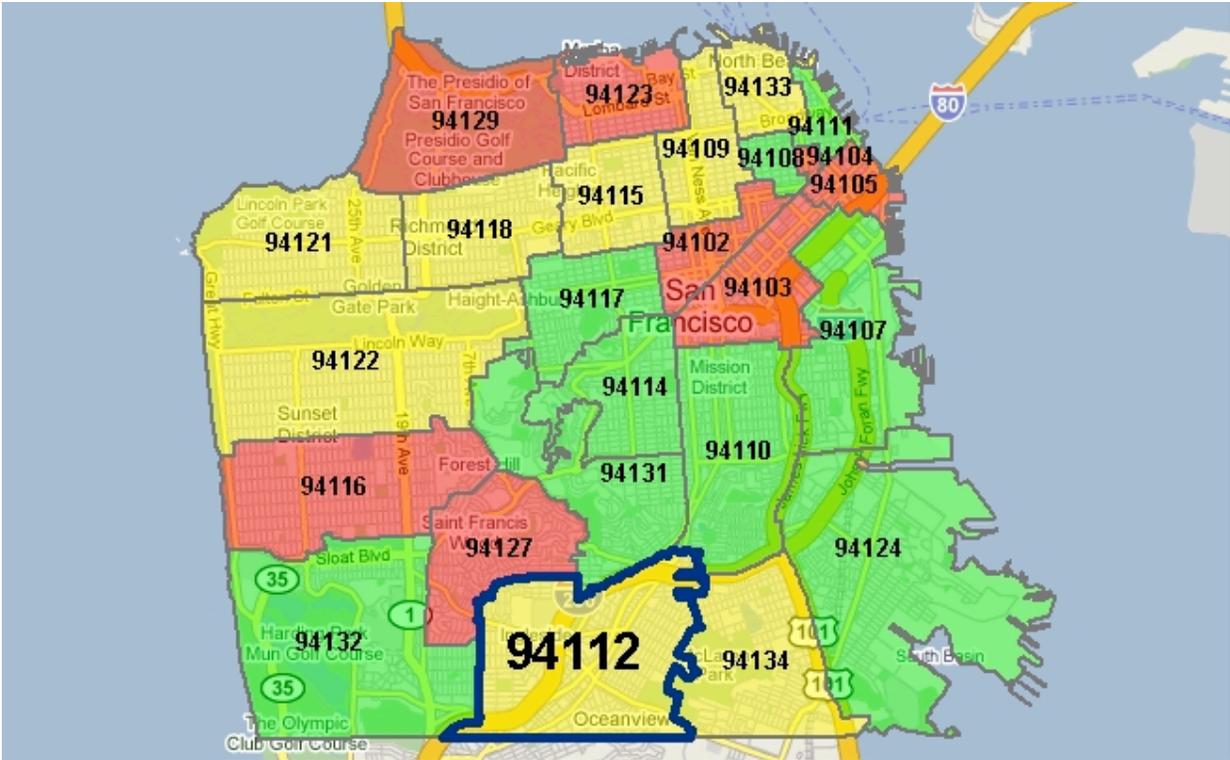


# Urban Sustainability Initiatives and NASA

Jared Blumenfeld,  
Director of SF Dept of the  
Environment

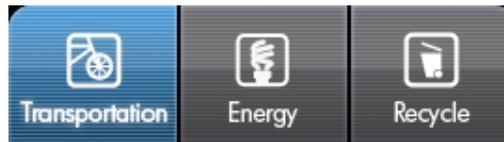
**80%** of the world's CO<sub>2</sub> comes from cities



