

RICAPS

Regionally Integrated Climate Action Planning Suite

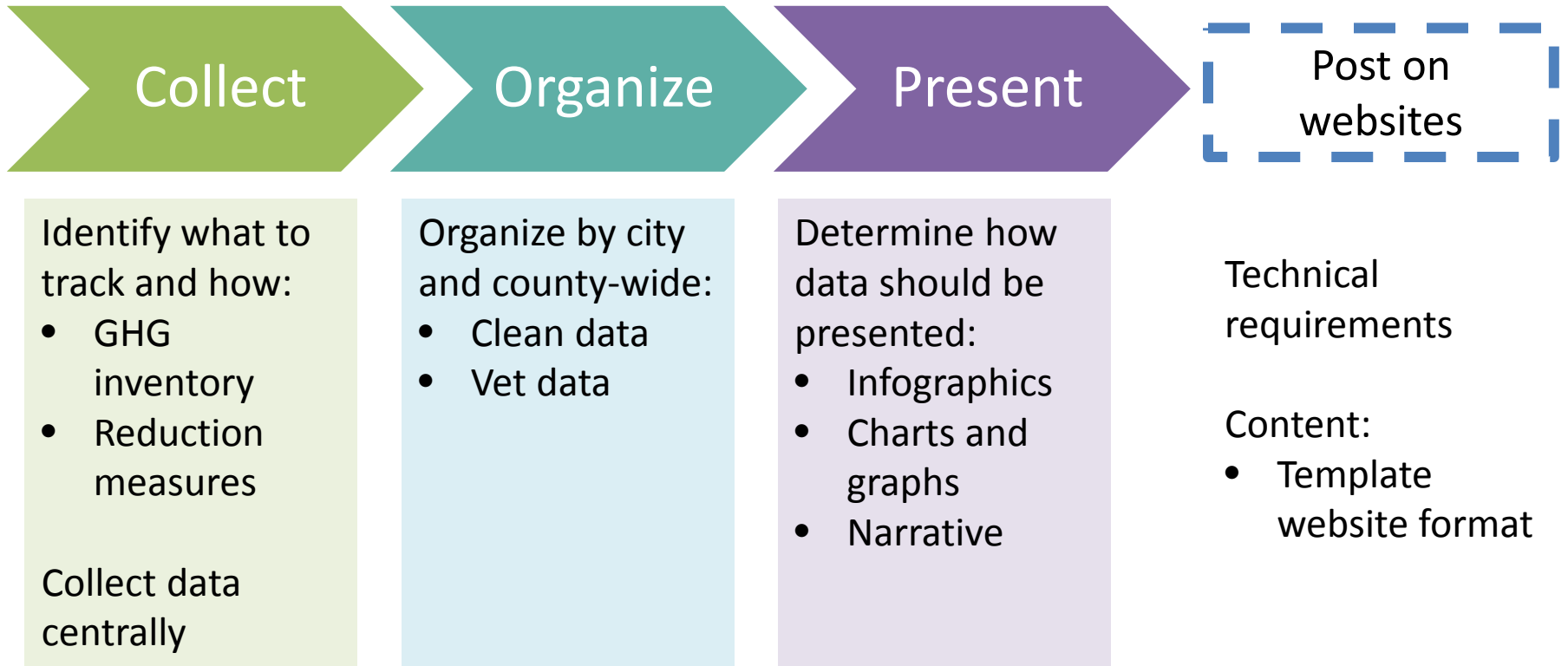
Multi-city Working Group Meeting
September 22, 2015

RICAPS technical assistance is available through the San Mateo County Energy Watch program, which is funded by California utility customers, administered by Pacific Gas and Electric Company (PG&E) under the auspices of the California Public Utilities Commission and with matching funds provided by C/CAG.

Agenda

- Introductions 1:00 – 1:05 PM
- Open Data Portal - Socrata Strategy 1:05 – 1:20 PM
- Review Proposed Measures 1:20 – 2:00 PM
- 2030 Goals: How Will We Get There? 2:00 – 2:45 PM
- Announcements and Wrap Up 2:55 – 3:00 PM

Overview of Open Data and Tracking



RICAPS data and you!

John Ridener
Open Data Community Liaison
San Mateo County

SMC open government platform

The screenshot shows the 'COUNTY OF SAN MATEO OPEN DATA PORTAL' homepage. At the top, it says 'Hello, John Ridener' and has links for 'Administration', 'Sign Out', 'Help', and social media icons. A search bar is located below the header. On the left, there is a 'Categories' sidebar with icons for Business, Government, Education, Environment, Health & Human Services, Housing & Development, Public Safety, and Transportation. The main content area features a large image of a pen on a document with a '100' bill, and a blue banner for 'Unclaimed Checks' with 'View Data' and 'Download Data' buttons. Below this, there are sections for 'Open Data Applications' (including 'Checkbook Explorer' and 'SMC Performance') and a 'Spotlight' section with 'MAKE YOURSELF HEARD' and 'Civic Tech Meetup September 15'.

