



Smart Connected Communities

Europe



Sustainable Cities – Sustainable Mobility, Dec 2nd 2009

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Business Development

Public Sector European Markets

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Mega Trends Impacting Cities

Rise of Energy Consumption:

- Negative impact on the environment
- Current energy usage rate unsustainable

Pressure to Improve Productivity:

- Increase effectiveness
- Impact of technology on collaboration

Changing the Way We Work:

- Pressure on travel and transportation
- Push to improve quality of life



Keep up with the Trends & Face the Challenges

VISION

Transform physical communities to connected communities run on networked information, to achieve economic, social and environmental sustainability

STRATEGY

- Identify key areas
- Foster an innovative culture
- Identify political, administrative and entrepreneurial champions

EXECUTION

- Identify or create pilots
- Establish an open integrated platform that enables new vertical solutions
- Develop new business models and establishing new partner relationships

Connected Urban Development (CUD)

Business Transformation Enabled by Information and Communication Technology (ICT)



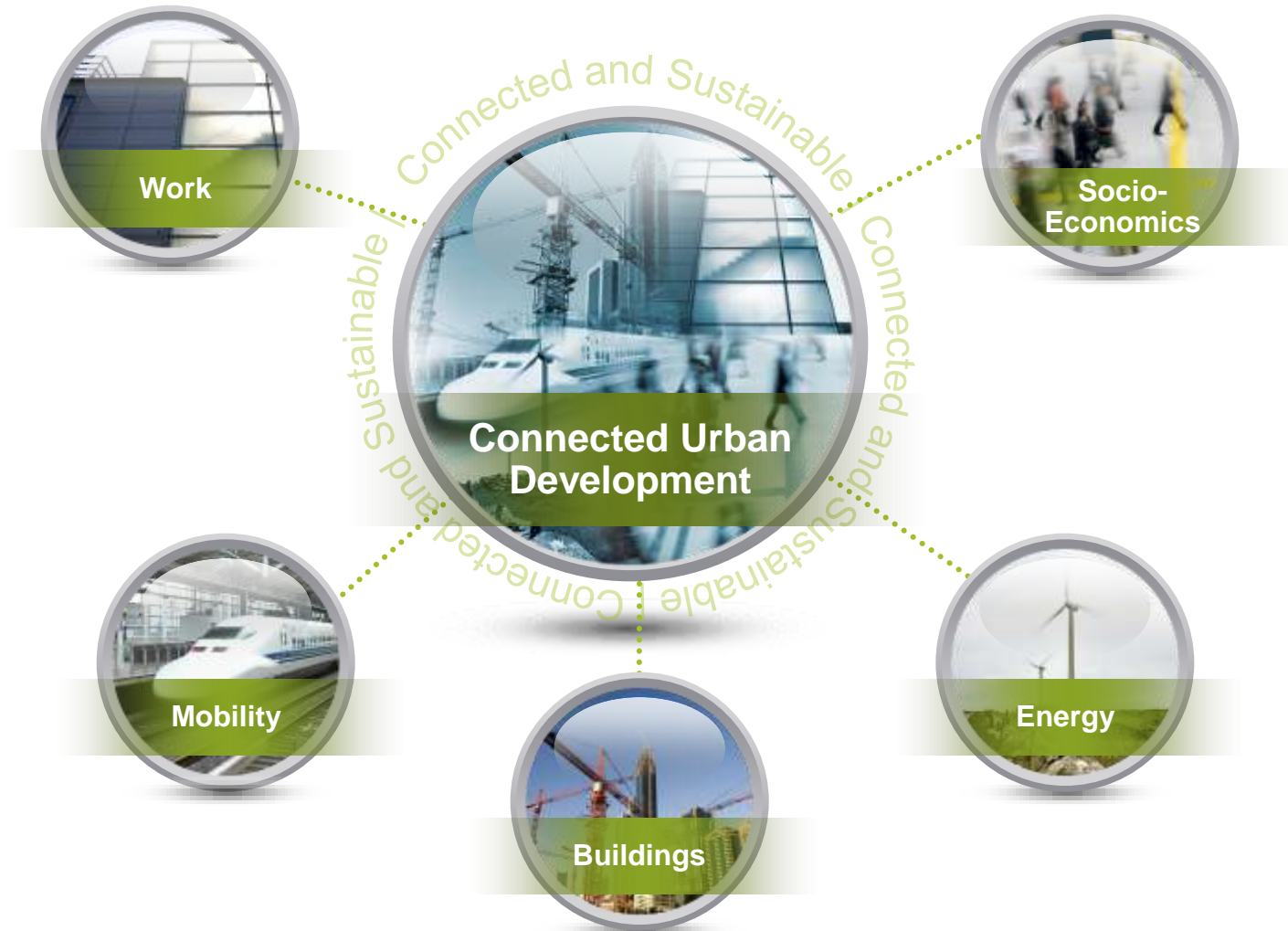
Three founding cities:



In 2008, four new cities joined:



Business Transformation Enabled by ICT



Connected Urban Development

A Blueprint for City Transformation



Connected and Sustainable Work

Smart Work Centers

Digital Swarming and Hub Pavilions

Connected Workplaces

Connected Workforce

Connected and Sustainable Mobility

Smart Road Pricing

Personal Travel Assistant

Connected Public Transportation

Connected and Sustainable Buildings

Homes

Office Buildings

Public Spaces

Public Transit Hubs

Hospitals and Schools

Connected and Sustainable Energy

Renewables and Co-Generation

Urban Monitoring and Measurement

Citizens Energy Efficiency

Connected and Sustainable Socio-Economics

Active Citizenship and Eco Maps

Innovative Green Business Models and Sustainability Clusters

Sustainable Urban Planning

Broadband Platform

IP-Enabled Homes and Offices, Roads, Utilities, Workplace Design

Smart Work Center

Smart Work Center (SWC) offers a flexible and user-centric work space with enhanced communication technologies and a community inclusive service setting, designed to improve employee collaboration and productivity.



Smart Work Center – Proof of Concept City of Almere (NL)

Integrated Services Concept

Technology Components:

- Flexible work places and conference rooms
- High speed Internet connectivity
- Wireless
- TelePresence
- IP Telephony

Social Components:

- Close to residential community
- Flexible meeting space
- Restaurant
- Child day care
- Financial services: e.g. ATM
- Employment agency services