## Community Videos



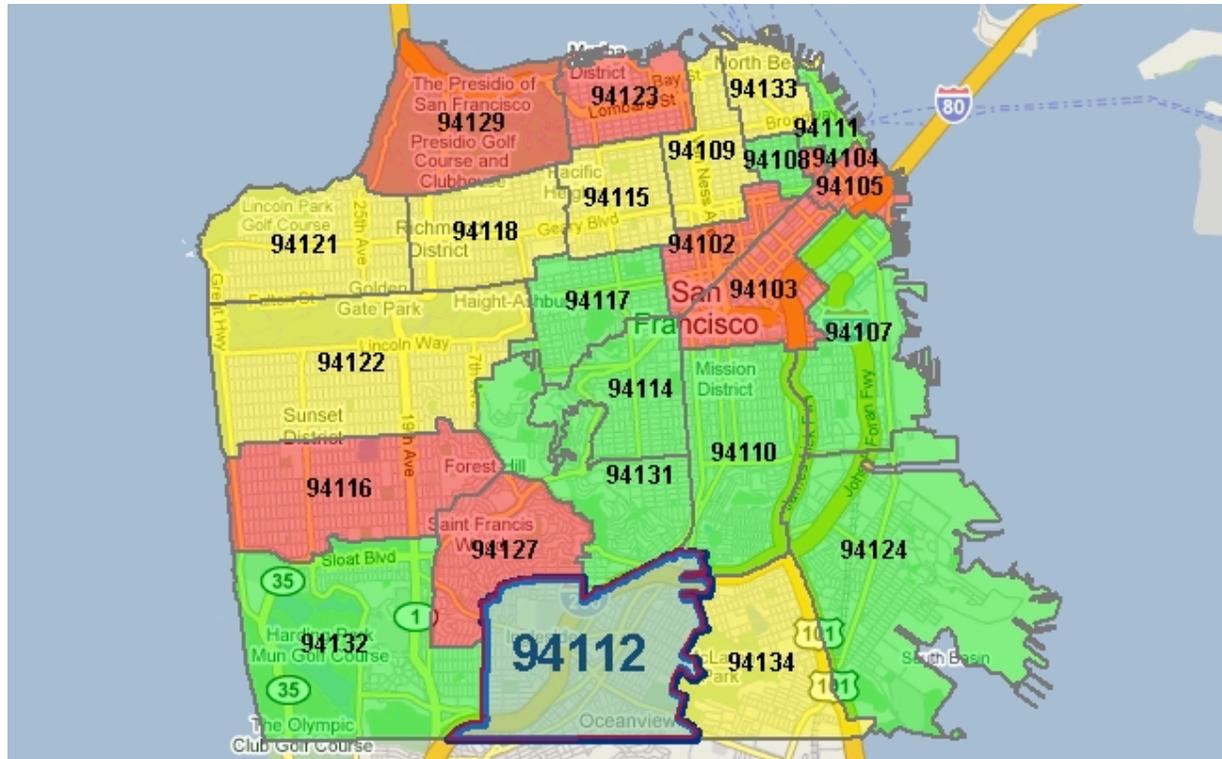
Upload

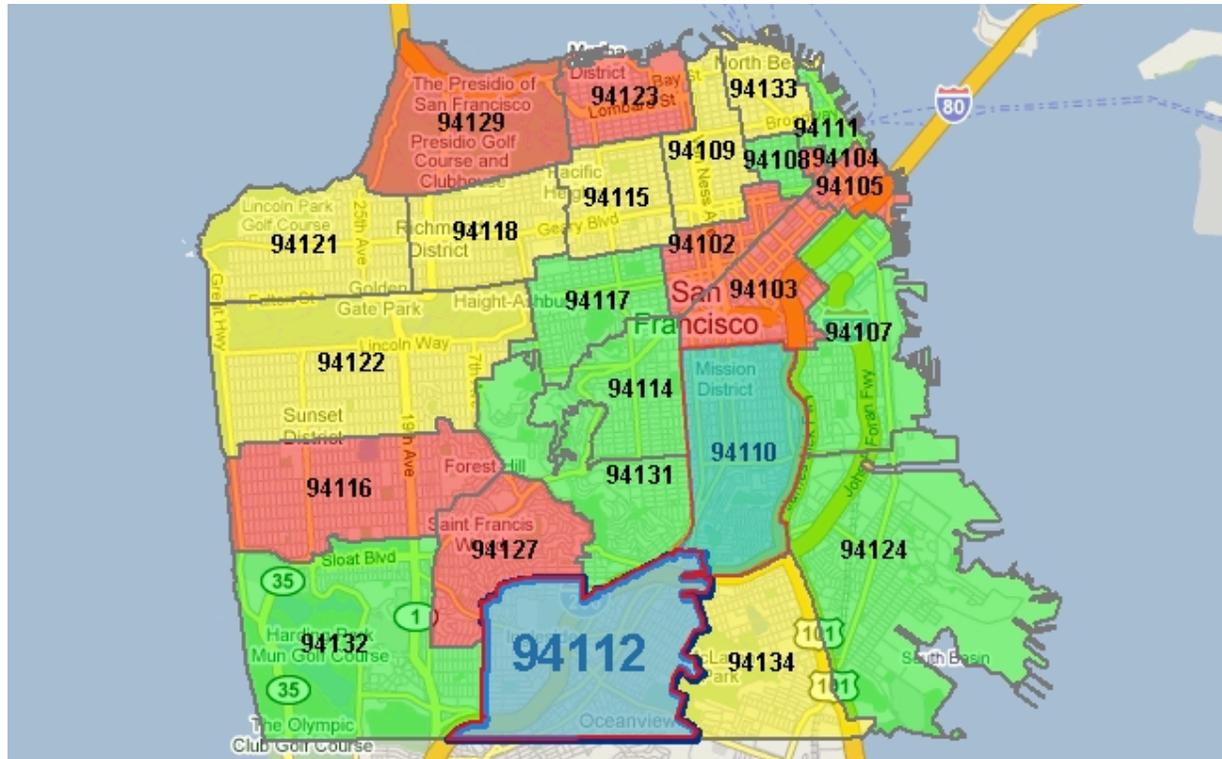


Transportation

Energy

Recycle



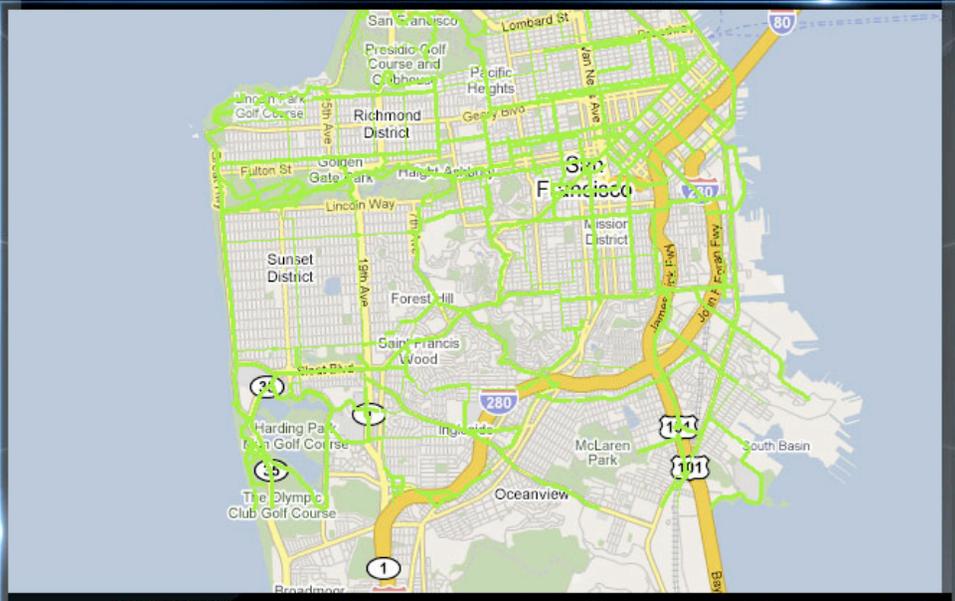




Travel
 Conserve
 Recycle

Community Videos

▲  
▶  
▶  
▶  
▼  
Upload



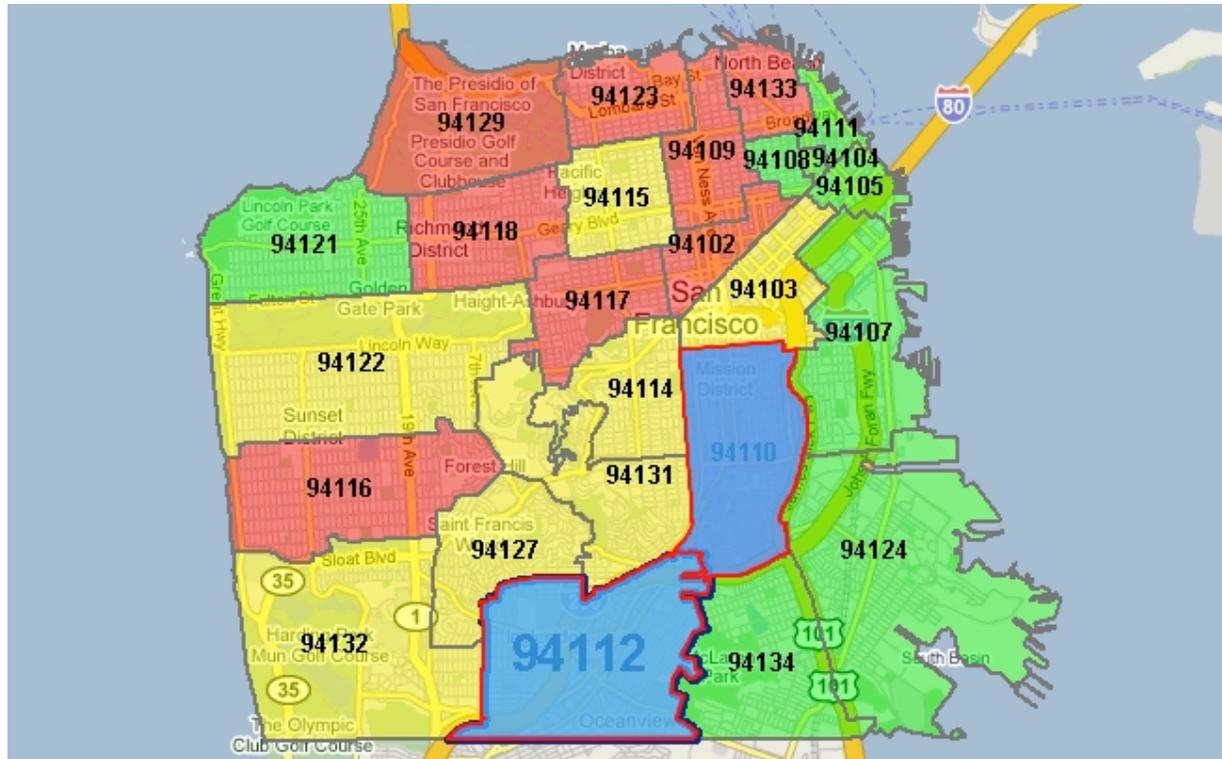
RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions Compare  
 Households without cars  
 154  289   
 94131 94110  
◀ Car Free Homes ▶

Information Rank  
 Carbon-Friendly Transportation

Rank	Zip
5	94102
6	94109
7	94110
8	94133
9	94103

Car Free
 Bike
 Fuel Efficiency
 Public Transit
 Walk
 Carpool

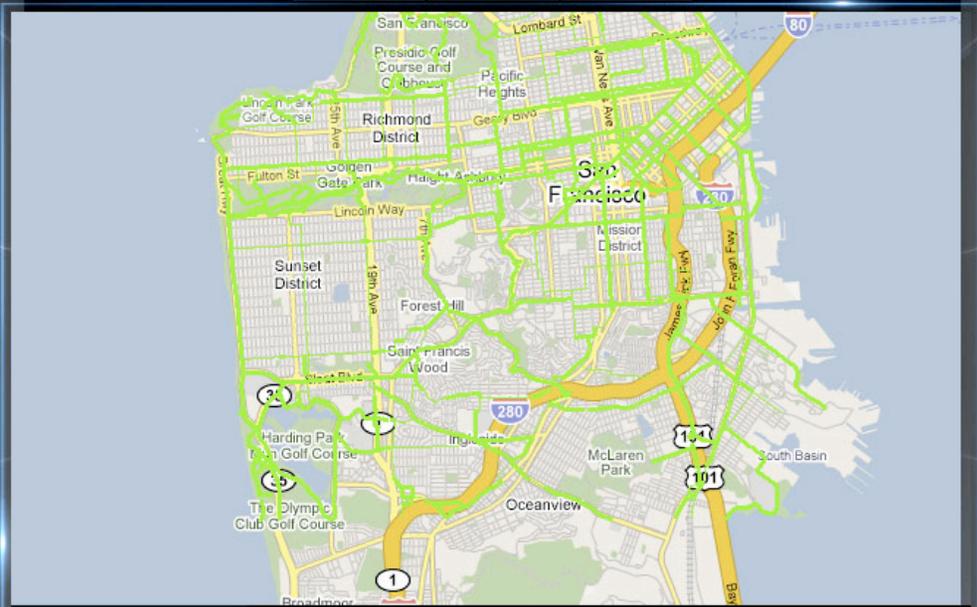


Travel
Conserve
Recycle

Community Videos

↑  
▶  
▶  
▶

Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

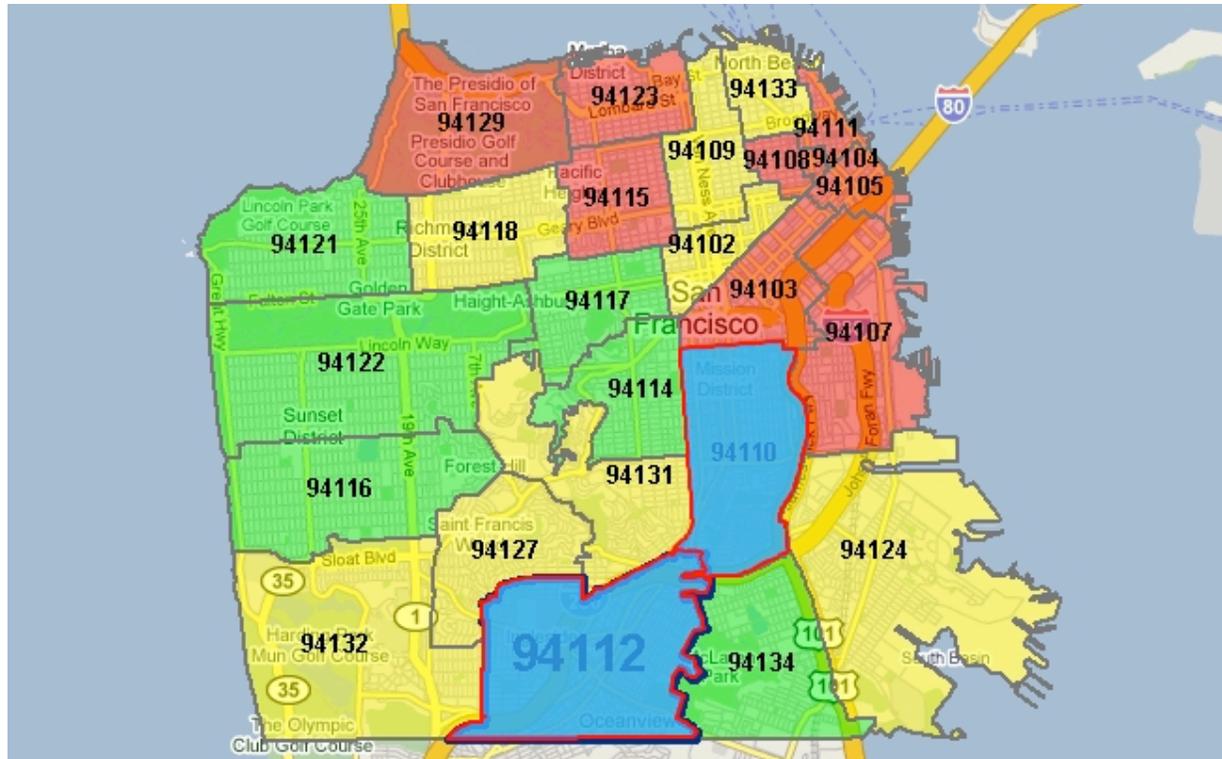
Actions	Compare
Bicyclists	
205	184
94131	94110
<span>←</span> <b>Bicyclists</b> <span>→</span>	

Information	Rank
Carbon-Friendly Transportation	
Rank	Zip
5	94102
6	94109
7	94110
8	94133
9	94103

○ Car Free
 ● Bike
 ○ Fuel Efficiency
 ○ Public Transit
 ○ Walk
 ○ Carpool

Actions	Compare
Bicyclists	
3360	2832
	
	
94112	94110
<	Bicyclists >

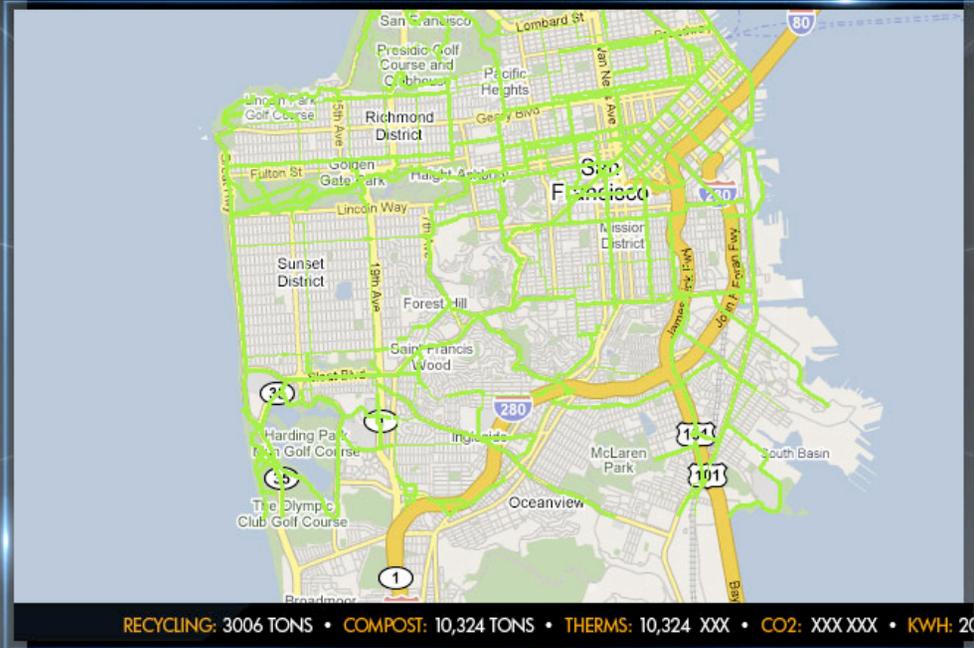
**What if** you could know your city's exact ecological footprint...