The screenshot shows the 'COUNTY OF SAN MATEO SMC PERFORMANCE' dashboard homepage. It has a header with 'Home', 'Shared Vision', 'Department Performance', 'Measure A', 'Sign Up', and 'Sign In'. The main content area includes a welcome message: 'Welcome to the SMC Performance dashboards site! San Mateo County has launched online dashboards that give residents the power to monitor and evaluate the performance of County programs and services.' Below this is a link to explore trends, raw data, and progress reports. The dashboard features four main sections: 'Shared Vision 2025' (with a 'Shared Vision 2025' icon), 'Department Performance' (with a 'COUNTY OF SAN MATEO CALIFORNIA' icon), and 'Measure A' (with a 'LOCAL FUNDS LOCAL NEEDS' icon). Each section has a brief description of its content.

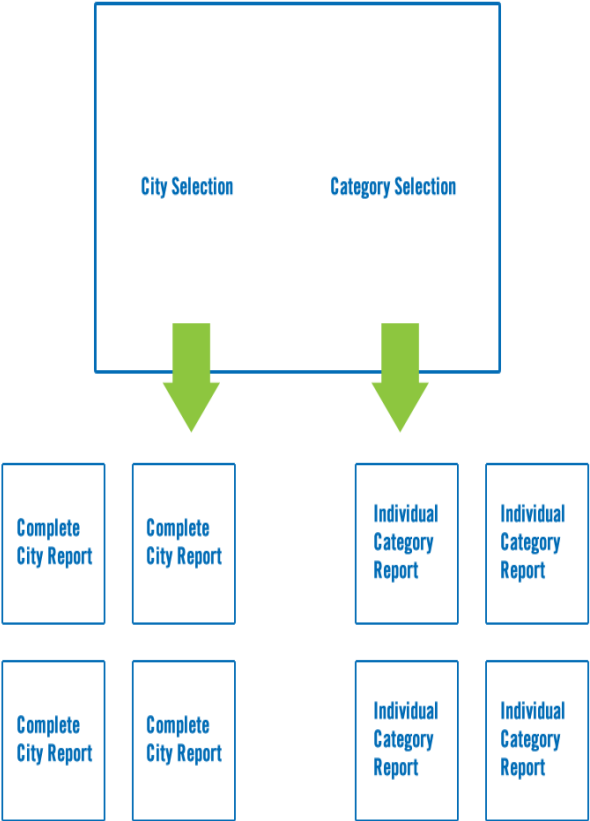
<https://data.smcgov.org>

<https://performance.smcgov.org>

Information architecture

Information
ArchitectureProposals

Screen Flow
Version 2



Where data would live

COUNTY OF SAN MATEO
OPEN DATA PORTAL

Categories

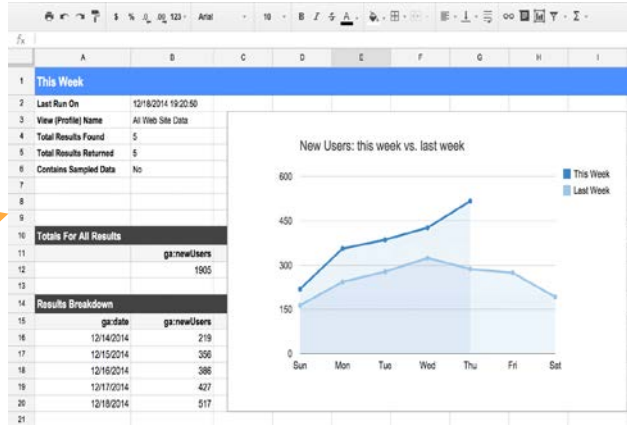
- Business
- Government
- Education
- Environment
- Health & Human Services
- Housing & Development
- Public Safety
- Transportation

Open Data Applications

- Checkbook Explorer
- S/MC Performance
- MAKE YOURSELF HEARD
- Civic Tech Workshop

Spotlight

Unclaimed Checks



Piktochart

Redwood City: Building Energy Use

SAN MATEO COUNTY energy watch
Pacific Gas and Electric Company

San Mateo County Energy Watch, in partnership with Pacific Gas and Electric Company (PG&E), has compiled the following data to illustrate the trends and impact of energy consumption in buildings. These graphs show the proportional and total use of natural gas versus electricity, and show consumption trends from both a collective and individual standpoint. At the bottom, we highlight the investments Redwood City's community has made in generating clean energy from either energy efficiency and/or solar photovoltaic (PV) systems.