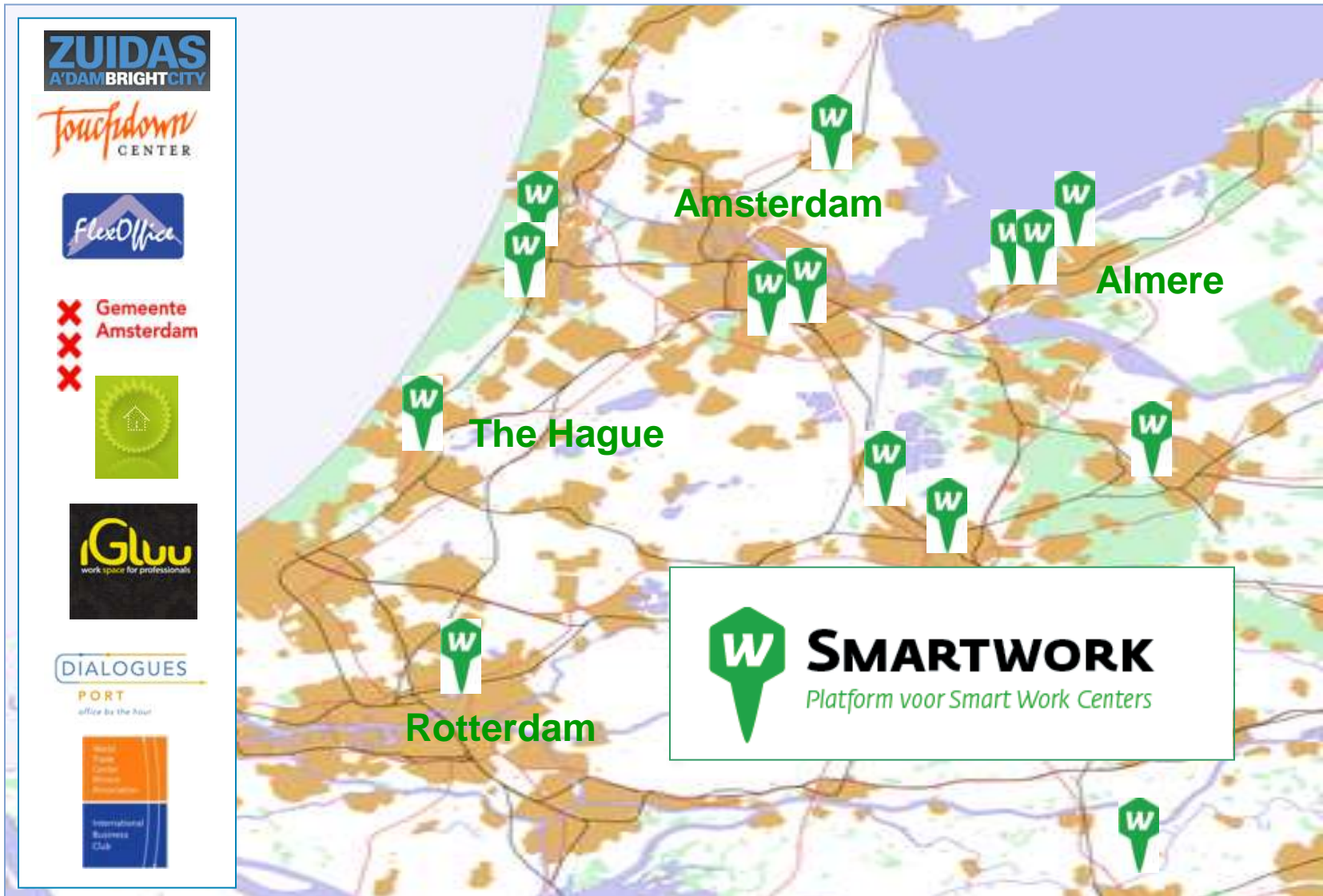


Smart Work Center Services and Solutions Architecture

- **Flexible Work Space**
 - Location Services
 - Secure VPN Remote Access
 - Unified Communications
 - Presence
 - TelePresence
- **Building Systems**
 - Connected Real Estate
 - Physical Security
 - Digital Media Systems
- **Connectivity**
 - Wired
 - Wireless
 - High Speed Broadband
- **Reservation System**
 - Web-based and multimodal



The “W-Network” of Smart Work Centers - Netherlands



'W' - MySmartWorkSpace Reservation Tool

- Smart Work - Wherever, Whenever:
Work Space follows the Worker
- Multimodal
- Selection, Reservations & Payments
- 'One-Stop-Shop' for Employers, SWC users
- Integration into EcoMaps



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Personal Travel Assistant - Seoul

Personal Travel Planner

My Today

2009.04.13

1	11:30	My Today
2		
3		
4		
5		

Travel Option

1 Destination	GREEN FACTOR	COST	DURATION
★ Route1 : Car/Train <small>SUGGESTED ROUTE</small>	<div style="width: 100%; height: 10px; background-color: green;"></div>	<div style="width: 100%; height: 10px; background-color: blue;"></div>	<div style="width: 10%; height: 10px; background-color: red;"></div>
Route2 :	<div style="width: 80%; height: 10px; background-color: green;"></div>	<div style="width: 80%; height: 10px; background-color: blue;"></div>	<div style="width: 30%; height: 10px; background-color: red;"></div>
Route3 :	<div style="width: 60%; height: 10px; background-color: green;"></div>	<div style="width: 60%; height: 10px; background-color: blue;"></div>	<div style="width: 50%; height: 10px; background-color: red;"></div>
Route4 :	<div style="width: 20%; height: 10px; background-color: green;"></div>	<div style="width: 20%; height: 10px; background-color: blue;"></div>	<div style="width: 80%; height: 10px; background-color: red;"></div>

Selected Route

From:

Destination:

Distance:

Route Guide

Virtual Assistant

Ask

Transcript

cost, I recommend route number 1.

Personal Travel Assistant

Objectives

- Transform urban mobility patterns by providing **real-time personalized travel information and support services** through various channels
- Enables users to organize their work and social activities with better options in terms of Time/ Financial/ Environmental impact

Strategy

- Link with TOPIS Development Plan
- Link with **u-TransPolis Implementation Roadmap (MP6 PTIS)** : HVA Real-Time Travel Information Services
- Co-Develop **Technology Architecture (Device Independent)** and Standard Service Platform

Key Features



Travel Planning

Pre-travel, travel, and post-travel management
Smart traveler automated recommendations based on profile



Schedules/Reservations

Schedule and reserve travel and work based on personal needs



Option Calculator

Time, financial, & carbon incentive suggestive alternatives
Preference & proactive service offerings based on profile



Safety & Emergency

Real-time safety alert and remote diagnosis

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Urban EcoMap – www.urbanecomap.org

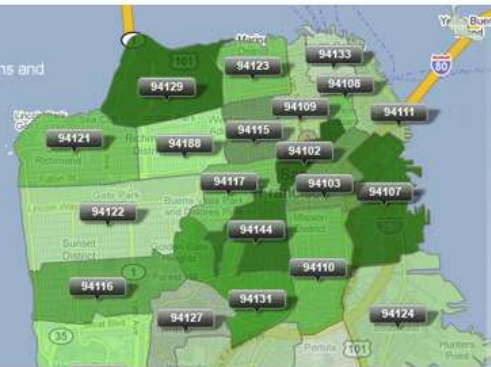
ecomap SAN FRANCISCO

Home Explore Act Resources

Working Together to Improve San Francisco's Environment
Understand the challenge. Become part of the solution.

What's The Problem?

We hear a lot about greenhouse gas emissions and the need to reduce them. The first step is to understand where they originate.



John Rides His Bike to Work

On average, transportation is responsible for 50% of green-house gas emissions. By using alternative forms of transportation, Joe is part of the solution.

Are You?



Transportation

Energy

Waste

Do it Now!

Want some quick suggests for how you can reduce your environmental impact? Tell us what's most important to you, and we'll show you the best options.

- Low Cost
- Lowest Effort
- Greenest Option

Go

See What's Happening In Your Neighborhood



Use our interactive map to better understand the environmental impact of your neighborhood, relative to others. Compare two zip codes, or compare your zip code to the current City average and the future City goal.

[Compare Neighborhoods >](#)

Are You Part of the Solution?



Use the "Action Advisor" to learn more about available environmentally friendly options. Identify what is most important, and the "Action Advisor" will build a list of suggestions and resources that are right for you.

[Take Action >](#)

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Working Together to Improve San Francisco's Environment

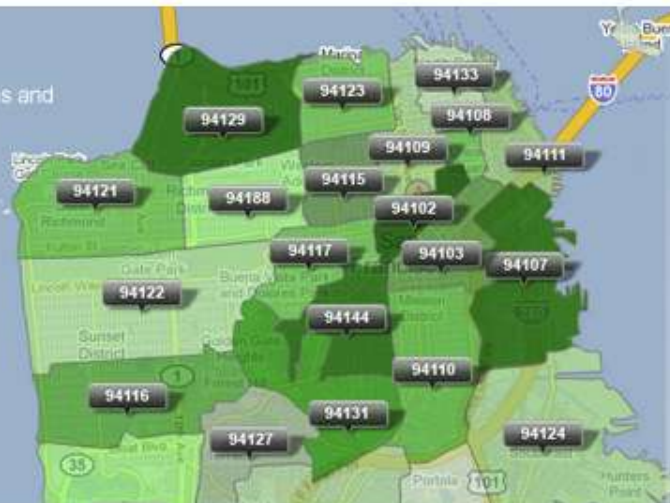
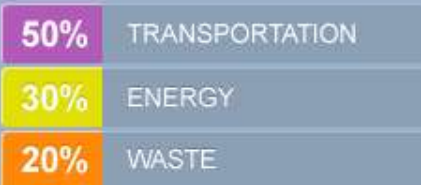
Understand the challenge. Become part of the solution.

Your current zip code is **94109**

If this is not correct, [Click Here](#).

