

San Diego Docked E-Bike Share Planning





Heads Up

I do not speak on behalf of SDSU. Views and opinions expressed are my own.

San Diegans Deserve a Bike Share System

San Diego is the 3rd largest city in the United States without bike share

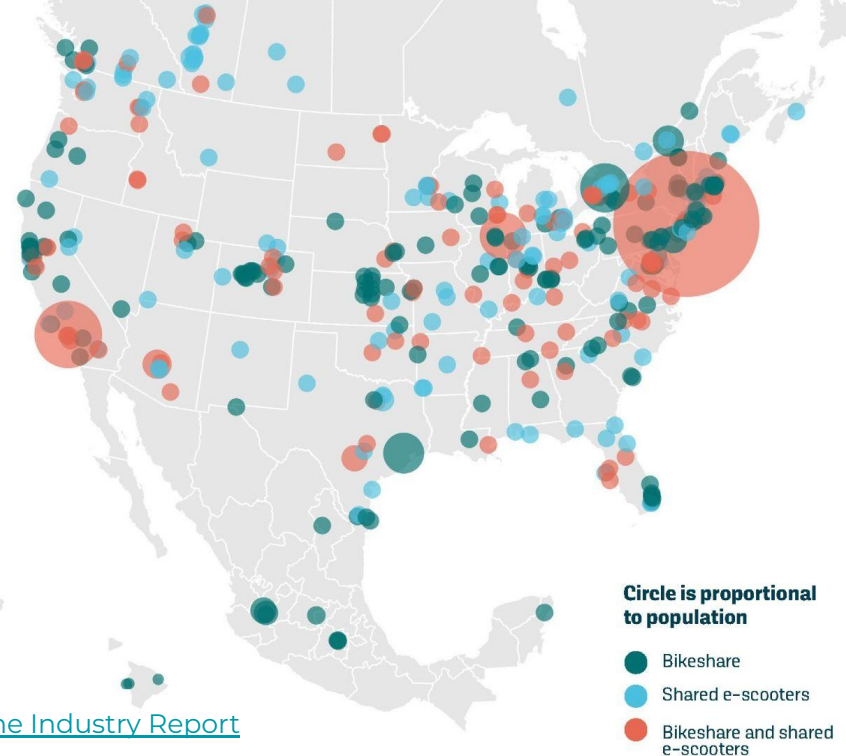
At least **415** cities in North America had a **scootershare** or **bikeshare** system in 2024.

This includes:

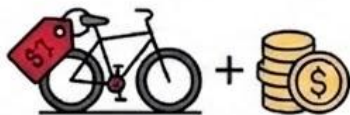
- 354 cities in the United States
- 52 cities in Canada
- 9 cities in Mexico

Source: [NABSA 2024 State of the Industry Report](#)

North American Cities with Shared Micromobility Systems, Shown by Population Size

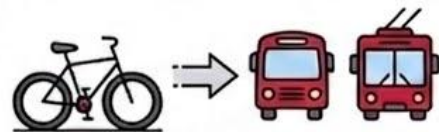


Project Goals



1. Affordable Mobility.

Add affordable mobility options to lower the cost of living in SD.



2. Transit Connectivity.

Increase transit ridership by improving first mile/last mile connectivity.



3. Reduce Congestion & Emissions.

Decrease traffic congestion, decrease GHG emissions, and improve air quality.



4. Better Health Outcomes.

Facilitate better health outcomes by making active transportation easier.



5. Housing Affordability.

Enable housing development with fewer parking spaces to improve housing affordability.

Benefits of Bringing Docked E-Bike Share to San Diego

Reduced reliance on personal vehicles

Source: [NABSA 2024 State of the Industry Report](#)

- 74% of riders reported using bike share to connect to transit
 - 22% do so weekly
- 35% of bike share trips **replace car trips**
- Offset about **101 million lbs of CO₂ emissions** by replacing car trips in 2024 alone

Attractive transportation option

Source: [MAUTC Economic Benefits of Capital Bike Share](#)

- 25% of DC bike share users motivated by cost
- 73% motivated by travel time

Improves local community

Source: [MAUTC Economic Benefits of Capital Bike Share](#)

- 70% of DC local business owners reported **positive impact on neighborhood**

Economic Impact of Bike Share

Time savings

Source: [The economic contribution of public bike-share](#)

- Time savings of **€6.06 (\$7.03) million per year** from Dublin bike share and total economic benefits of **€6.79 (\$7.88) million per year**

Increased economic activity

Source: [The economic contribution of public bike-share](#)

- 16% of Dublin riders reported **new spending** due to bike share

Source: [MAUTC Economic Benefits of Capital Bike Share](#)

- 23% of DC riders reported **increased spending**
- 16% reported making **new trips**

Job growth

Source: [NABSA 2024 State of the Industry Report](#)

- **1 job** for every 41 shared mobility vehicles

Economic Impact of Bike Share

Favorability from local business owners

Source: [The economic contribution of public bike-share](#)

- 70% of Dublin business owners say bike share is **good for business**
 - Only 20% reported negative impact

Source: [MAUTC Economic Benefits of Capital Bike Share](#)

- 20% of DC business owners say bike share **increases sales**
 - Only 1% say bike share decreases sales
- 61% had neutral or positive opinion of bike share stations replacing parking in front of business
 - 39% had negative reaction
- 59% **want more stations** installed
 - Only 1% want stations removed

Bike Share Safety

Low Fatality Rate

Source: [NHTSA Emerging Issues](#)

- Docked bike share only had two recorded fatalities in the US out of 88 million trips from 2010 to 2016
 - Driving fatality rate is 13.46 deaths for the same number of trips, making bike share **over 6x safer than driving**

Fatality rate per mile driven * average car trip length * 88,000,000
(1.20 / 100,000,000) * (31.1 / 2.44) * 88,000,000 = 13.46 deaths per 88 million trips