Redwood City 2010 Demographics:
2010 Population: 76,766
2010 Employment: 51,230

Snapshot: Building Energy Consumption and Emissions

Redwood City's energy consumption data includes both PG&E's energy sources and grid-tied solar installations. Each city will have slight differences in the percentages between their energy data and their greenhouse gas emissions because of two factors: 1) Emissions from PG&E's electricity mix change each year depending on influences like weather patterns and state mandates for increased renewables. 2) Currently, natural gas releases fewer emissions than PG&E's electricity mix. Solar doesn't release emissions.

Energy Consumption
4,632,733,673 kBtu
of energy is consumed by Redwood City buildings in an average year

Emissions
292,633 MtCO2e
of greenhouse gas emissions are generated by Redwood City buildings in an average year

Energy Consumption Breakdown:

- Gas: 50% (2,316,366,837 kBtu)
- Electricity: 50% (2,316,366,837 kBtu)

Emissions Breakdown:

- Residential Gas: 23%
- Residential Electricity: 13%
- Public Electricity: 4%
- Public Gas: 3%
- Commercial Gas: 17%
- Commercial Electricity: 41%
- Total Solar Electricity: 2%

Gas Consumption by Sector

Natural gas is used primarily to heat hot water, buildings, and food. In showing the trends below, we indicate both the percent change from year to year as well as the total percent change since 2005, which is commonly used by cities as a baseline.

Community-Wide Totals

Community-wide natural gas trends are affected by winter weather and population levels. Total consumption for each building is dependent on the age of the building, how often and how many people use it, and how its heating and cooling systems operate. In addition, community-wide natural gas consumption may go up as population increases or new buildings are constructed.

Individual Impact

Sometimes community totals don't tell the whole story. The data below show the average monthly energy consumption for both residential and commercial facilities.

Residential Gas Consumption Trends:

- % change year to year: 1.1%, -1.1%, 1.1%, 1.2%, 0.8%, -0.9%, 0.1%, 0.1%
- +6.3% since 2005

Commercial Facilities Gas Consumption Trends:

- % change year to year: 2.5%, 1.2%, 1.6%, 1.7%, 1.2%, 1.1%, 1.4%, 1.2%
- +23.5% since 2005

Public Facilities Gas Consumption Trends:

- % change year to year: 0.9%, 0.7%, 1.4%, 0.7%, 0.7%, 0.7%, 0.7%
- +14.0% since 2005

Individual Impact Comparison:

- Residential: 48 GWh (thousands)
- Commercial Facilities: 800 GWh (thousands)

Legend:

- Actual energy consumption for a given year
- 3-year moving average to indicate trend over time

Other places data could live

Welcome to the City of Daly City California

About Us | Residents | Business | City Hall

Water & Wastewater Resources

The Department of Water and Wastewater Resources is responsible for the daily management and operation of the City's drinking water supply system and the North San Mateo County Sanitation District's wastewater treatment system.

Water and Wastewater Resources

Water and Wastewater Resources

Water and Wastewater Resources

Search

CITY OF PACIFICA

ABOUT PACIFICA | FAQs | CITY GOVERNMENT | DEPARTMENTS | CONTACT US

Waste Reduction

City Enjoins Sustainable Food Service Ware Ordinance

All food vendors selling prepared foods, as well as City facilities, must use biodegradable, compostable, reusable and recyclable food service ware. This means that businesses that serve prepared foods for take out or provide containers for leftovers, cannot use containers made of polystyrene foam (sometimes called Styrofoam).

For more information: Ordinance #717, Business Plan, Sustainable Food Service Ware Distribution, Reusable Dinner Jar.

Businesses can also contact the City of Pacifica for more information at 726-7300 and Recycling of the Coast at 855-9310 for recycling ideas and services. The Pacifica Chamber of Commerce also offers a large display of biodegradable, compostable, reusable and recyclable food service ware and a list of vendors who have the products. Businesses are also encouraged to work with Recycling of the Coast to integrate composting and recycling of containers into the regular recycling services by calling 355-9000 or visiting the Recycling website at [Recycling of the Coast](#).

For ideas on how to reduce waste at your business, check out the [California Integrated Waste Management Board's](#) website. Additionally, find out how to reduce office [junk mail](#).

BayMax is a materials exchange partnership with California's Santa Clara and San Mateo Counties. Search the BayMax listings of the [calRECYCLES](#) Gallery for wanted or available materials by 15 different material types, or expand your search to include all of California. CALMAX is a free service designed to help businesses find markets for nonrecyclable materials they otherwise would discard.