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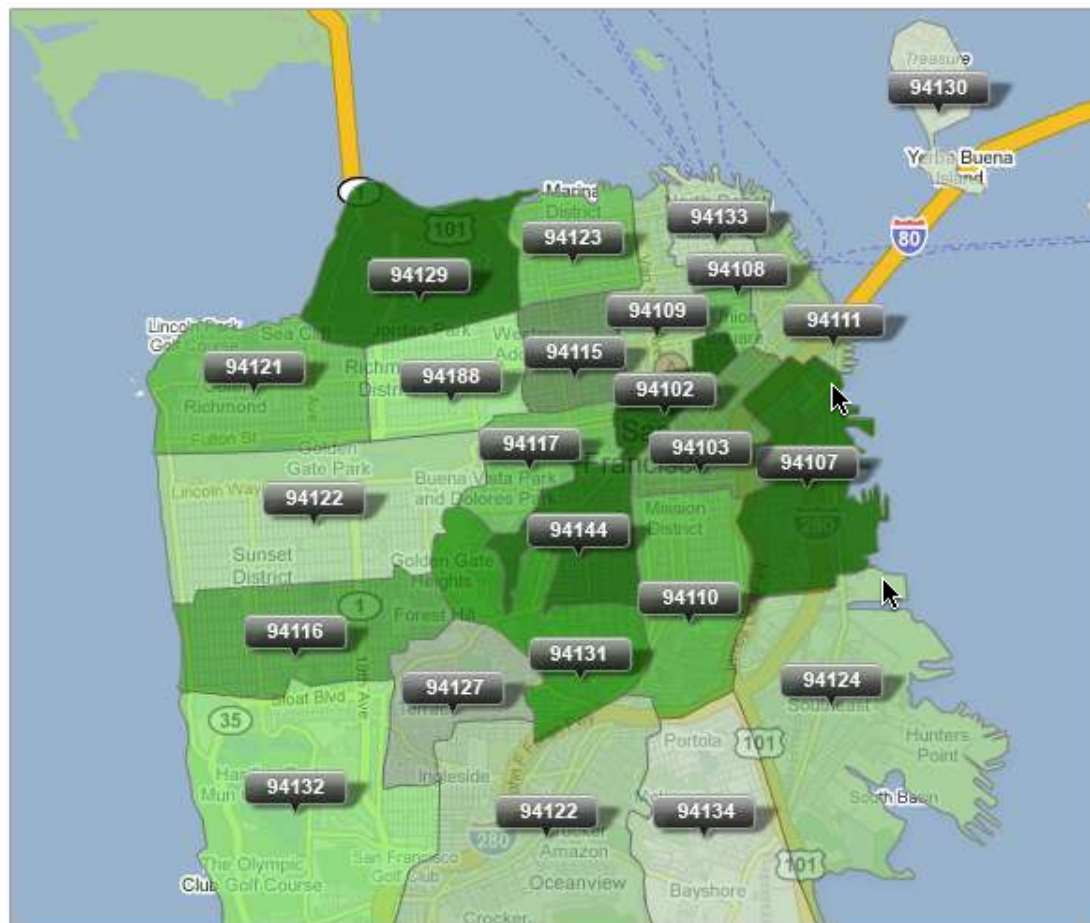


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Explore San Francisco's Carbon Emissions by Zip Code



All Transportation Energy Waste

Best Performing Zip Codes - April 2009

ZIP CODE	TRANSPORT	ENERGY	WASTE
1 94108	50%	46%	4%
2 94107	81%	16%	3%
3 94102	66%	31%	3%
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[Show All](#)

Zipcode Current Emissions

100 pounds of CO2/Household



How is San Francisco Doing?

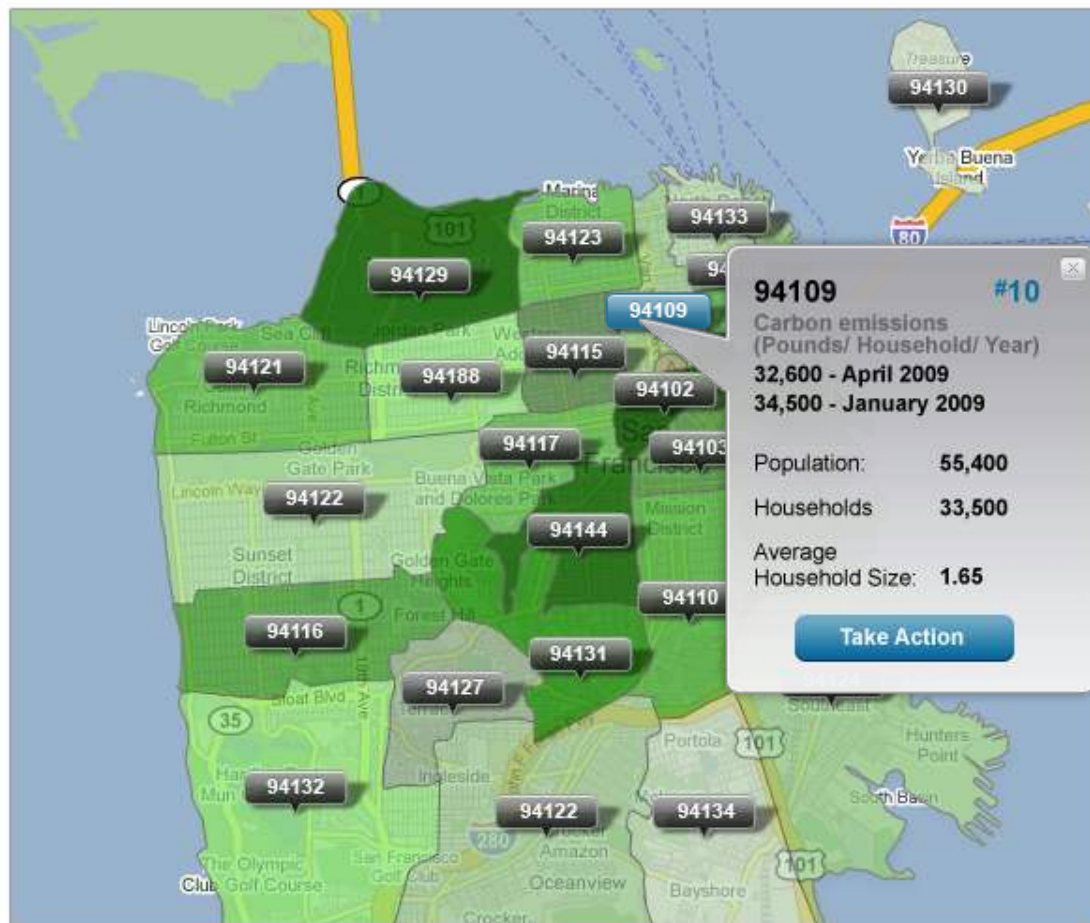
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Facts

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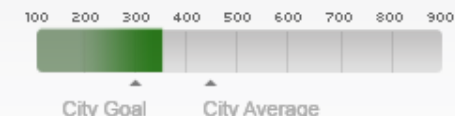
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[Show All](#)

Zipcode Current Emissions

100 pounds of CO₂/Household



How is San Francisco Doing?