Safer than private biking

Source: [ITF The Safety of Bike Share Systems](#)

- 2.6 minor injuries per million kilometers compared to 5.8 minor injuries per million kilometers on private bikes in London

Lowers overall injuries

Source: [ITF The Safety of Bike Share Systems](#)

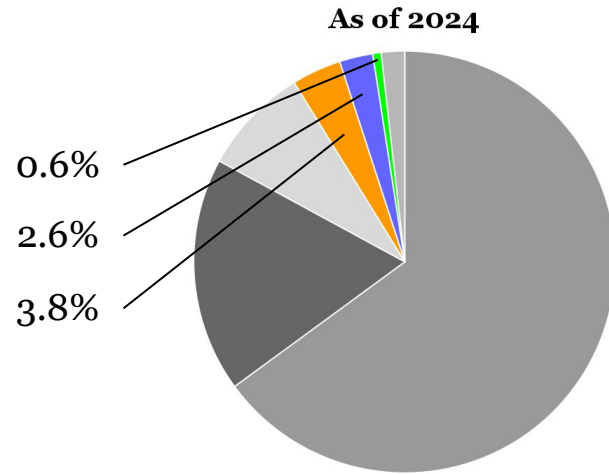
- Overall **injuries decreased** from 757 per year to 545 in bike share cities compared to going from 932 to 953 injuries per year in control cities

San Diego City Climate Action Goals

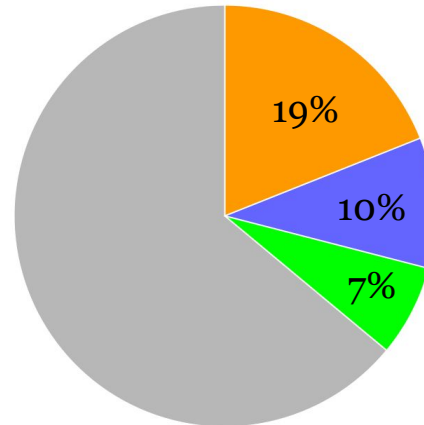
Source: [City of San Diego Climate Action Plan](#)

- Drove alone
- Worked from home
- Carpooled
- Walked
- Took public transportation
- Biked
- Other

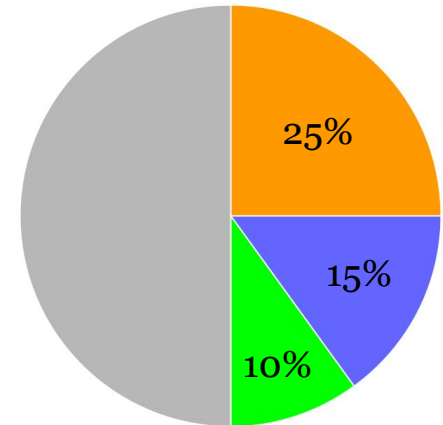
Desired 11.7x increase in biking by 2030 and 16.7x by 2035



2030 Mode Share Goals



2035 Mode Share Goals



Note: Data is from the American Community Survey, which only gathers data about primary mode of transportation to reach employment. It does not represent secondary modes, non-employment modes, or occasional modes.

Bike Share Support in City Climate Action Plans

City of La Mesa

Source: [La Mesa Climate Action Plan \(2024\)](#)

- “With an average temperature of 71 degrees, the San Diego region is one of the best places in the country to travel on two wheels.”
- Collaborates with San Diego Bicycle Coalition to host free bicycle classes

City of Chula Vista

Source: [Chula Vista Climate Action Plan \(2017\)](#)

- Transportation Demand Management Goals:
 - A) Utilize bike facilities, transit access/passes and other Transportation Demand Management and congestion management offerings
 - B) Expand bike-sharing, car-sharing and other “last mile” transportation options

National City

Source: [National City Climate Action Plan \(2024\)](#)

- TLU-1: Reduce vehicle miles traveled
 - TLU-1.6: “Improve access to bike share”

City of Carlsbad

Source: [Carlsbad Climate Action Plan \(2024\)](#)

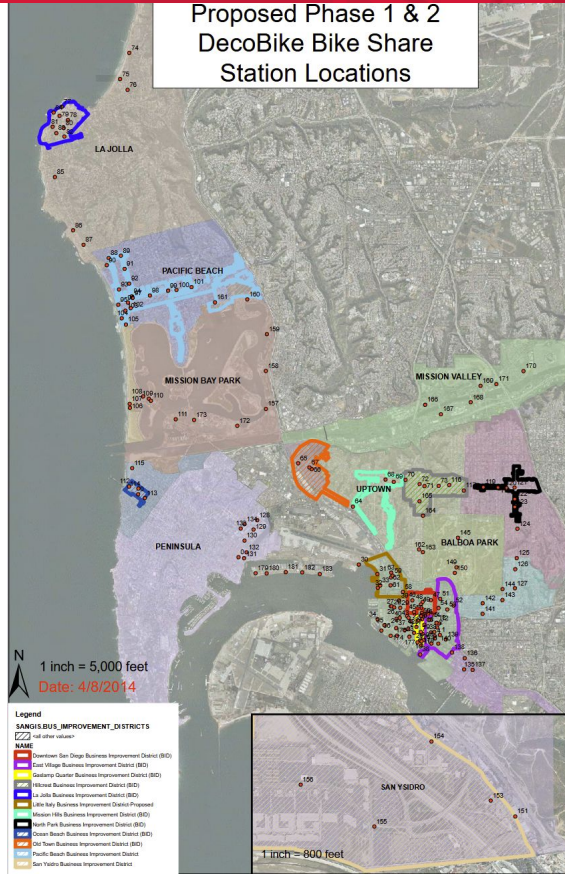
- Bikeway System Improvements
 - “Explore launch of a citywide bike share program”