Travel
 Conserve
 Recycle

Community Videos

↑  
→  
→  
→  
↓  
Upload



Actions	Compare
Bicyclists	
205	184
94131	94110
<span>←</span> <b>Bicyclists</b> <span>→</span>	

Information Rank

If you are not a member of the San Francisco Bike Coalition please let us know if you:

- Bike to work once per week
- Bike to work 2-3 days per week
- Bike to work every day
- Just bike recreationally

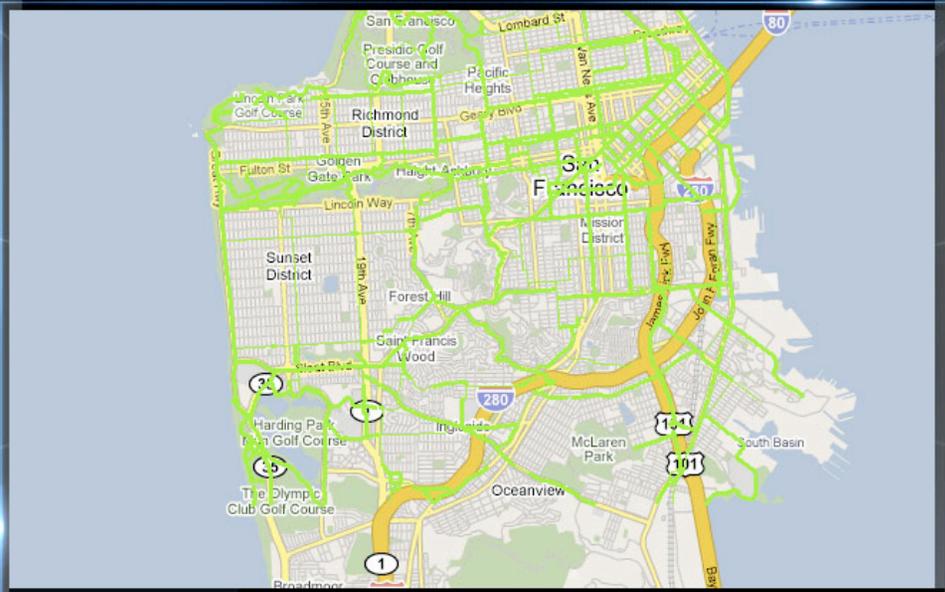
[Click here](#) to become an SFBC member

○ Car Free
**○ Bike**
○ Fuel Efficiency
○ Public Transit
○ Walk
○ Carpool

Travel
Conserve
Recycle

Community Videos

▲  
▶  
▶  
▶  
▼  
Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions Compare

Plan Route

Start

End

Get Directions

Information Rank

If you are not a member of the San Francisco Bike Coalition please let us know if you:

- Bike to work once per week
- Bike to work 2-3 days per week
- Bike to work every day
- Just bike recreationally

Click [here](#) to become an SFBC member

○ Car Free
 ● Bike
 ○ Fuel Efficiency
 ○ Public Transit
 ○ Walk
 ○ Carpool

 Travel
  Conserve
  Recycle

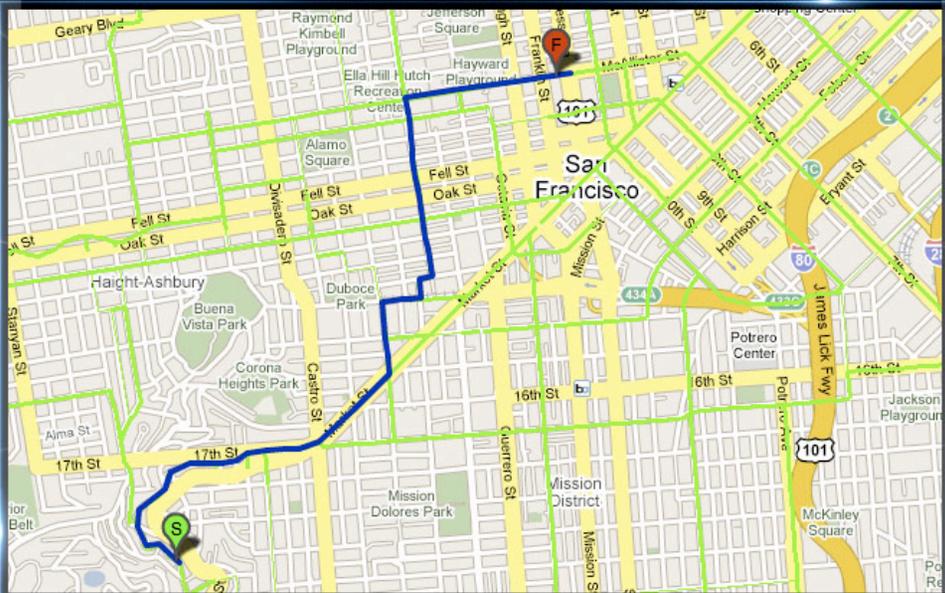
Community Videos

RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Start

End

Distance: 2.3 miles  
 Difficulty: Easy



Downhill      Uphill      Flat

Car Free
  Bike
  Fuel Efficiency
  Public Transit
  Walk
  Carpool



Travel

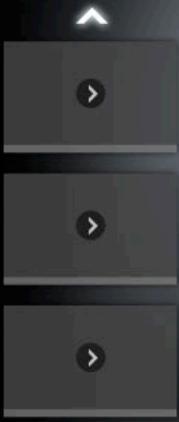


Conserve

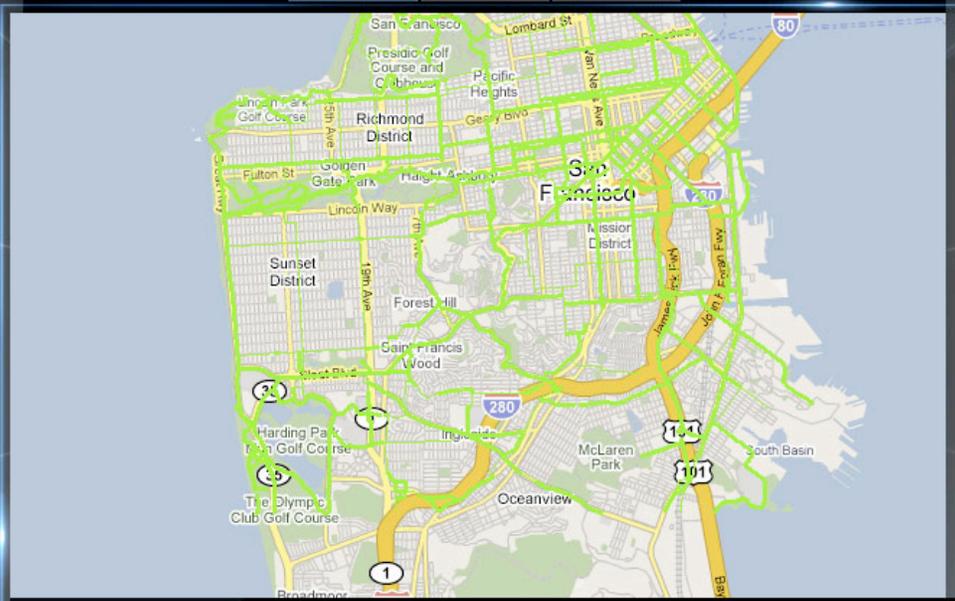


Recycle

### Community Videos



Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

### Actions

### Compare

#### Fuel Efficient Vehicles

154	289
94131	94110

#### Hybrids

### Information

### Rank

#### Carbon-Friendly Transportation

Rank	Zip
5	94102
6	94109
7	94110
8	94133
9	94103



Car Free



Bike



Fuel Efficiency



Public Transit



Walk



Carpool

Actions

Compare

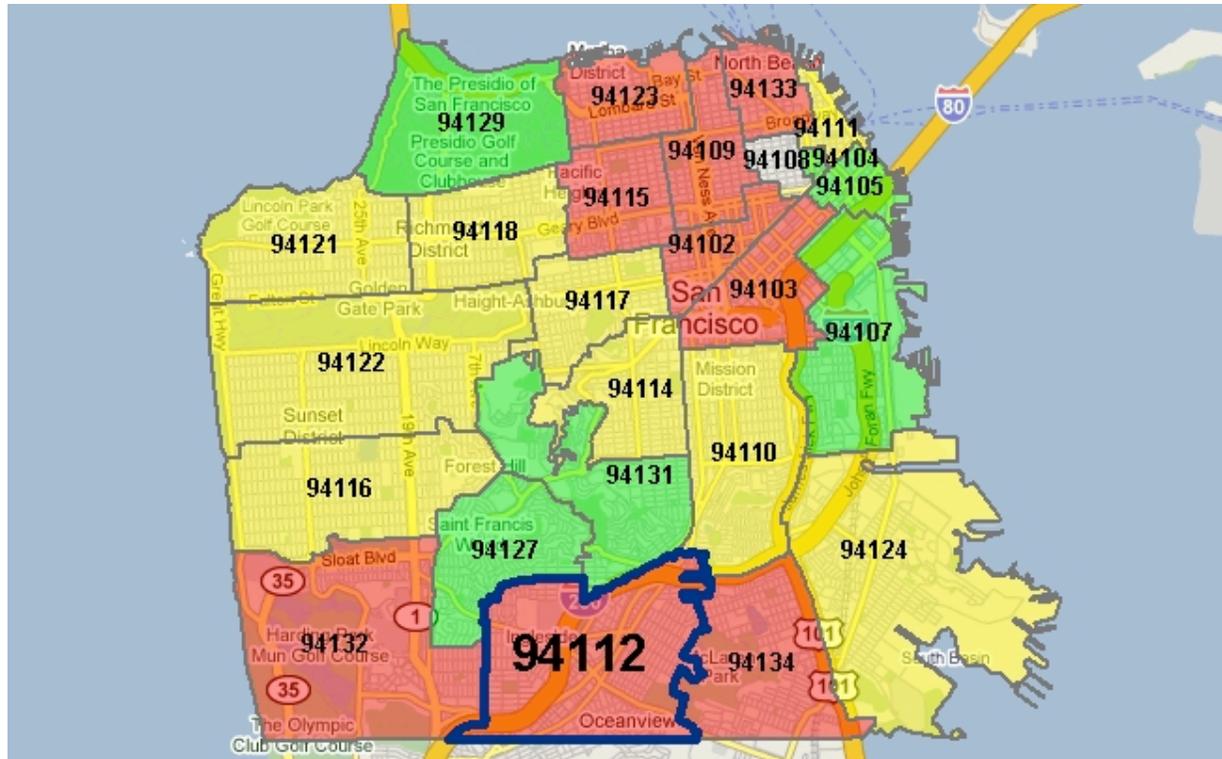
Select two zip codes on the map  
to compare