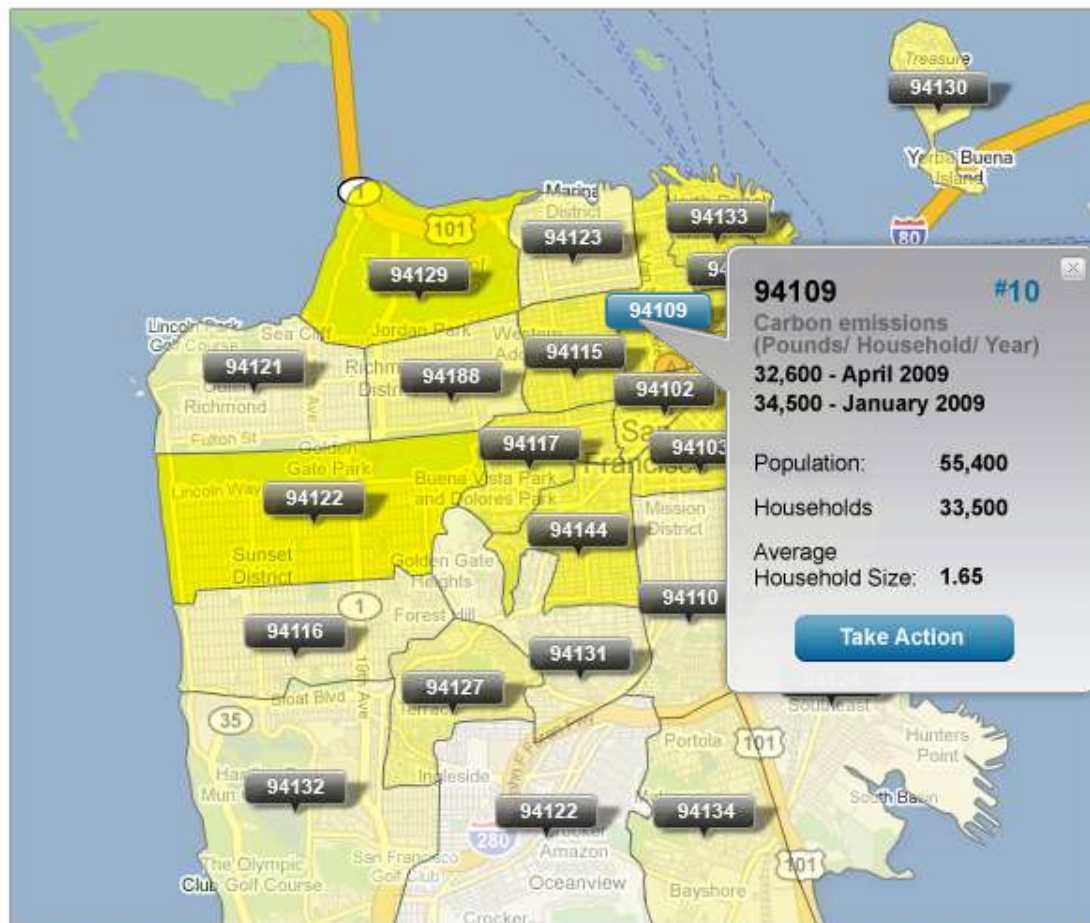
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Facts

At last measure San Francisco's total carbon emissions were 9% below its level of emissions



Explore San Francisco's Carbon Emissions Created by Energy



[All](#) View All
 [Transportation](#)
[Energy](#)
[Waste](#)

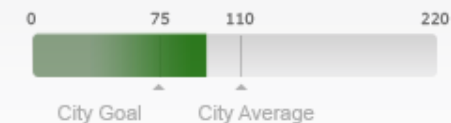
Best Performing Zip Codes - April 2009

ZIP CODE	ELECTRICITY	GAS
1 94108	63%	37%
2 94107	38%	62%
3 94102	32%	68%
4 94103	38%	62%
5 94111	50%	50%
6 94105	34%	66%
7 94133	37%	63%
8 94124	40%	60%
9 94104	39%	61%
10 94109	37%	63%

[Show All](#)

94109 Current Emissions

100 pounds of CO2/Household



How is San Francisco Doing?

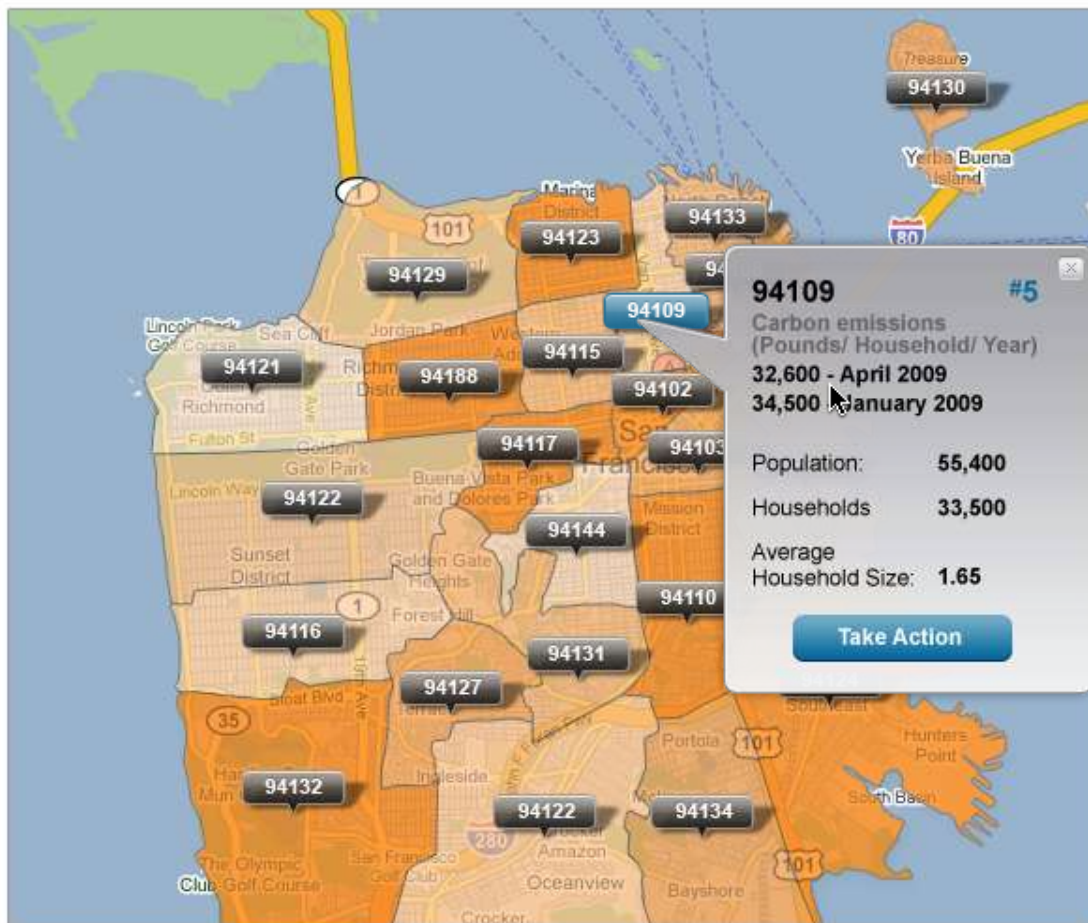
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City Facts

On average, electrical generation is a significant source of greenhouse gas emissions.



Explore San Francisco's Carbon Emissions Created by Waste



All
Transportation
Energy
Waste

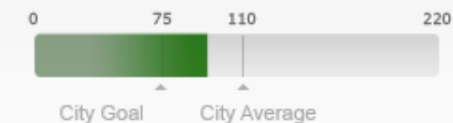
Best Performing Zip Codes - April 2009

ZIP CODE	BLK CART C02/HH	GRN CART WEIGHT/HH	BLUE CART WEIGHT/HH
1 94105	295	782	1248
2 94107	588	466	463
3 94128	604	324	1059
4 94102	612	201	152
5 94109	667	299	203
6 94132	769	463	309
7 94115	890	629	384
8 94131	904	735	479
9 94123	912	712	509
10 94117	925	603	275

[Show All](#)

94109 Current Emissions

100 pounds of C02/Household



How is San Francisco Doing?