City of Encinitas

Source: [Encinitas Climate Action Plan \(2020\)](#)

- Supporting Measure (Goal 4.1): Develop program to support car sharing and bike sharing for the community
 - Got bike share rental program in 2022 but discontinued it in 2024

Previous Docked Bike Share Program: Discover Bike



Why it failed

- Stations spread far apart
 - Only completed half of planned system
- Competition with dockless programs
- Poor bike infrastructure
- High prices

Problems solved

- Electric bikes allow for increased range
- Dockless programs have been sunsetted
- Expanded bike network, rapid buses and trolley extension
- Subsidized program could lower costs

Bike Share System Scenarios

Scenario 1

Urban Core

- Focused on densest, most suitable areas
- Lowest upfront cost
- Limited destinations
- Most common form of bike share
- Services San Diego
- Around 200 stations

Scenario 2

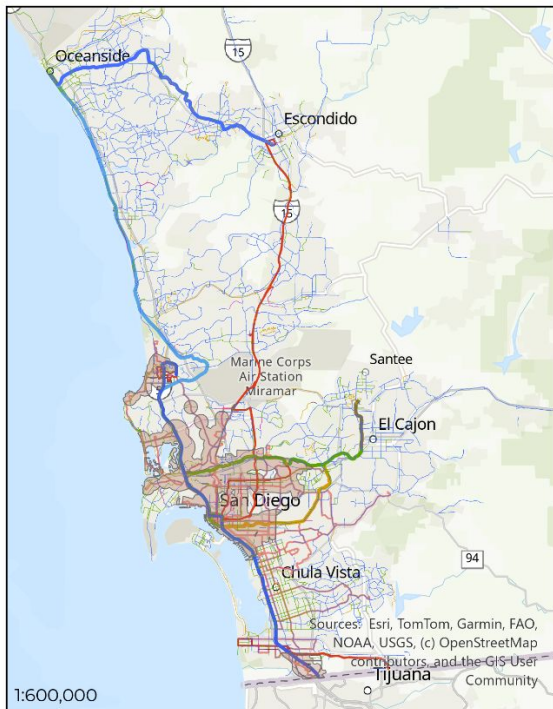
Transit-Oriented

- Urban core, plus transit connections around region
- Works alongside transit goals and could boost ridership for both
- Services multiple cities
- Around 500 stations

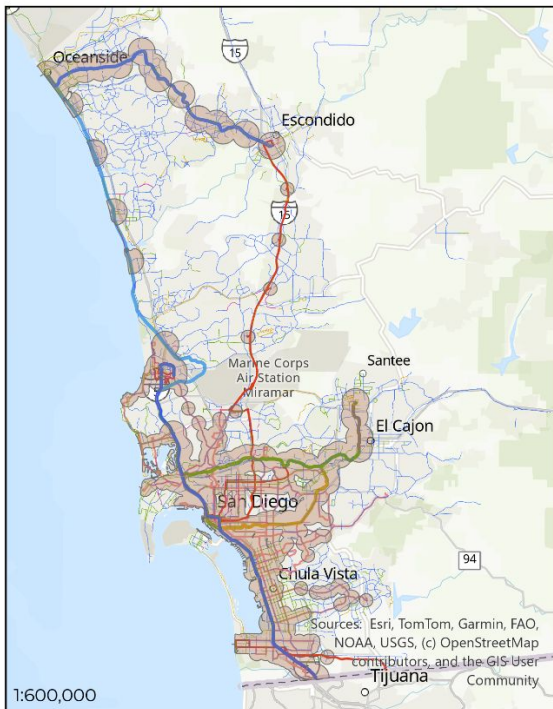
Scenario 3

Long-Range Development

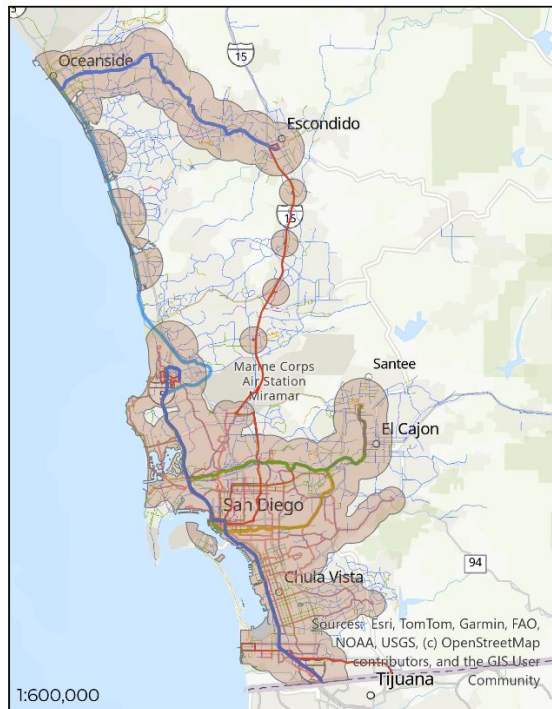
- Urban core and transit connection, plus more area around transit
- Best connectivity
- Very expensive up-front due to station count
- Services full County
- Around 800 stations



Scenario 1: Urban Core



Scenario 2: Transit-Oriented



Scenario 3: Long-Range Development

San Diego Bikeshare Coverage Scenarios

By Stephen Greenwood

Note: Coverage areas are shown by buffers along transit stops and are not final. Selected areas are rough and subject to change.



Bike Class	Transit Route Type	
1	Frequent Bus	Green Line Trolley
2	Rapid Bus	Blue Line Trolley
3	Coaster Commuter Rail	Copper Line Trolley
4	Sprinter Light Rail	
5	Orange Line Trolley	

Scenario 1

Urban Core

By Stephen Greenwood

1-mile buffer around rail stops, 1/2-mile buffer around frequent bus stops with 50 riders on/off per day, 1/10 mile buffer around bikeways in the transit buffer, confined to original DecoBike plan and scooter corral ZIP code areas

Map of coverage areas (left)
Map of businesses served (right)

Note: Coverage areas are shown by buffers and are not final. Selected areas are rough and subject to change.