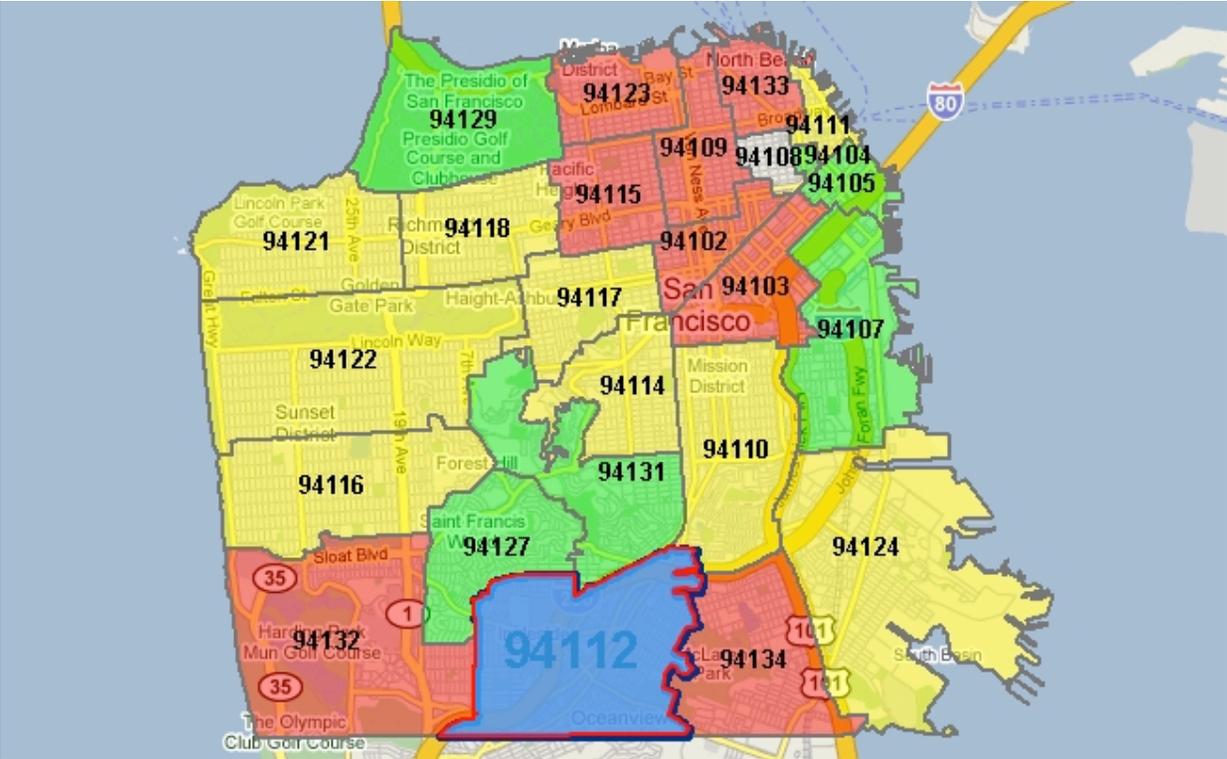
Actions Compare

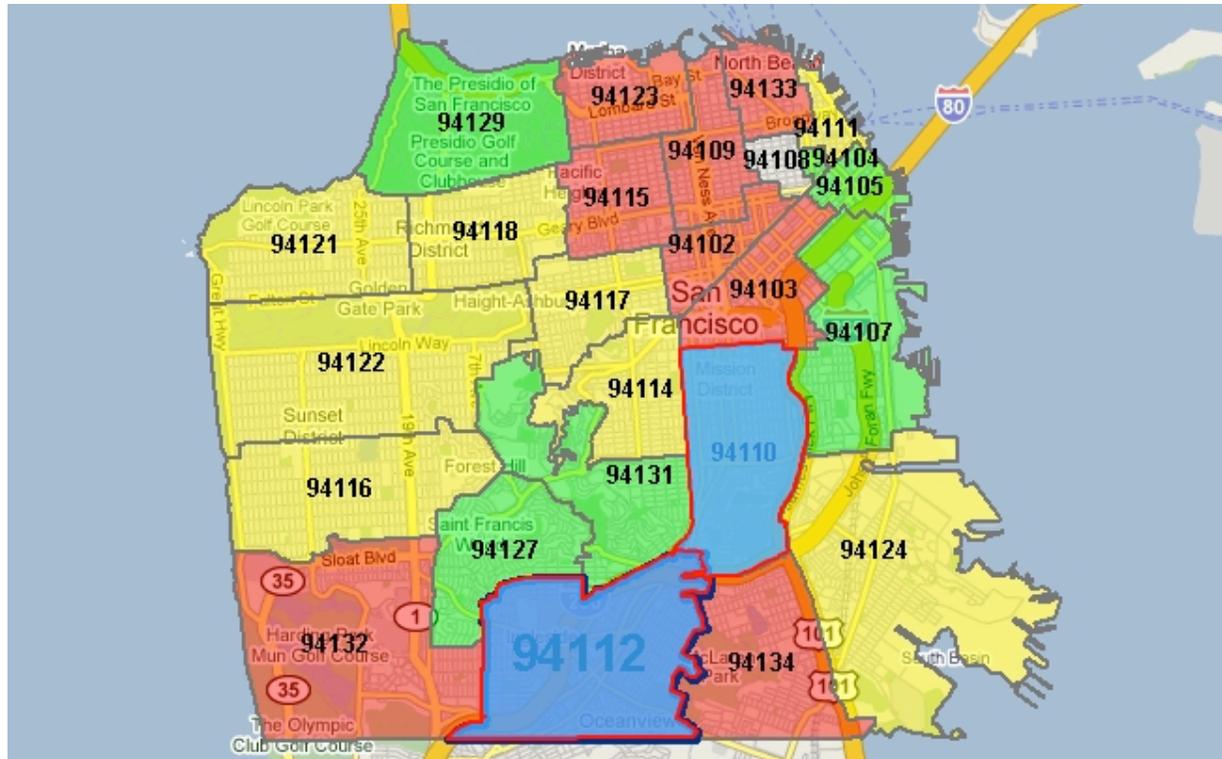
Fuel Efficient Vehicles

421	819
	
	
94112	94110

< Hybrids >





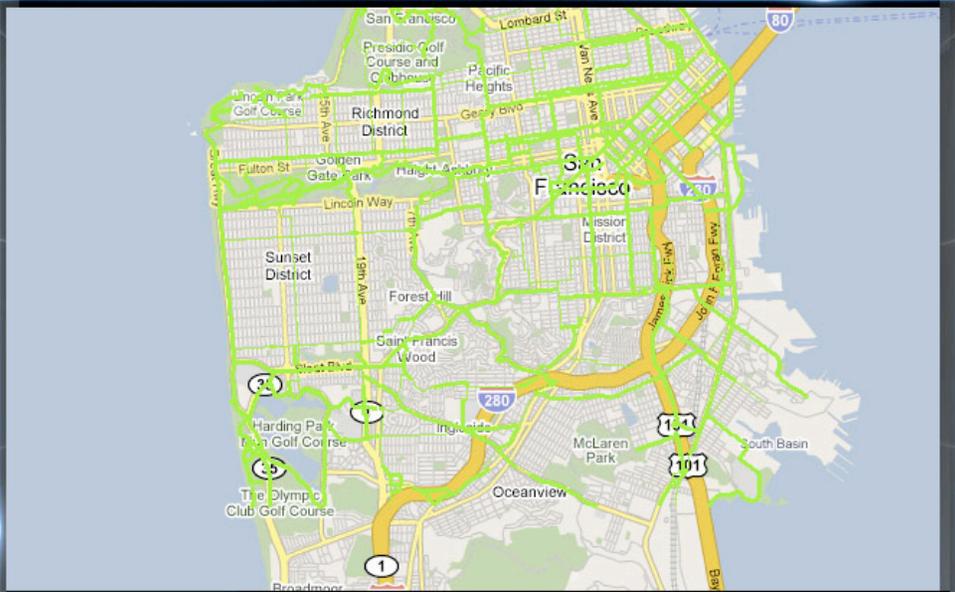


every minute, every day, from anywhere

Travel   Conserve   Recycle

Community Videos

Community Videos interface with three video thumbnails and an Upload button.



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions Compare

Fuel Efficient Vehicles

345

124

94131 94110

SUVs

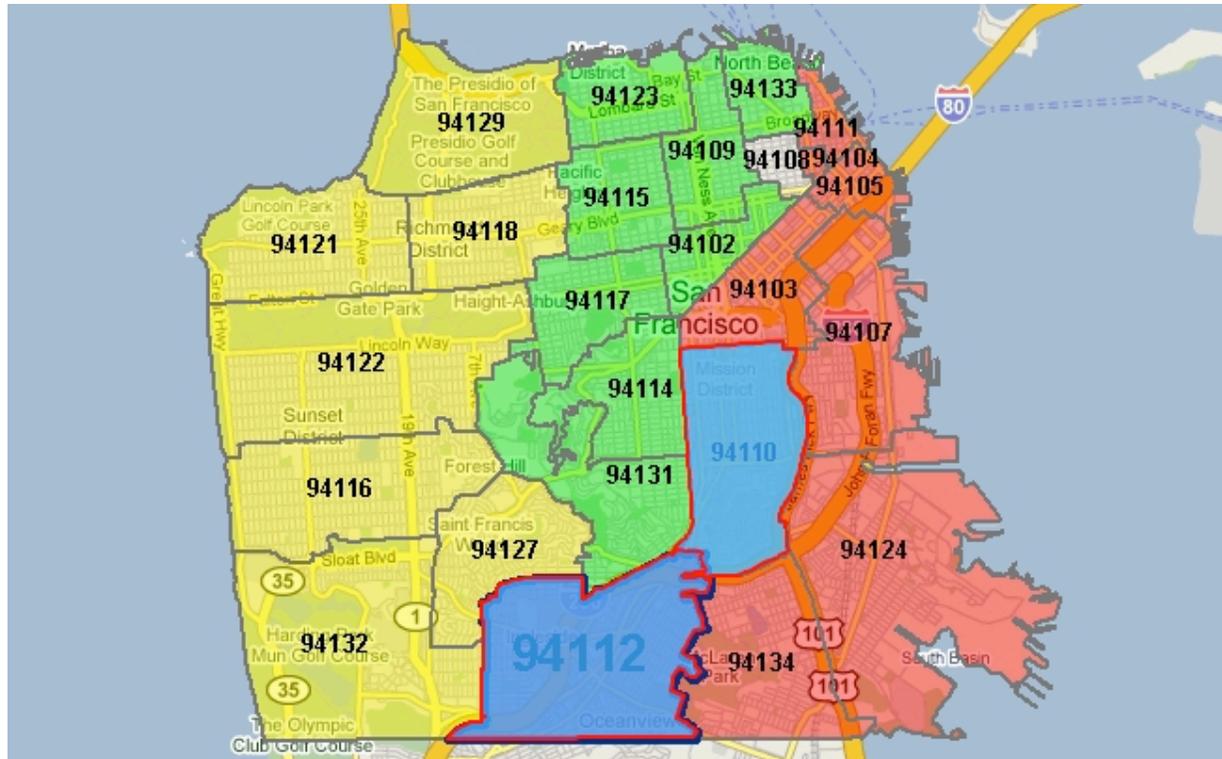
Information Rank

Carbon-Friendly Transportation

Rank	Zip
5	94102
6	94109
7	94110
8	94133
9	94103

Car Free   Bike   Fuel Efficiency   Public Transit   Walk   Carpool

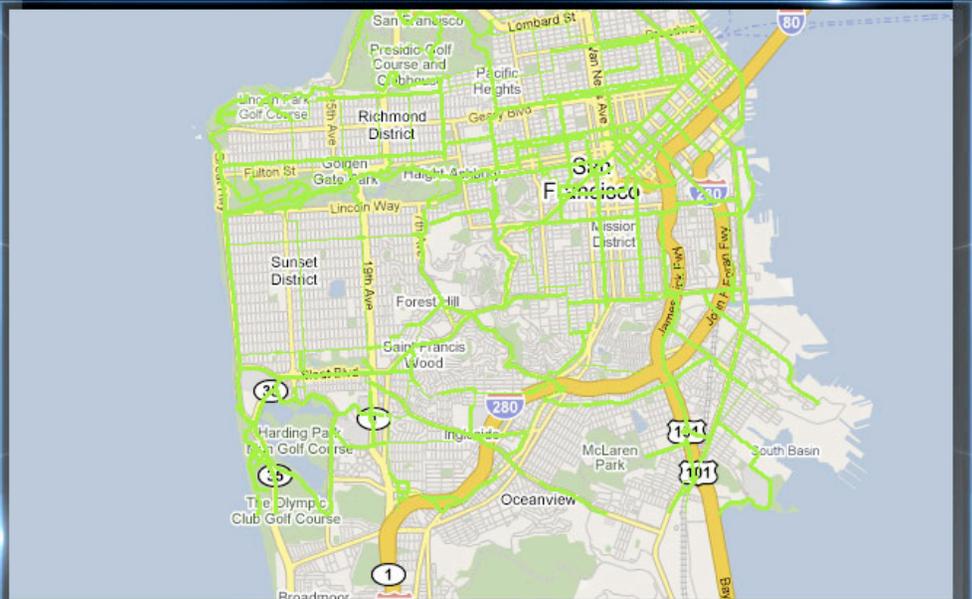




Travel
 Conserve
 Recycle

Community Videos

↑  
▶  
▶  
▶  
↓  
Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Car Free
  Bike
  Fuel Efficiency
  Public Transit
  Walk
  Carpool