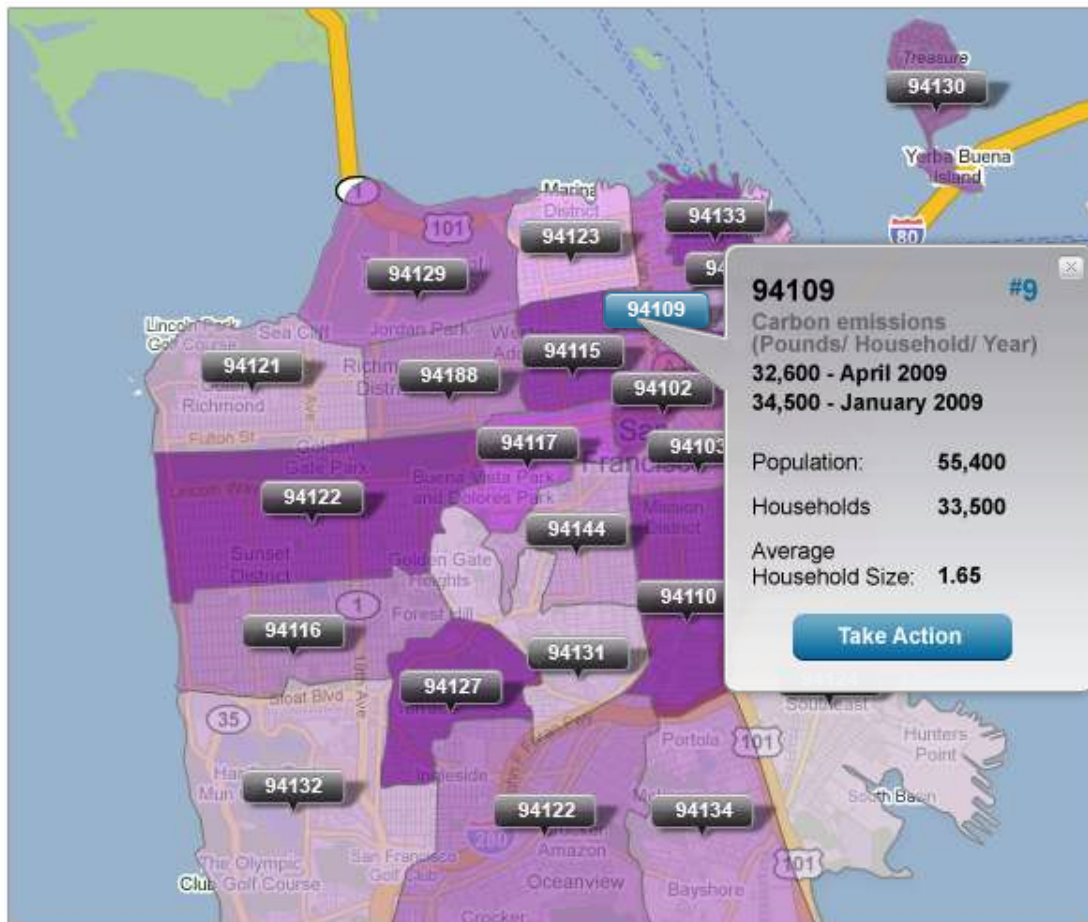
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City Facts

Garbage decaying in landfills emits a powerful greenhouse gas - methane. Reducing



Explore San Francisco's Carbon Emissions Created By Transportation



[All](#) [Transportation](#) [Energy](#) [Waste](#)
 View All

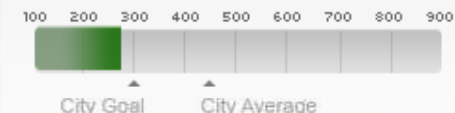
Best Performing Zip Codes - April 2009

	ZIP CODE	HYBRIDS	SUVS	MILES/YEAR
1	94104	4%	13%	3079
2	94111	4%	22%	3155
3	94108	3%	18%	4719
4	94103	2%	24%	7955
5	94105	2%	64%	9631
6	94102	3%	10%	8832
7	94107	3%	23%	12513
8	94133	2%	9%	16554
9	94109	2%	6%	18552
10	94114	4%	6%	29183

[Show All](#)

94109 Current Emissions

100 pounds of CO₂/Household



How is San Francisco Doing?

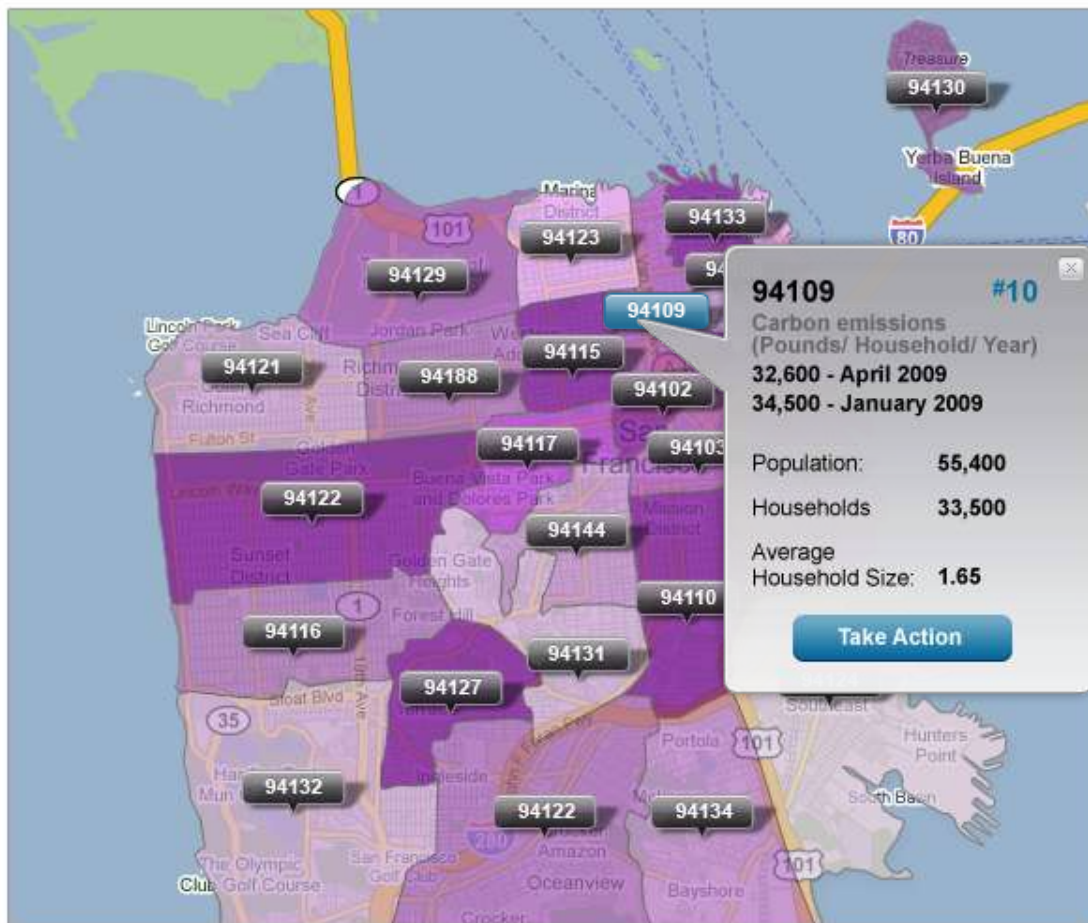
San Francisco is one of the cleanest and greenest cities in the U.S. and is well on its way to reducing overall greenhouse gas emissions to 20% below 1990 levels—ahead of the Kyoto Protocol.

City Facts

Nearly half of all our carbon emissions come from transportation. To reduce this number,



Explore San Francisco's Carbon Emissions Created By Transportation



All Transportation Energy Waste

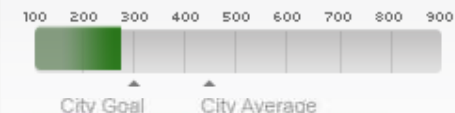
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[Show All](#)

94109 Current Emissions

100 pounds of CO2/Household



Congratulations. 94109 is creating less carbon emissions than the city average.

How is San Francisco Doing?