Bike Class

- 1
- 2
- 3
- 4
- 5

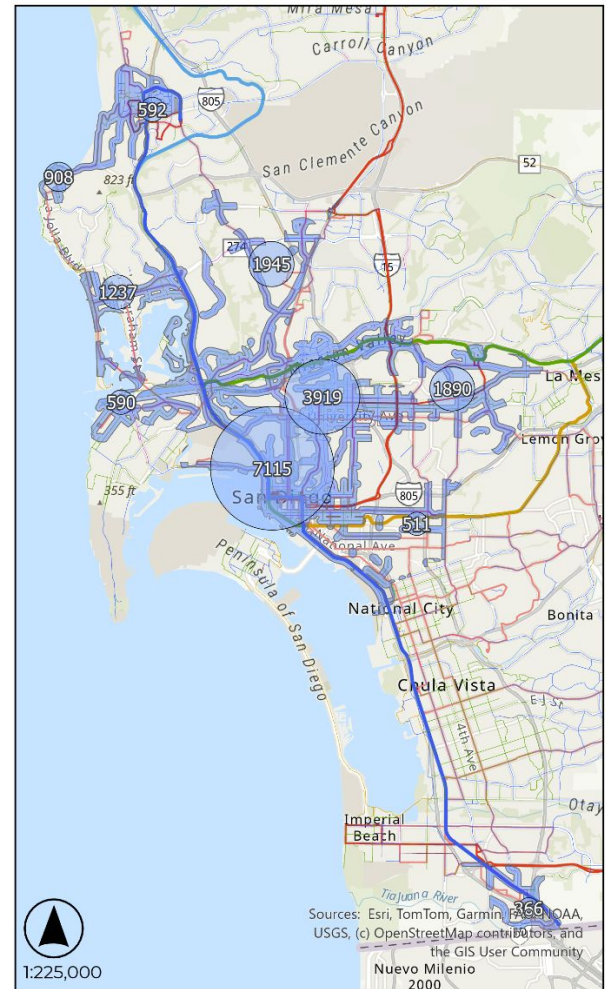
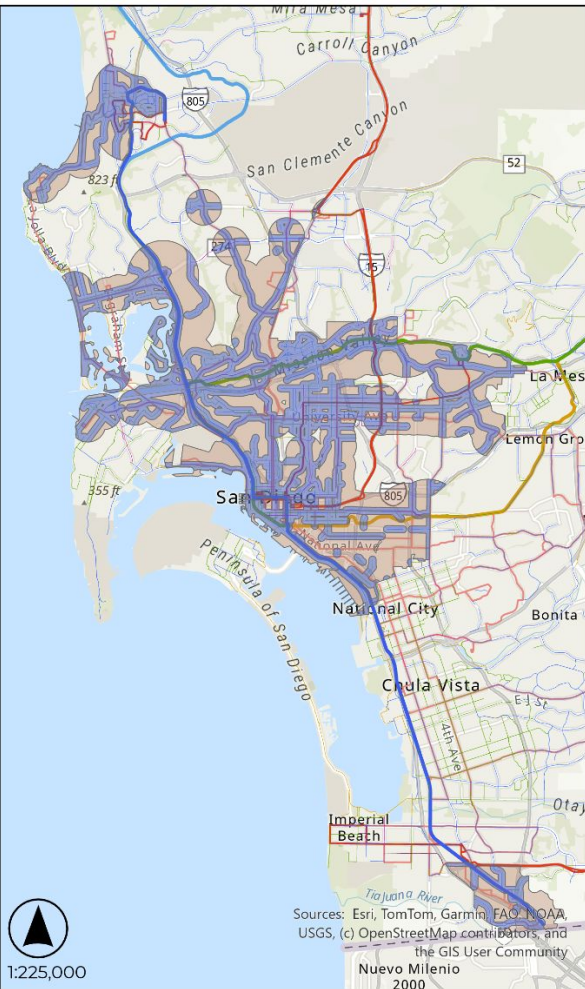
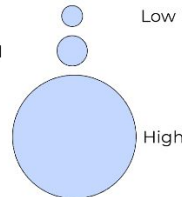
Transit Route Type

- Frequent Bus
- Rapid Bus
- Coaster Commuter Rail
- Sprinter Light Rail
- Orange Line Trolley
- Green Line Trolley
- Blue Line Trolley
- Copper Line Trolley



- Transit Stops Buffer
- Bikeways Buffer

Businesses Served



Scenario 2

Transit-Oriented

By Stephen Greenwood

1-mile buffer around rail stops, 1/2-mile buffer around frequent bus stops with 50 riders on or off per day, and 1/10 mile buffer around bikeways in the transit buffer

Map of coverage areas (left)
Map of businesses served (right)

Note: Coverage areas are shown by buffers and are not final. Selected areas are rough and subject to change.