Actions Compare  
**Change My Rank**  
 If you are able to convince only a few of your neighbors to buy a hybrid vehicle, you can significantly change you zip code's rank. Try it here.  
 0 5 10 15

Information Rank  
**Carbon-Friendly Transportation**  

Rank	Zip
5	94102
6	94109
7	94110
8	94133
9	94103



Travel



Conserve



Recycle

Community Videos

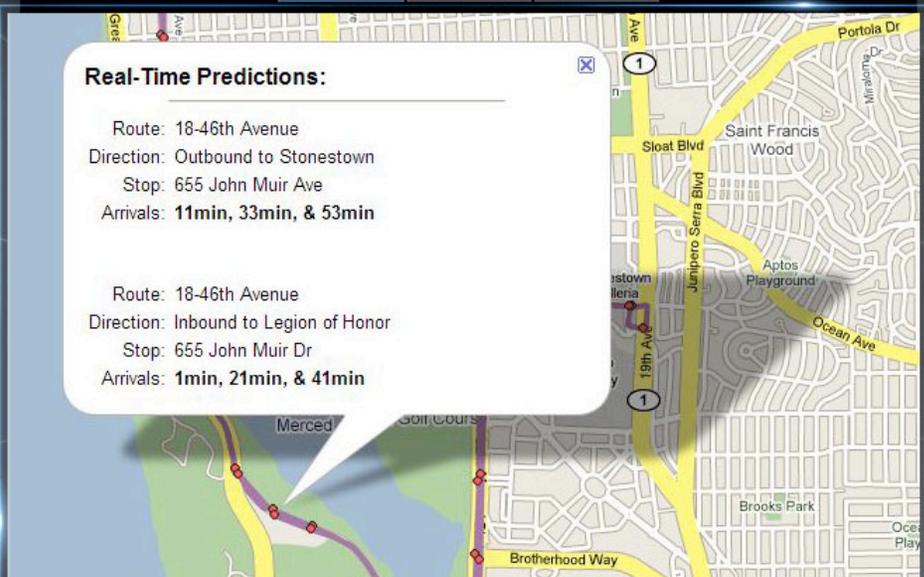


Upload

### Real-Time Predictions:

Route: 18-46th Avenue  
 Direction: Outbound to Stonestown  
 Stop: 655 John Muir Ave  
 Arrivals: **11min, 33min, & 53min**

Route: 18-46th Avenue  
 Direction: Inbound to Legion of Honor  
 Stop: 655 John Muir Dr  
 Arrivals: **1min, 21min, & 41min**



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions

Compare

Plan Route

Transit Discount Pass

Public Event Awards

My Bus Status

Information

Rank

The Connected Bus is part of MUNI's hybrid electric bus fleet. It is painted green and black with an electric display panel boasting "270 tons of CO<sub>2</sub> saved." The onboard electronics also provide wall-mounted touch screens with information on the bus' route and location, connecting routes and live information on arrival times.

For more information go to  
[www.theconnectedbus.com](http://www.theconnectedbus.com)



Car Free



Bike



Fuel Efficiency



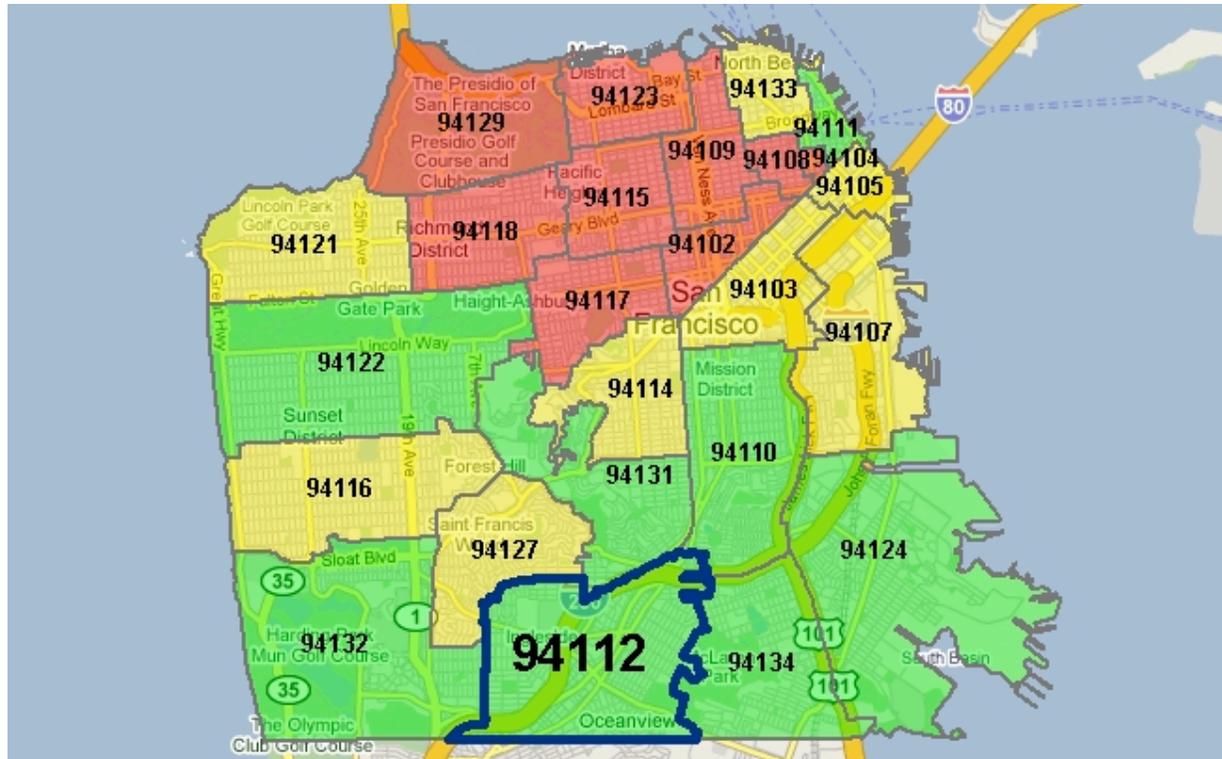
Public Transit

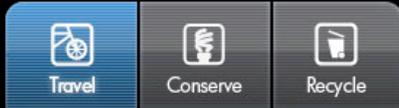


Walk



Carpool





Community Videos

Community Videos interface with navigation arrows and an Upload button.

↑

→

→

→

↓

Upload

**Real-Time Predictions:**

Route: 18-46th Avenue  
 Direction: Outbound to Stonestown  
 Stop: 655 John Muir Ave  
 Arrivals: **11min, 33min, & 53min**

Route: 18-46th Avenue  
 Direction: Inbound to Legion of Honor  
 Stop: 655 John Muir Dr  
 Arrivals: **1min, 21min, & 41min**

Map showing bus routes and locations like Saint Francis Wood, Junipero Serra Blvd, and Ocean Ave.

RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

**Actions** Compare

Plan Route  
 Transit Discount Pass  
 Public Event Awards  
 My Bus Status

**Information** Rank

The Connected Bus is part of MUNI's hybrid electric bus fleet. It is painted green and black with an electric display panel boasting "270 tons of CO<sub>2</sub> saved." The onboard electronics also provide wall-mounted touch screens with information on the bus' route and location, connecting routes and live information on arrival times.

For more information go to [www.theconnectedbus.com](http://www.theconnectedbus.com)

Mode selection buttons: Car Free, Bike, Fuel Efficiency, Public Transit (selected), Walk, Carpool.

○ Car Free   ○ Bike   ○ Fuel Efficiency   ● Public Transit   ○ Walk   ○ Carpool

**32%** of San Francisco's CO<sub>2</sub> comes from building energy



Solar  
Power



Energy  
Efficiency



Wind  
Power



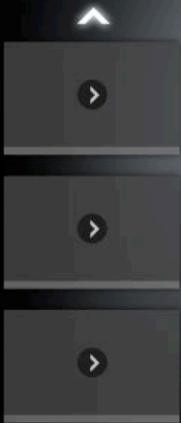
Purchase  
Sustainable



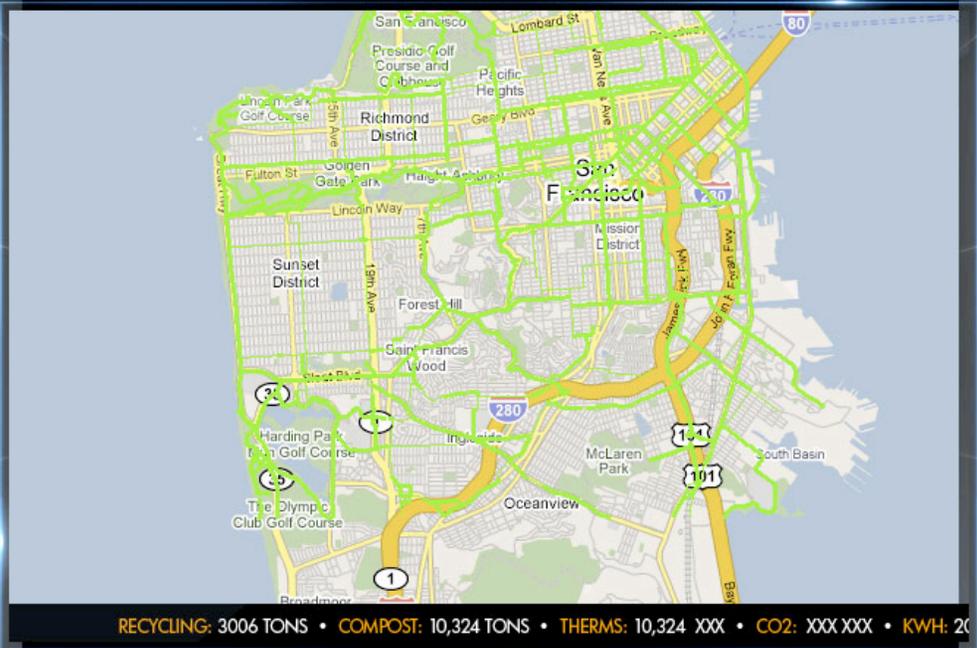
Green  
Certification



Community Videos



Upload



**Actions** **Compare**

Select two zip codes on the map to compare

**Information** **Rank**

Carbon-Friendly Energy Use

Rank	Zip	% of SF avg.
5	94107	0.33%
6	94103	0.36%
7	94102	0.45%
8	94158	0.45%
9	94105	0.50%



 Transportation	 Energy	 Recycle
---	---	--



Information	Rank
Carbon-Friendly Energy Use	
Rank	Zip
7	94112
8	94123
8	94118
10	94132
11	94121

To date, six turbines have been installed in San Francisco, three on private homes. ENERGY STAR qualified r