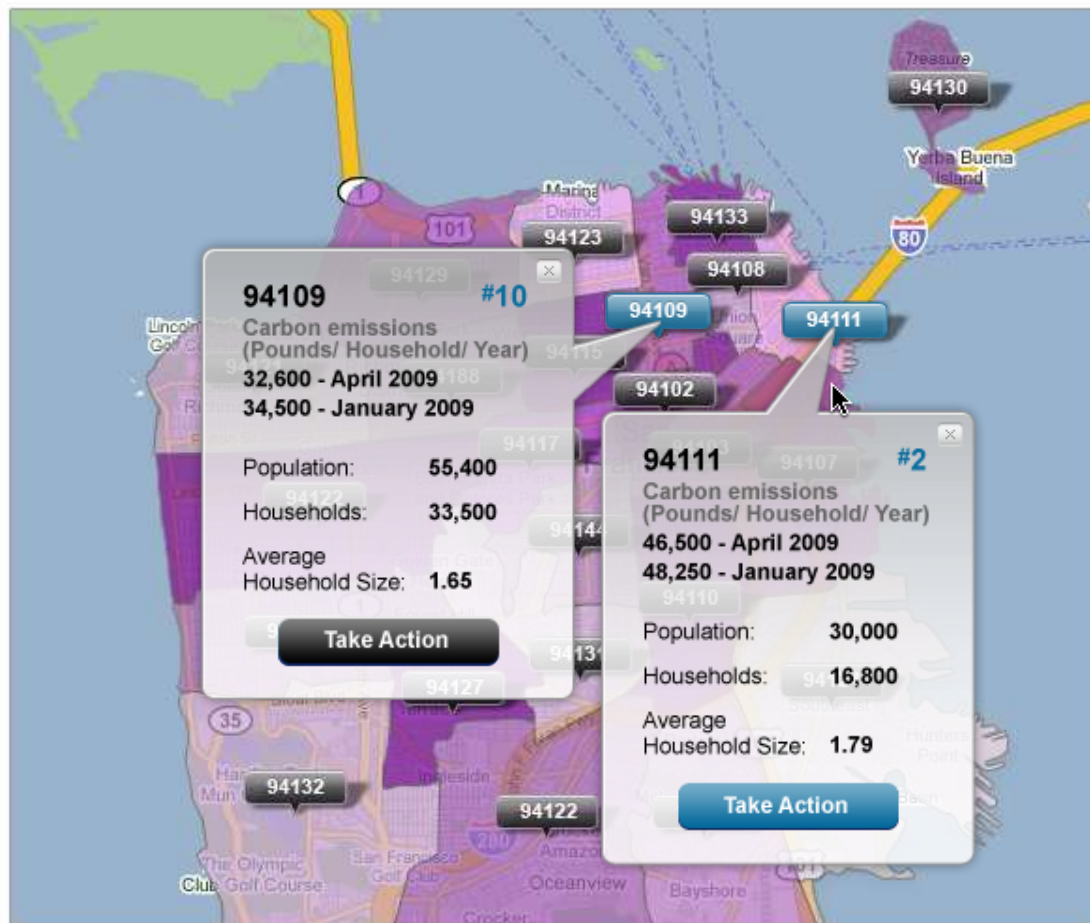
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All
Transportation
Energy
Waste

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Reduce Your Carbon Emissions

1

Set Your Goals

Move the sliders to adjust your starting point

By Effort



By Cost



By Impact



2

Plan Your Actions

Identify actions that you will take in each of the following areas



Transportation



Energy



Waste

3

See Your Results

Chart your contribution

My CO2 Impact



Take Action

[delete plan](#)



Reduce Your Carbon Emissions

1

Set Your Goals

Move the sliders to adjust your starting point

By Effort



By Cost



By Impact



2

Plan Your Actions

Identify actions that you will take in each of the following areas



Transportation

- Bike or Walk to Work
- Bike or Walk for Daily Travel in Town
- Carpool
- Drive a Hybrid
- Take Public Transit to Work
- Take Public Transit for Daily Travel in Town
- Utilize A Car Share Program for Regional Travel



Energy

- Cold Wash Clothing
- Do Not Use Heating and Cooling
- Flip the Switch and Unplug
- Hang Clothes to Dry
- Install Double Pain Windows
- Install Energy Star Appliances
- Install Programmable Thermostat
- Insulate Water Heater
- Run Dishwasher Washing Machines with Full Loads
- Take Short Showers (5 minutes)
- Upgrade Light Bulbs



Waste

- Compost Expired Food and Table Scraps
- Compost Yard and Garden Waste
- Recycle Plastic
- Recycle Aluminum
- Recycle Cardboard
- Recycle Glass
- Recycle Paper, Newspaper and Magazines
- Reuse Containers, Bottles, etc.

3

See Your Results

Chart your contribution

My CO2 Impact _____



Take Action

[delete plan](#)



My Actions to Reduce Carbon Emissions

Share the actions that you are planning to take with your friends and neighbors by posting them to your Facebook wall.

[Save a PDF](#)[Add to Facebook](#)[Edit My Solutions](#)

Transportation

Bike To Work

Biking to work at least once a week is a great option for those who live a little bit farther from work. City bike maps and other resources are available to make biking an easy, emissions-free commute option. [Plan my route.](#)



Energy

Install Energy Star Appliances

Appliances which meet the requirements of the national ENERGY STAR program are widely available and bring 20-30% energy savings on average – just look for the label and upgrade your appliances to save immediately.

Upgrade Light Bulbs

Compact fluorescent light bulbs (CFLs) are 75% more efficient and last 10 times as long as traditional bulbs. They are widely available and after a small initial cost, will save up to \$30 in energy costs over each bulb's lifetime.



Waste

Compost Yard and Garden Waste

In non-urban areas, yard waste can be one of the largest contributors to the carbon emissions associated with personal waste. In cities, yard and garden waste should still be composted to ensure these emissions are minimized.





Become a Supporter

View Updates

Gavin Newsom is currently exploring a campaign for Governor of California in 2010. Learn more at www.GavinNewsom.com or follow the Mayor on Twitter.

Information

Country:
United States

Current Office
Office:
Mayor of San Francisco

State:
California

Party:
Democratic Party

Supporters

6 of 37,037 supporters See All

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Events

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Gavin Newsom



Gavin Newsom: Power America With Ocean Energy - Earth2Tech

Source: tr.im

Today, U.S. Secretary of the Interior Ken Salazar will hold a high-profile public hearing in San Francisco about the future of offshore oil drilling along America's coastlines. We have a choice. Invest in safe, renewable forms of ocean energy — including wind, wave, tidal and current power — that wi...

 Yesterday at 6:28am · Comment · Like · Share

 140 people like this.

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Gavin Newsom



Gavin just joined Ecomap San Francisco.
www.ecomap.com

 Wed 12:24pm · Comment · Like · Share

 449 people like this.

 View 55 comments

Write a comment...



Gavin Newsom Another step forward for marriage equality – Gov. Paterson will introduce same-sex marriage bill in New York.

Paterson Will Introduce Same-Sex Marriage Bill – The Caucus Blog – NYTimes.com

Source: thecaucus.blogs.nytimes.com

Gov. David A. Paterson will announce on Thursday plans to introduce legislation to legalize same-sex marriage, according to people with knowledge of the governor's plans.