Bike Class

- 1
- 2
- 3
- 4
- 5

Transit Route Type

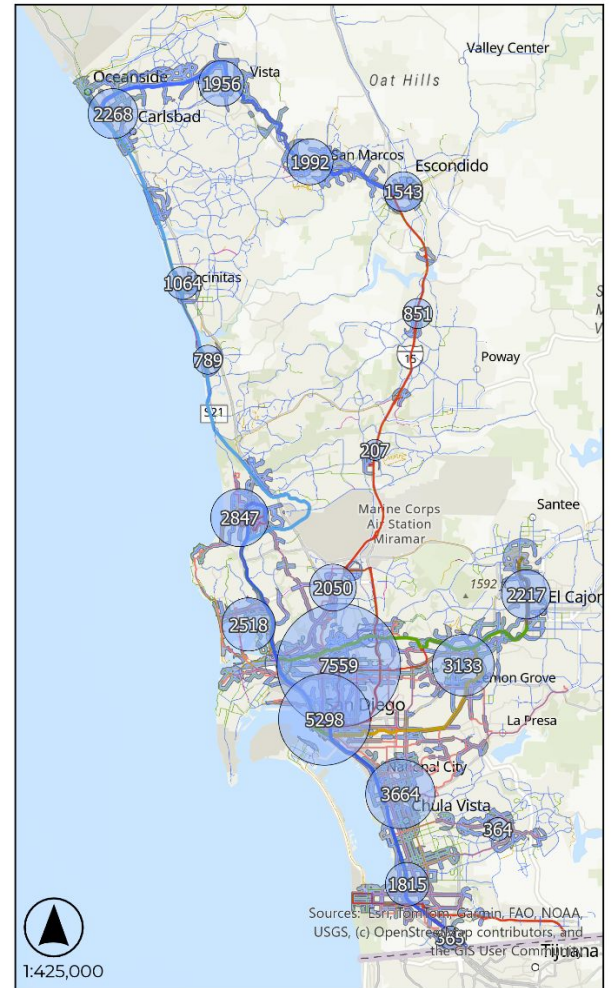
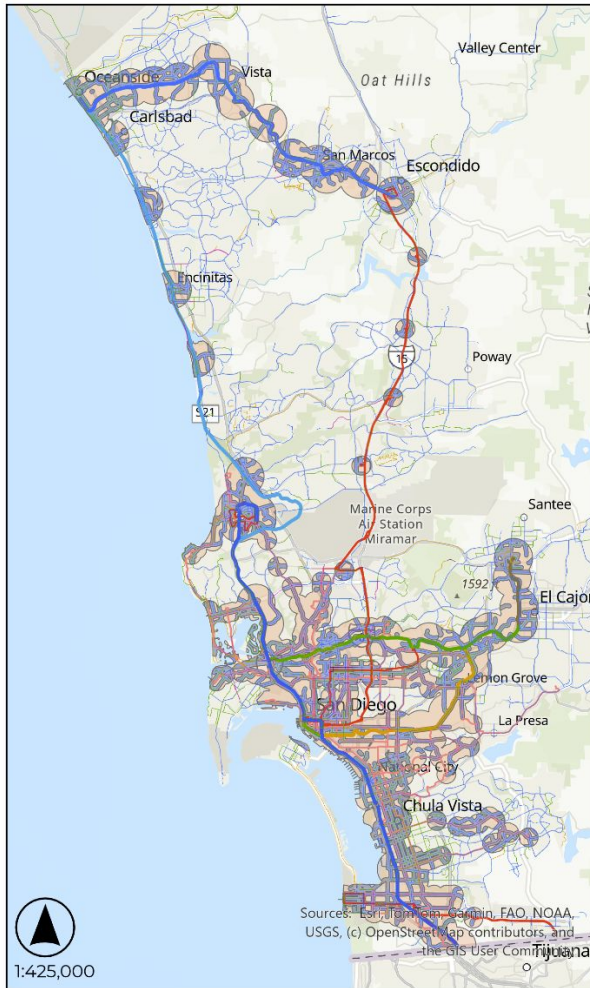
- Frequent Bus
- Rapid Bus
- Coaster Commuter Rail
- Sprinter Light Rail
- Orange Line Trolley
- Green Line Trolley
- Blue Line Trolley
- Copper Line Trolley



- Transit Stops Buffer
- Bikeways Buffer

Businesses Served

- Low
- High



Scenario 3

Long-Range Development

By Stephen Greenwood

2-mile buffer around rail stops, 1-mile buffer around frequent bus stops, and 1/10 mile buffer around bikeways within the transit buffer

Map of coverage areas (left)
Map of businesses served (right)

Note: Coverage areas are shown by buffers and are not final. Selected areas are rough and subject to change.