## Community Videos



Upload



Transportation

Energy

Recycle

- Travel
- Conserve**
- Recycle

Community Videos

Upward arrow

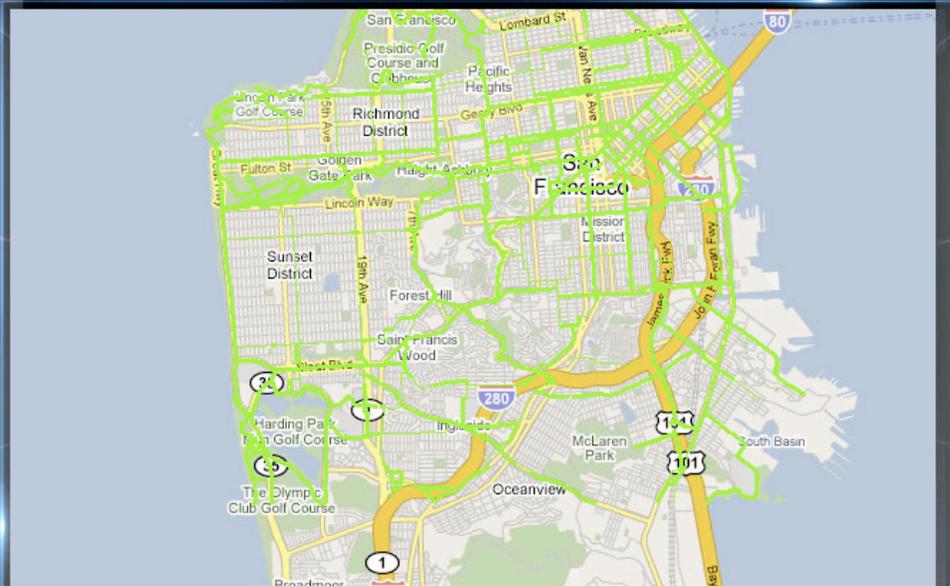
Right arrow

Right arrow

Right arrow

Downward arrow

Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions **Compare**

Enter Address

11 Grove Street

Cost Estimator/Rebates

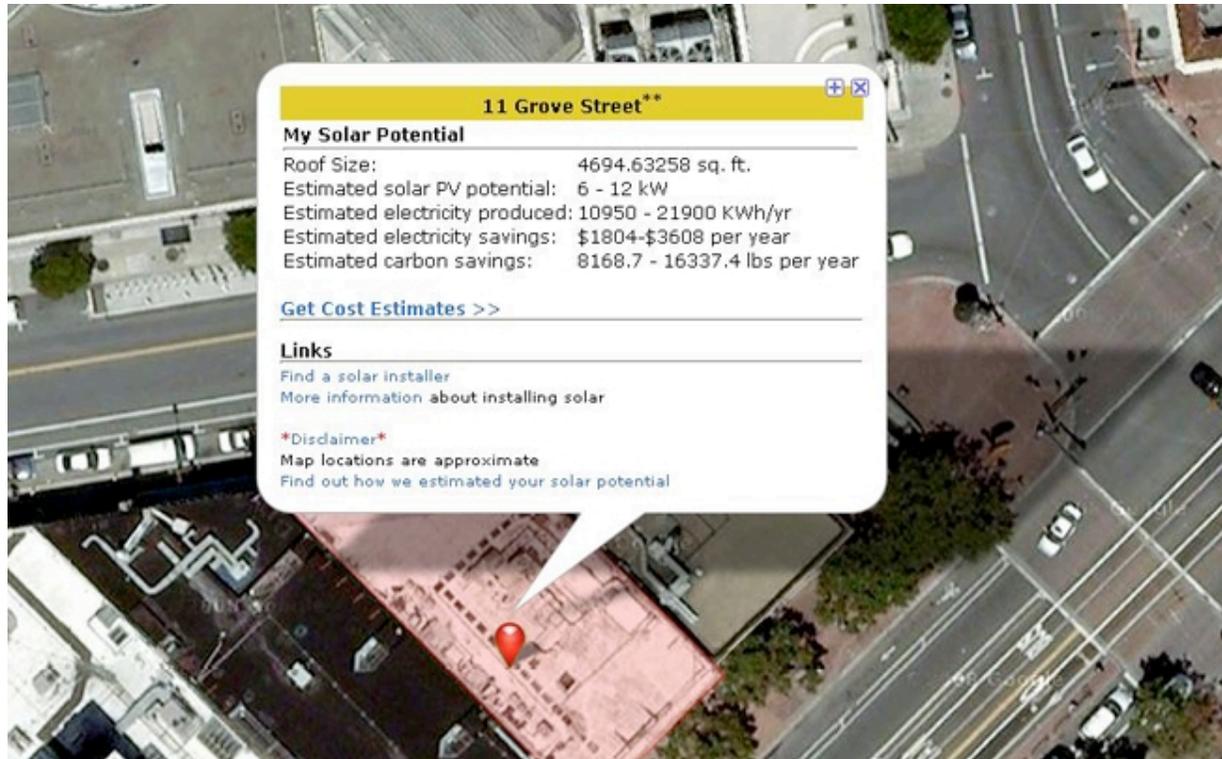
Find Installer

Information **Rank**

Carbon-Friendly Energy Use

Rank	Zip	% of SF avg.
5	94107	0.33%
6	94103	0.36%
7	94102	0.45%
8	94158	0.45%
9	94105	0.50%

- Solar Power**
- Energy Efficiency
- Wind Power
- Purchase Sustainable
- Green Certification



11 Grove Street\*\*

**My Solar Potential**

Roof Size: 4694.63258 sq. ft.  
Estimated solar PV potential: 6 - 12 kW  
Estimated electricity produced: 10950 - 21900 kWh/yr  
Estimated electricity savings: \$1804-\$3608 per year  
Estimated carbon savings: 8168.7 - 16337.4 lbs per year

[Get Cost Estimates >>](#)

**Links**

[Find a solar installer](#)  
[More information about installing solar](#)

\*Disclaimer\*

Map locations are approximate  
[Find out how we estimated your solar potential](#)

Clean Power Estimate



### Quick Solar Cost Estimate for 11 Grove Street

- Contact [solar installers](#) for a more detailed estimate of costs and savings.

**How much would solar cost for my building?**

**My System Size:** 5.0 kW   
**Type:**  Residential  Commercial

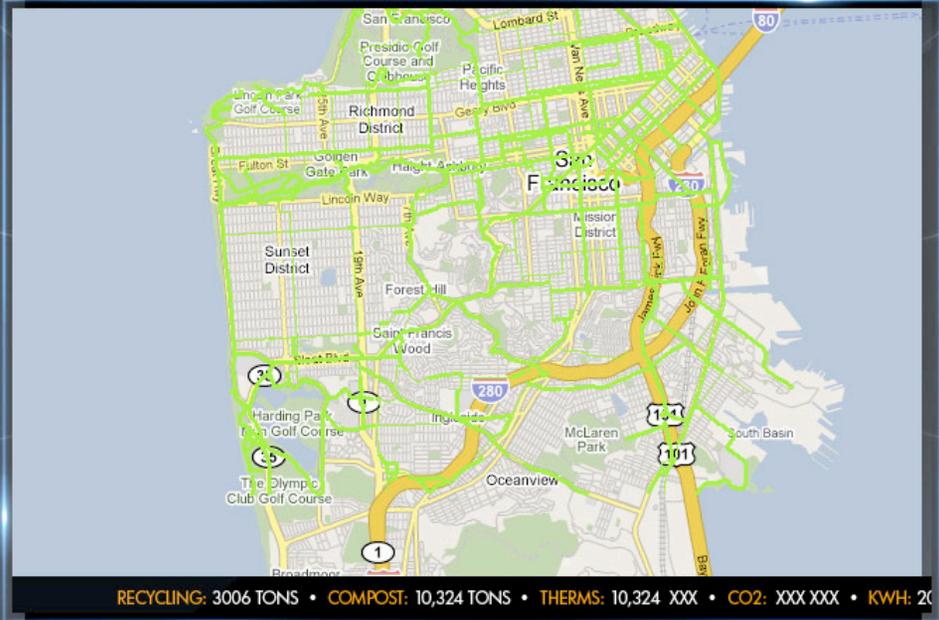
<b>Estimated Cost Before Incentives (\$9.8/W)<sup>1</sup></b>	<b>\$49,000</b>
<a href="#">State Incentive</a>	\$8,123
<a href="#">San Francisco City Incentive</a> <small><a href="#">Which incentive</a> do I qualify for?</small>	<input type="text" value="\$6,000"/> <input type="button" value="v"/>
<a href="#">Federal Tax Credit</a>	\$2,000
<b>Net Cost After Incentives</b>	<b>\$33,837</b>

More information coming soon!

- Travel
- Conserve**
- Recycle

Community Videos

▲  
 ▶  
 ▶  
 ▶  
 ▼  
 Upload



Actions Compare  
 Roof Installation  
 Window Replacement  
 Energy Audit

Information Rank  
 Darker colored roofs often attract more heat, resulting in the use of air conditioning to reduce the temperatures indoors. By selecting a lighter color or reflective roof, residents can keep that heat from entering the home.

- Solar Power
- Energy Efficiency**
- Wind Power
- Purchase Sustainable
- Green Certification



**50%** of San Francisco's CO<sub>2</sub> comes from transportation

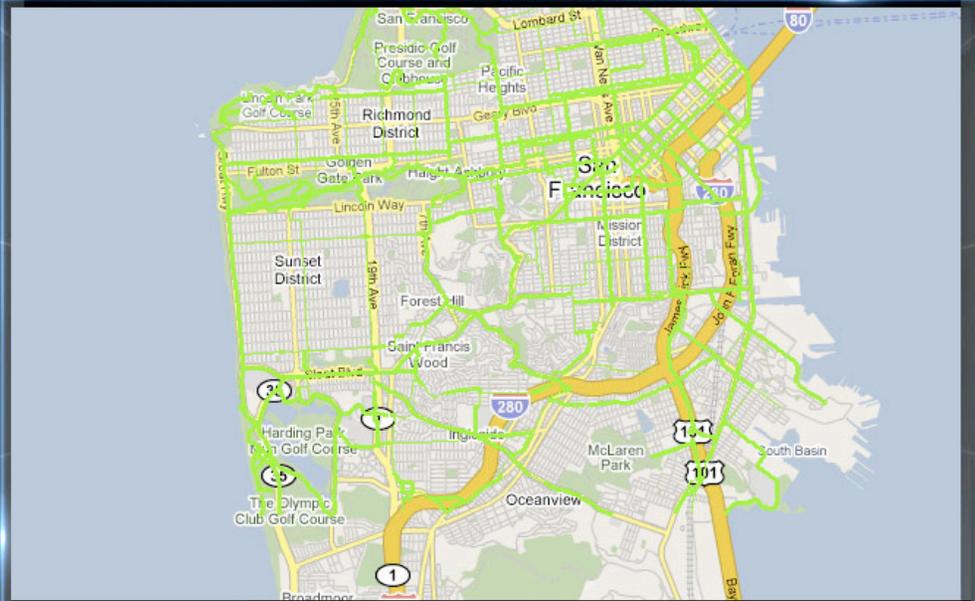


**18%** of San Francisco's CO<sub>2</sub> comes from waste



Community Videos

Upward arrow, three video thumbnails with right arrows, downward arrow, and an 'Upload' button.



