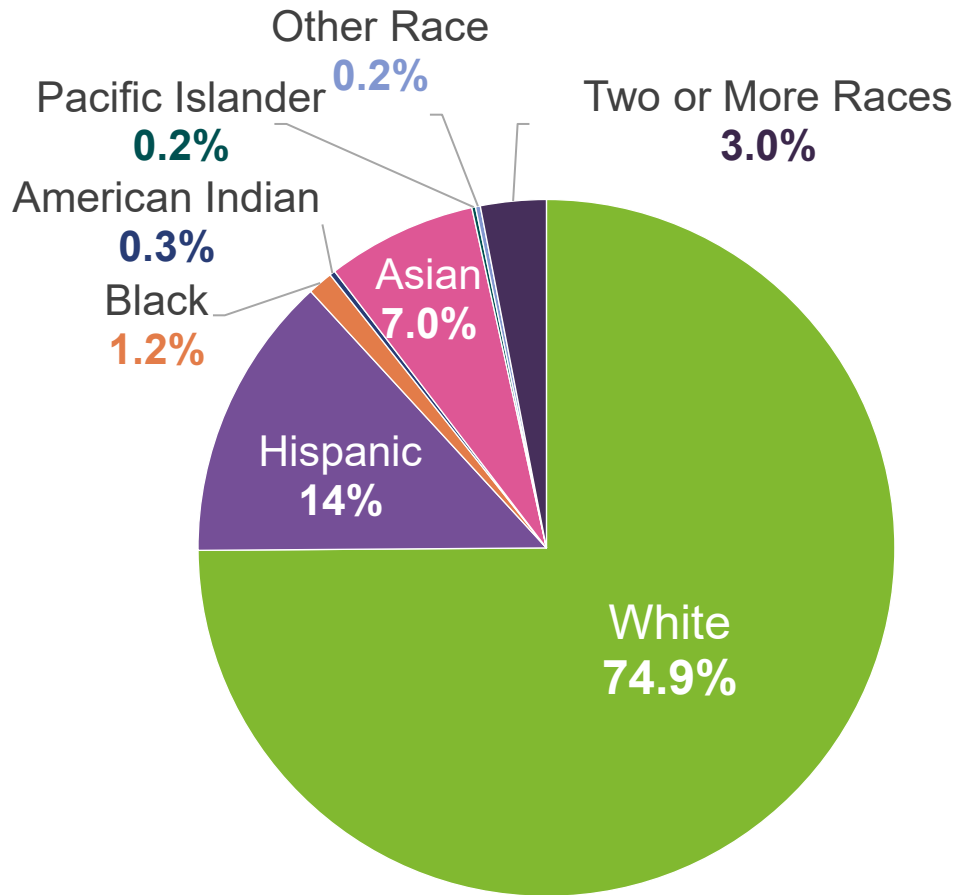


**Carlsbad 2050 Population Forecast**  
(120,313)



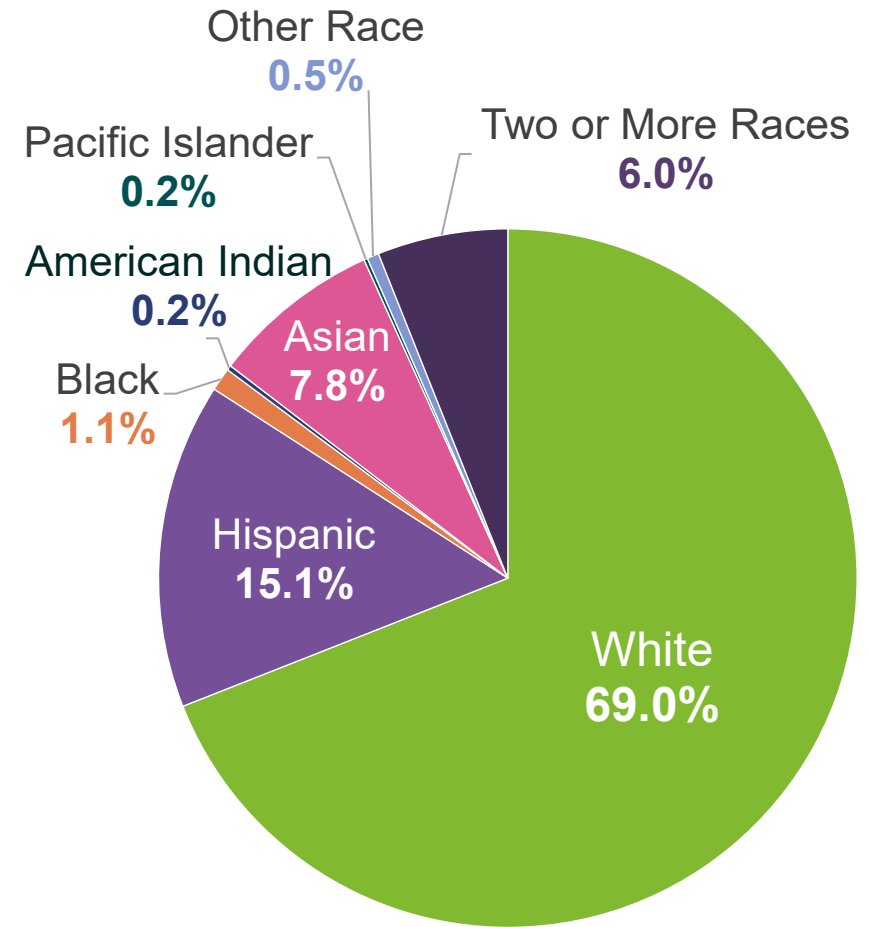
# Increasing Diversity

2010 Census



Carlsbad Population by Race/Ethnicity

2020 Census

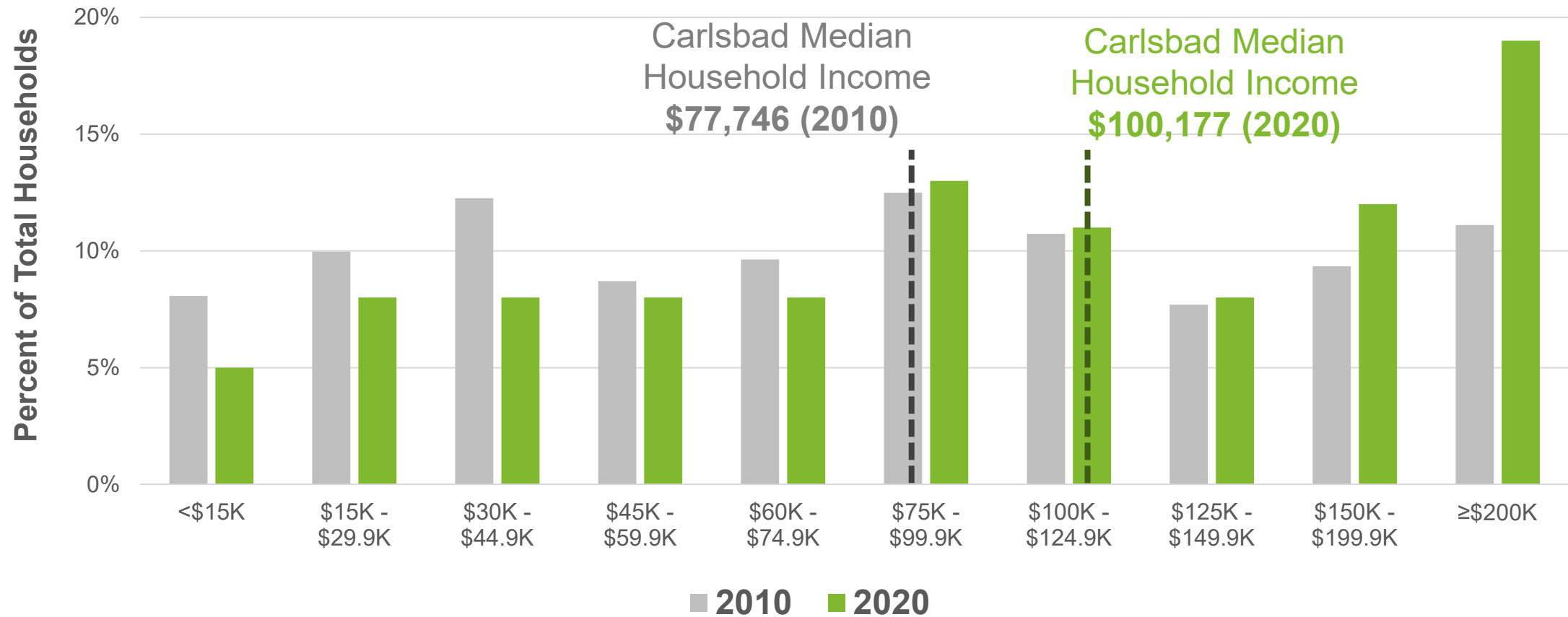


Source: 2010 Census and 2020 Census



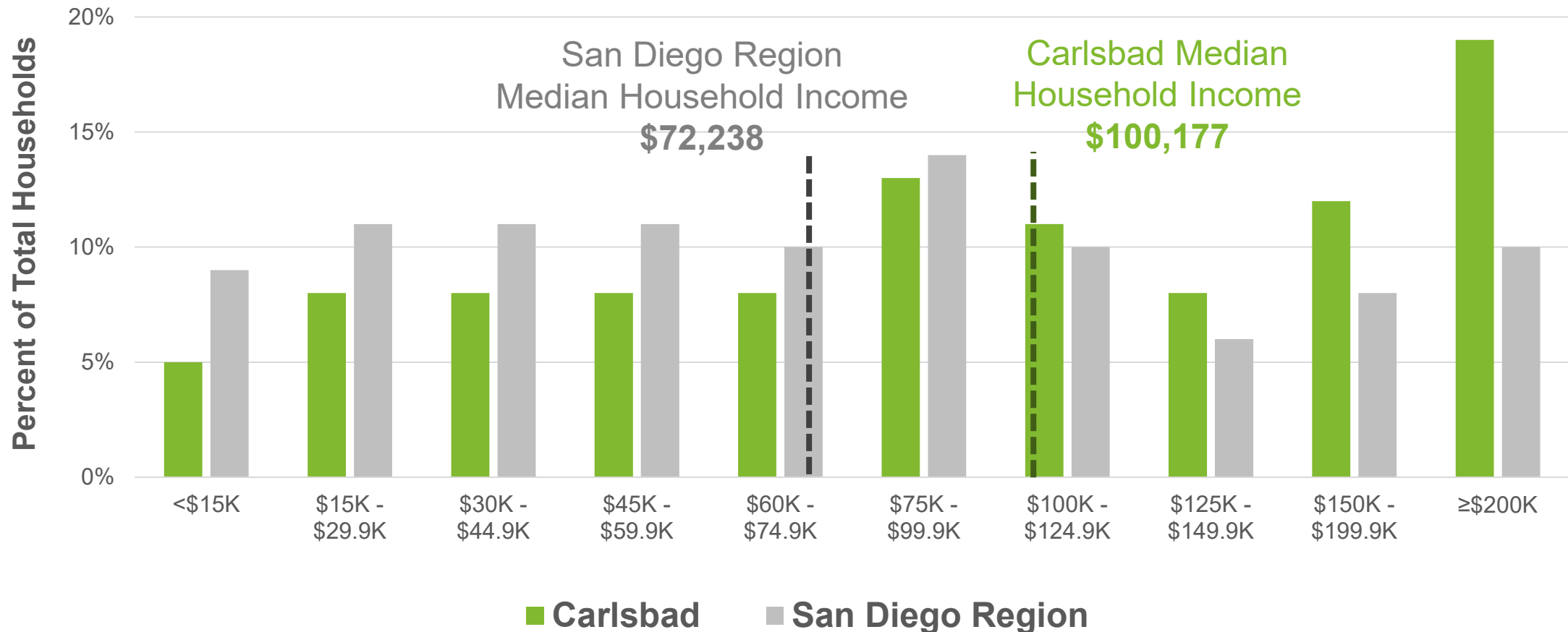
# Higher Household Income

**Carlsbad Households by Income Category**  
(2010\$, adjusted for Inflation)

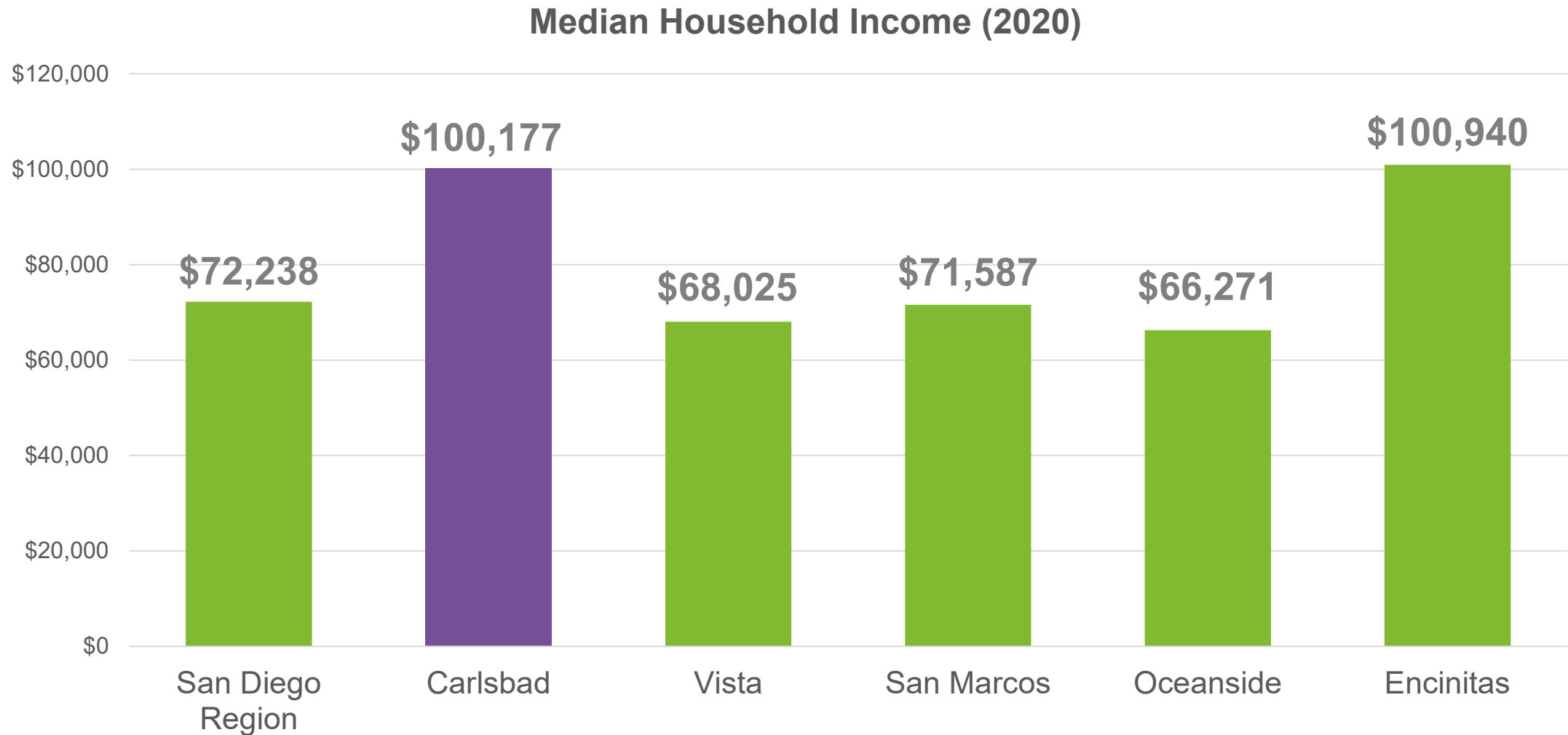


# Household Income: Comparing Carlsbad

**Households by Income Category**  
(2010\$, adjusted for Inflation)



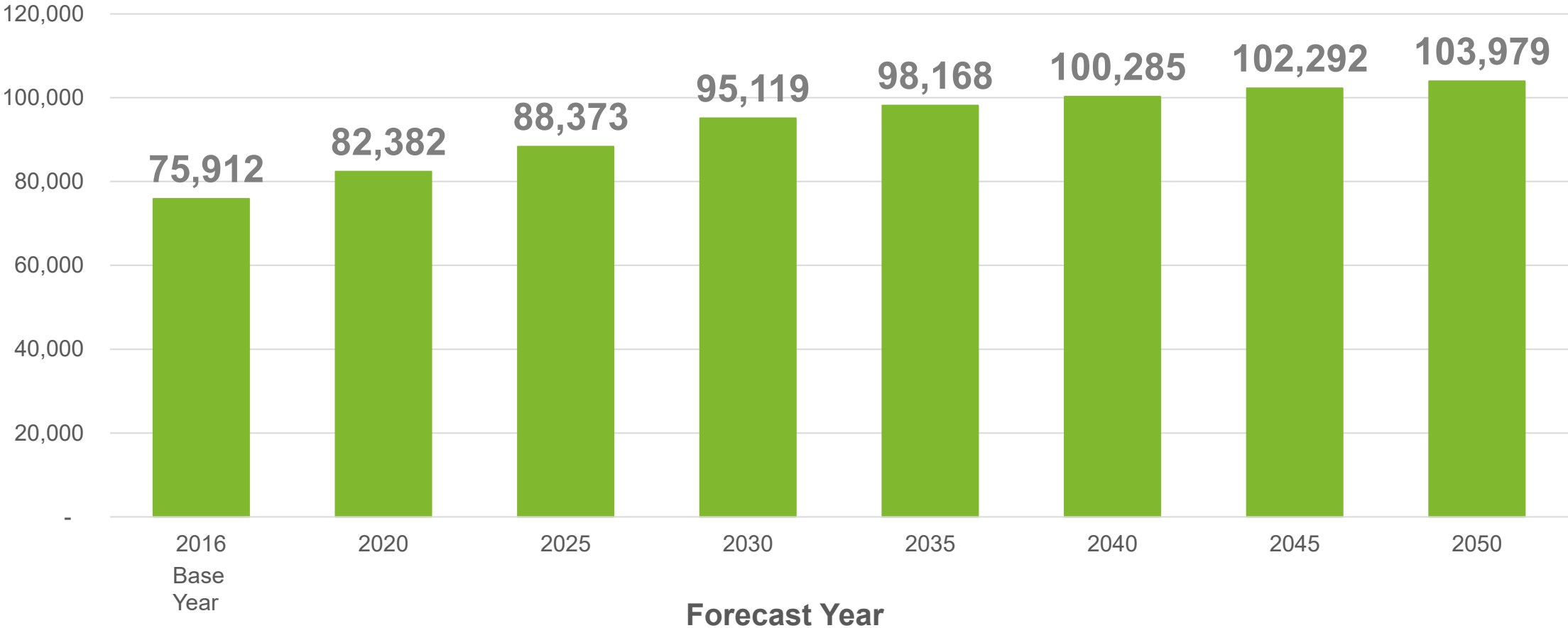
# Median Household Income: Comparing Carlsbad



# Jobs

# Job Growth

**Carlsbad Jobs Forecast**  
2016-2050



Source: SANDAG Series 14 Regional Growth Forecast

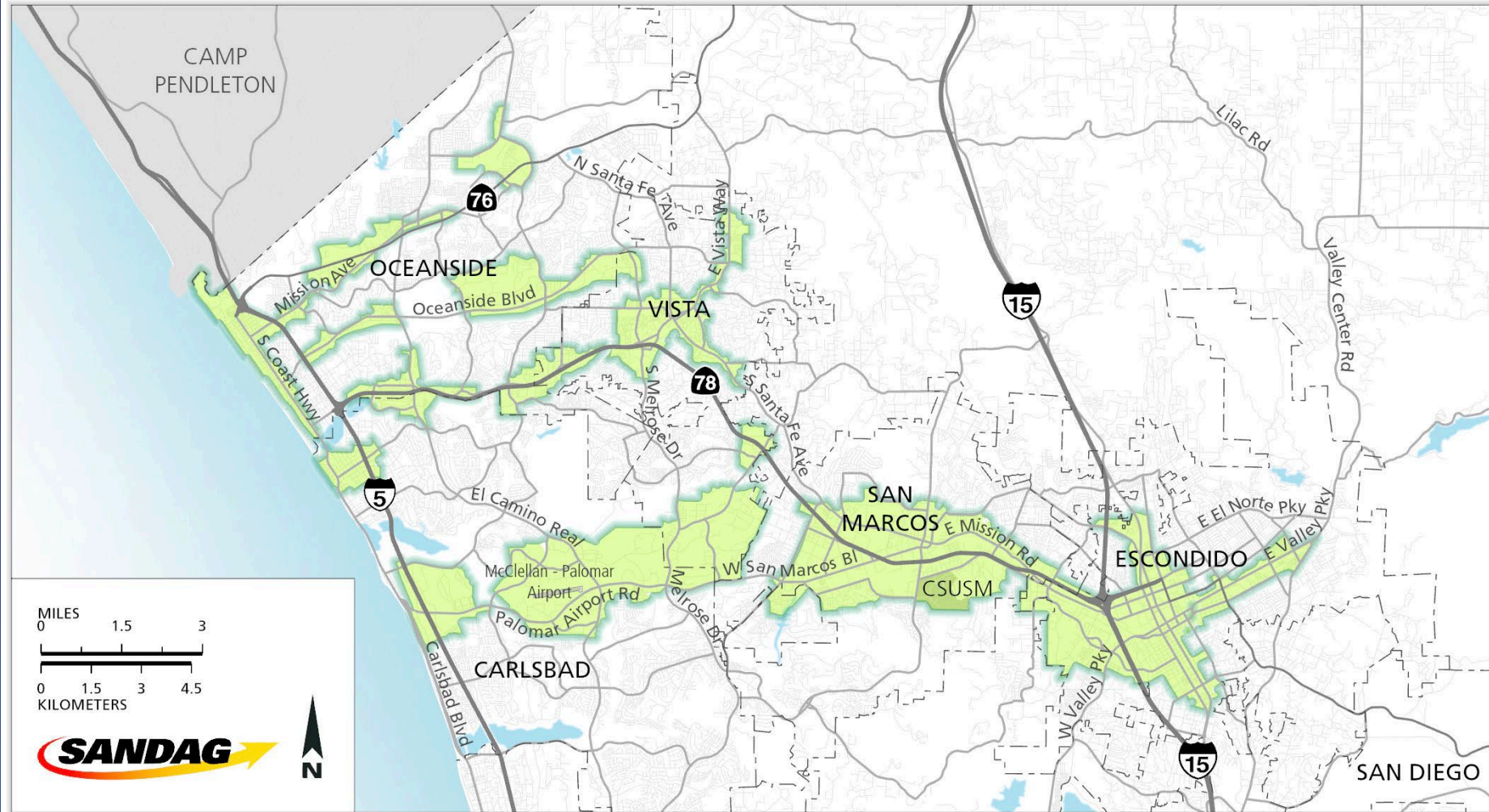


# SR 78 Corridor Employment Center

Forecast shows  
35% job growth  
2016-2050 as  
expansion in key  
industries continues.