San Mateo County offers many tips for businesses, including how to start a recycling program and free posters for your office. We also have ideas on how you can recycle electronics and other items (such as paper, aluminum, batteries, cardboard, etc.) in your business or home. Some items are just too toxic to trash so if you're unsure it's best to reference the [Toxic To Trash](#) poster.

Other ways to help reduce waste include buying products made from recycled materials. Buying recycled-content or recycled products/equipment is called "closing the recycling loop." It is important to close the recycling loop and reduce our consumption of resources for future generations.

CLIMATE BEST BY GOVERNMENT TEST

City of Redwood City

SOLID WASTE

Waste & Recycling

Waste & Recycling

Waste & Recycling

COUNTY OF SAN MATEO OPEN DATA PORTAL

Categories

- Business
- Government
- Education
- Environment
- Health & Human Services
- Housing & Development
- Public Safety
- Transportation

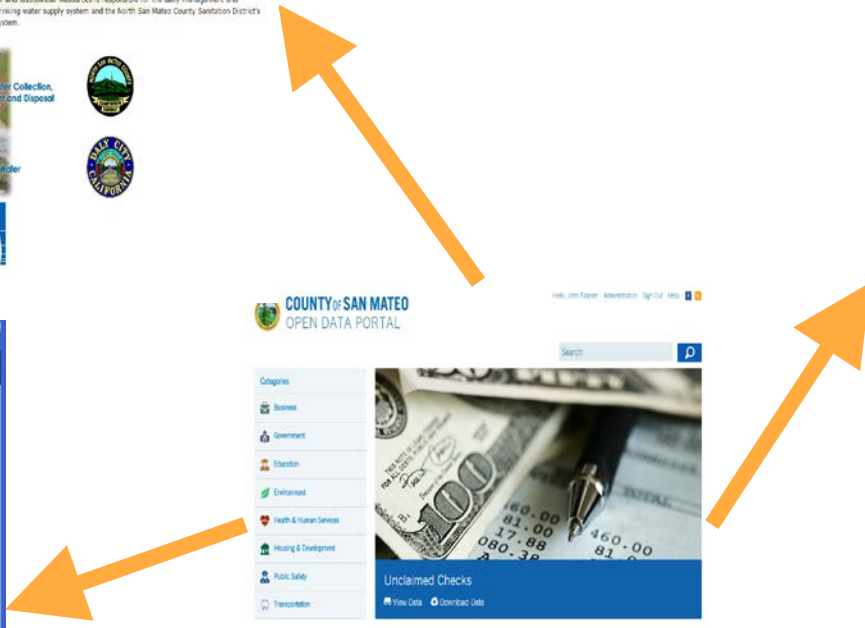
Unclaimed Checks

Open Data Applications