Bike Class

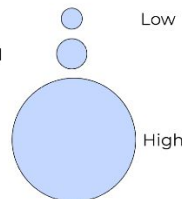
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- 2
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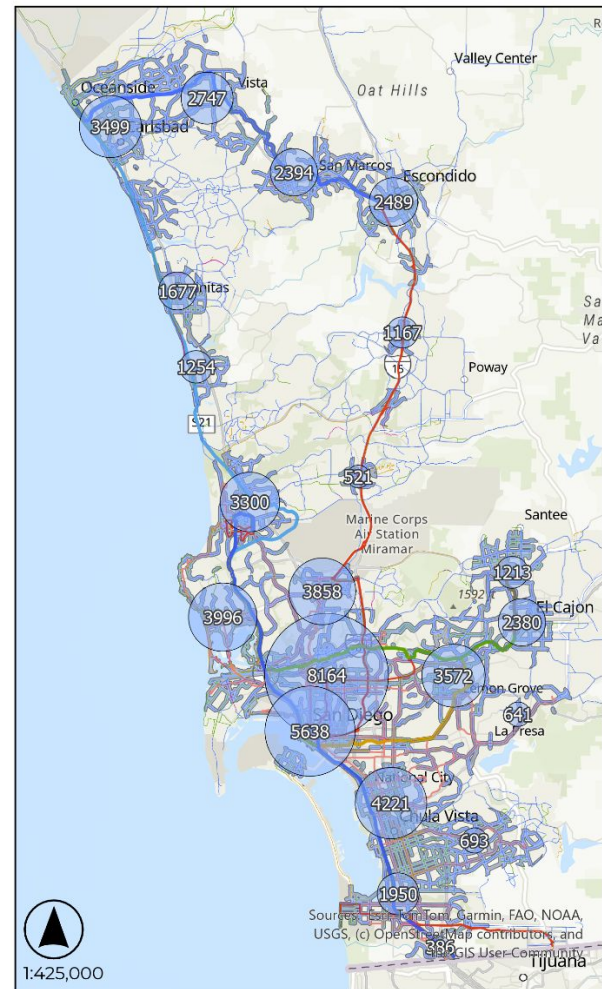
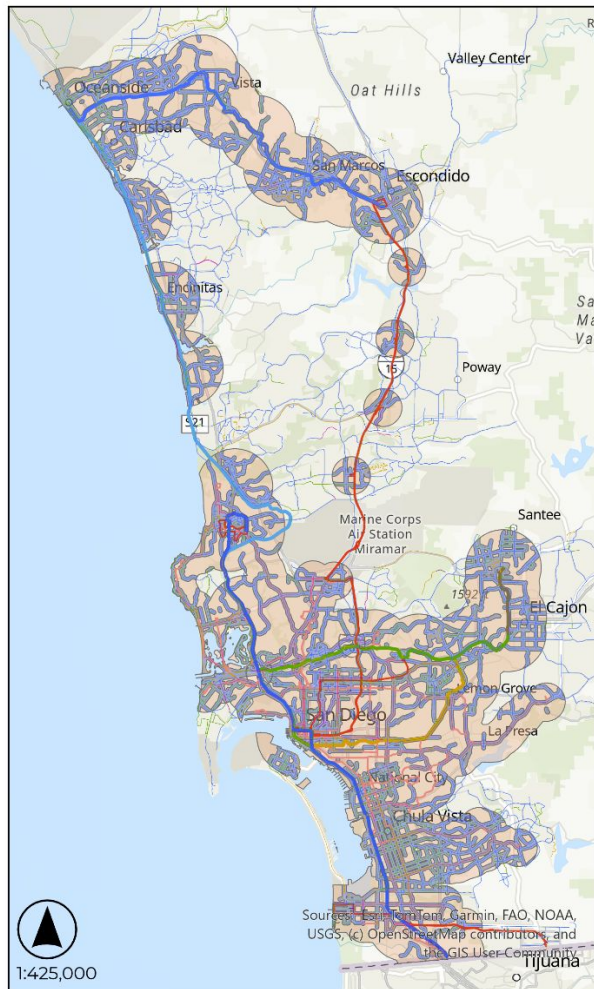
Transit Route Type

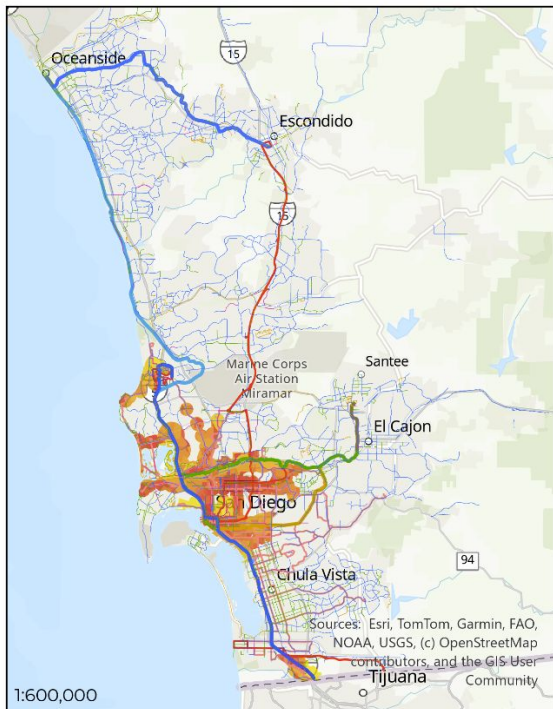
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Businesses Served

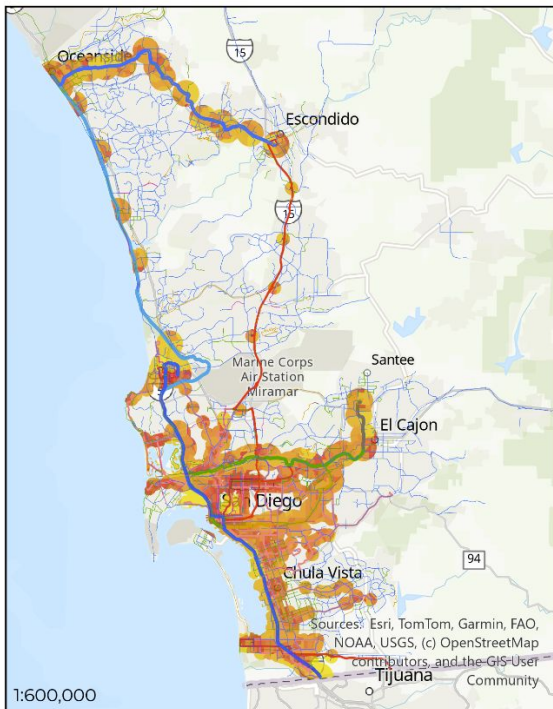


- Transit Stops Buffer
- Bikeways Buffer

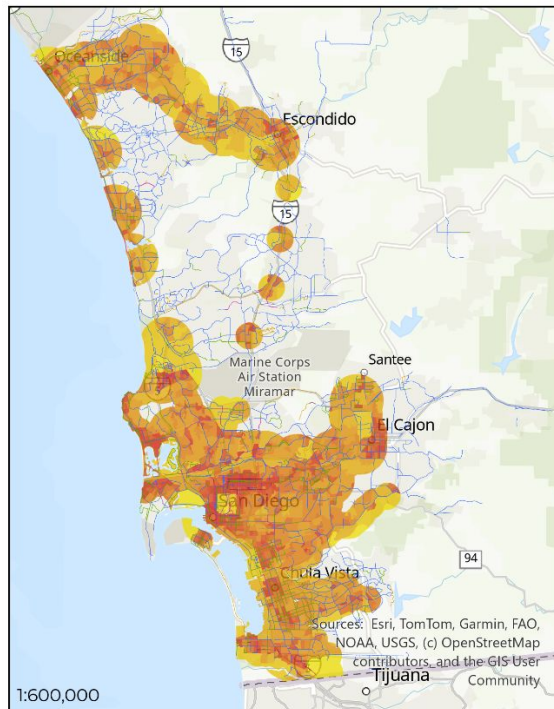




Scenario 1: Urban Core



Scenario 2: Transit-Oriented



Scenario 3: Long-Range Development

San Diego Bikeshare Housing Density

By Stephen Greenwood

Note: Coverage areas are shown by buffers along transit stops and are not final. Selected areas are rough and subject to change.