2016: 293,209 jobs

2050: 394,681 jobs

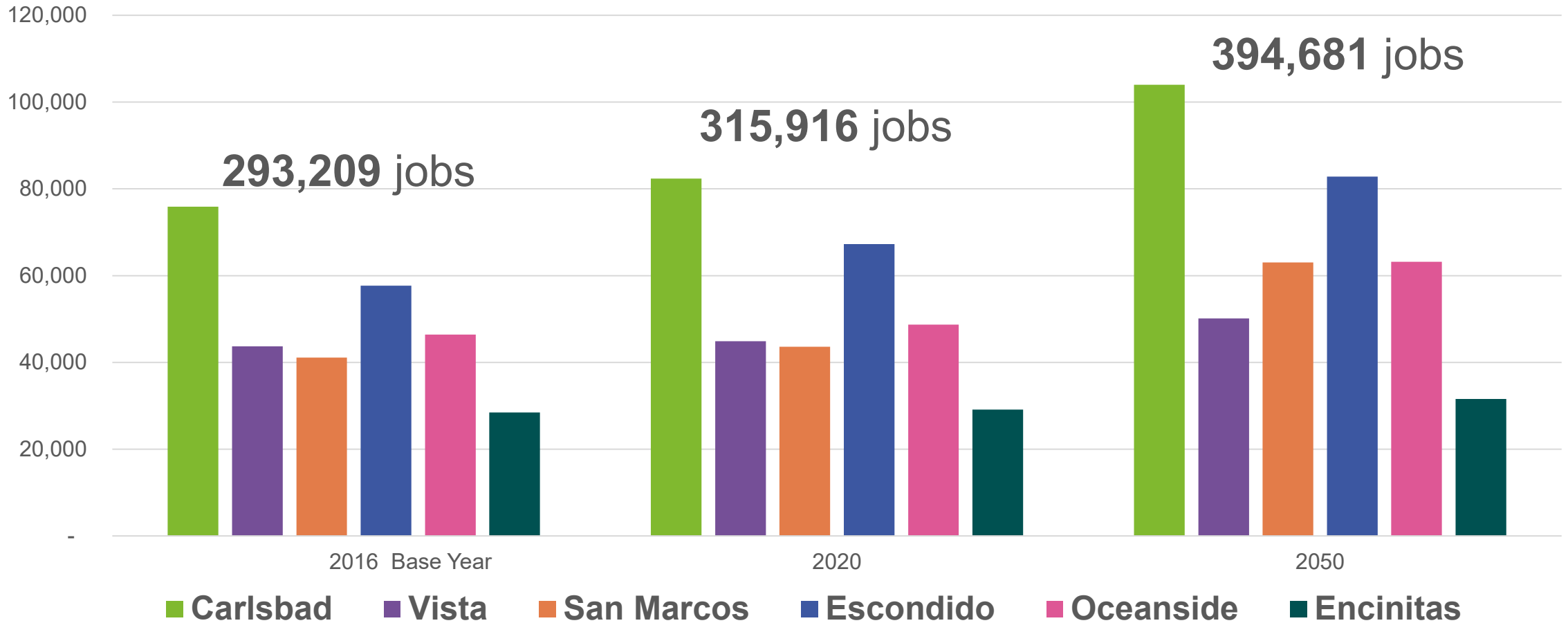


Source: SANDAG (2019, May). 78 Corridor employment center, Employment centers in the San Diego region: An analysis of where people live and work [Map 1].

# Employment Trends: Comparing Carlsbad

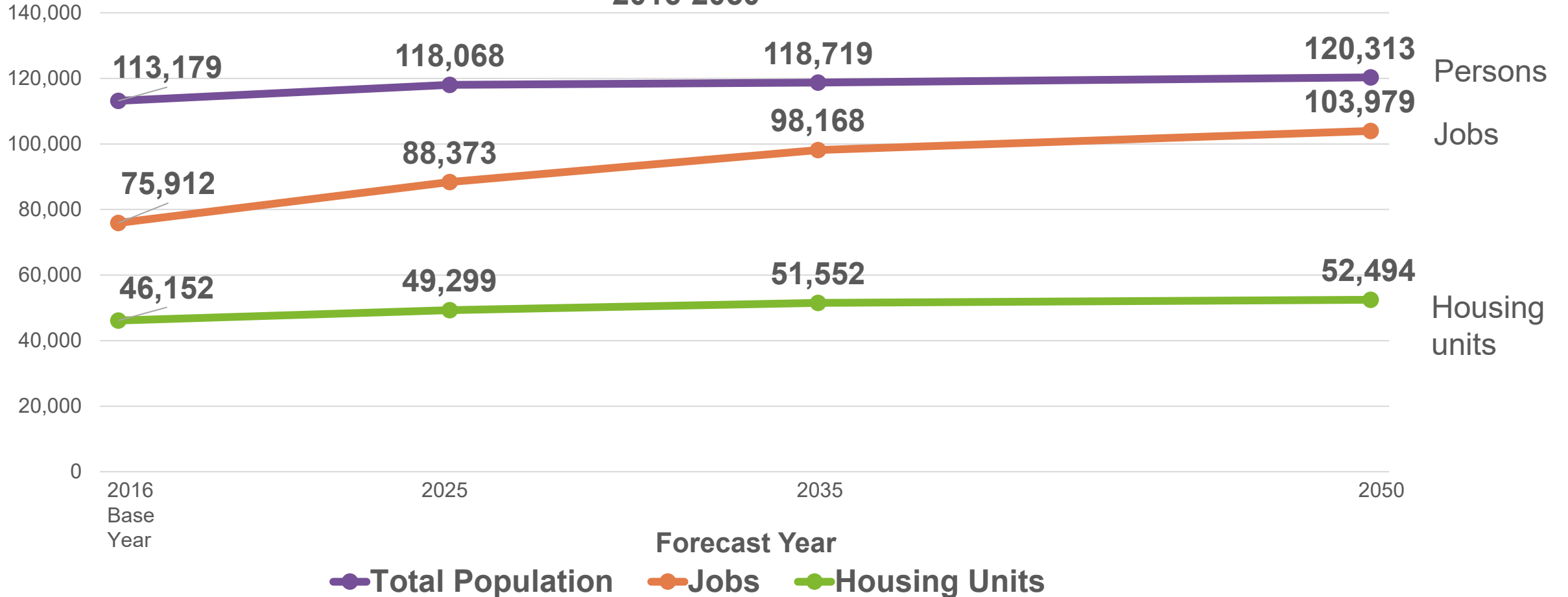
Jobs increase 35% from 2016 to 2050

### SR 78 Corridor Jobs Forecast



# Forecast Summary: Carlsbad

Carlsbad Growth  
2016-2050





# Housing

# Meeting the Region's Housing and Climate Goals

171,685 new homes by 2029  
20% GHG reduction by 2035

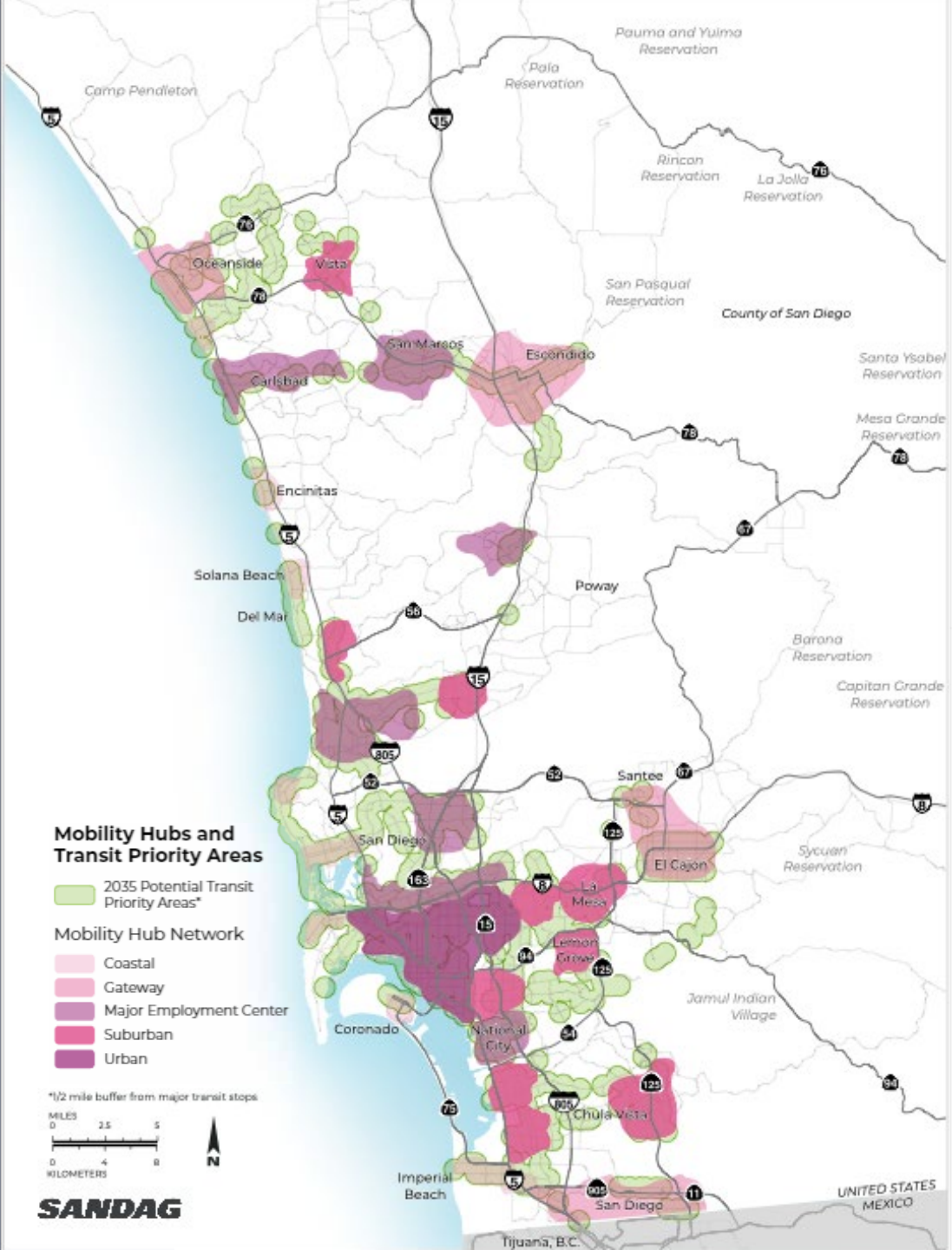


**SANDAG**

**2021  
regional  
plan**

DECEMBER 2021

# Sustainable Communities Strategy: Bringing Housing & Mobility Options Together



# Growth Forecast

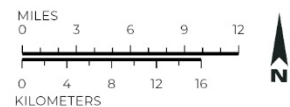
## San Diego Region

### Series 9 Regional Growth Forecast 1995-2020

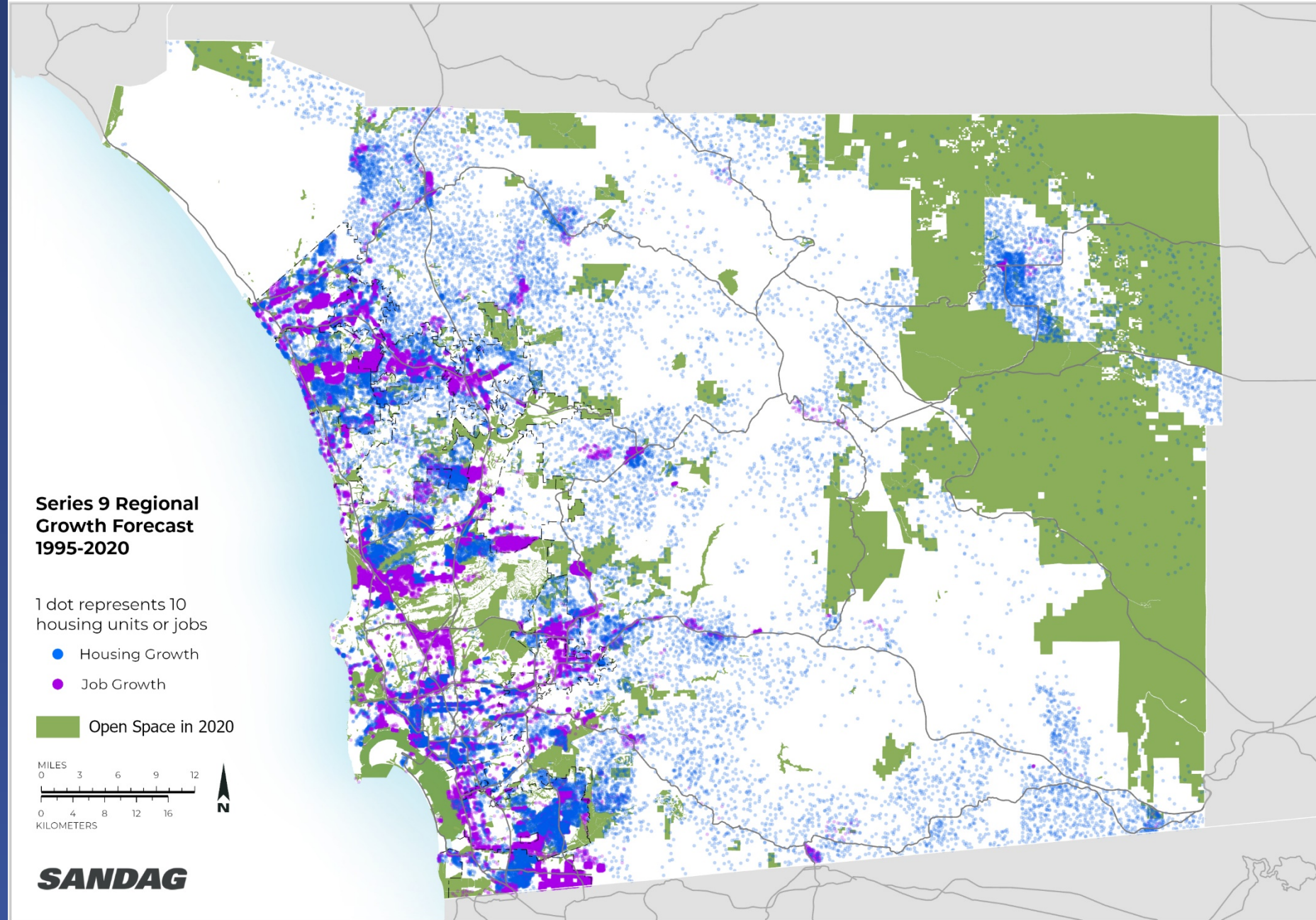
1 dot represents 10 housing units or jobs

- Housing Growth
- Job Growth

■ Open Space in 2020



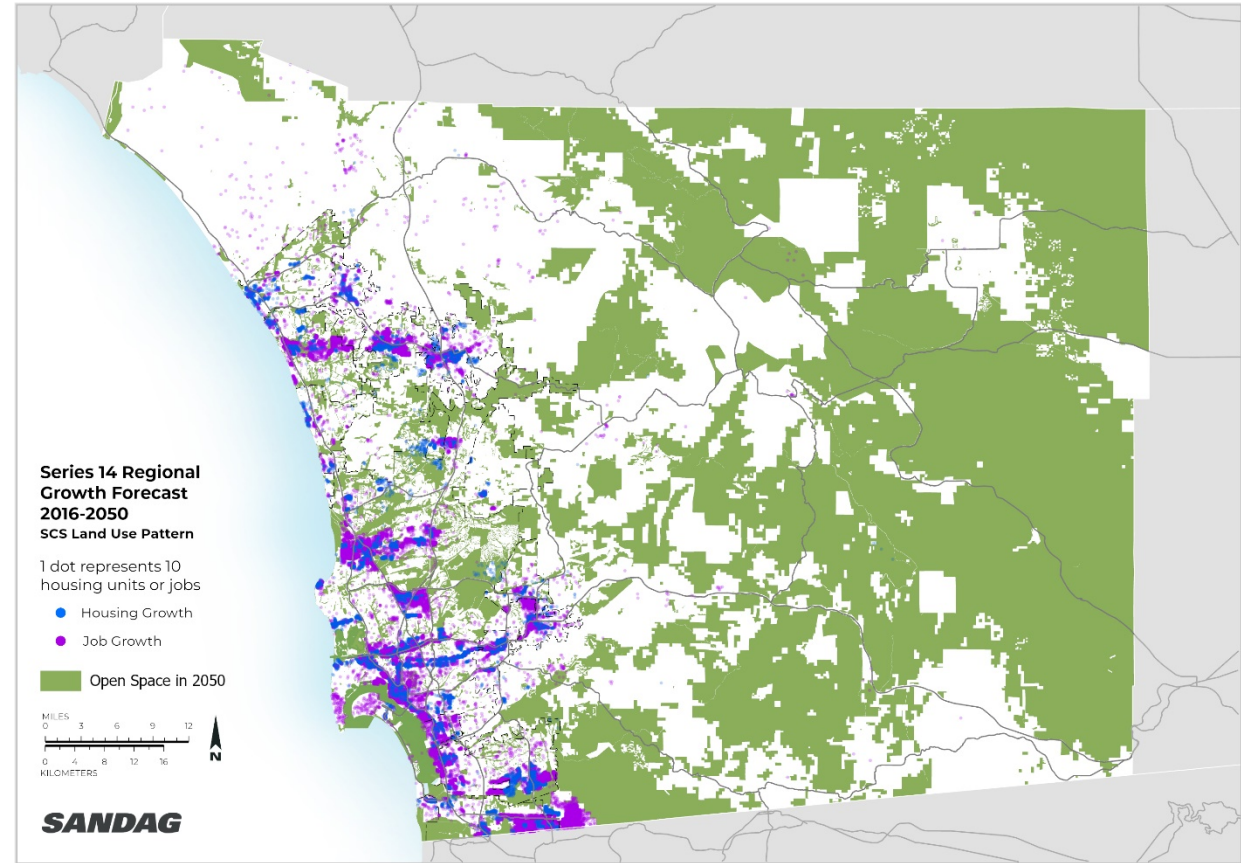
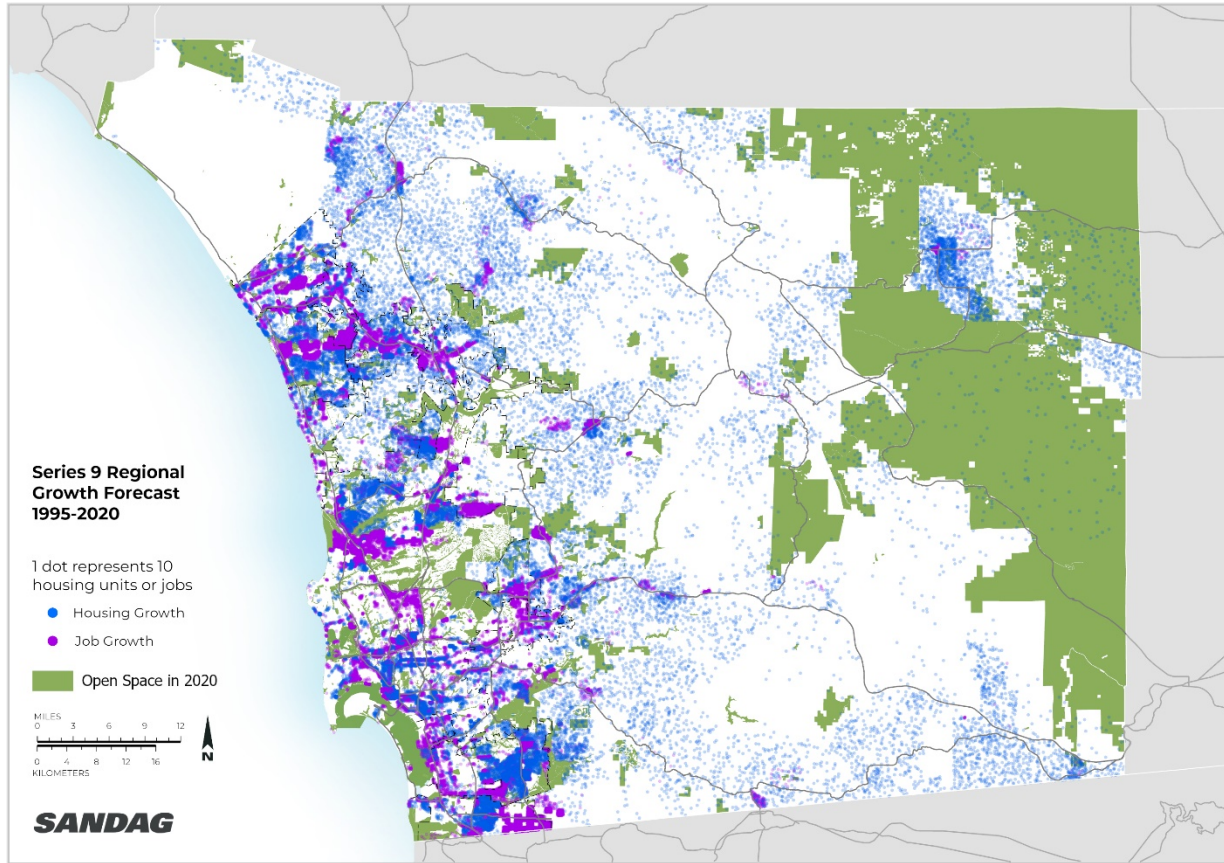
**SANDAG**