- Checkbook Explorer
- SMC Performance

Spotlight

- MAKE YOURSELF HEARD
- Civic Tech Workshop



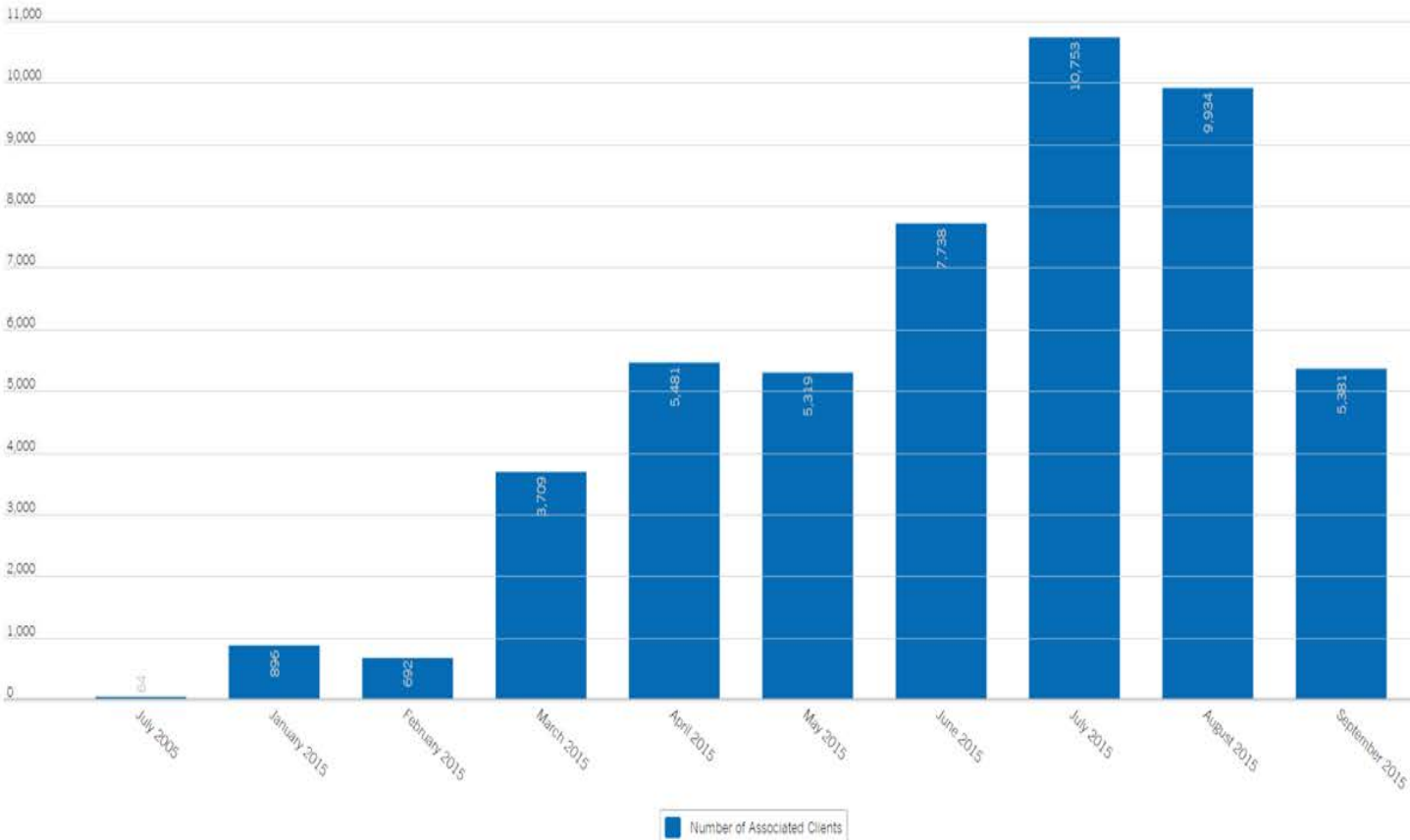
Embedding data visualizations



Number of Public Wifi Users by Month

Based on Public Wifi Use Over Time

Report of the number of clients connected to public wifi locations in San Mateo County. Data includes the amount of data sent and received by each access point. Public wifi usage data for other sites in San Mateo County can be found



Find in this Dataset

Manage More Views Filter Visualize Export Discuss Embed About

Embed

Social Data Player

The Social Data Player enables you to publish this dataset on the Internet at large

Embed this Dataset

```
<div><iframe width=500px height=425px src=https://data.smcgov.org/wicp-44808rg-220t-cure5F10g68DV8-2fromroot/frameborder=0 scrolling=no -><a href=https://data.smcgov.org/Government/Number-of-Public-Wifi-Users-by-Month/cq=44808rg-220t-cure5F10g68DV8-2fromroot/frameborder=0 scrolling=no -><a href=https://www.socrata.com/targets_blank ->Powered by Socrata</a></div>
```