Bike Class

- 1
- 2
- 3
- 4
- 5

Transit Route Type

- Frequent Bus
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- Blue Line Trolley
- Copper Line Trolley

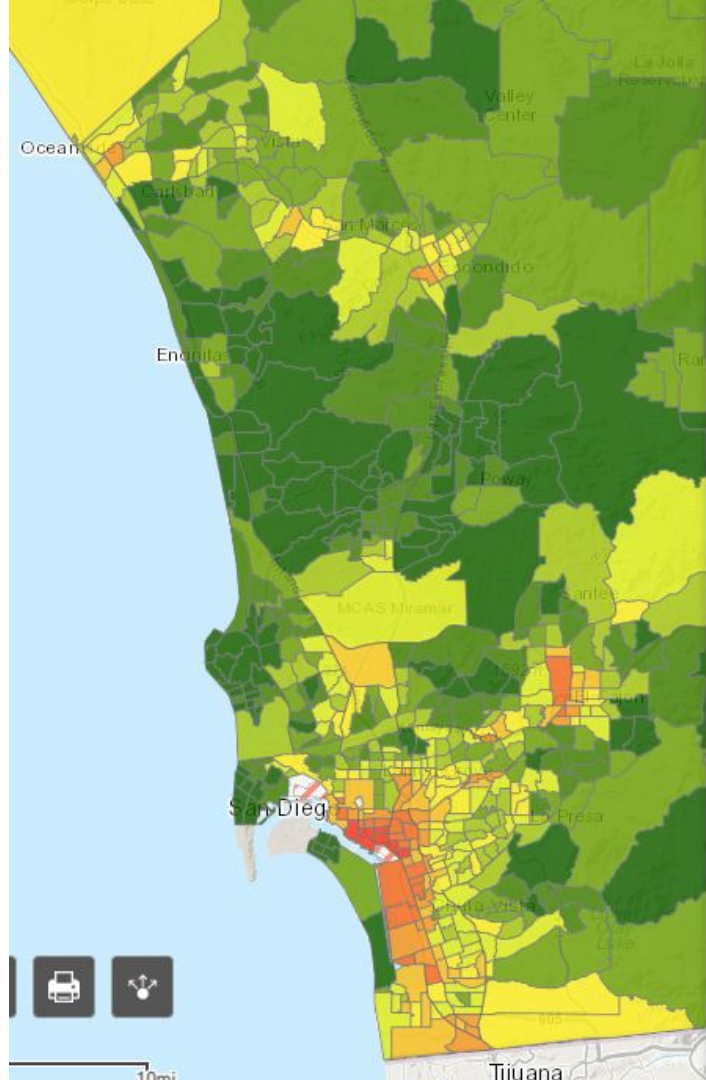
Housing/Square Mile

- ≤10
- 11 - 100
- 101 - 500
- 501 - 1000

- 1001 - 2000
- 2001 - 3000
- 3001 - 4000
- 4001 - 5000
- 5001 - 7500
- >7500

Priority Populations and Disadvantaged Communities

(California Communities Environmental Health Screening Tool)




E-Bike Education & Outreach

Example: ATP Funded
Project at UC Santa Cruz

UPCOMING EVENTS

Let's crank this into high gear —
Hop on for group rides, quick tune-ups, and social hangs that will keep your wheels spinning.

APR 1




IN PERSON
FREE Bike Light & Helmet Distribution
Stay Brilliant · Wear Protection

- 11:00 AM - 2:00 PM
- Top of UCSC Bike Path

RSVP FOR AN APPOINTMENT

APR 8




VIRTUAL & IN PERSON
Everything about E-Bike Lunch & Learn
Santa Cruz Riding · Bike Gear Giveaway · BCycle Basics · Bike Trivia!

- 12:00 PM - 1:30 PM
- Zoom & Porter Hitchcock Lounge

REGISTRATION

APR 15




IN PERSON
FREE Bike Mechanic Check & Repairs
Safety · Get in Tune · Get your biking on

- 11:00 AM - 2:00 PM
- Top of UCSC Bike Path

SCHEDULE A TUNE-UP
Get it fixed and get rolling!


APR 23



IN PERSON
FREE Bike Light & Helmet Distribution
Stay Brilliant · Wear Protection · Have Fun

- 11:00 AM - 2:00 PM


MAY 5



IN PERSON
Spring Quarter Cinco de Mayo Group Ride!
Bike Skills · Group Ride · Fun in the sun

- 5:00 PM - 7:00 PM

MAY 14



VIRTUAL & IN PERSON
Bike Month Fun Lunch & Learn

- 12:00 PM - 1:30 PM
- Stevenson Fireside Lounge
- Zoom & In Person

Financial Costs/Pro Forma (work in progress)