### Series 9 Regional Growth Forecast 1995-2020

# San Diego Region Growth Forecast

## Comparing growth



# San Diego Region Growth Forecast

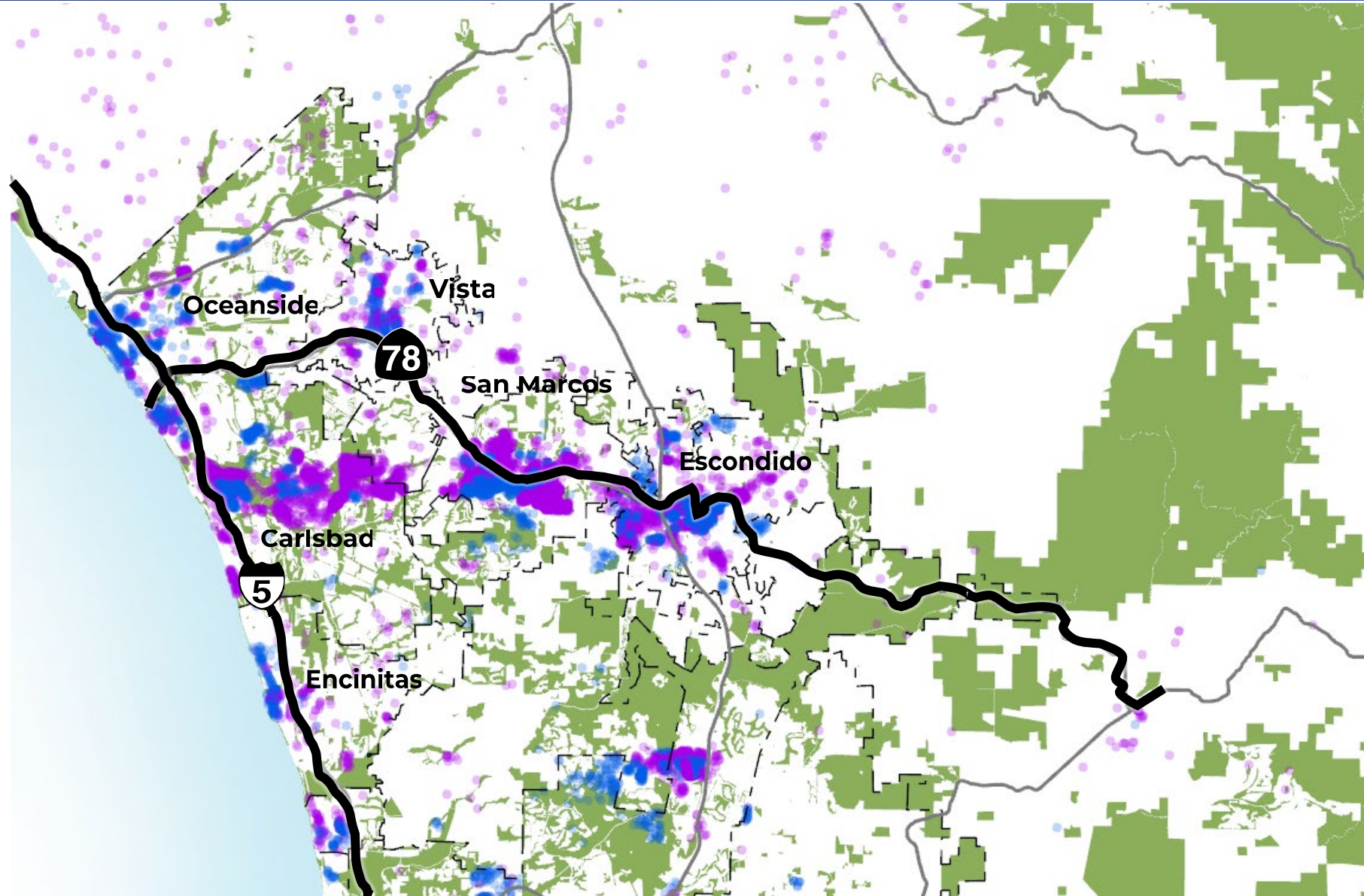
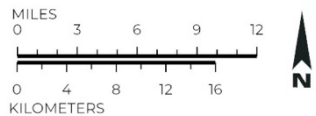
## Comparing growth

### Series 14 Regional Growth Forecast 2016-2050 SCS Land Use Pattern

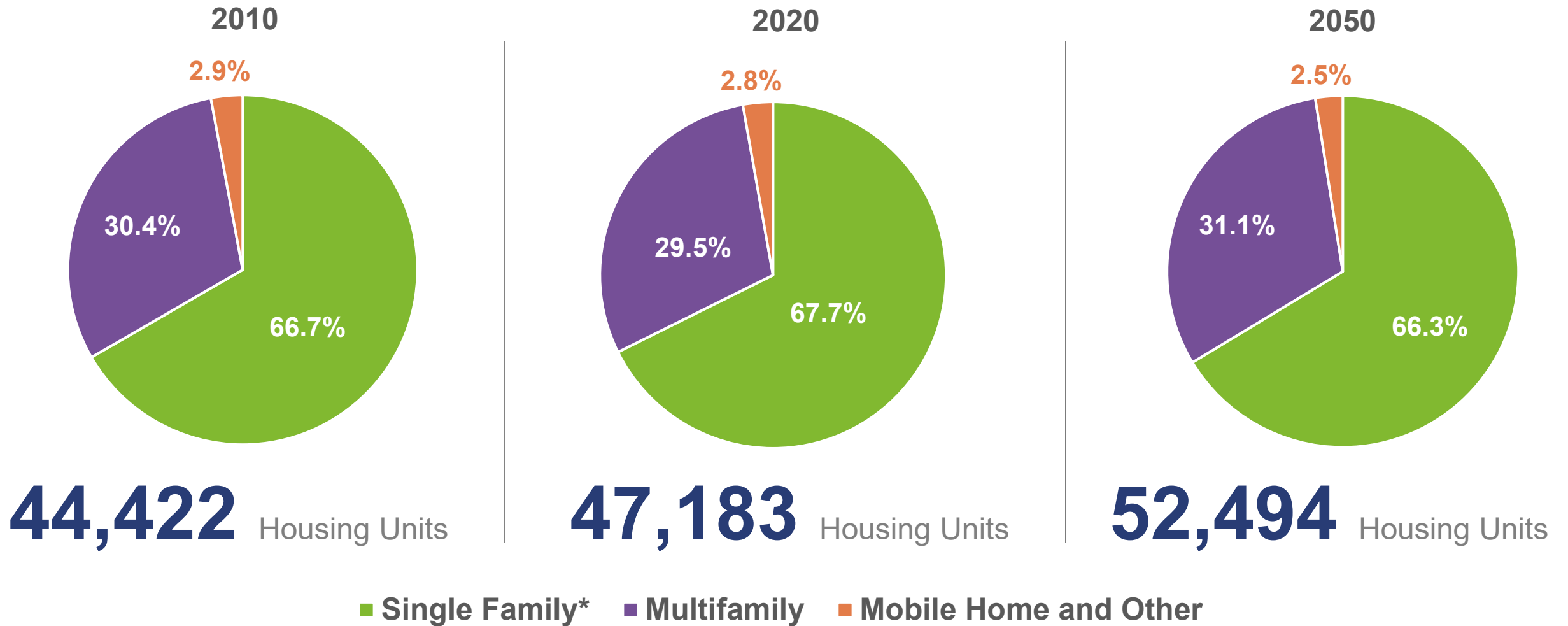
1 dot represents 10  
housing units or jobs

- Housing Growth
- Job Growth

■ Open Space in 2050



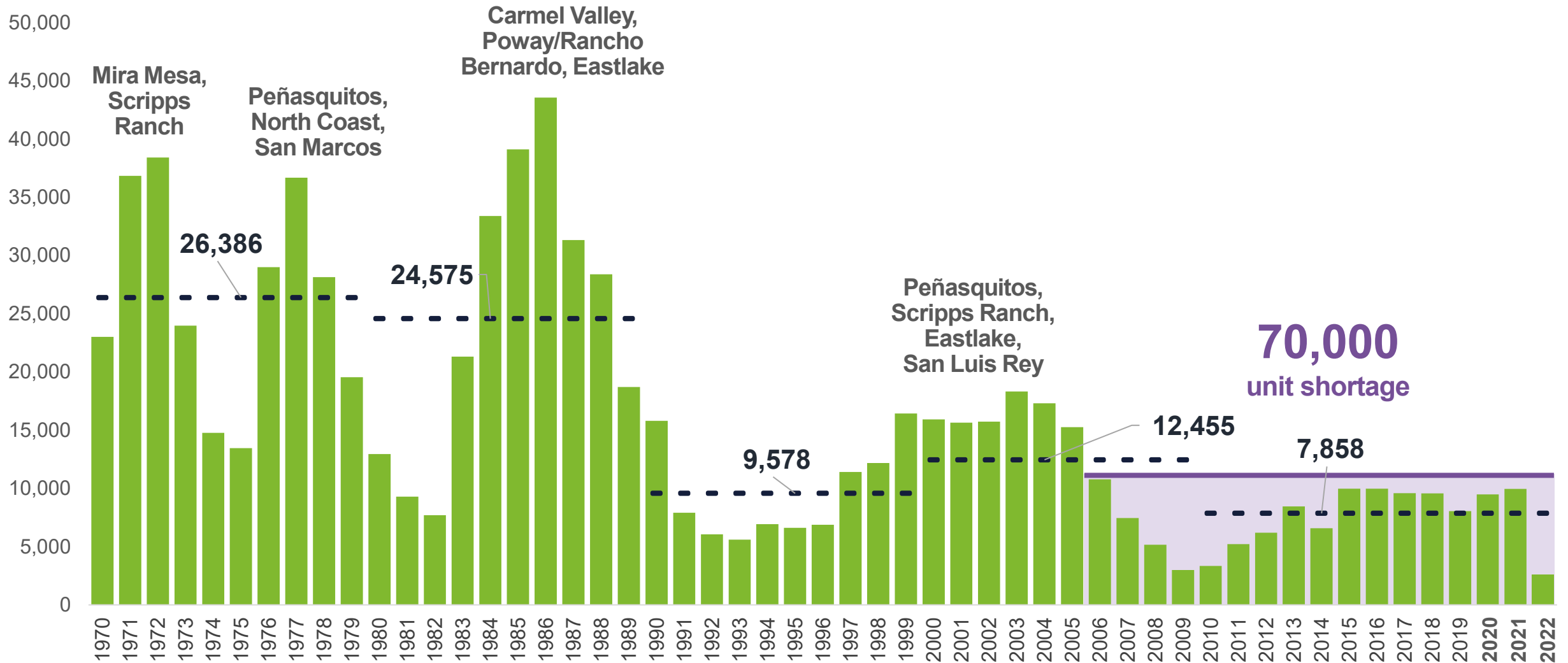
# Carlsbad Housing 2010, 2020 and 2050



Source: 2010 Census, SANDAG 2020 Demographic and Socioeconomic Estimates, SANDAG Series 14 Regional Growth Forecast

\*Note: Single family includes both attached and detached single-family homes

# Residential Permits Issued



Source: Economic Research Bureau, Greater San Diego Chamber of Commerce, Forecast Bulletin Economic Indicators (1970-1992); Real Estate Research Council (RERC) of Southern California, Real Estate and Construction Report (1993-2019)



# Questions

# Stay connected with SANDAG

 Explore our website  
[SANDAG.org](https://www.sandag.org)

 Follow us on social media:  
[@SANDAGregion](https://twitter.com/SANDAGregion) [@SANDAG](https://twitter.com/SANDAG)

 Email: [marcia.smith@sandag.org](mailto:marcia.smith@sandag.org)

**SANDAG**



# 3. Committee Business



# Committee Housekeeping Items

# PUBLIC COMMENTS & INPUT



- City Hall location – Aug. 16 City Council meeting
- Day-to-day management of the Senior Center
- Ponto Park
- Reservoir solar panels
- Village development



# BROWN ACT REMINDER



# SUBCOMMITTEES



# PRIORITIZING POTENTIAL NEW TOPICS



# PROJECT SCHEDULE

DATE/TIME	POTENTIAL TOPICS
Aug. 25, 2022 5 p.m.	Libraries, parks and open space
Sept. 22, 2022 5 p.m.	<b>Develop recommendations</b> Provide recommendations on key elements and performance standards to include in new plan.
Oct. 12, 2022 5 p.m.	<b>Develop recommendations</b> Provide recommendations on key elements and performance standards to include in new plan.
Dec. 15, 2022 5 p.m.	<b>Review report with draft recommendations</b> Review report summarizing committee recommendations.

# PROJECT SCHEDULE

DATE/TIME	POTENTIAL TOPICS
Jan. 26, 2023 5 p.m.	<b>Finalize recommendations</b> Finalize report summarizing committee recommendations.
Feb. 23, 2023 5 p.m.	<b>Finalize recommendations</b> Approve report summarizing committee recommendations.
March 2023	<b>City Council presentation</b> Committee recommendations presented to the City Council for consideration.



# Circulation Performance Standard

Carlsbad   
TOMORROW 

# OUTLINE

- Current Growth Management Plan
- How Roadway Improvements are Funded
- How Transportation Analysis has Changed
- Best Transportation Practices for Sustainable Growth
- Growth Management Plan Standards Discussion



# Current Growth Management Plan

Carlsbad  
TOMORROW 

# CURRENT GROWTH MANAGEMENT PLAN

## **Established in 1986**

- Updated with the 1994 General Plan Update
- Updated with the 2015 General Plan Update

## **Main Goals**

- Provide a framework growth should occur
- Ensure that new development pays its own way

## **2015 General Plan Update Set the GMP Circulation Standard**

- Established a livable streets approach to mobility
- Emphasized a multi-modal approach to transportation
- Established a Complete Streets network within the city

# GROWTH MANAGEMENT PLAN POLICY









Circulation – Implement a comprehensive livable streets network that serves all users of the system – vehicles, pedestrians, bicycles and public transit. Maintain LOS D or better for all prioritized modes of travel, as identified in the General Plan Mobility Element, excluding LOS exempt intersections and streets approved by the City Council.

# CURRENT GENERAL PLAN POLICIES





- 3-P.3 Apply and update the city's multi-modal level of service (MMLOS) methodology and guidelines that reflect the core values of the Carlsbad Community Vision related to transportation and connectivity. Utilize the MMLOS methodology to evaluate impacts of individual development projects and amendments to the General Plan on the city's transportation system.
- 3-P.4 Implement the city's MMLOS methodology and maintain LOS D or better for each mode of travel for which the MMLOS standard is applicable, as identified in Table 3-1 and Figure 3-1.