Size

500x425 760x445 950x808

Custom Size

425x425 is the minimum size

Width: 500
Height: 425

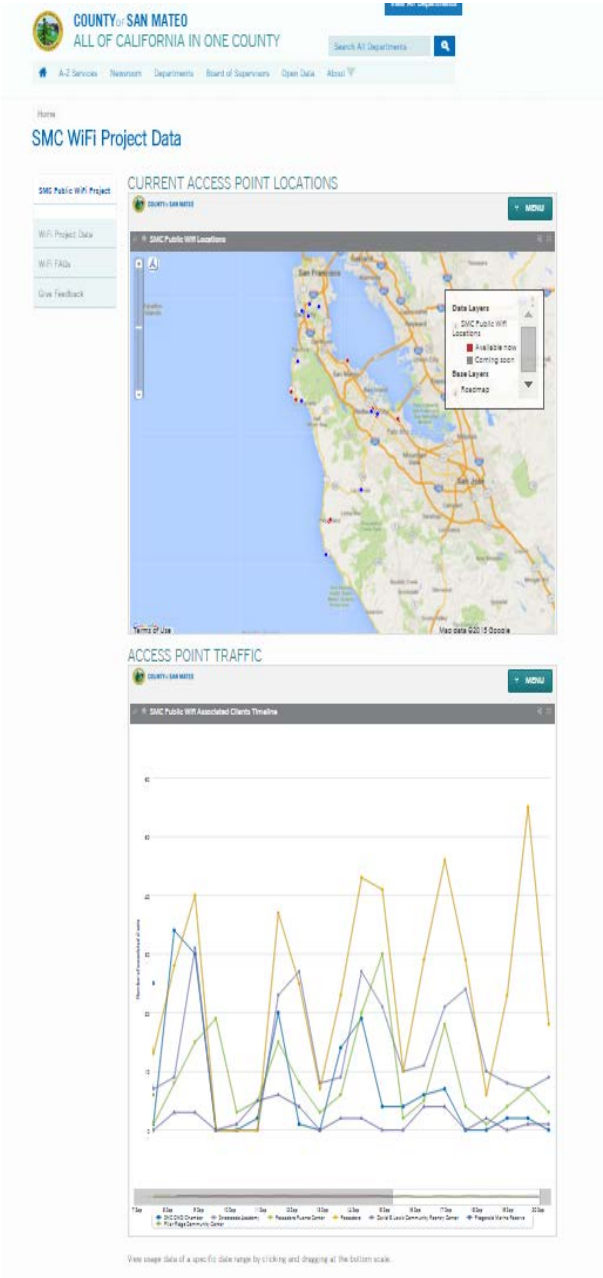
Social Data Player Template

Template: SMC Site Embed

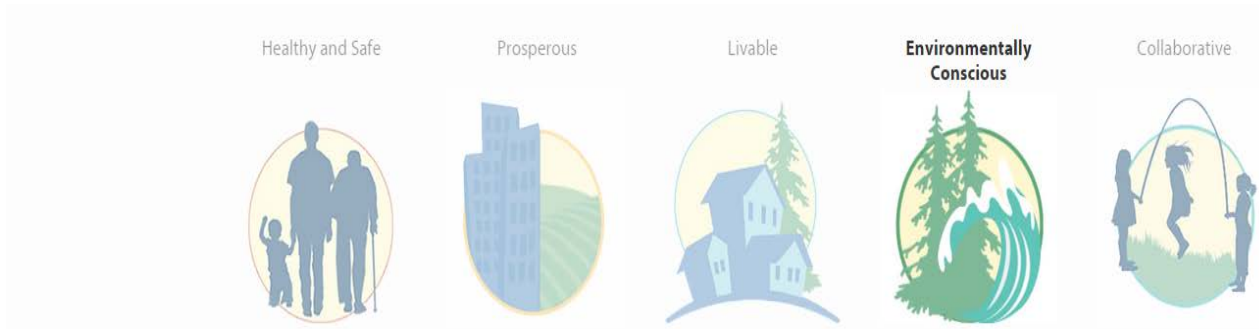
Create a New Template

Done Preview

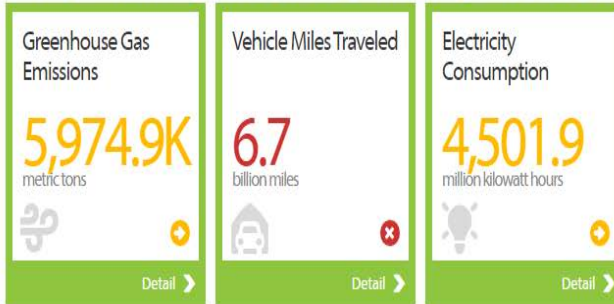
Public wifi example



Visualizing data by measure (overview)



Environmentally Conscious Community: Reduce Greenhouse Gas Emissions



Environmentally Conscious Community: Conserve and Protect Natural Resources

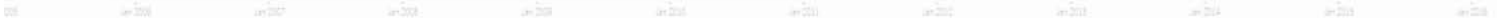


Visualizing data by measure (reports)

Greenhouse Gas Emissions in San Mateo County are decreasing

This goal is measured by tracking annual greenhouse gas emissions in metric tons. [Explore the data](#)

5,974,978 metric tons
Current as of Dec 2010



Why is this important?

Greenhouse gases from human activities are a significant driver of observed climate change since the mid-20th century. As greenhouse gas emissions from human activities increase, they build up in the atmosphere and warm the climate, leading to many other changes around the world—in the atmosphere, on land, and in the oceans. These changes have both positive and negative effects on people, society, and the environment—including plants and animals. Because many of the major greenhouse gases stay in the atmosphere for tens to hundreds of years after being released, their warming effects on the climate persist over a long time and can therefore affect both present and future generations.

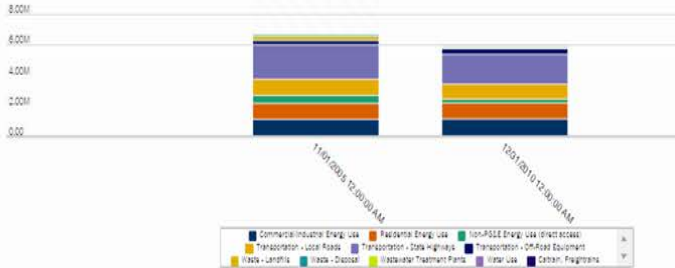


How is the community doing?