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions Compare  
Select two zip codes on the map to compare

Information Rank

Carbon-Friendly Recycling

Rank	Zip	% of SF avg.
5	94107	0.33%
6	94103	0.36%
7	94102	0.45%
8	94158	0.45%
9	94105	0.50%





Compost  
Debris



Find  
Recycling



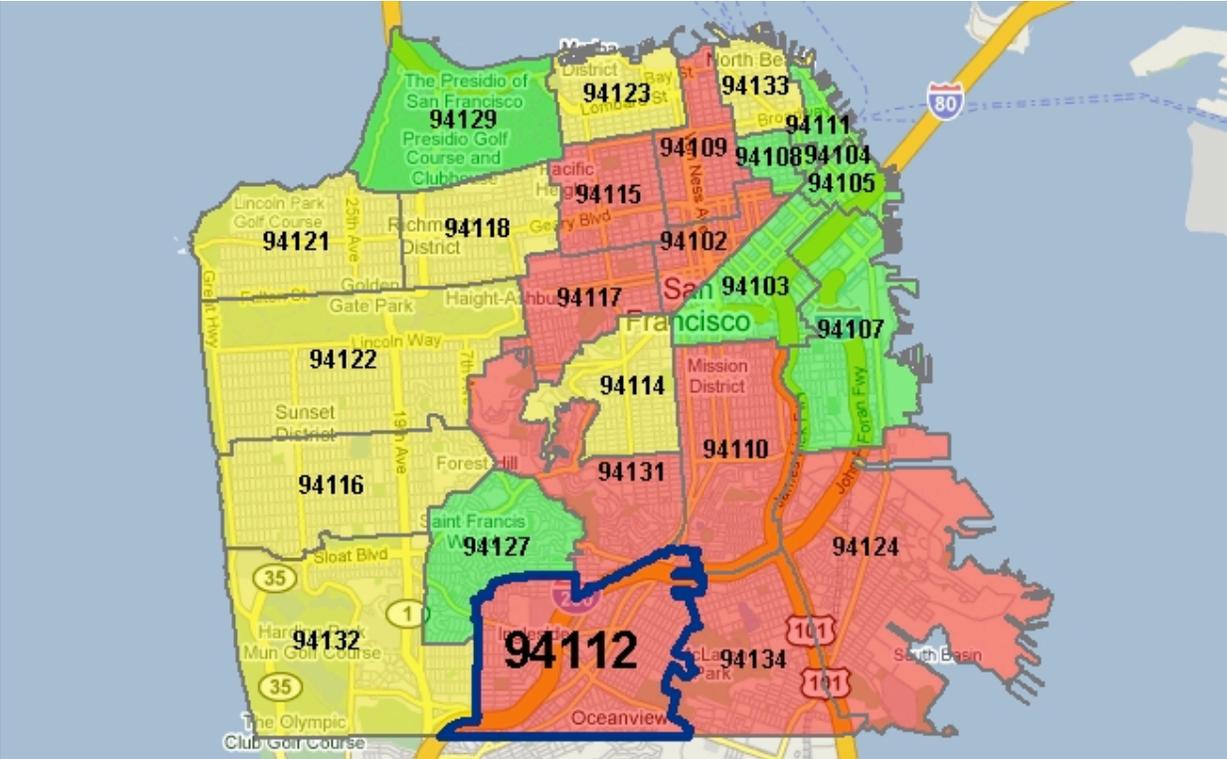
E-waste  
Dropoff



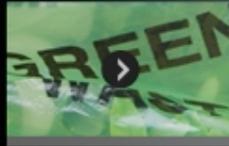
Sustainable  
Store

Information	Rank
Carbon-Friendly Recycling	
Rank	Zip
21	94134
22	94115
23	94112
24	94124
25	94109

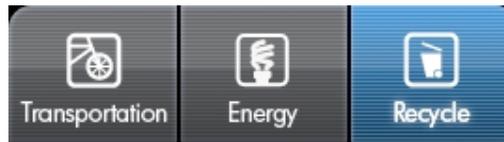
San Francisco was the first large city in the U.S. to collect food scraps for composting. Cities now produce



Community Videos



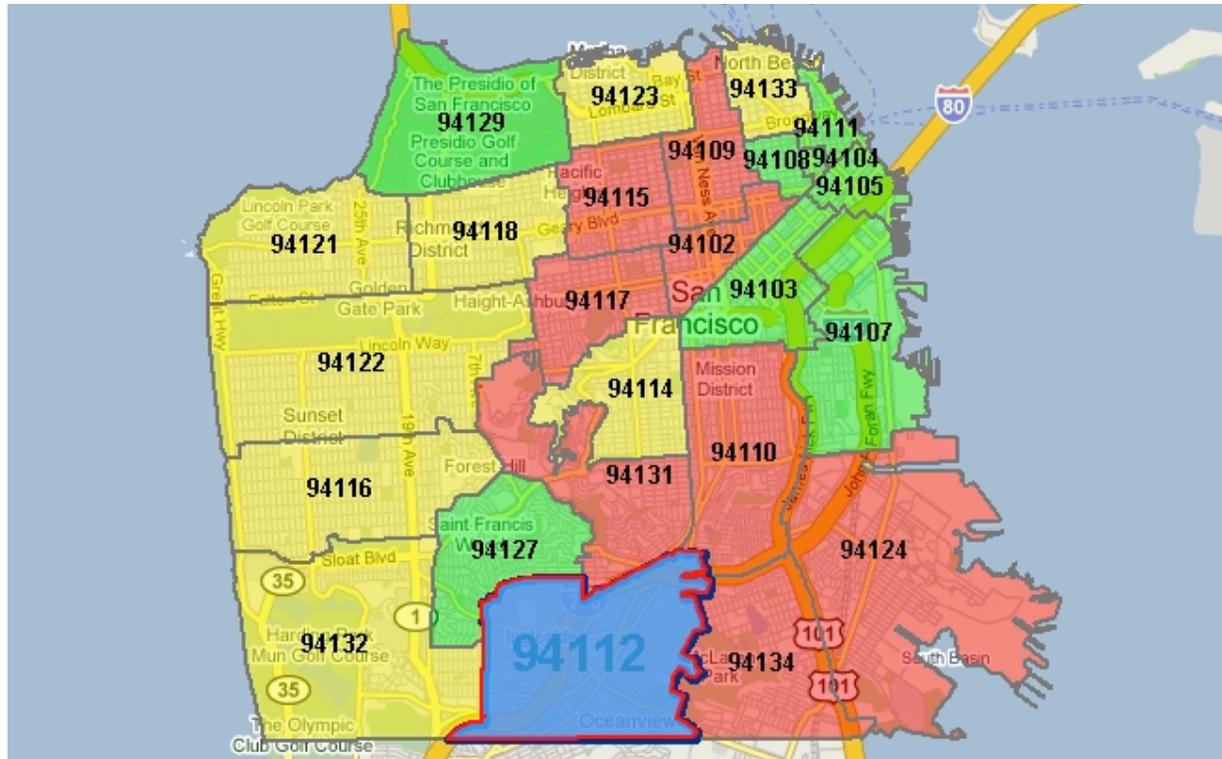
Upload



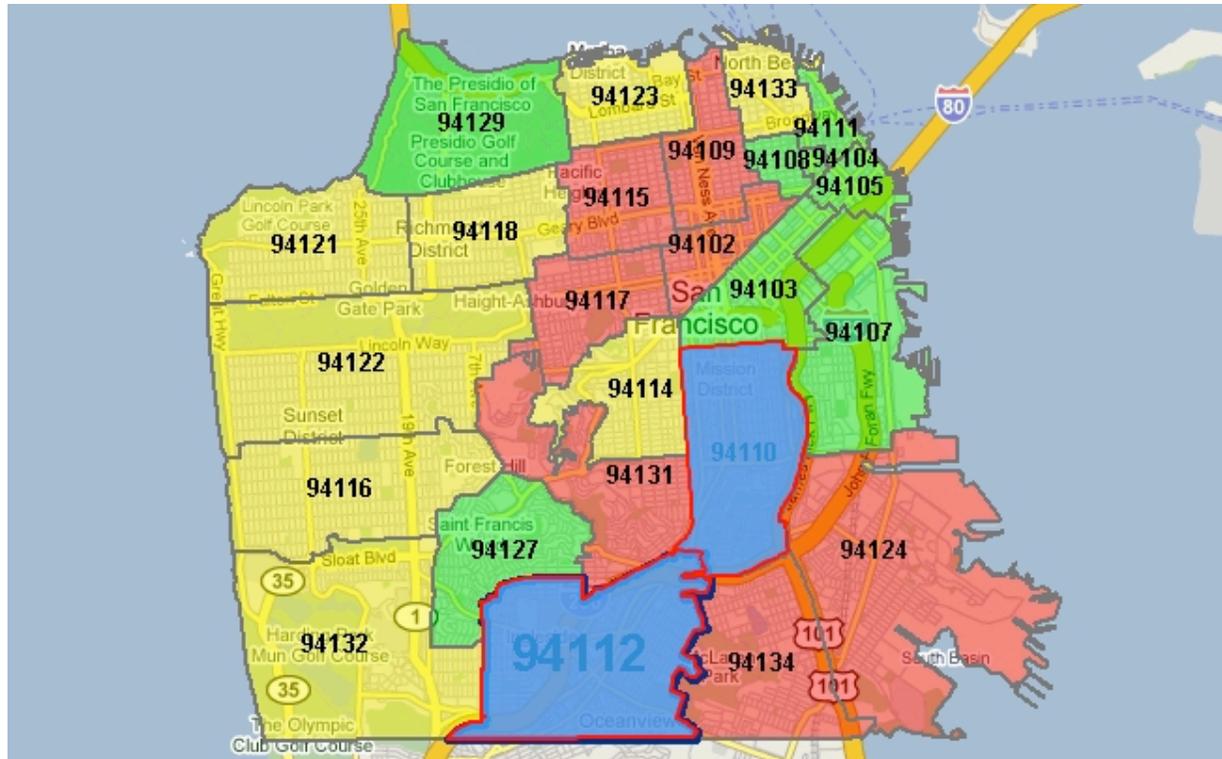
Transportation

Energy

Recycle



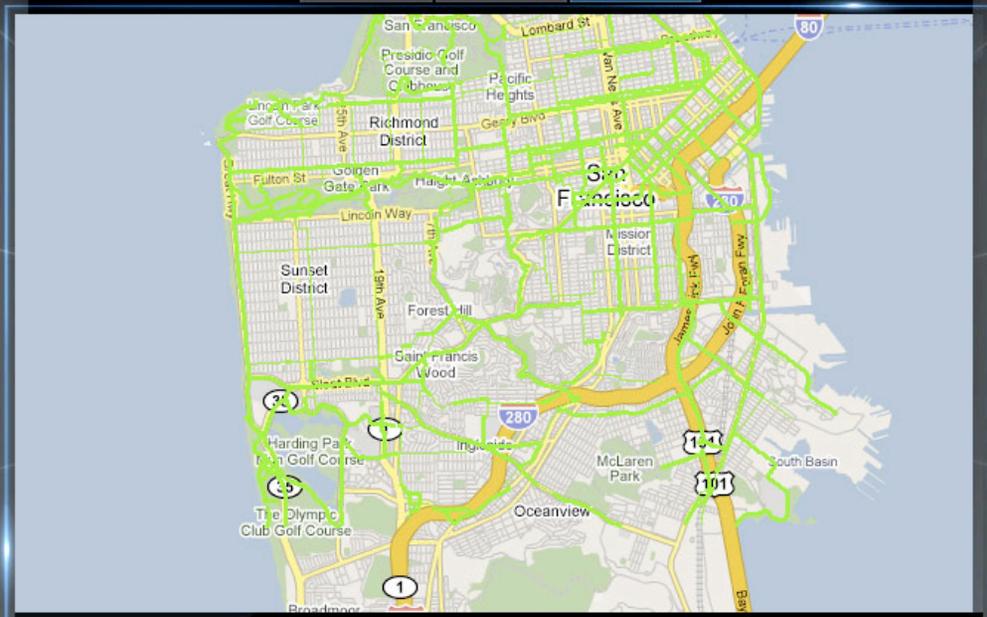
Information	Rank
Carbon-Friendly Transportation	
Rank	Zip
13	94112
14	94122
15	94133
16	94118
17	94121