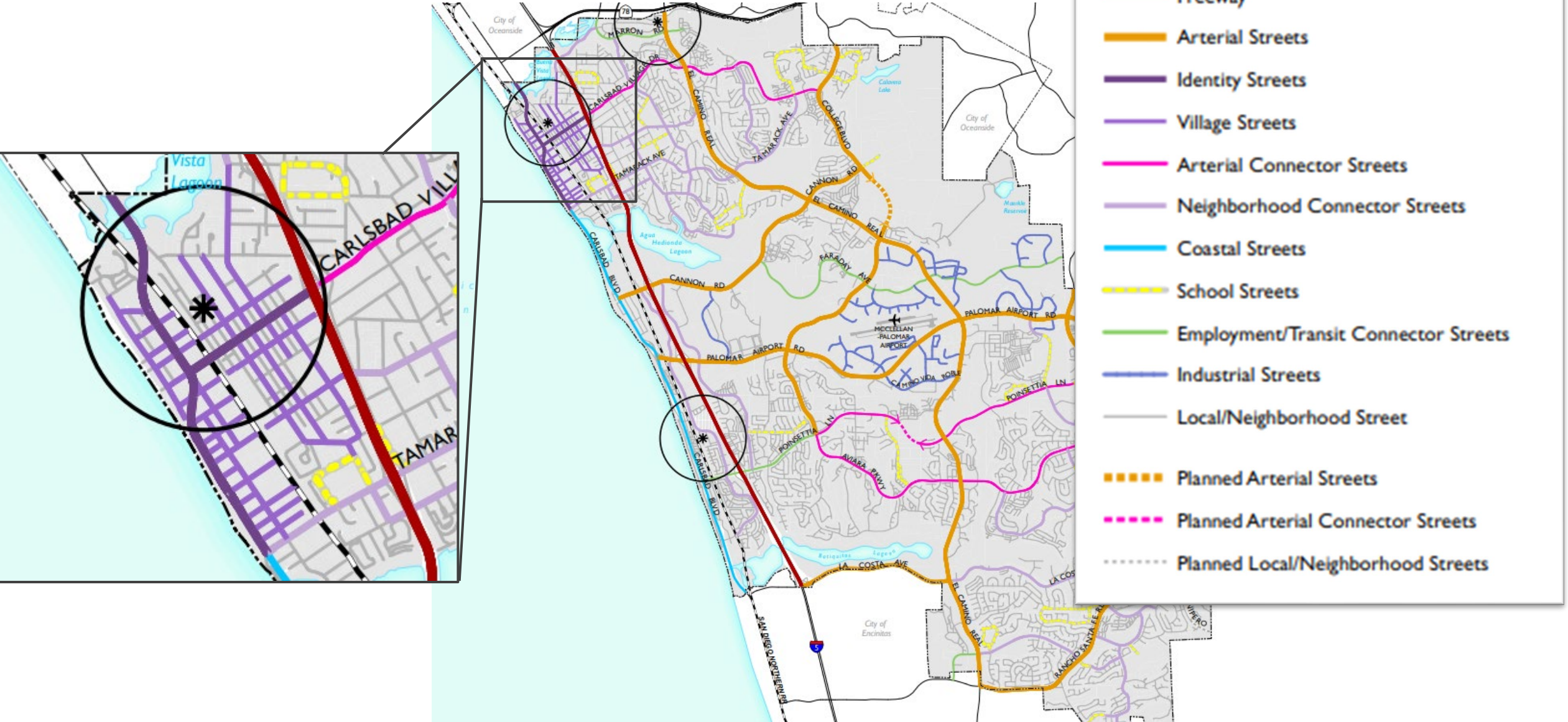
# LIVABLE STREETS

ACCOMMODATED MODES	SUBJECT TO MMLOS STANDARD (Y/N)
<b>Freeways</b>	
	Y
	Y
<b>Arterial Streets</b>	
	Y
	N
	N
	Y

VS

ACCOMMODATED MODES	SUBJECT TO MMLOS STANDARD (Y/N)
<b>Village Streets</b>	
	N
	Y
	Y
	N

# LIVABLE STREETS

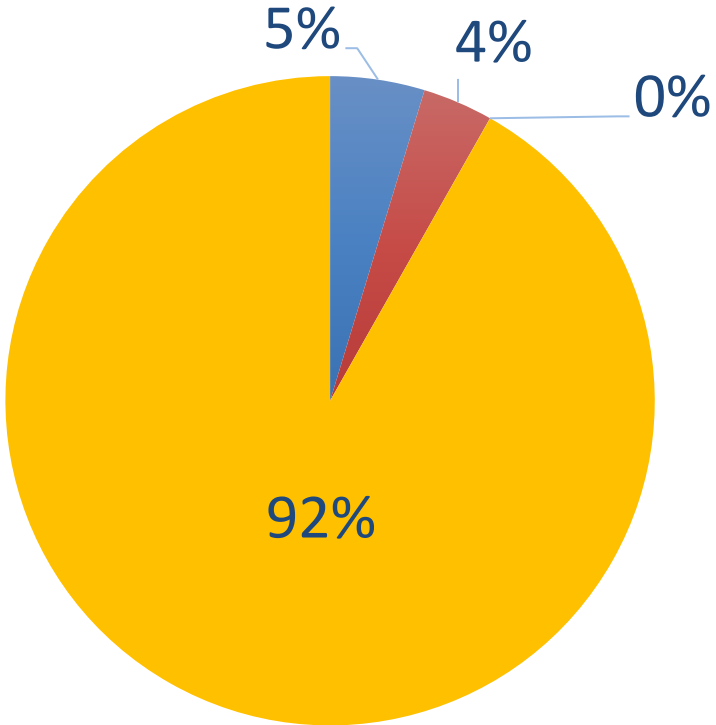


# CURRENT TRAFFIC TRENDS IN CARLSBAD

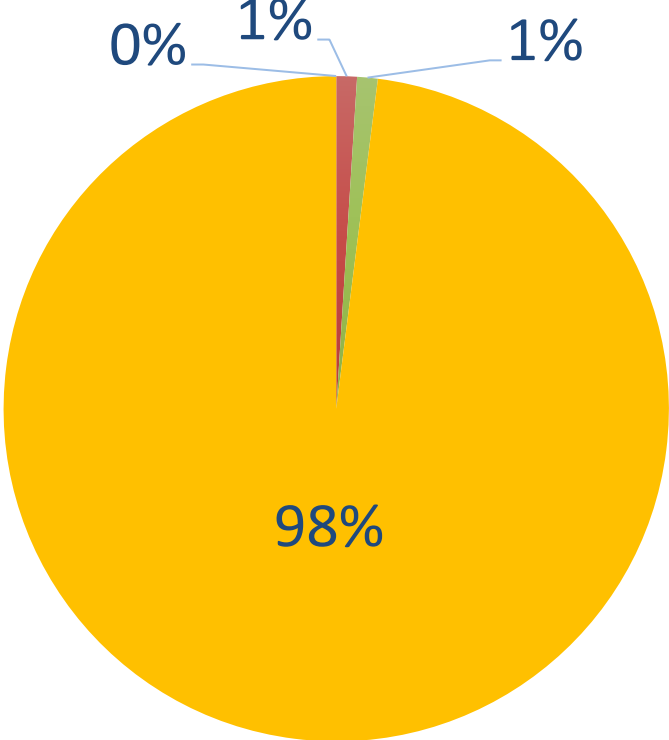
Historic Facilities Not Meeting LOS D Standards			2019				2020				2021			
			AM		PM		AM		PM		AM		PM	
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
El Camino Real	City Limits	Marron Road	E	F	F	F	E	E	E	E	E	F	E	E
	Tamarack Avenue	Cannon Road	C	F	C	C	C	C	C	C	C	C	C	C
	Cannon Road	College Boulevard	C	F	F	B	B	B	C	B	C	B	C	B
	Aviara Parkway-Alga Road	La Costa Avenue	C	F	C	F	B	C	B	C	C	F	C	F
Melrose Drive	City Limits	Palomar Airport Road	C	F	C	E	C	D	C	D	C	F	C	E
Cannon Road	Avenida Encinas	Paseo Del Norte	F	E	E	F	D	D	D	D	D	D	E	E
	El Camino Real	College Boulevard	D	E	F	D	D	D	D	D	D	E	D	D
College Boulevard	City Limits	Carlsbad Village Drive	D	D	E	D	C	C	C	C	C	D	D	D
	Aston Avenue	Palomar Airport Road	B	B	A	F	A	B	A	B	A	B	A	B
Palomar Airport Road	Avenida Encinas	Paseo Del Norte	F	F	F	F	F	F	F	F	F	F	F	F
	El Fuerte Street	Melrose Drive	C	F	F	C	B	C	C	B	C	C	C	C
La Costa Avenue	Piraeus Street	El Camino Real	B	F	C	B	B	B	B	B	B	C	B	C

# HOW PEOPLE TRAVEL: TRAVEL MODE SPLIT

Carlsbad Blvd.: Avenida Encinas to Ponto



El Camino Real, Chestnut to Tamarack



■ Pedestrian   ■ Bicycle   ■ Transit   ■ Vehicle

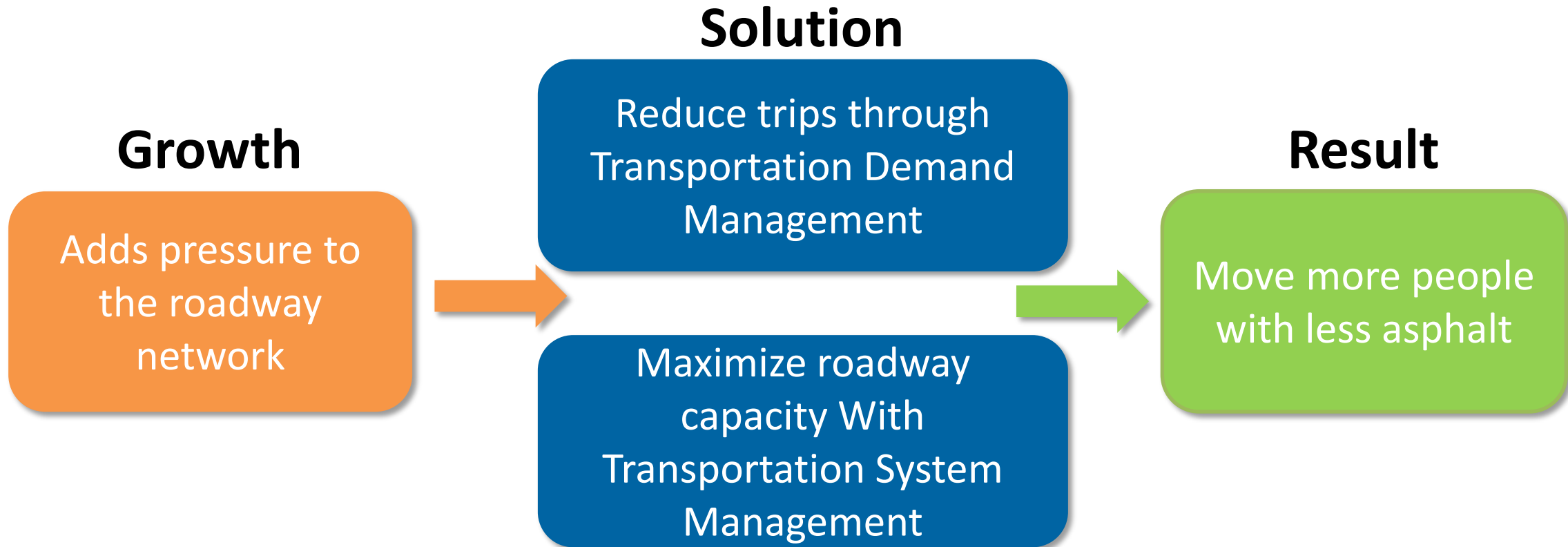
# GENERAL PLAN POLICIES – GROWTH MANAGEMENT PLAN

- 3-P.5** Require developers to construct or pay their fair share toward improvements for all travel modes consistent with this Mobility Element, the Growth Management Plan, and specific impacts associated with their development.
- 3-P.9** Develop and maintain a list of street facilities where specified modes of travel are exempt from the LOS standard (LOS exempt street facilities), as approved by the City Council. To exempt vehicle mode of travel from LOS standard, the street facility must be identified as built-out by City Council because:
- a. obtaining rights of way not feasible; or
  - b. proposed improvements significantly impact environment in an unacceptable way; or
  - c. proposed improvements result in unacceptable impacts to other community values or General Plan policies; or
  - d. proposed improvements require more than three through lanes in each direction


# GENERAL PLAN POLICIES: GROWTH MANAGEMENT PLAN

- 3-P.11 Require new development that adds vehicle traffic to street facilities that are exempt from the vehicle LOS standard (consistent with 3-P.9) to implement:
- a. **Transportation Demand Management** strategies that reduce the reliance on single-occupant automobile and assist in achieving the city's livable streets vision.
  - b. **Transportation Systems Management** strategies that improve traffic signal coordination and improve transit service.

# HOW TO MANAGE TRAFFIC WITHOUT WIDENING ROADS



# TRANSPORTATION DEMAND MANAGEMENT



The cover of the 'Transportation Demand Management Handbook' features a collage of three images: a blue and white commuter train, two people riding bicycles on a path, and a traffic jam on a highway. The title 'Transportation Demand Management Handbook' is centered below the images. At the bottom, the City of Carlsbad logo is displayed, along with the date 'August 21, 2019'.

*Transportation Demand Management Handbook*

City of Carlsbad

August 21, 2019

Carlsbad COMMUTER

## Coast from Anywhere

The daily commute is changing fast. And we're the one-stop-shop to help you coast past the confusion. Click one of the buttons below to get started or check out the latest happenings in our [Seven Mile blog](#).

[For Employers](#) [For Commuters](#)

**Commuter's Resource**

### E-bike Road Rules

E-bikes are emerging as a popular way of getting around Carlsbad. But just like learning to ride for the first time, you should know some of the basics of how and where to ride safely. Access this guide to E-bike road rules, made for you by the City of Carlsbad and the San Diego County Bike Coalition.

[Access Resource](#)

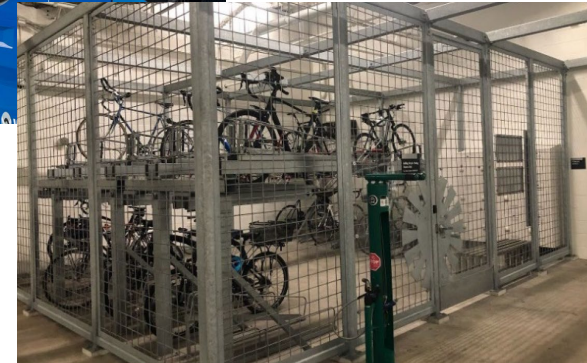
E-BIKE ROAD RULES		
<p><b>E-BIKE TYPES</b></p> <ul style="list-style-type: none"> <li>1. <b>Partial-assist:</b> Power assists not at 20 mph.</li> <li>2. <b>Throttle-assist:</b> Power assists not at 20 mph.</li> <li>3. <b>Partial-assist:</b> Power cuts out at 20 mph. Must be in park or off.</li> </ul> <p>Always ride at or below 20 mph. Legal City of Carlsbad, San Diego County, and multi-use trails.</p>	<p><b>WHERE TO RIDE</b></p> <ul style="list-style-type: none"> <li>• Ride on the bike lane or the left side of the road.</li> <li>• Do not ride on sidewalks, public plazas, parking lots, streets, boulevards, or other public places.</li> </ul>	<p><b>SHARROWS</b></p> <ul style="list-style-type: none"> <li>• This feature means the lane is reserved for a bicycle and motor vehicles to their safety.</li> <li>• Ride toward the middle of the lane and avoid unsafe passing in crosswalks.</li> <li>• Bicyclists have a right to share the road and the shoulder in parks.</li> </ul>
<p><b>SIGNS &amp; SIGNALS</b></p> <ul style="list-style-type: none"> <li>• Traffic lights, signs, and signals apply to all road users including e-bikes.</li> <li>• Always ride in the same direction as traffic.</li> <li>• Signal your intentions and ride in the appropriate lane for the direction that you need to go.</li> </ul>	<p><b>SAFETY</b></p> <ul style="list-style-type: none"> <li>• E-bikes must have a bell or other audible warning device.</li> <li>• When turning your e-bike, always look back to ensure there's no traffic behind you.</li> </ul>	<p><b>HELMETS</b></p> <ul style="list-style-type: none"> <li>• Required for ages 17 and younger.</li> <li>• Required for ages 18 and older on a bike with a top speed of 28 mph or faster.</li> </ul>
<p><b>PASSENGERS</b></p> <ul style="list-style-type: none"> <li>• Passengers only allowed on e-bikes specifically made for additional seats.</li> <li>• Passengers required to wear a helmet if 17 and younger.</li> </ul>	<p><b>VISIBILITY</b></p> <ul style="list-style-type: none"> <li>• Use high-visibility clothing.</li> <li>• Use a white front light, red rear light, and reflectors.</li> </ul>	<p><b>RESOURCES</b></p> <ul style="list-style-type: none"> <li>• Bike down and education: <a href="#">carlsbadcommuter.com</a></li> </ul>

City of Carlsbad



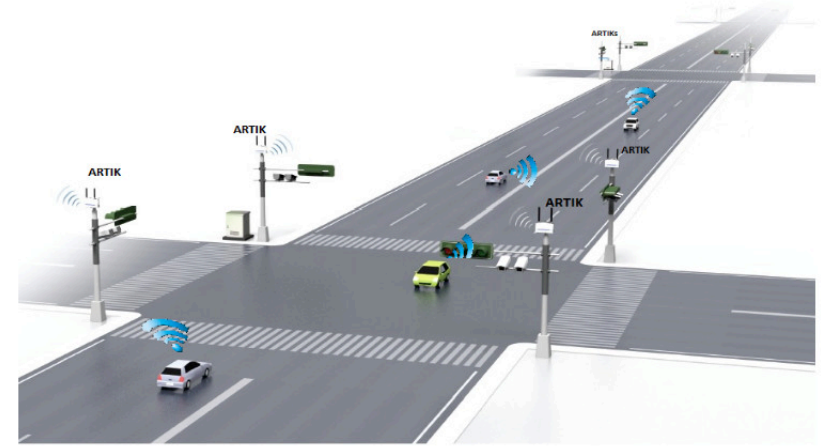
# TYPES OF MEASURES

- Creating ridesharing services
- Offering flexible work schedules
- Providing amenities for alternative travel modes such as bike racks, lockers, showers, carpool parking , etc..
- Having dining, laundry, services at worksites
- Giving incentives for not commuting alone by car
- Encouraging use of public transit



# TRANSPORTATION SYSTEMS MANAGEMENT

- Transportation system management strategies that improve traffic signal coordination, improve transit service, and access for all modes.
- Signal detection for vehicles, buses, bikes and pedestrians.
- City currently allows developments to purchase updated signal controllers as mitigation.





**Questions?**

Carlsbad   
TOMORROW 



# How Roadway Improvements are Funded

# HOW ROADWAY IMPROVEMENTS ARE FUNDED

## Grant Funding

- SANDAG's Active Transportation Grant Program and Smart Growth Incentive Program
- FHWA Highway Safety Improvement Program
- Caltrans sustainability grants

## Developer Funding

- Direct mitigation and frontage improvements
- Transportation Impact Fees
- Regional Transportation Congestion Improvement Program Fees
- Other financing mechanisms, infrastructure districts, bridge thoroughfare districts...

## Taxes

- TransNet (half-cent sales tax)
- Gas Tax

# WHO IS RESPONSIBLE FOR THE TRANSPORTATION NETWORK



- Local roadways
- Traffic signals
- Sidewalks
- Multi-use trails
- Bicycle facilities
- On-street parking



- Regional Network Funding & Planning
- Transit planning
- Sustainable Communities Strategy



- Mainline freeways
- Freeway over/under Passes
- Ramp meters
- Traffic signals at ramps
- Managed lanes
- Park & Ride facilities



- Bus operations
- The COASTER
- Rail right-of-way operation and maintenance
- Transit station amenities
- Flexible fleets



**Questions?**

Carlsbad  
TOMORROW 



# How Transportation Analysis has Changed

Carlsbad  
TOMORROW 



# HOW TRANSPORTATION ANALYSIS HAS CHANGED

1950s to the Early 2000s

2010s to Now

**Vehicular traffic**



**All modes of travel**

**Trip generation**



**Vehicle miles traveled (VMT)**

**Vehicular delay**



**Travel efficiency**

**Vehicular travel time**



**Connectivity of all modes**

# CALIFORNIA SENATE BILL 743



September 2013  
– Governor  
Signed Bill

December 2018  
– OPR Finalized  
Guidelines

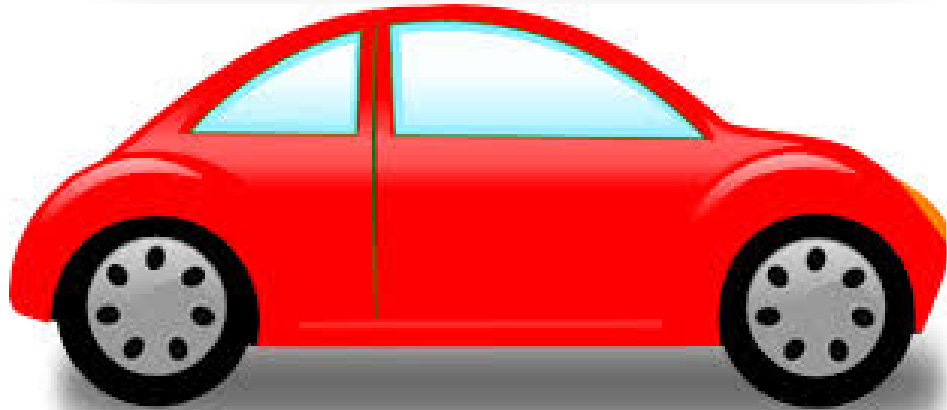
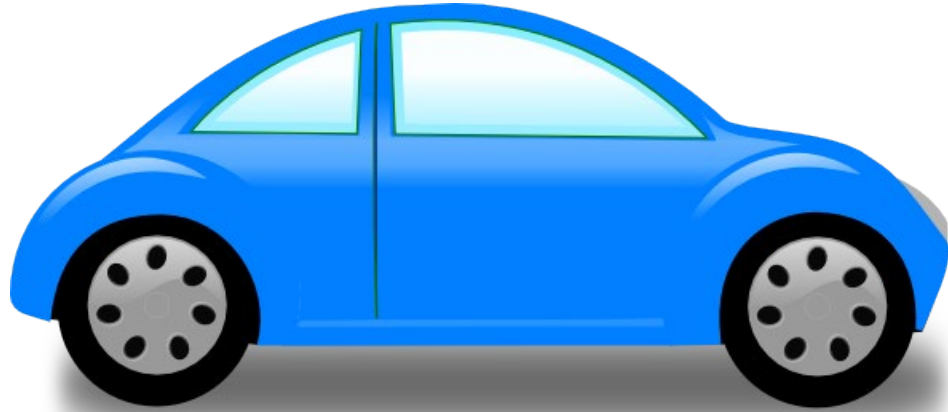
December 2018  
– Natural  
Resources  
Agency updates  
CEQA Guidelines