The transportation sector is the most significant source of greenhouse gas emissions in the County, followed by the industrial/commercial energy use and residential energy use. While there is an overall decrease in countywide greenhouse gas emissions, emissions from the commercial/industrial energy use saw a slight increase.



Chart 1: Countywide GHG Emissions (MT CO2e)



Review of Proposed List of Measures

Statewide “Moon shot” goals

Target	Target Year	Source
100% new residential construction ZNE-ready	2020	CPUC Energy Efficiency Strategic Plan target
100% new and 50% existing state-owned construction ZNE-ready	2025	Executive Order B-18-12
1.5 million zero emissions vehicles	2025	Executive order B-16-12
100% new and 50% existing commercial construction ZNE-ready	2030	CPUC Energy Efficiency Strategic Plan target
50% Renewable Portfolio Standard (RPS)	2030	S.B. 350
Double energy efficiency savings (30% electricity, 10% natural gas)*	2030	S.B. 350
50% reduction in petroleum use	2030	Executive order B-30-15

*NRDC estimate

Case Study: pLAn

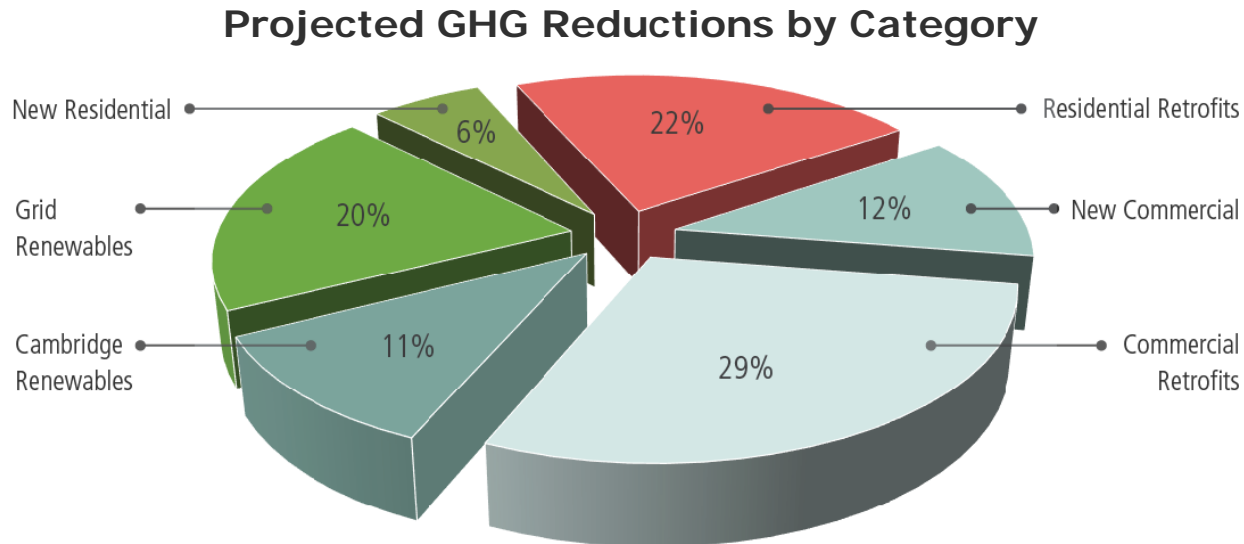
- **Los Angeles climate action plan greenhouse gas reduction goals**
 - 45% reduction below 1990 by 2025
 - 60% reduction below 1990 by 2035
- **Sector specific goals:**
 - *Energy*: Reduce energy use per square foot by 30% by 2035*
 - *Transportation*:
 - Increase walking, biking and transit to 35% mode share by 2025**
 - Increase walking, biking and transit to 50% mode share by 2035
 - *Water*: Reduce purchase of imported water by 50% by 2025
 - *Waste*:
 - Increase landfill diversion rate to 90% by 2025
 - Increase landfill diversion rate to 95% by 2035

*Below 2013 baseline

** 26% in 2012

City of Cambridge, MA: Path to Net Zero Cambridge

- Reduce emissions from buildings by 70% between 2015 – 2040



- Key actions
 - Energy efficiency in existing buildings
 - Net zero new construction
 - Energy supply
 - Local carbon fund
 - Engagement and capacity building

Future of Transportation?