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Free Canon Camera



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Your Profile Is Naked

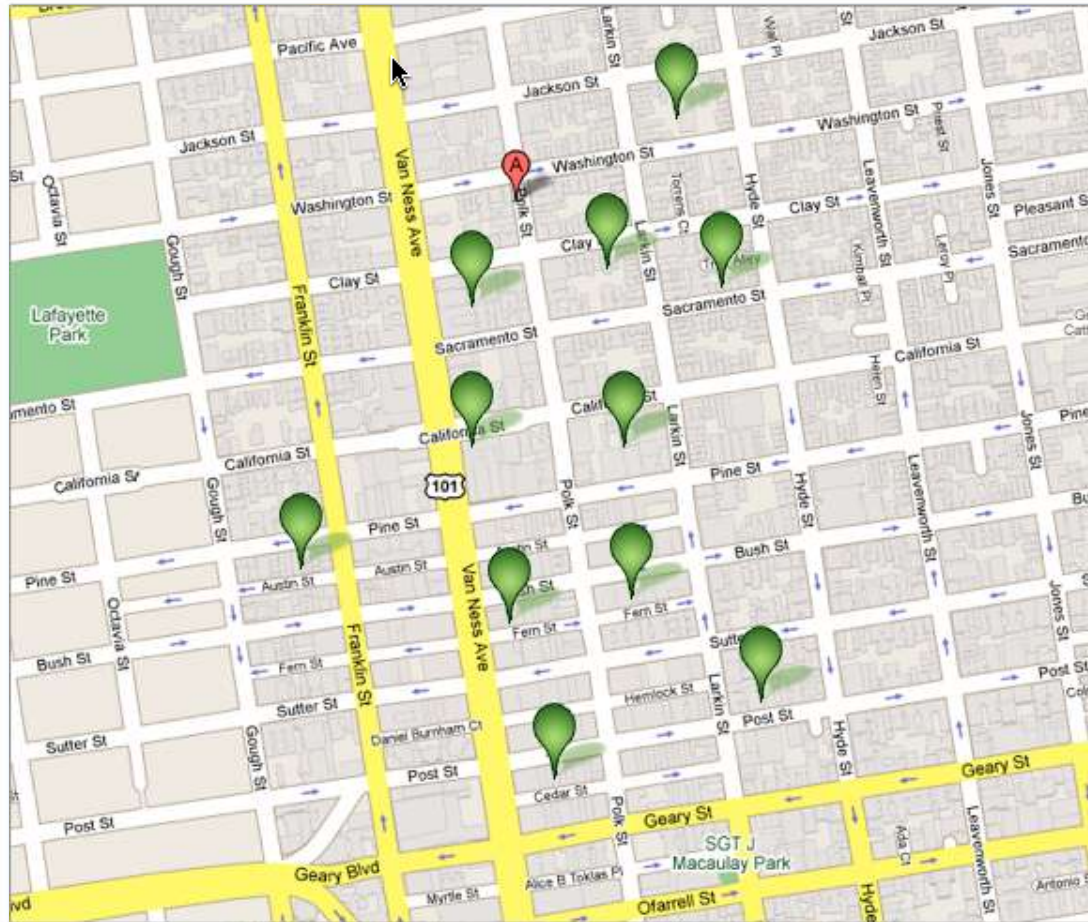


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100 pounds of CO2/Household



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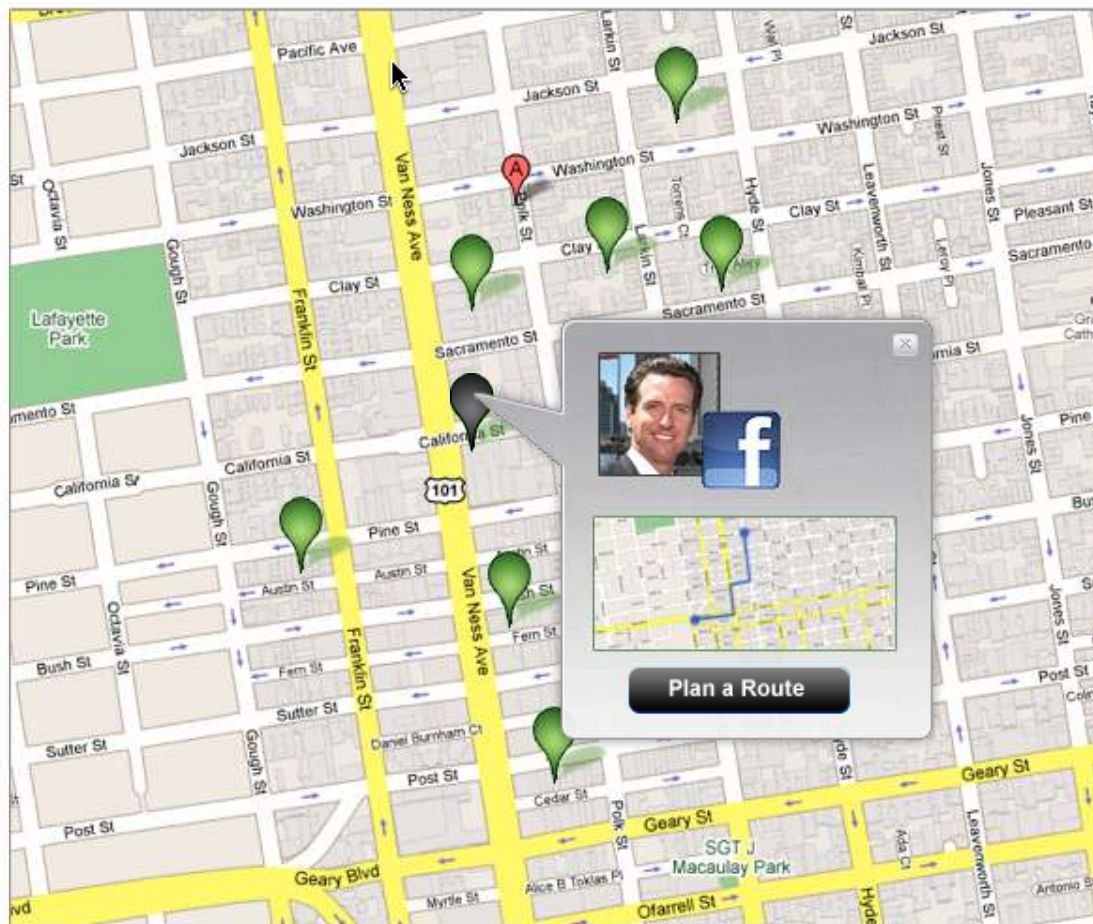
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At last measure San Francisco's total carbon emissions were 9% below its level of emissions in 1990. 1990 is commonly used as the baseline year against which most emissions reduc-



Plan your bike route



Plan my route

Start

1 Carlton B Goodlett Pl., San Francisco CA

Finish

24 Willie Mays Plaza, San Francisco, CA

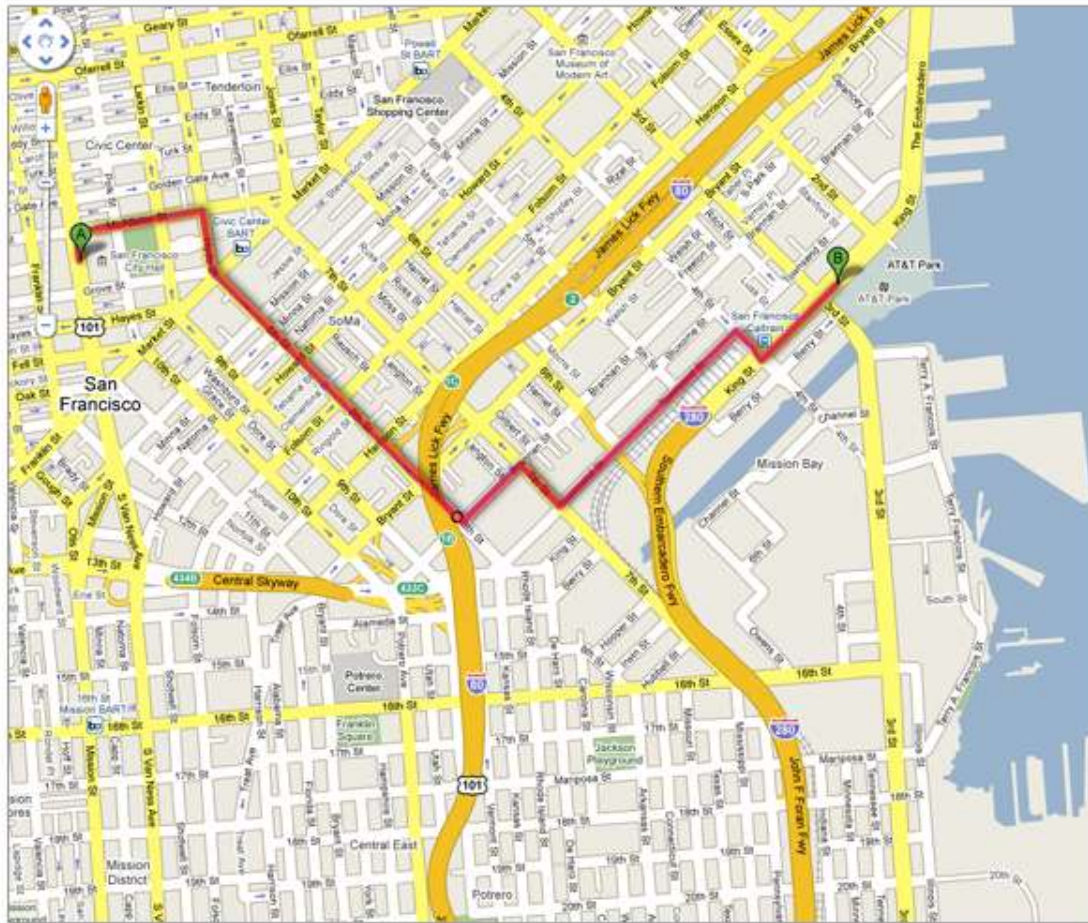
Show my route

Bike for daily trips in town

Biking is often the quickest and cheapest way to get from one side of the city to the other, and everywhere in-between. Bikes can be used for shopping, exercising, and simply getting from one place to another emissions-free.