July 2020 - Opt-in  
Period Ends

Required jurisdictions to adopt VMT based CEQA  
Thresholds by July 1, 2020

Disallowed LOS-based CEQA thresholds for land  
development projects

# WHAT IS VEHICLE MILES TRAVELED



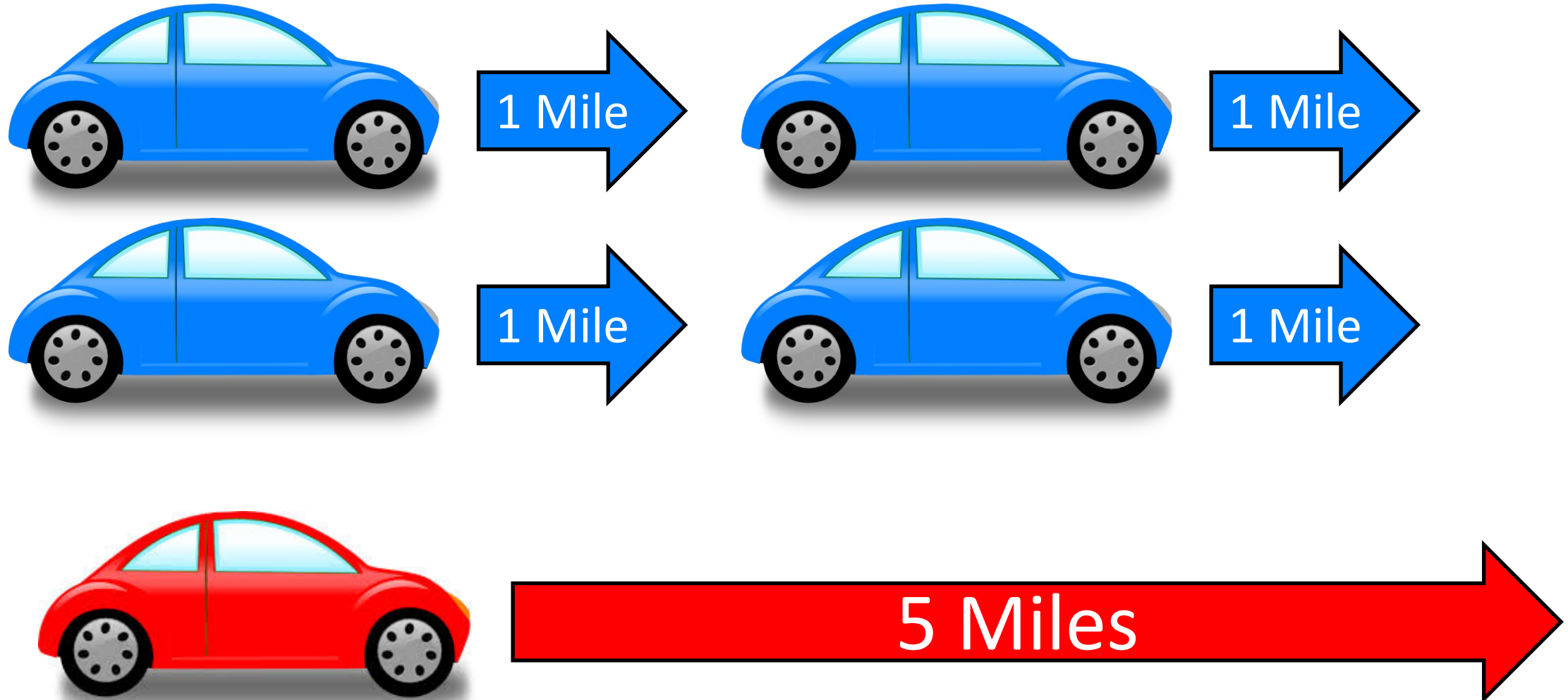
---

2 Trips

---

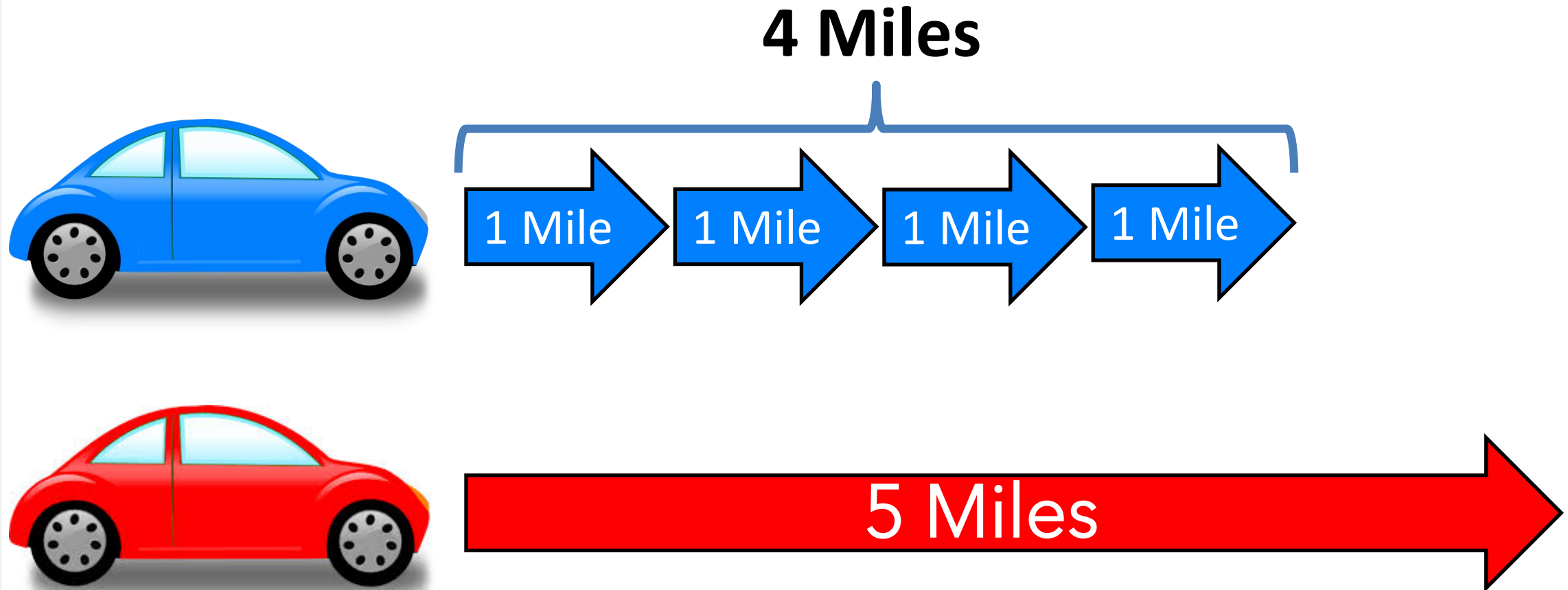
3 Vehicle Miles Traveled

# WHY VEHICLE MILES TRAVELED



# WHY VEHICLE MILES TRAVELED

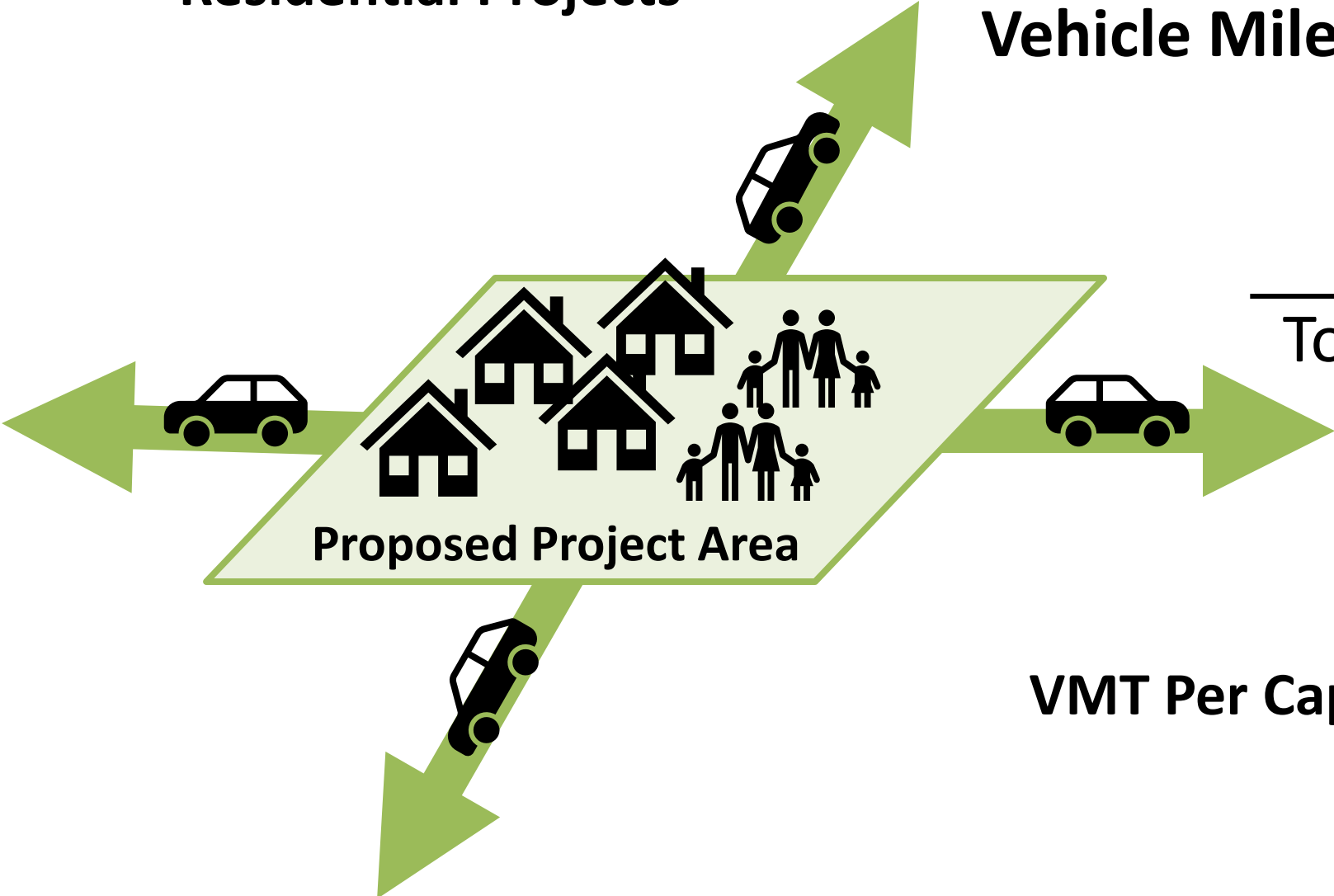
Which is More Impactful?



# HOW ARE IMPACTS DETERMINED

**Residential Projects**

**Vehicle Miles Traveled Per Capita**



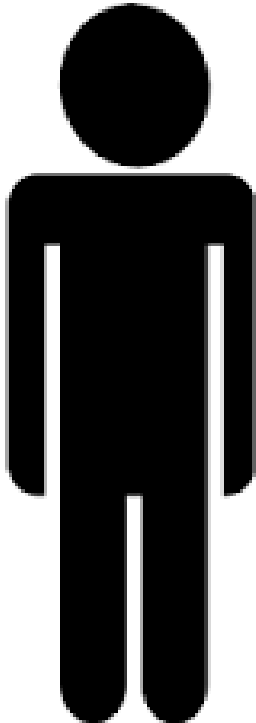
$$\frac{\text{Total Project VMT}}{\text{Total Project Residents}}$$

**Project VMT: 200 Miles**

**Residents: 10 People**

**VMT Per Capita: 20 Miles Per Person**

# HOW ARE IMPACTS DETERMINED



Average VMT/Person in the Region

85% of the VMT/Person in the Region

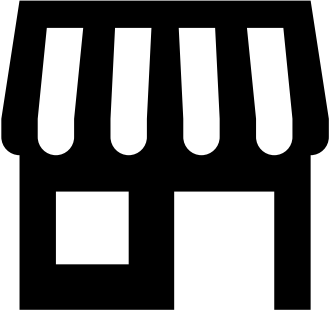
Impact

What the project is allowed to generate

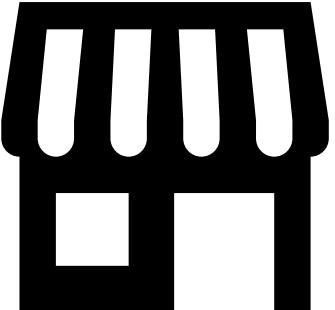
Mitigate

# HOW ARE IMPACTS DETERMINED

## Retail / Commercial Projects



Current Retail



New Retail

No Net Increase  
in VMT



# IMPACTS OF ROADWAY INFRASTRUCTURE PROJECTS

## New Standard:

Roadway infrastructure projects that induce vehicular travel demand are considered to have a VMT related impact.

### No Impact

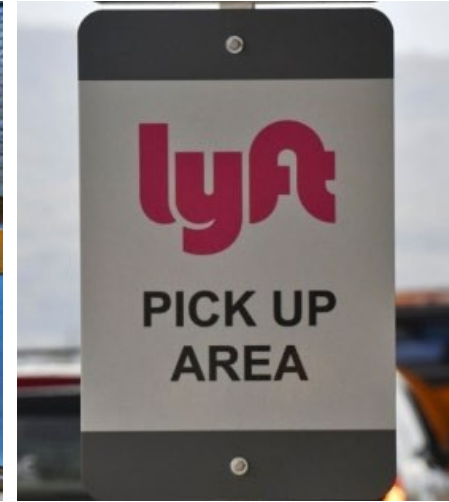
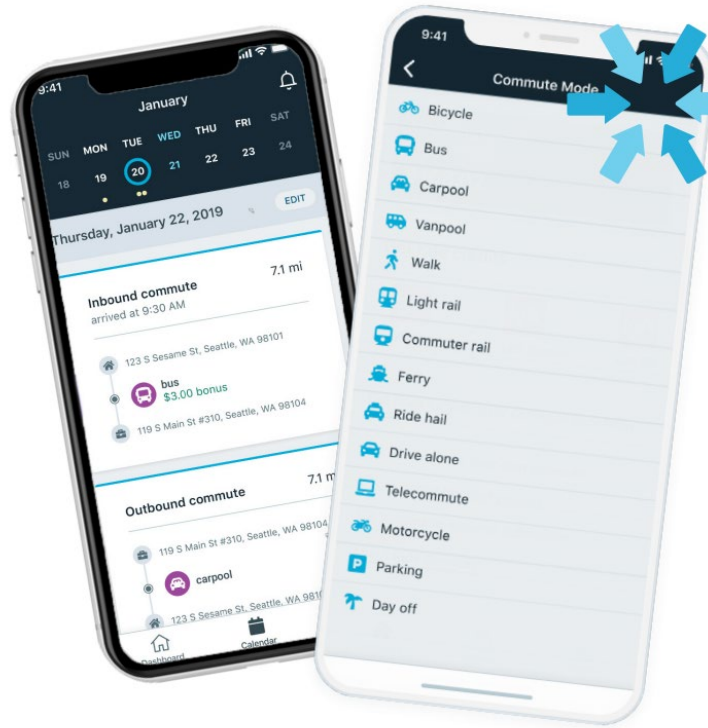
- Pedestrian Facility Improvements
- Bicycle Facilities
- Multi-Use Trails
- Transit Only Facilities
- HOV Facilities
- Non-Capacity Enhancing Safety Improvements
- Roadway Extensions that Will Create a Shorter Trip Length and Reduce the Over All VMT

### Now Creates An Impact

- Improvements that Improve Travel Time
  - Capacity Enhancing Roadway Projects
  - Additional Turn-Lanes at Intersections
- Improvements that Result in Additional Trips
  - Roadway Extensions to Accommodate New Development
  - Roadway Improvements that Incentivize People to Drive Further

# HOW DO YOU MITIGATE FOR VMT

## Transportation Demand Management



# HOW DO YOU MITIGATE FOR VMT

## Implement Multi-Modal Infrastructure





**Questions?**

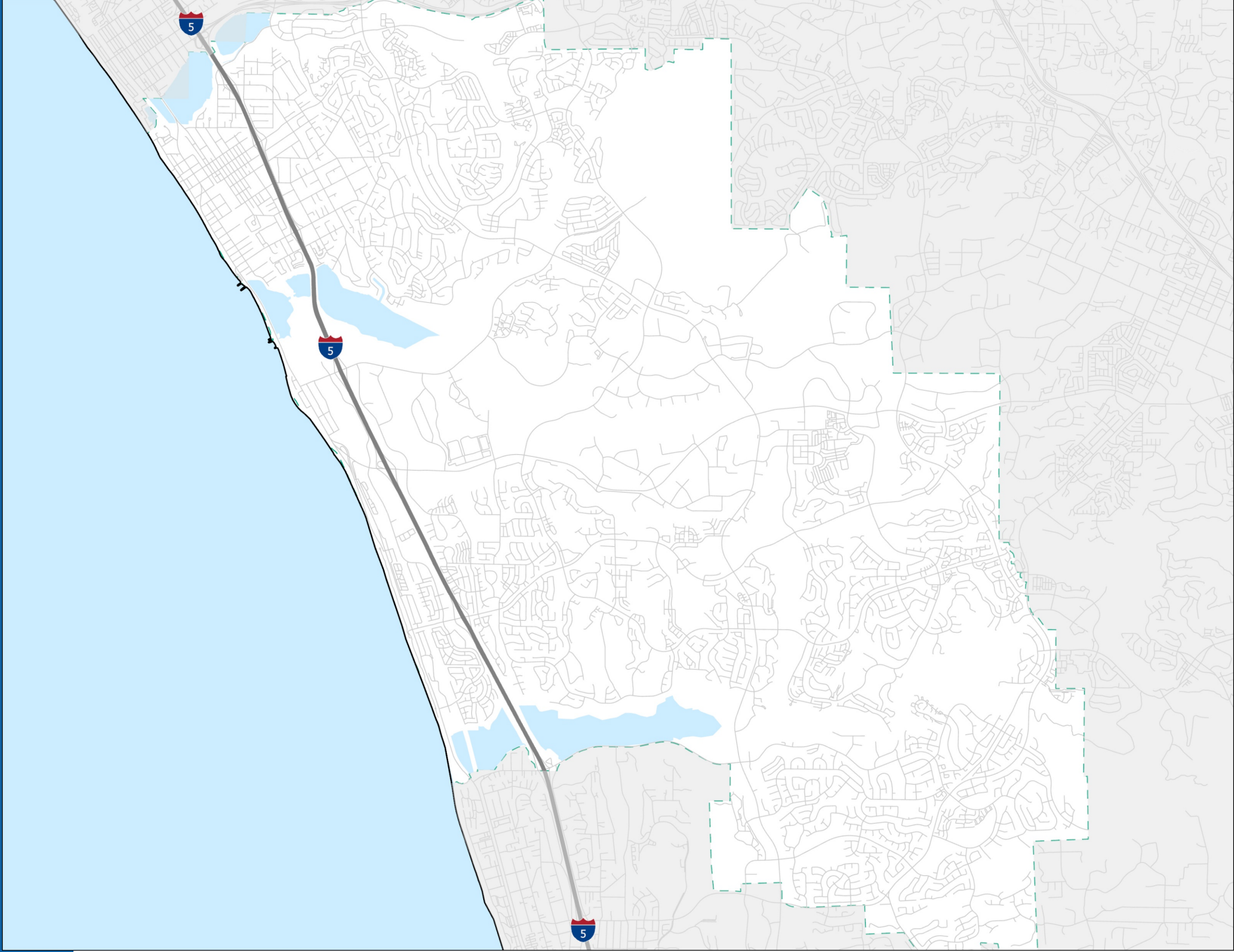
Carlsbad   
TOMORROW 



# Best Practices

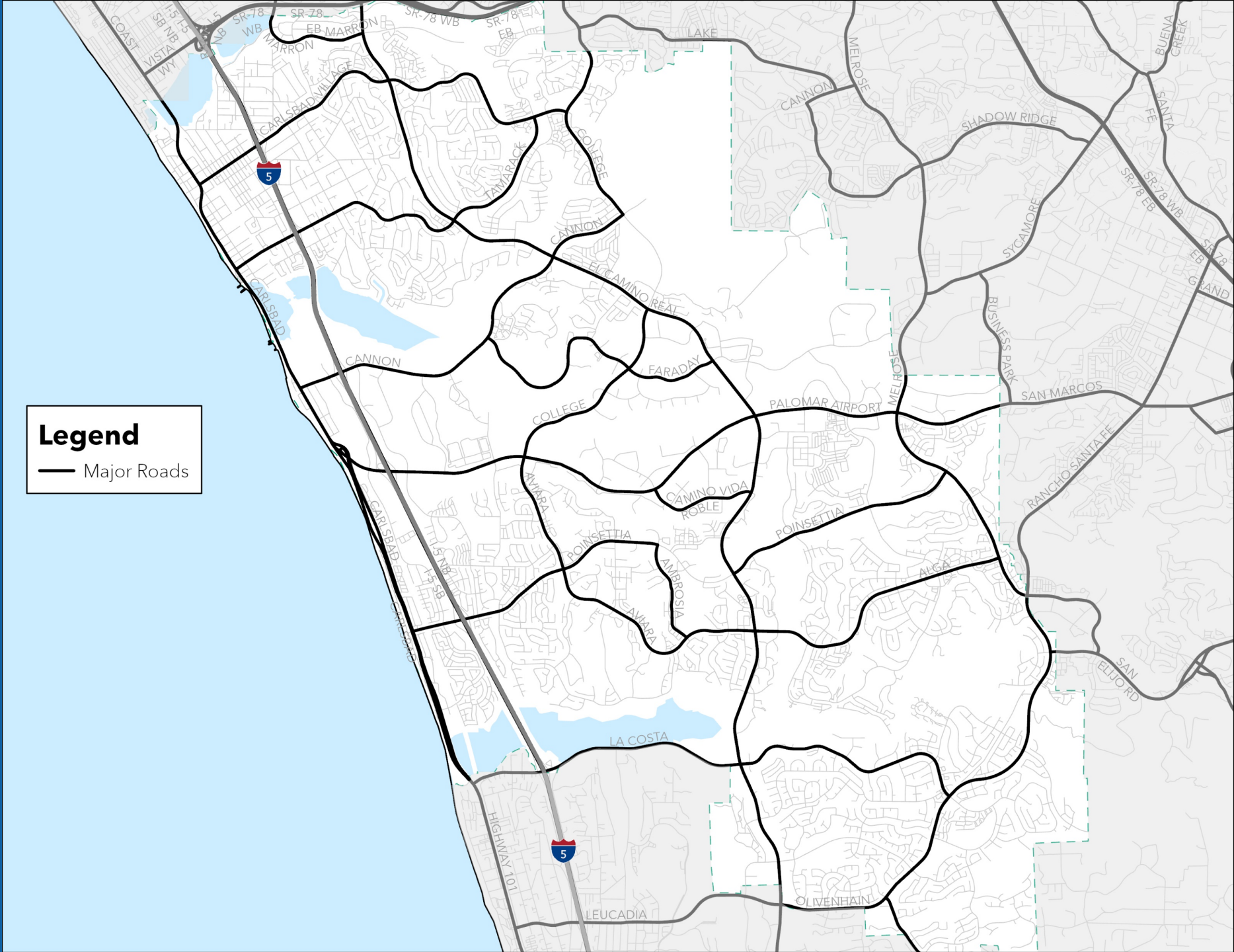
# BEST PRACTICES

- Plan for growth in areas where the transportation network can accommodate it
- Provide a diversity of land uses
- Develop a system of mobility hubs
- Provide infrastructure that allow travelers to have options
- Plan for multi-modal connectivity
- Utilize fee programs to require development to pay their fair-share and mitigate their impacts