Autonomous Timeline

Year	Milestone
2017	GM SuperCruise
2020	Road/parking pricing → congestion
2022	Read-a-magazine freeway <u>robocar</u>
2025	5% freeway <u>robocar</u> penetration
2025	3 <u>robotaxi</u> systems (Uber w/ robot)
2030	Positive <u>robotaxi/robovan</u> impact
2030	30% freeway <u>robocar</u> → platooning



<http://www.cities21.org/cms/index.php?page=jam>

Generational shifts in attitudes toward car ownership and driving

The OECD's International Transport Forum found that 9 out of 10 current cars could be removed.
- Self-driving cars + high capacity transit

How Uber's Autonomous Cars Will Destroy 10 Million Jobs And Reshape The Economy by 2025

Guest contributor Zack Kanter is the founder of several startups in the automotive space and blogs at ZackKanter.com

January 27, 2015 3:02 PM

[View Comments](#)

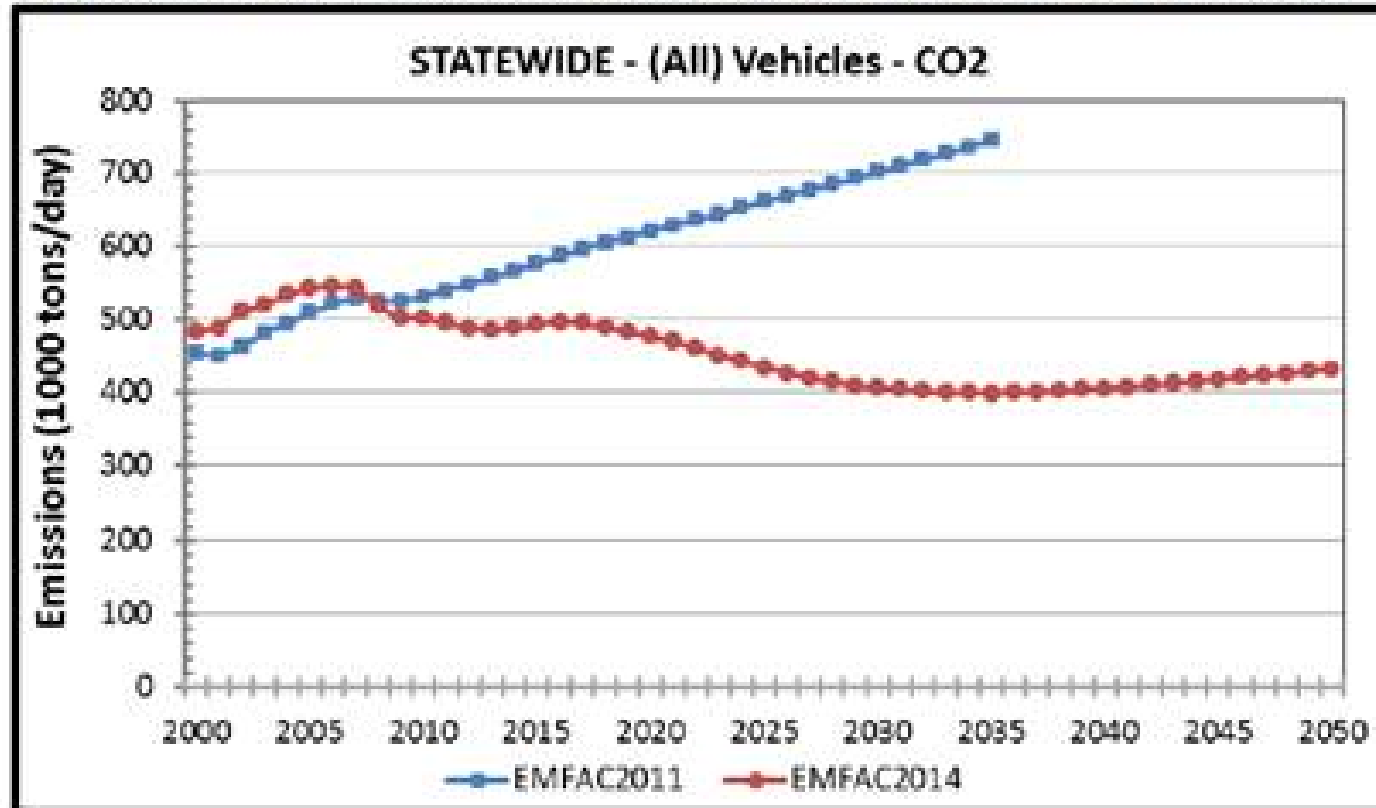


<http://sanfrancisco.cbslocal.com/2015/01/27/how-ubers-autonomous-cars-will-destroy-10-million-jobs-and-reshape-the-economy-by-2025-lyft-google-zack-kanter/#.VaKUIcSEcv-.twitter>

These shifts are already happening

How do we accelerate and support?

Figure 1.4-4 Comparison of CO2 Emissions between EMFAC2011 and EMFAC2014



Source: <http://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>

Discussion Groups

Water

Energy

Waste

Transportation

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