Rough Preliminary Estimates

	Scenario 1 (Urban core)	Scenario 2 (Transit-oriented)	Scenario 3 (Long-range)
<i>Total Number of Stations Added</i>	200	500	800
<i>Percentage of Electric Stations</i>	20%		
<i>Number of Normal Stations Added</i>	160	400	640
<i>Cost per Normal Station</i>	-\$29,157.42		
<i>Total Normal Station Cost</i>	-\$4,665,187.20	-\$11,662,968.00	-\$18,660,748.80
<i>Number of Electric Stations Added</i>	40	100	160
<i>Cost per Electric Station</i>	-\$32,752.94		
<i>Total Electric Station Cost</i>	-\$1,310,117.60	-\$3,275,294.00	-\$5,240,470.40
Total Station Cost	-\$5,975,304.80	-\$14,938,262.00	-\$23,901,219.20
<i>Capital Costs per E-Bike</i>	-\$2,691.02		
<i>E-Bikes per Station</i>	10	9	8
<i>Number of E-Bikes Added</i>	2,000	4,500	6,400
Total E-Bike Cost	-\$5,382,040.00	-\$12,109,590.00	-\$17,222,528.00
Total Capital Costs	-\$11,357,344.80	-\$27,047,852.00	-\$41,123,747.20
<i>Operating Costs per Dock</i>	-\$1,685.40		
<i>Average Number of Docks per Station</i>	19		
Operating Cost per Year	-\$6,404,520.00	-\$16,011,300.00	-\$25,618,080.00
<i>User Revenue per Minute</i>	\$0.17		
<i>Average Minutes per Ride</i>	17		
<i>Average # of Rides per Bike per Day</i>	3.0	3.5	2.5
Scaled Operating Revenue	\$6,329,100.00	\$16,613,887.50	\$16,877,600.00
Net Annual Operating Profit/Loss	-\$75,420.00	\$602,587.50	-\$8,740,480.00

Source of Station/Bike/Operations Costs: Lyft 2024 RFP Response escalated by 6% for two years

Funding Options and Opportunities

Operations Models

- **Fully private**

ex. Discover Bike, Miami Citi Bike, Santa Cruz BCycle

- Funded by advertising and user costs

- **Private with additional funding**

ex. LA Metro Bike Share, Bay Wheels, NYC Citi Bike

- Developer/Business Investment
- Public Subsidy

- **Public**

ex. DC Capital Bikeshare, Philadelphia Indego

- Subsidized by local governments
- Operations may still be managed by private company

Applicable Grants

- TransNet Active Transportation Grant Program
 - Not currently available
- SANDAG Flexible Fleets Grant
 - Pilot program providing \$4.5 million
- California Active Transportation Program
 - Every two years, currently open for 2027 cycle

Financing Portfolio

Seven Sources

- 

1 Corporate title sponsor
Multi-year agreement
- 

2 Grant(s)
e.g., ATP, CMO, CMAQ, etc.
- 

3 Advertising revenue
Revenue from system ads
- 

4 Public private partnership
Developer financing
- 

5 Operator financing
Investment from operator
- 

6 Employer subsidies
For employee memberships
- 

7 Sales tax
(2028 referendum for transit)

2-Year Phasing Timeline

(phases can occur concurrently)



**Exploratory Phase
(3 months)** -
letters of support,
outreach, regional
MOU

**Funding/Planning
Phase (6 months)** -
seek grants and title
sponsorship, identify
key station locations

**Procurement Phase
(9 months)** -
RFI, RFQ, and/or RFP

**Implementation /
Launch Phase (6
months year)** -
install docks,
ship/assemble bikes,
outreach/education

Existing Policy

Motorized Bicycle/Scooter Restrictions*

Source: [City of San Diego Municipal Code Article 3](#)

- Required to use bike lanes when available
- Can only be on streets limited to 25 MPH or lower
- Required 3 or 8 MPH geofencing in certain areas
- Driver's license required

* Does not apply to docked e-bike share

Electric Bicycle Restrictions

Source: [City of San Diego E-Bike Laws and Safety Tips](#)

- Class 1 or Class 2 electric bike
 - NOT considered motorized bicycles
- Pedal Assist up to 28 MPH
- Helmet required under 18



Existing Policy

Applicable Parking Restrictions

Source: [City of San Diego Permit Procedures for Shared Mobility Devices](#)

- Shared mobility devices can not be parked (docked):
 - Within 500 feet of a hospital or K-12 school
 - Within 6 feet of a bus stop sign, trolley stop sign, transit shelter, transit bench, or transit information kiosk
 - Within the Beach Impact Area of the Parking Impact Overlay Zone
 - Prohibited from parking within 40-feet of each other, only with the exception of up to four adjacent devices, limiting stations to four docks
 - Seemingly written with dockless systems in mind, may require amendment to make docked bike share feasible

Existing Policy

California Environmental Quality Act

Source: [CEQA Review of Sustainable Transportation Projects Technical Advisory](#)

- Eligible for Class 1 CEQA exemption

California Coastal Commission

Source: [California Coastal Commission Overview](#)

- Likely needs California Coastal Commission permit or exemption in coastal areas.

City of San Diego Permit

Source: [City of San Diego Permit Procedures for Shared Mobility Devices](#)

- Required City of San Diego 6-month permit only available in January and July
- Applicable required fees:
 - Shared Mobility Device Permit Fee - \$5,141.00
 - Shared Mobility Device Fee - \$75.00/device
 - Equity Program Shared Mobility Device Fee - \$67.50/device
 - Fees Collected for Other Agency/Department - \$13.24
 - Records Fee - \$21.71
 - Performance Bond - \$65.00/device
 - **Total - \$5,175.00 flat, plus \$140.00/device**
 - **\$132.50/device if in approved Equity Program**

Thank you!

MENU ≡

TIME

SUBSCRIBE ≡

IDEAS

IDEAS

POLITICS

Zohran Mamdani Could Be New York's First Citi Bike Mayor

ADD TIME ON GOOGLE

by [Evan Friss](#)

Evan Friss is a professor of history at James Madison University and the author of "On Bicycles"

NOV 3, 2025 3:05 AM PT



Mayoral candidate Zohran Mamdani rides off on a Citi Bike, following a press conference for free buses and reliable service, in New York City, on Oct. 8, 2025. *Mark Peterson—RedUX*