**Legend**  
— Major Roads

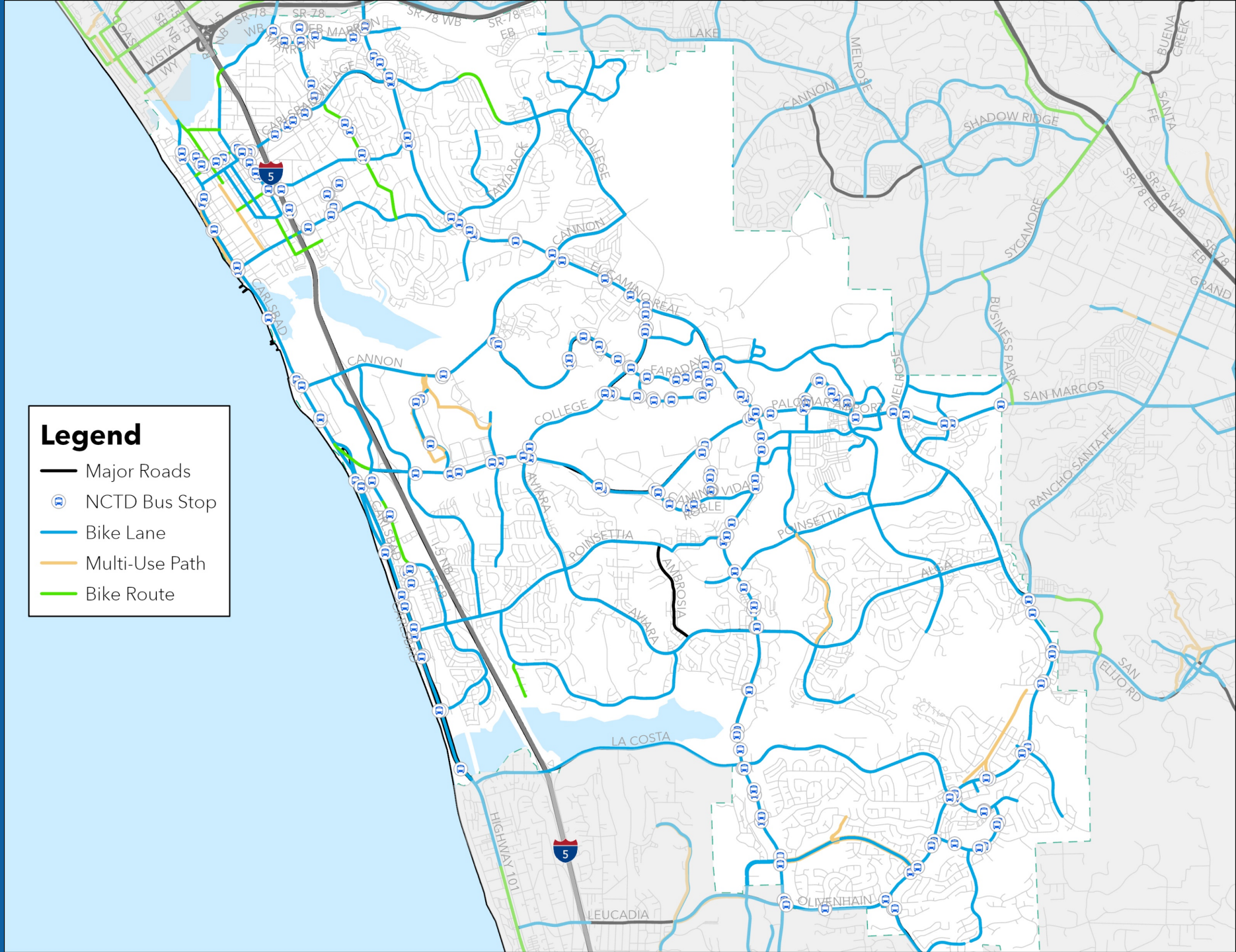


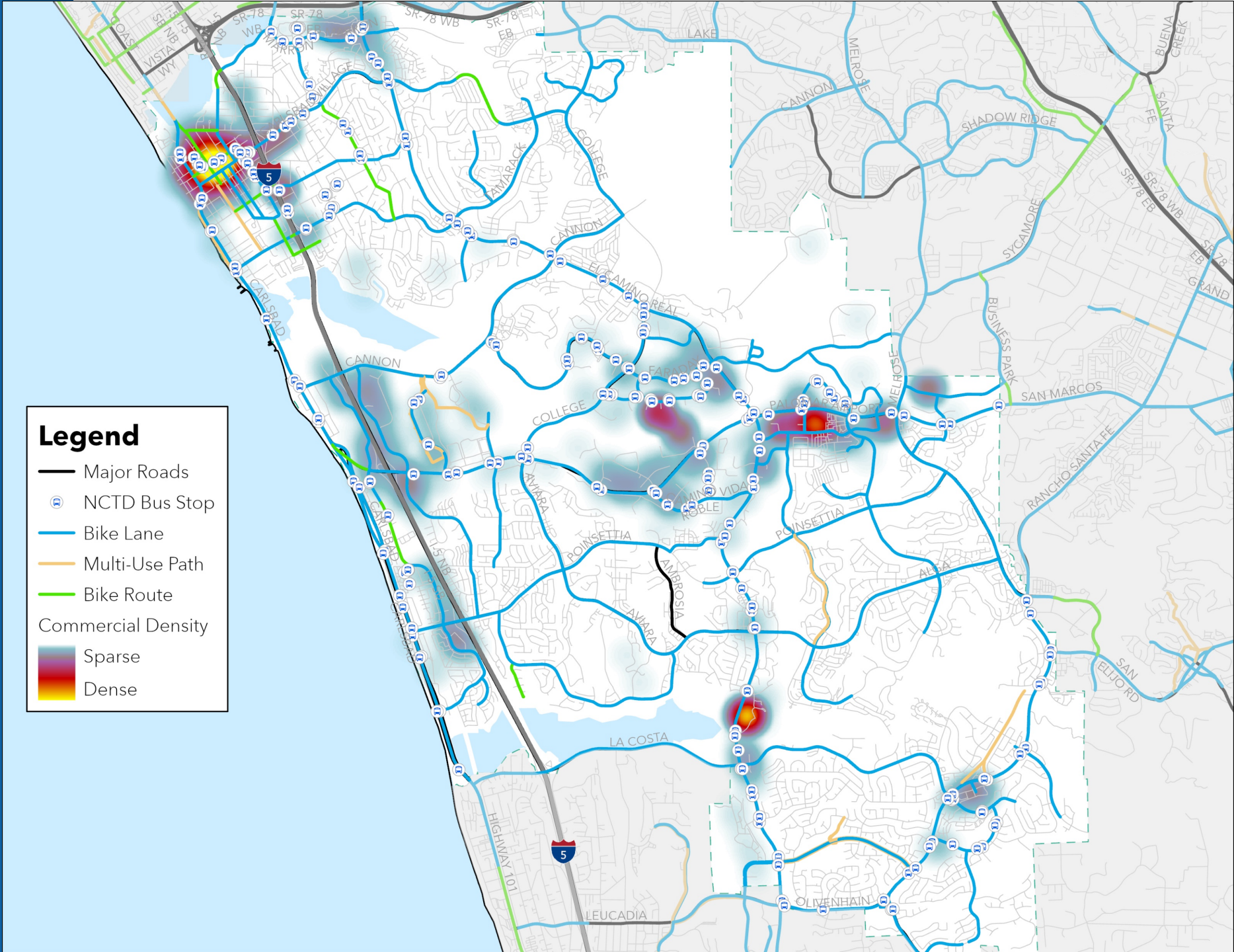




**Legend**

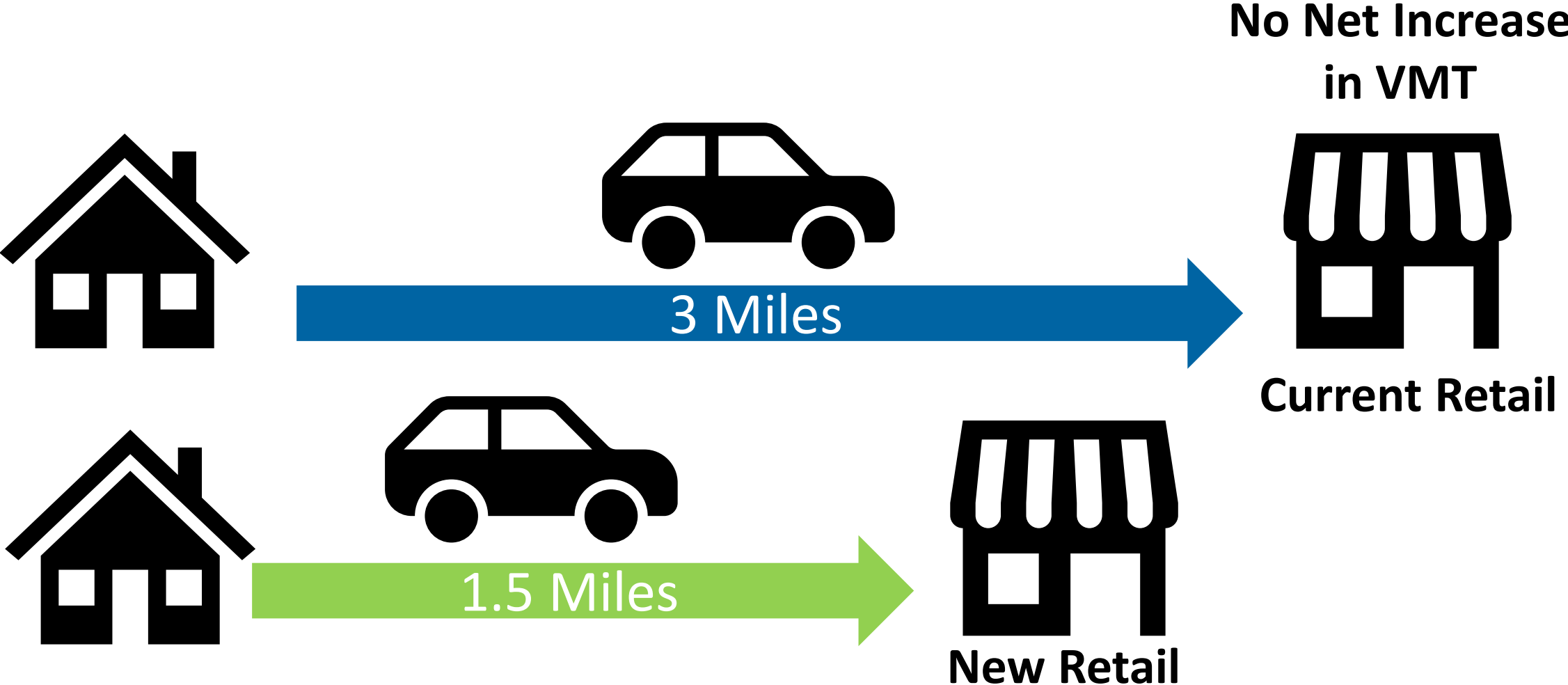
- Major Roads
- Ⓡ NCTD Bus Stop
- Bike Lane
- Multi-Use Path
- Bike Route



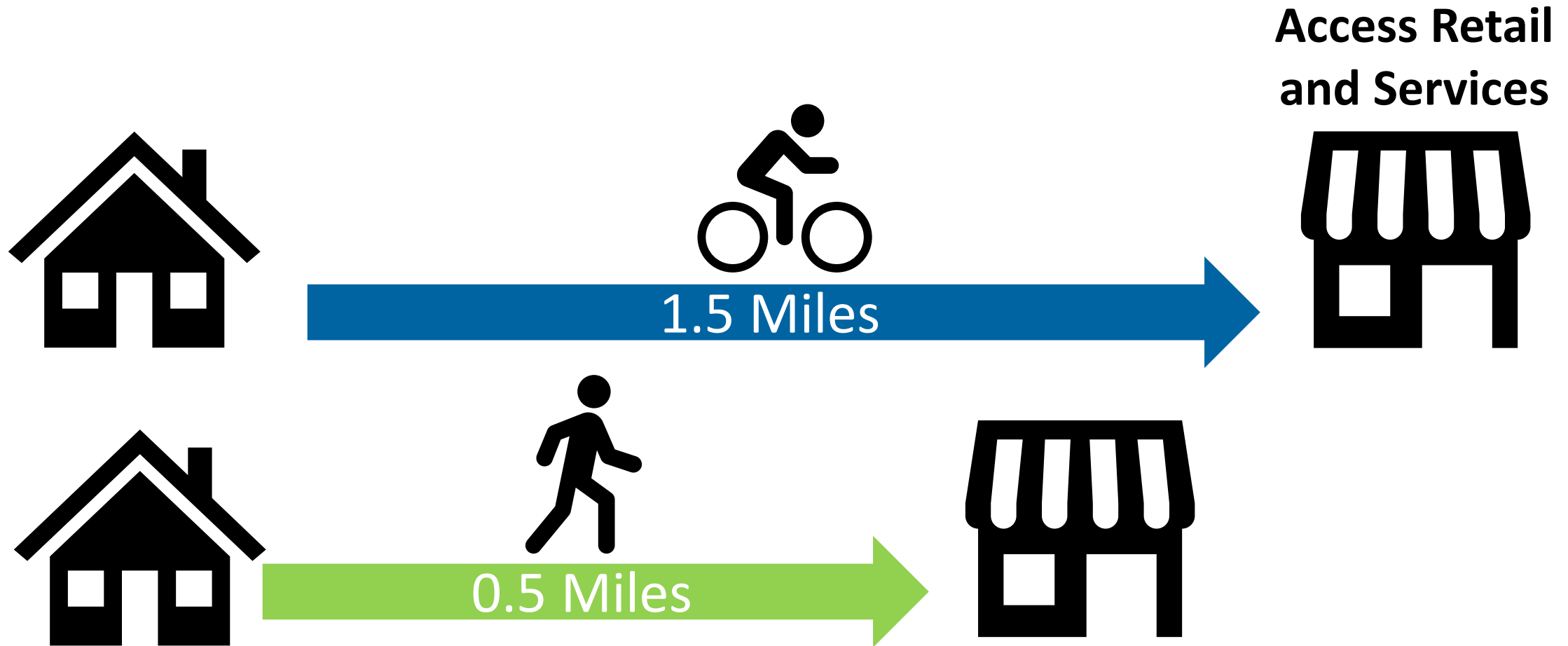


# HOW ARE IMPACTS DETERMINED

## Retail / Commercial Projects



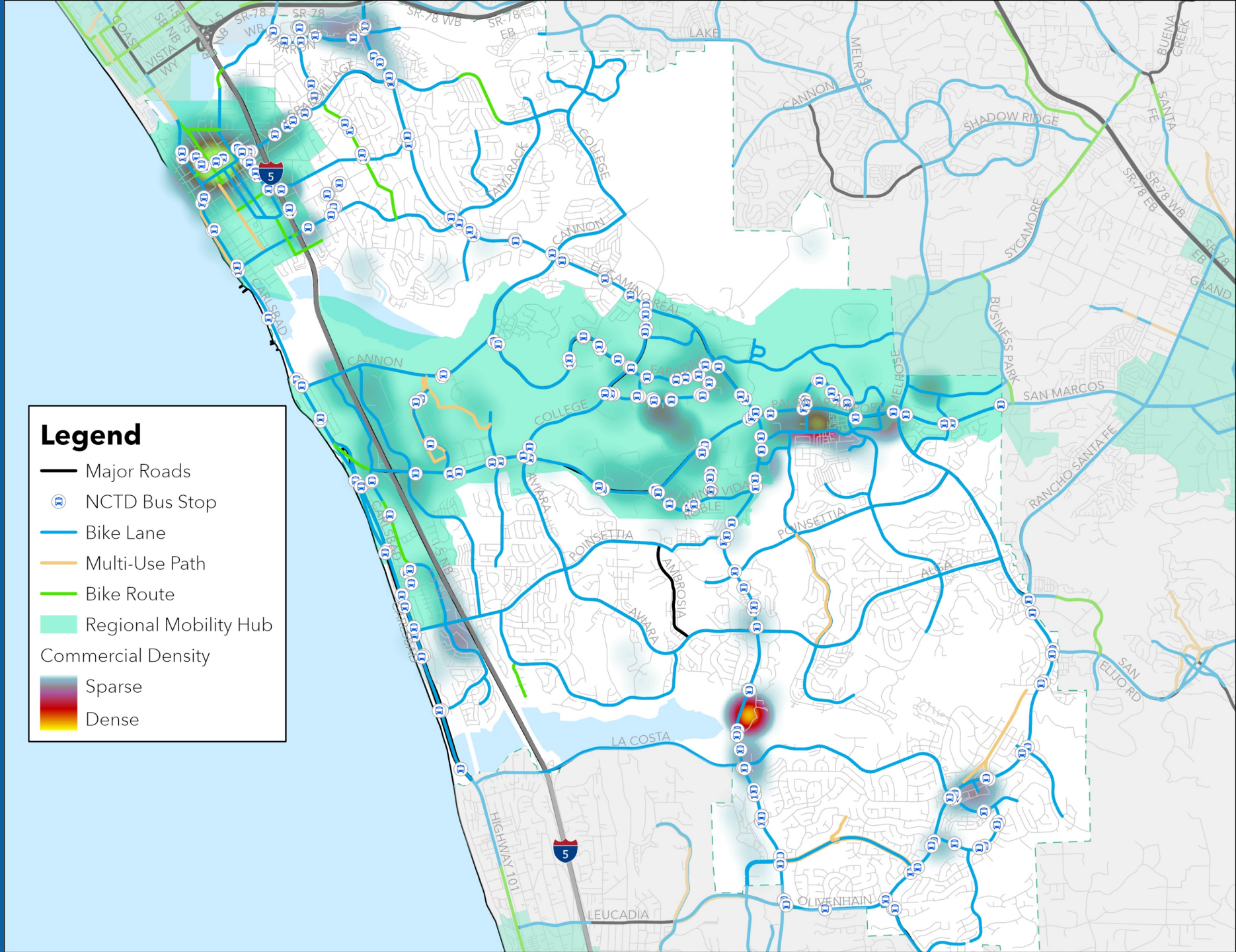
# CHANGING MODES





**Legend**

- Major Roads
- NCTD Bus Stop
- Bike Lane
- Multi-Use Path
- Bike Route
- Regional Mobility Hub
- Commercial Density
- Sparse
- Dense