Plan your bike route



Plan my route

Start

1 Carlton B Goodlett Pl., San Francisco CA

Finish

24 Willie Mays Plaza, San Francisco, CA

Show my route

Route information

Distance: 2.3 miles

Difficulty: Easy



Elevation change

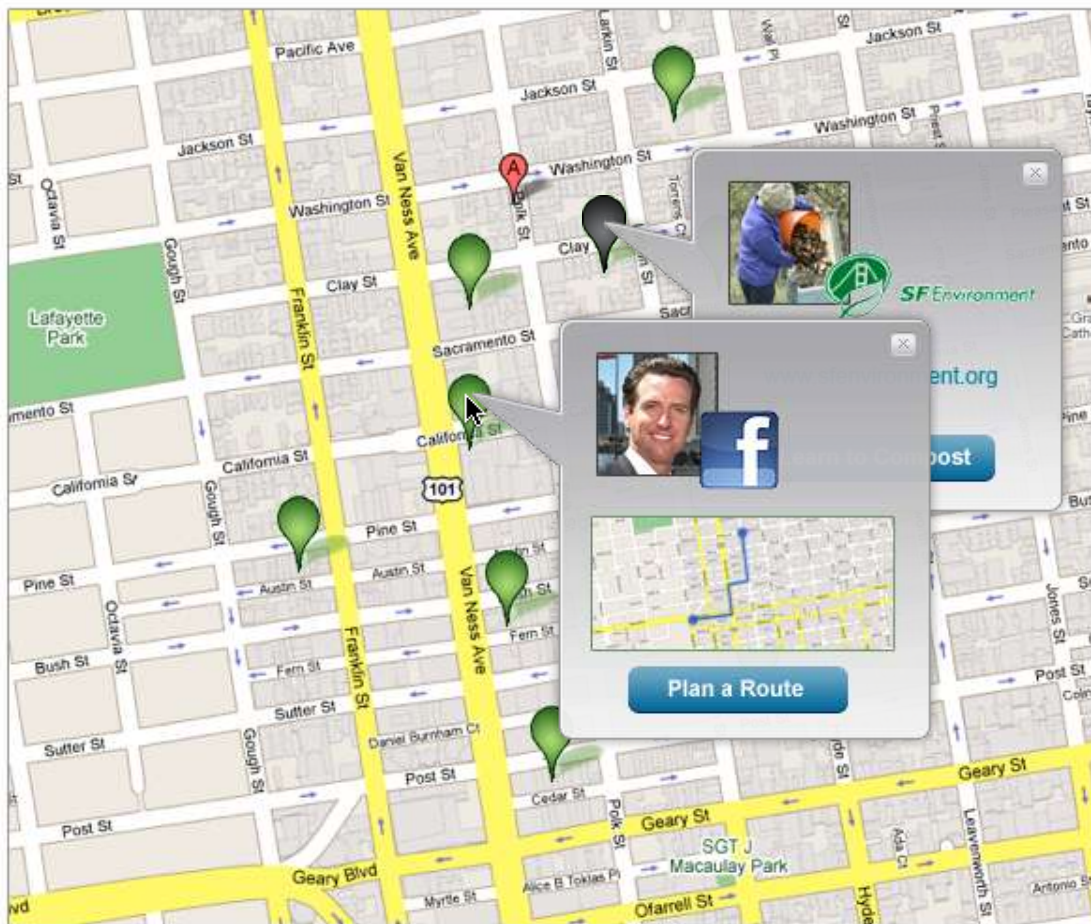
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Find a bike buddy



Explore San Francisco's Carbon Emissions by Zip Code


[View All](#)

[Transportation](#)

[Energy](#)

[Waste](#)

Best Performing Zip Codes - April 2009

ZIP CODE	TRANSPORT	ENERGY	WASTE
1 94108	50%	46%	4%
2 94107	81%	16%	3%
3 94102	66%	31%	3%
4 94103	59%	33%	8%
5 94111	21%	74%	5%
6 94105	53%	46%	1%
7 94133	70%	26%	4%
8 94124	71%	24%	5%
9 94104	8%	86%	6%
10 94109	71%	27%	2%

[Show All](#)

Zipcode Current Emissions

100 pounds of CO₂/Household

100 200 300 400 500 600 700 800 900



City Goal

City Average

How is San Francisco Doing?

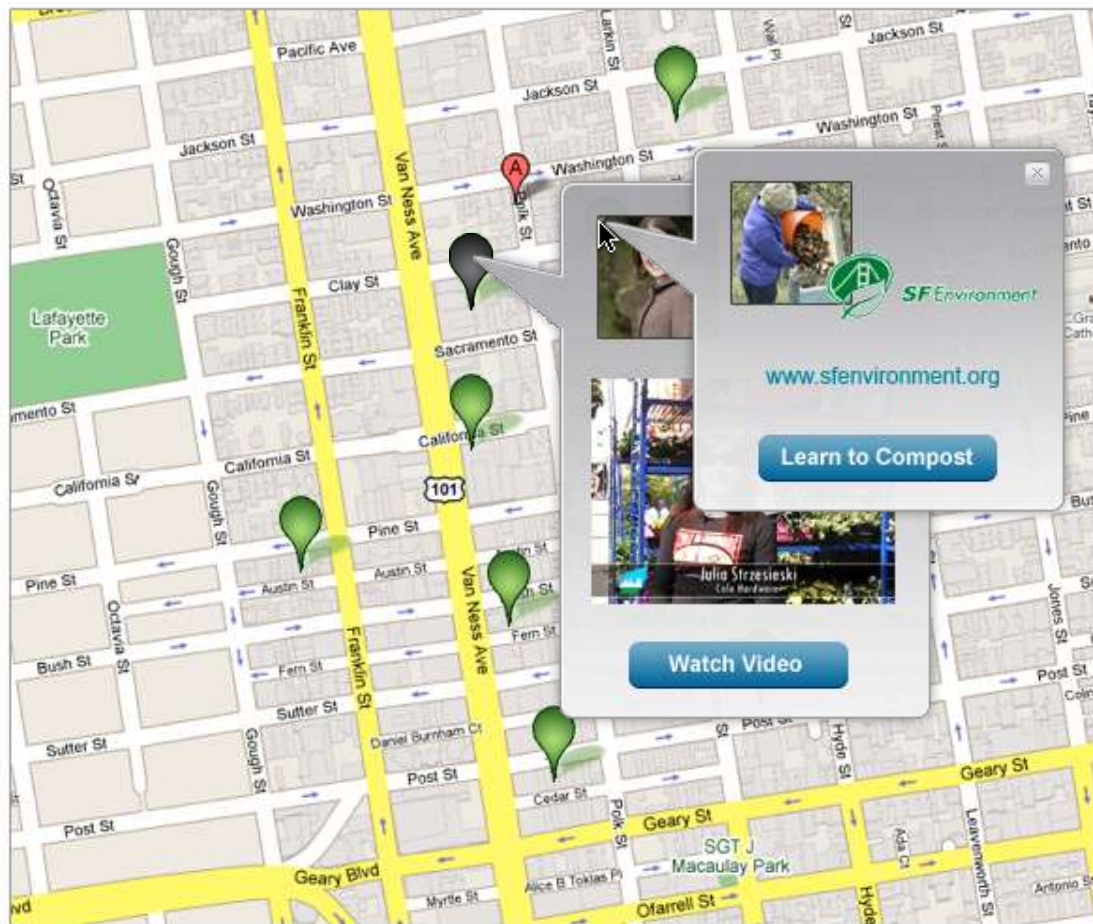
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How is San Francisco Doing?

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• Accessible and widely used public and mass transportation systems

Connected Urban Development

A Blueprint for City Transformation Creating an Urban Services Platform



Connected and Sustainable Work

Smart Work Centers

Digital Swarming and Hub Pavilions

Connected Workplaces

Connected Workforce

Connected and Sustainable Mobility

Smart Road Pricing

Personal Travel Assistant

Connected Public Transportation

Connected and Sustainable Buildings

Homes

Office Buildings

Public Spaces

Public Transit Hubs

Hospitals and Schools

Connected and Sustainable Energy

Renewables and Co-Generation

Urban Monitoring and Measurement

Citizens Energy Efficiency

Connected and Sustainable Socio-Economics

Active Citizenship and Eco Maps

Innovative Green Business Models and Sustainability Clusters

Sustainable Urban Planning

Broadband Platform

IP-Enabled Homes and Offices, Roads, Utilities, Workplace Design

Mobile and Sustainable – Smart Connected Communities