Community Videos

↑  
 ▶  
 ▶  
 ▶  
 ▼  
 Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

**Actions** **Compare**

Recycling per Household (tons)

348

240

94131 94110

Most Recycling

**Information** **Rank**

Carbon-Friendly Recycling

Rank	Zip	% of SF avg.
5	94107	0.33%
6	94103	0.36%
7	94102	0.45%
8	94158	0.45%
9	94105	0.50%

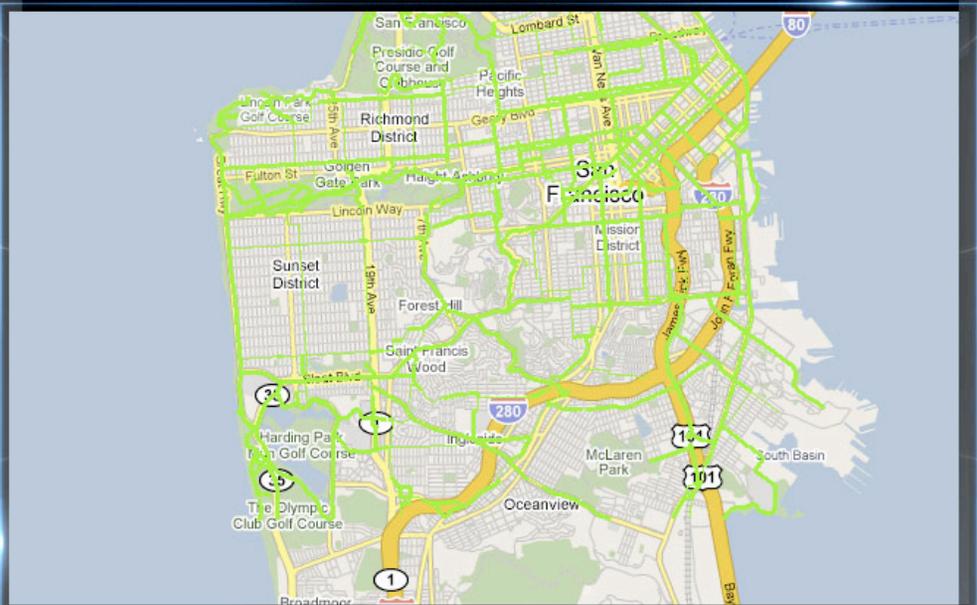
○ Compost Debris  
 ○ Find Recycling  
 ○ E-waste Dropoff  
 ○ Sustainable Store



Travel
Conserve
Recycle

Community Videos

↑  
▶  
▶  
▶  
▼  
Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions
Compare

Waste per Household (tons)

301

160

94131 94110

Most Waste

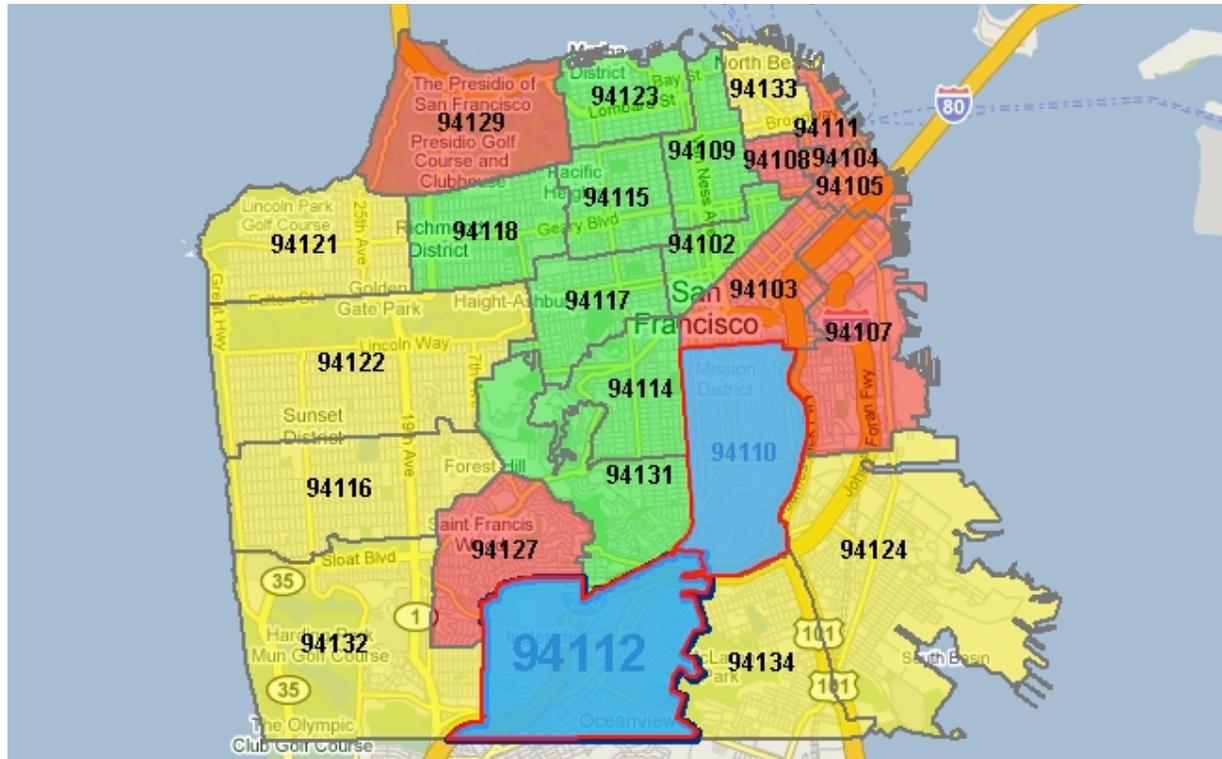
Information
Rank

Carbon-Friendly Recycling

Rank	Zip	% of SF avg.
5	94107	0.33%
6	94103	0.36%
7	94102	0.45%
8	94158	0.45%
9	94105	0.50%

Compost Debris
Find Recycling
E-waste Dropoff
Sustainable Store





- Travel
- Conserve
- Recycle

Community Videos

- >
- >
- >

Upload

Composting Image Goes Here

RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions Compare

- I already compost
- I don't compost

Information Rank

Compostable liner bags are available at more than 80 retail outlets in San Francisco and can be used as part of the city's green-cart program that collects food scraps and yard trimmings for composting.

- Compost Debris
- Find Recycling
- E-waste Dropoff
- Sustainable Store

### Information

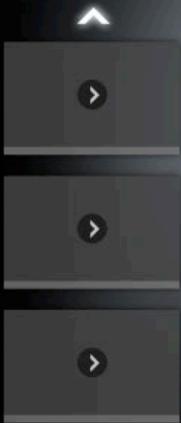
### Rank

"San Francisco's Department of the Environment is encouraging residents and businesses to place more food scraps and yard trimmings in green collection carts. The new outreach effort is part of an environmental initiative to help the city reach 75% recycling by 2010, a goal approved by the Board of Supervisors."





Community Videos



Upload

Composting Image Goes Here

RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions Compare

I think composting is gross  
I don't know what to compost  
I don't think I have the space

Information Rank

Compostable liner bags are available at more than 80 retail outlets in San Francisco and can be used as part of the city's green-cart program that collects food scraps and yard trimmings for composting.



Compost Debris



Find Recycling



E-waste Dropoff



Sustainable Store



Car Free



Bike



Fuel  
Efficiency



Public  
Transit



Walk



Carpool

### Information

### Rank

It has never been easier for San Franciscans to recycle and compost at home and at work. The "Fantastic Three" recycling program provides color-coded carts for curbside pickup: blue for paper, bottles and cans together; green for food scraps, soiled paper products and plant trimmings; and black for trash.

- Travel
- Conserve
- Recycle

Community Videos

- >
- >
- >

Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

**Actions** Compare

Click the button to have a coupon for a free compost bag sent to your phone I don't think I have the space

Send

**Information** Rank

Compostable liner bags are available at more than 80 retail outlets in San Francisco and can be used as part of the city's green-cart program that collects food scraps and yard trimmings for composting.



Compost Debris



Find Recycling



E-waste Dropoff



Sustainable Store

- Travel
- Conserve
- Recycle

Community Videos

Community Videos navigation area with three video thumbnails and an Upload button.

# Composting Image Goes Here

RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

Actions Compare

Click the button to have a coupon for a free compost bag sent to your phone I don't think I have the space

Send

Information Rank

Your coupon for a free compost bag has been sent to your phone

- Compost Debris
- Find Recycling
- E-waste Dropoff
- Sustainable Store



**Finding** greener ways to work, live, play, and learn...

zip code, by zip code

# C O N N E C T E D URBANDEVELOPMENT



**CH2MHILL**



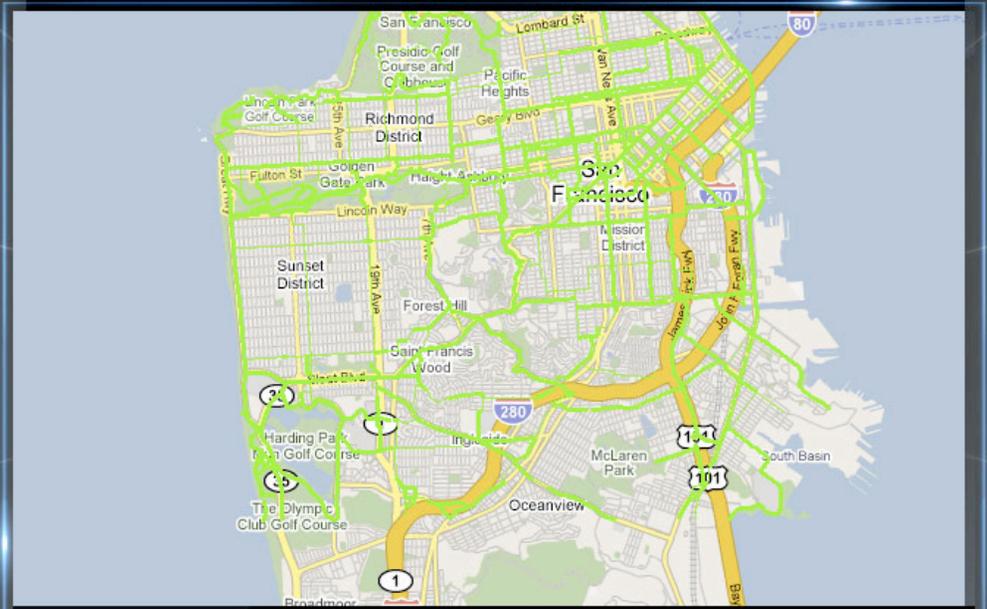
**DUARTE**

- Travel
- Conserve
- Recycle

Community Videos

- ▶
- ▶
- ▶

Upload



RECYCLING: 3006 TONS • COMPOST: 10,324 TONS • THERMS: 10,324 XXX • CO2: XXX XXX • KWH: 20

**Actions** **Compare**

Select two zip codes on the map to compare

**Information** **Rank**

Carbon-Friendly Transportation

Rank	Zip
5	94102
6	94109
7	94110
8	94133
9	94103

- Car Free
- Bike
- Fuel Efficiency
- Public Transit
- Walk
- Carpool

The city by the bay is the most "walkable" in the nation, according to rankings set by WalkScore.com. San F

# **EcoMap** San Francisco