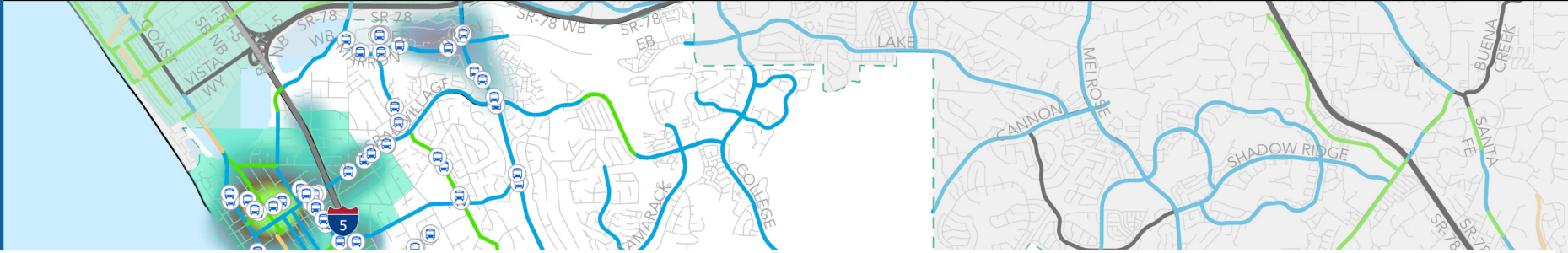


Table A.14: Mobility Hubs and Flexible Fleets

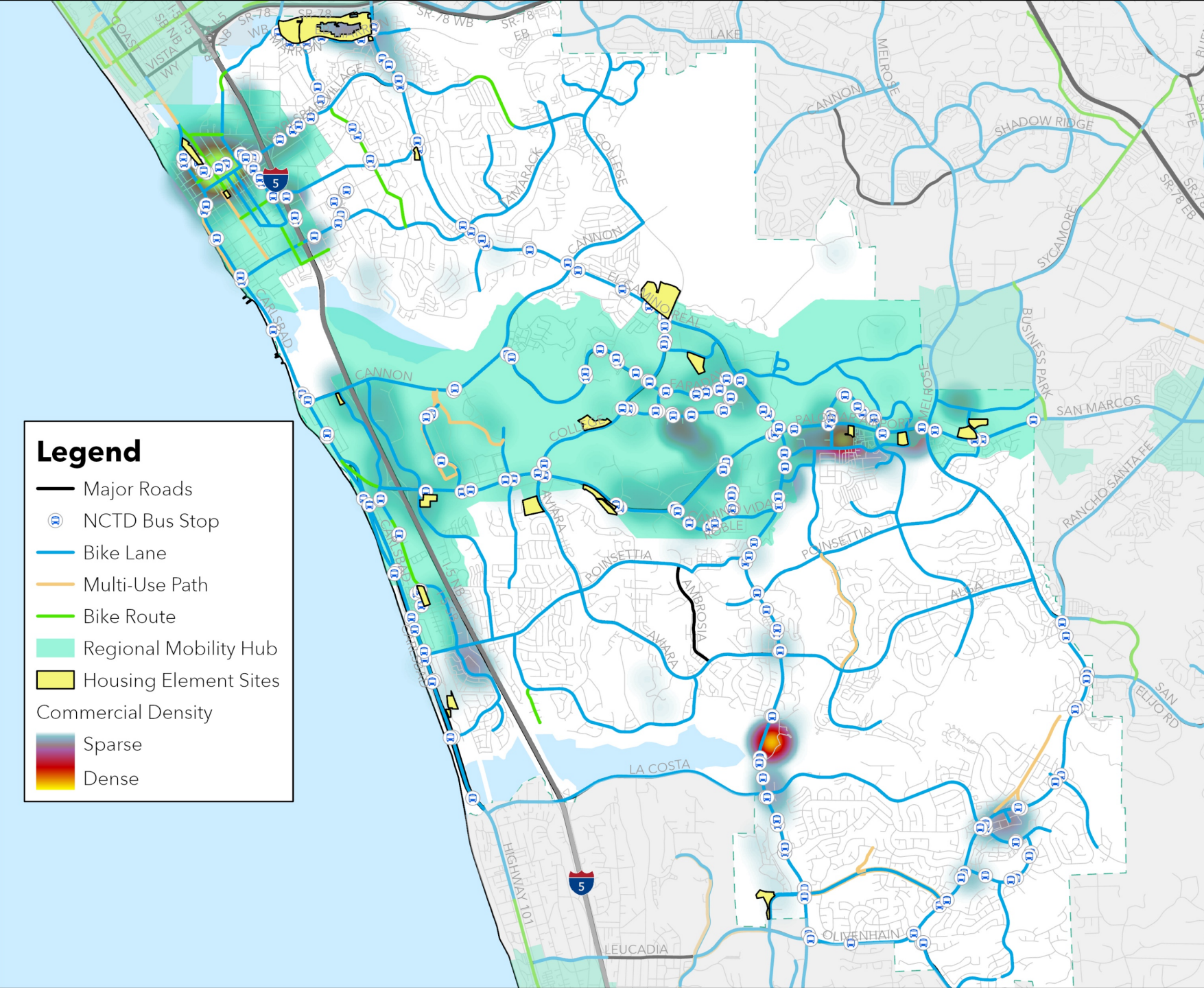
Mobility Hubs and Flexible Fleets					
Project ID	Year Built	Category	Project Name	Description	Cost (\$2020) Millions
MH1	2025	Mobility Hubs	Mobility Hub Amenities	Mobility hub amenities including secure micromobility parking and e-charging, interactive travel kiosks, EV charging infrastructure, passenger loading zones, parcel delivery lockers, and carshare parking	\$152
MH2	2035	Mobility Hubs	Mobility Hub Amenities	Mobility hub amenities including secure micromobility parking and e-charging, interactive travel kiosks, EV charging infrastructure, passenger loading zones, parcel delivery lockers, and carshare parking	\$247
MH3	2050	Mobility Hubs	Mobility Hub Amenities	Mobility hub amenities including secure micromobility parking and e-charging, interactive travel kiosks, EV charging infrastructure, passenger loading zones, parcel delivery lockers, and carshare parking	\$285
MHLA2	2035	Mobility Hubs	Other Mobility Hub Land Acquisition	Land acquisition for additional future mobility hub anchor stations	\$66
CCSI1	2035	Mobility Hubs	Complete Streets Improvements	Complete streets improvements within mobility hubs such as pedestrian, micromobility, and other traffic calming treatments that complement the Adopted Regional Bike Network	\$1,857
CCSI2	2050	Mobility Hubs	Complete Streets Improvements	Complete streets improvements within mobility hubs such as pedestrian, micromobility, and other traffic calming treatments that complement the Adopted Regional Bike Network	\$619

**\$3.2 Billion**

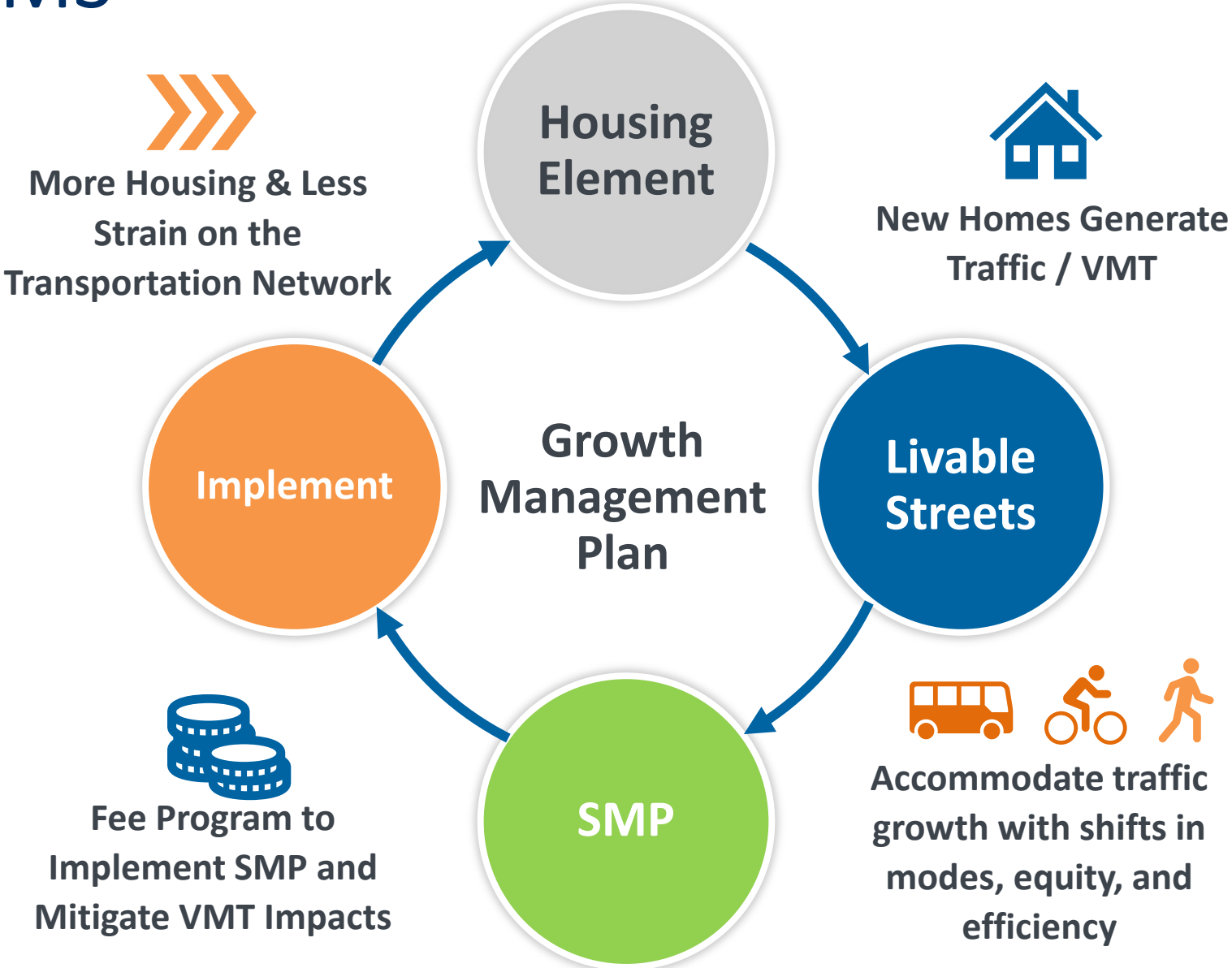


**Legend**

- Major Roads
- NCTD Bus Stop
- Bike Lane
- Multi-Use Path
- Bike Route
- Regional Mobility Hub
- Housing Element Sites
- Commercial Density
  - Sparse
  - Dense

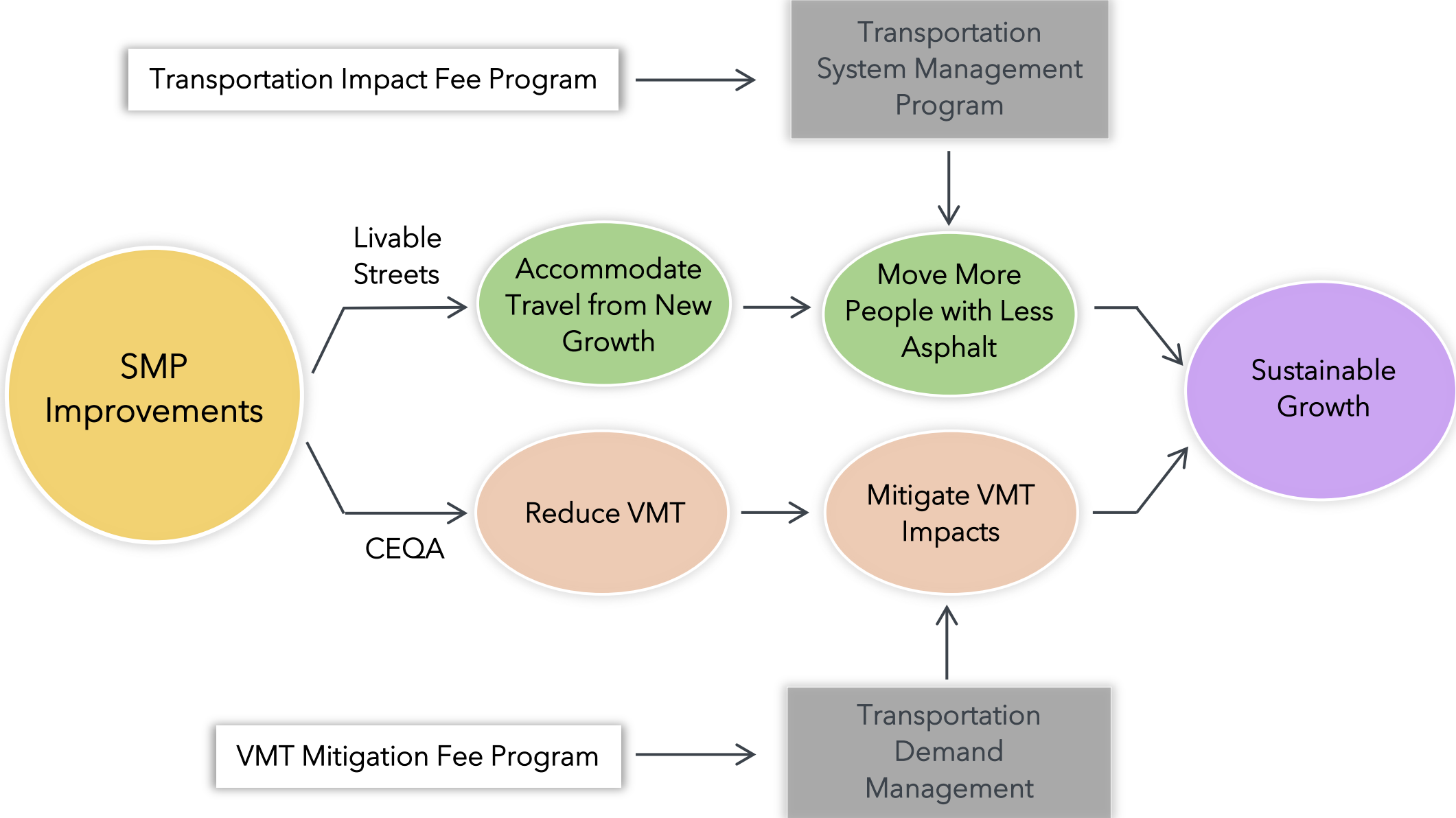


# HAVE GROWTH PAY THEIR FAIR-SHARE VIA FEE PROGRAMS





# FEE PROGRAM STRUCTURE





**Questions?**

Carlsbad   
TOMORROW 



# The Future of Growth Management Plan Standards Discussion

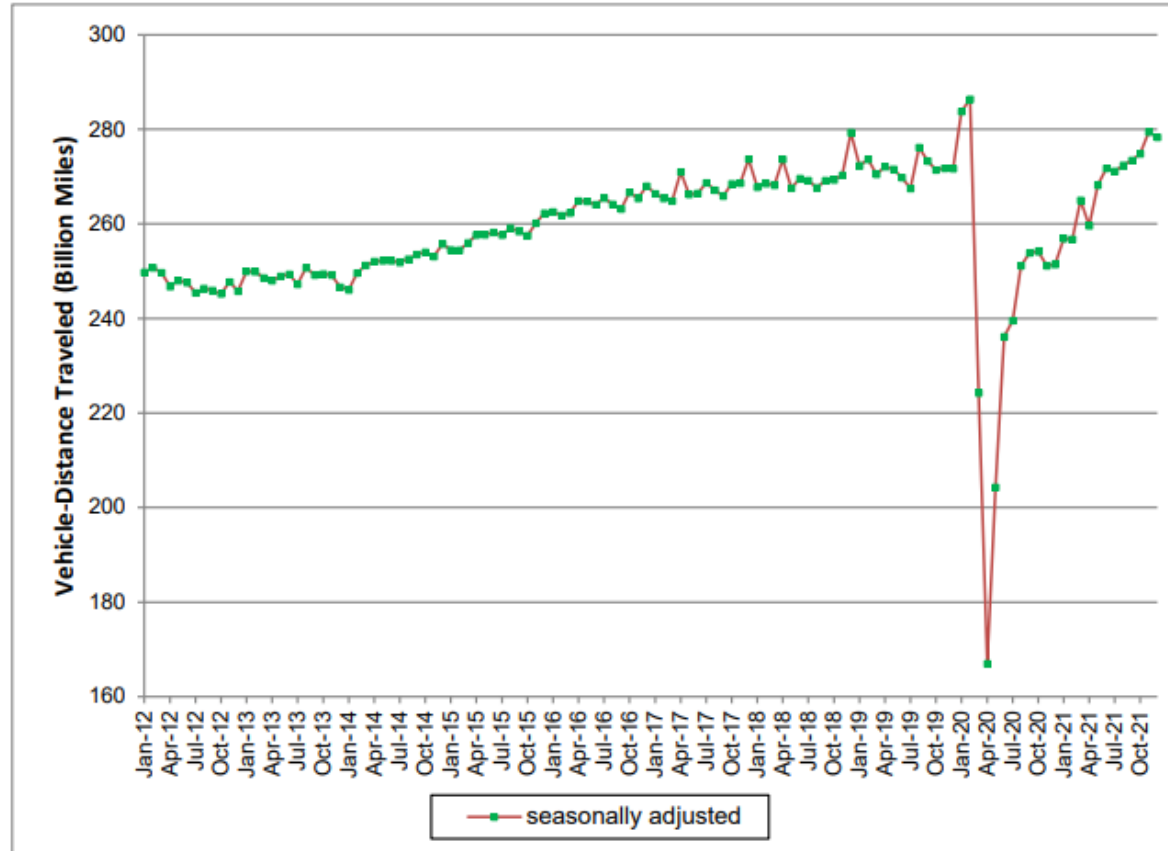
Carlsbad   
TOMORROW 

# FUTURE GROWTH PROJECTIONS FOR TRIPS IN CARLSBAD

- With the recent state law changes, like SB9 and SB10, the future residential units going up
- With the increase in units will be increase in vehicle trips and demand
- Under current vehicle LOS standards, the city will experience future roadway deficiencies

# PRESENT TRENDS

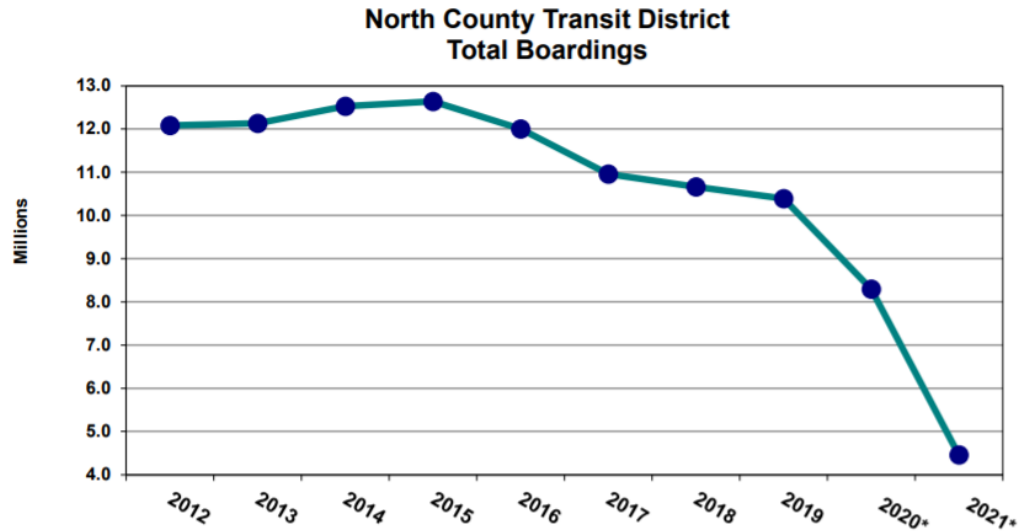
Figure – 3. Seasonally Adjusted Vehicle Miles Traveled by Month



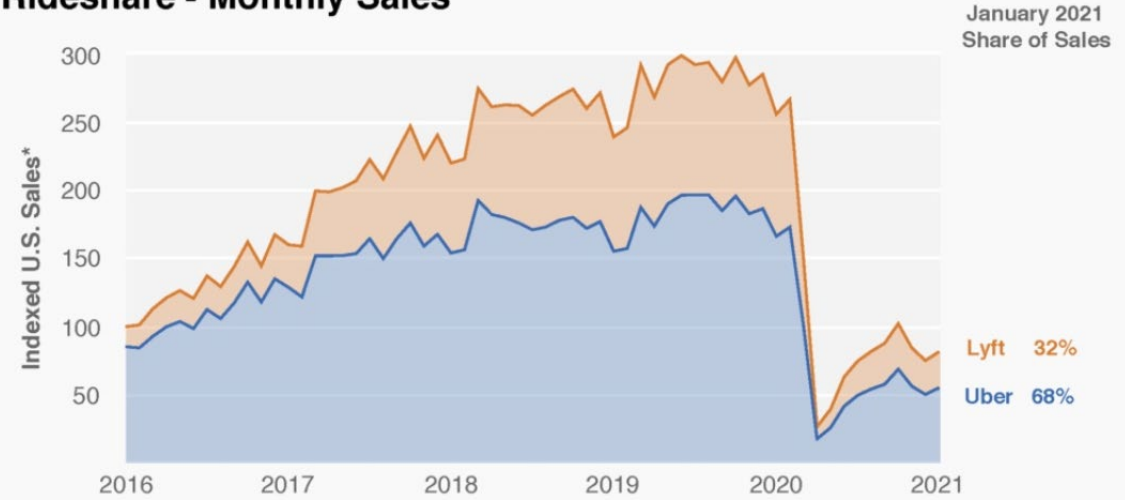
Seasonally adjusted data are modeled by the Bureau of Transportation Statistics, Office of the Assistant Secretary for Research and Technology, U.S. Department of Transportation. See <http://www.transtats.bts.gov/OSEA/SeasonalAdjustment/> for additional seasonally adjusted travel data and information.

# PRESENT TRENDS

Source: NCTD Internal Financial Information



### Rideshare - Monthly Sales



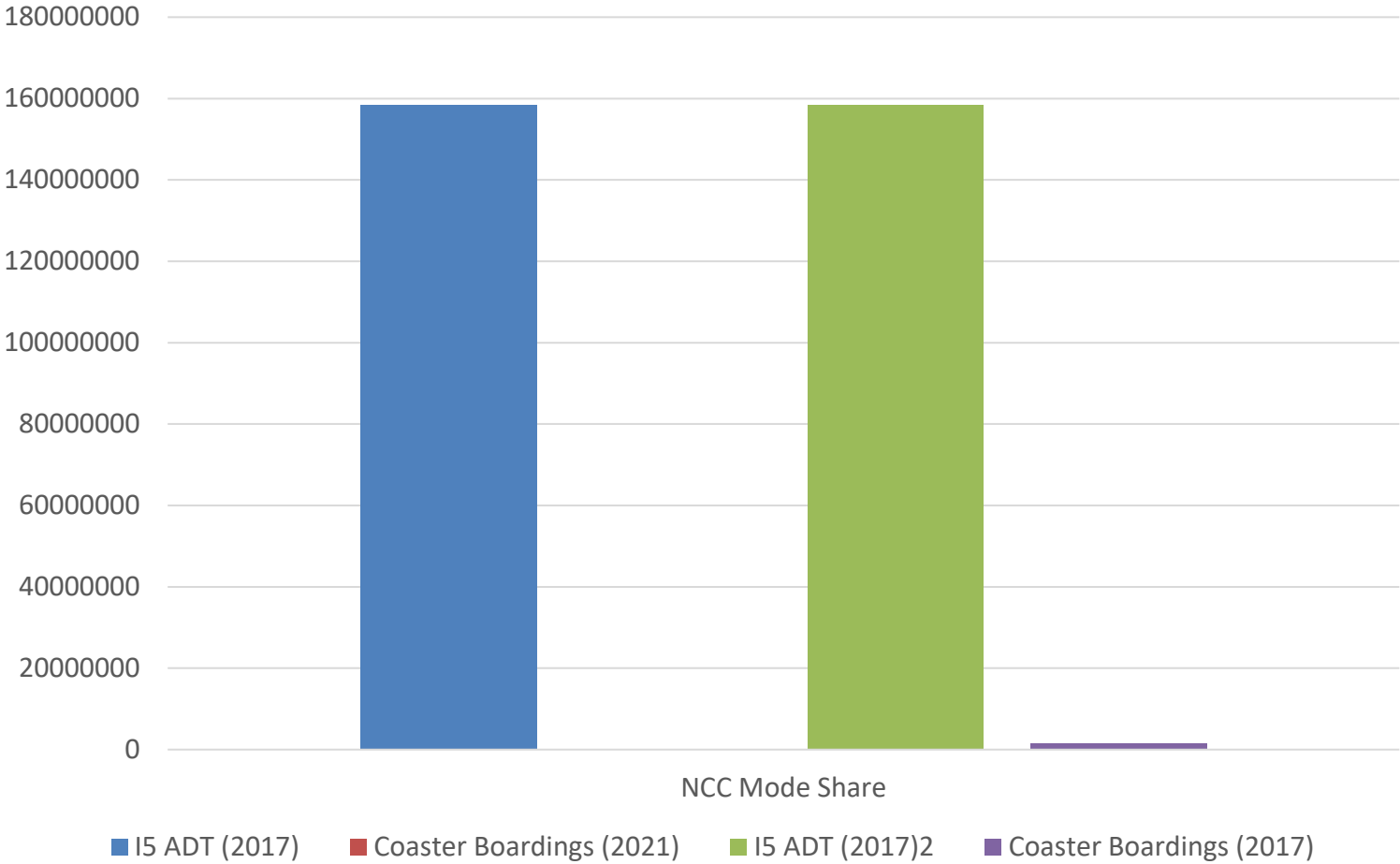
\* Indexed to rideshare Jan 2016 sales (=100).

\* Some Uber Eats sales are indistinguishable from Uber rides sales, especially in May-Aug. 2019. Corporate spending and purchases made with Uber Cash are not included.

Second Measure

# PRESENT TRENDS

## North Coast Corridor Program Mode Share



# VMT: GOOD VS. BAD?







<https://sdforward.com/mobility-planning/2021-regional-plan>

Carlsbad   
TOMORROW 

# STATUS OF REGIONAL PLAN

**SANDAG**

Item: **8**

**Board of Directors**

July 8, 2022

## Potential Update to the 2021 Regional Plan

### Overview

At its December 10, 2021, meeting, after adoption of the 2021 Regional Plan, the Board of Directors directed staff to immediately begin evaluation of a potential update to the 2021 Regional Plan for Board consideration, including evaluating alternatives to the regional road usage charge (RUC) program, staying with our values, upholding equity and other mechanisms that reduce pollution faster. This report summarizes preliminary modeling results and the work plan for updating the 2021 Regional Plan for the Board's consideration.

### Key Considerations

Updating the 2021 Regional Plan to remove the regional RUC<sup>1</sup> is considered a substantial change that would impact estimated revenues, phasing of projects and their costs, greenhouse gas (GHG) emissions, air quality analysis, performance metrics, and social equity analysis.

### Action: Discussion/Possible Action

Staff will present preliminary modeling results and the work plan for updating the 2021 Regional Plan for the Board of Directors' consideration.

### Fiscal Impact:

The update of the 2021 Regional Plan and Environmental Impact Report (EIR) may require additional funding in FY 2023. The FY 2023 Overall Work Program (OWP) includes a contingency fund that can be used to advance urgent, high priority needs per Board Policy No. 030. Pending board direction, staff may return to request funding from the OWP contingency fund.

### Schedule/Scope Impact:

The update to the 2021 Regional Plan and EIR could begin immediately following board approval.

- December 10, 2021, meeting, after adoption of the 2021 Regional Plan, the Board of Directors directed staff to immediately begin evaluation of a potential update
- July 8, 2022, Board of Directors approve a revision with schedule estimated through 2025

Carlsbad   
TOMORROW 

# CONCLUSIONS AND FUTURE CONSIDERATIONS

- Given how technology changed the transportation landscape over the last decade, SANDAG must continually reevaluate whether the portfolio of projects remaining to be completed are the best mix for achieving congestion relief and the other goals of the TransNet Program. >>>
- Regardless, if autonomous vehicles become commonplace, SANDAG must be nimble in its decisions on the design, operation, and supply of roadways, public transit, and active demand traffic management practices and employ planning efforts that avoid building expensive infrastructure that may soon become obsolete.

San Diego County  
Regional Transportation Commission  
**TransNet** Extension Ordinance: 10-Year Look-Back



January 2018 | Revised March 2018

SJOBERG EVASHENK  
CONSULTING, INC.

455 Capitol Mall • Suite 700 • Sacramento, California • 95814 • Tel 916.443.1300 • www.secbam.com

# CONSIDERATIONS FOR TRANSNET MOVING FORWARD

## Selected PWP/TREP Multi-Modal Project (Alternative 18)

- Double Track LOSSAN, Enhanced Regional Transit Service, and Four Buffer-Separated Express Lanes



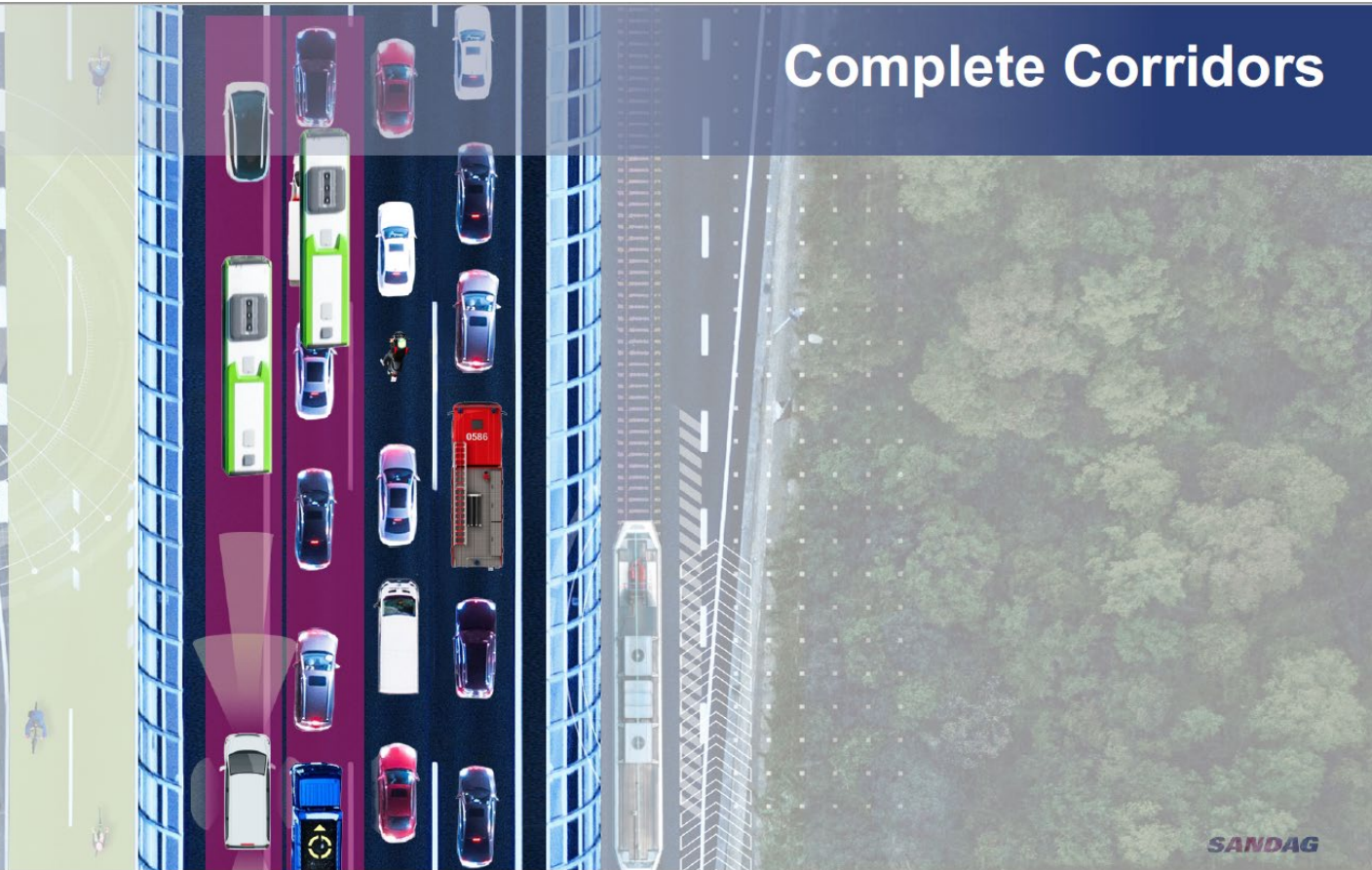
Figure 2-2.5b: Manchester Avenue DAR

# CONSIDERATIONS FOR TRANSNET MOVING FORWARD

## Selected PWP/TREP Multi-Modal Project (Alternative 18)

- Double Track LOSSAN, Enhanced Regional Transit Service, and Four Buffer-Separated Express Lanes

### Complete Corridors



The image shows an aerial view of a multi-modal transit corridor. On the left, there are green and blue lanes with various vehicles including a green bus, a white van, a blue car, a red car, and a white car. In the center, there are four buffer-separated express lanes with a white van, a blue car, a red car, and a white car. On the right, there is a double-track rail line with a train. The background shows a road and a forested area. The SANDAG logo is visible in the bottom right corner.

SANDAG

Carlsbad   
TOMORROW 



# CONSIDERATIONS FOR TRANSNET MOVING FORWARD

Flexible public transit fleets on managed lanes:

- Microtransit: On-demand transit, e-bikes, future mobility technology (wheels)
- Shared transportation options
- Flexible, compact, affordable, shared and provide direct access to destination

# CONSIDERATIONS FOR TRANSNET MOVING FORWARD

## Flexible Fleets

tailored to you



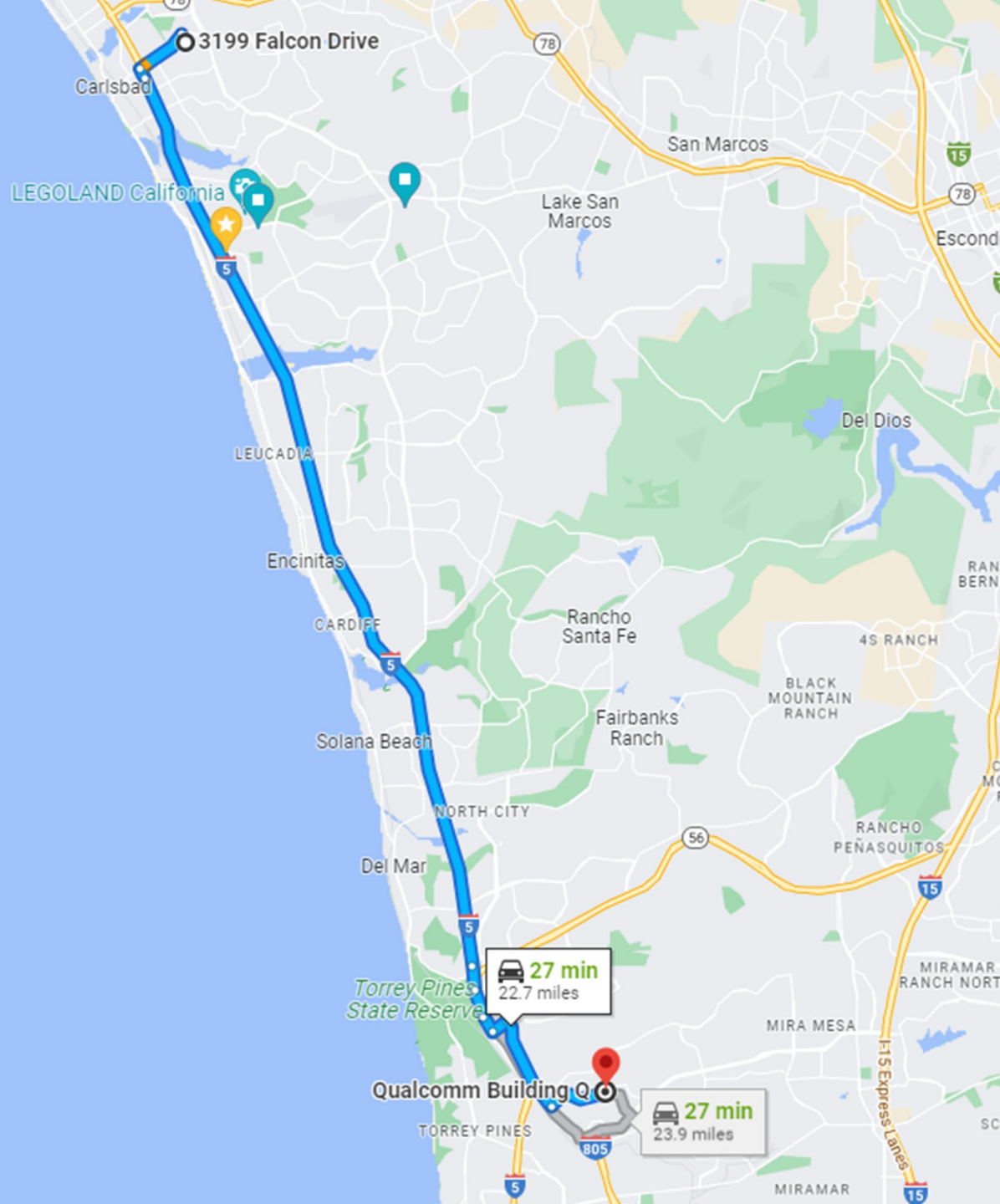
# CONSIDERATIONS FOR TRANSNET MOVING FORWARD

## Future updates to the Regional Plan:

- Considering trends over the last 7 years, review model assumptions predicting increased transit ridership
- Consider increasing budget for Complete Corridors, Flexible Fleets and Active Transportation
- Future changes to Extension Ordinance or Expenditure Plan reviewed by City/County Technical Advisory Committee (CTAC) or Mobility Working Group and ITOC



# PRESENT TRAVEL MODE CHOICES: TRAVEL TIME EXAMPLE



- TRIP START: Carlsbad Village
- TRIP END: Sorrento Valley Employment Center

# PRESENT TRAVEL MODE CHOICES

Carlsbad Village to Sorrento Valley Employment Center

Travel Mode	Travel Time	Average Speed	Trip Legs
Drive (SOV)	32 min.	44 MPH	Walk, Drive, Park, Walk
Rideshare	42 min.	34 MPH	Walk, Rideshare, Walk
Transit (COASTER)	2 hr. 19 min.	10 MPH	Walk, Rideshare, Train, Rideshare, Walk
Bike	2 hr. 8 min.	11 MPH	Bike, walk
E-Bike	1 hr. 13 min.	20 MPH	E-Bike, walk

# FLEXIBLE FLEET SERVICES



**Micromobility**

Low-speed devices



**Ridehail & Carshare**

On-demand vehicles



**Rideshare**

Shared rides



**Microtransit**

On-demand shuttles



**Last Mile Delivery**

Ground and aerial  
package delivery

# Beep

## Electric Mobility Hub Network



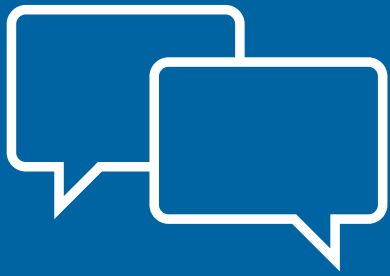
# Globalvia

## San Diego's NextGen Managed Lanes Network





Circulation – Implement a comprehensive livable streets network that serves all users of the system – vehicles, pedestrians, bicycles and public transit. Maintain LOS D or better for all prioritized modes of travel, as identified in the General Plan Mobility Element, excluding LOS exempt intersections and streets approved by the City Council.



## POSSIBLE UPDATES

- Should we implement policies that allow the city to provide faster, fairer, cleaner, and safer mobility options?
- Should we remove LOS standards for monitoring purposes and focus on improving citywide connectivity?

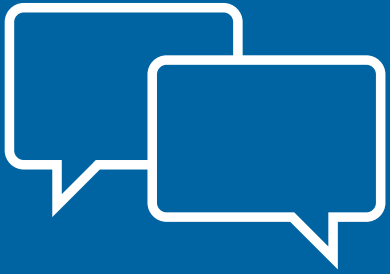


**Questions?**

Carlsbad   
TOMORROW 



# DISCUSSION QUESTIONS



- Is this standard important to quality of life in Carlsbad?
- Should this standard be re-evaluated in any way?



# Committee Member Requests for Future Agenda Items

Carlsbad   
TOMORROW 

# Public Comment





# Adjournment

**Next Meeting: Aug. 25, 2022**

Carlsbad   
TOMORROW 