

Quality of Life Dashboard

7th Annual



EQUINOX  PROJECT
An initiative of  Center for
Sustainable Energy®

Table of Contents

Page	Rating	Indicator	
4	N	Air Quality Unhealthy Air Quality Days	1 How Equinox Project and You Can Make a Difference
6	N	Border Region Cross-Border Economic and Environmental Metrics	2 Key Findings
8	N	Climate Change Climate Emissions, Action Planning and Sea Level Rise	34 Partners and Support Network
10	👍	Economy Employment Metrics	35 Organizations Consulted
12	👍	Economy Entrepreneurship	36 Acknowledgements
14	👍	Energy Renewable Energy	37 Photo Credits and Contact Information
16	👍	Energy Residential Electricity Consumption	
18	👎	Housing Housing Affordability	
20	👍	Land Use Park Access	
22	👎	Transportation Electric Vehicle Sales and Infrastructure	
24	👎	Transportation Transportation Choices	
26	👎	Transportation Vehicle Miles Traveled	
28	👎	Waste Landfill Waste Disposal	
30	👍	Water Water Use	
32	👎	Water Beach Closures and Advisories	

👍 Improved >1% from the previous year



👍 Improved <1% from the previous year

👎 Worsened <1% from the previous year

👎 Worsened >1% from the previous year

N Neutral or no data from the previous year

The 2016 Quality of Life Dashboard is brought to you by our Title Partner


A  Sempra Energy utility®

As San Diego's energy company we recognize that the decisions of today will impact generations to come. Improving people's lives cannot be accomplished without partnership, that's why we're proud to have partnered with the Equinox Project for so many years, supporting their efforts to inform, inspire and engage San Diego with the Quality of Life Dashboard.

About

Center for Sustainable Energy

The Center for Sustainable Energy (CSE) delivers high-impact programs, training and education, and technical assistance to help the public and private sectors achieve success toward their clean energy goals. As a mission-driven nonprofit organization, our subject matter expertise and on-the-ground experience with a wide variety of sustainable energy solutions make us a trusted partner in meeting ambitious energy goals, saving money and improving the world.

Equinox Project

In January 2016, CSE merged with the Equinox Center to create the Equinox Project, an initiative aimed to enhance and expand the work of the former center. Over the past seven years, the Equinox Center has conducted exemplary research and in-depth analysis on quality of life issues in the San Diego region.

By engaging policymakers, local leaders and other key stakeholders, the Equinox Project works as a nonpartisan, independent entity advancing innovative solutions to balance regional growth with our finite natural resources. Our mission is to ensure a healthy environment, strong economy and civic engagement for the San Diego region.

What we do

Why we do it


How we do it

→ Inspire
→ Inform
→ Engage

→ Protect our environment
→ Promote strong economy
→ Enhance quality of life

→ Policy research
→ Outreach and advocacy
→ Civic engagement


How you can make a difference



Implement ideas for change

The dashboard contains "ideas for change," and how you can make them happen. Encourage your employer, elected officials and friends to implement these changes.


Have an idea for change? Let us know on Twitter (@EquinoxProject) or Facebook (facebook.com/theEquinoxProject) and use #SDQoL.



Invest in a sustainable quality of life


Your financial support allows us to continue our research, expand our network of support and help ensure a high quality of life for the San Diego region.

To make a tax-deductible donation, visit energycenter.org/equinox and click on Donate Now.




Champion the cause

Stay informed about key issues facing our region. Follow us on Facebook and Twitter. Want to receive our newsletter? Visit our website at energycenter.org/equinox and click on Subscribe.




Invite others to engage


Invite your friends, colleagues and business associates to join our online community, attend our events or donate to the Equinox Project.




facebook.com/theEquinoxProject
facebook.com/SanDiegoLeaders2020



[@EquinoxProject](https://twitter.com/EquinoxProject)
[@SDLeaders2020](https://twitter.com/SDLeaders2020)



energycenter.org/equinox



Join Leaders 2020

If you are in your 20s or 30s and you want to be more civically engaged, join our Leaders 2020 network to meet other aspiring young innovators. For more information, visit energycenter.org/equinox/leaders-2020.

Second Edition – May 2016

Key Findings



Measuring What Matters

The Equinox Project’s principal publication, *The San Diego Regional Quality of Life Dashboard* presents a comprehensive view of environmental and economic indicators by combining data collection and analysis with research and outreach strategies aimed at advancing development of intelligent policy in the region. Drawing on strong relationships with environmental groups, government agencies and the business community, we are able to provide a balanced snapshot of the region’s well-being using credible data, clear metrics and ongoing benchmarks. The dashboard tracks our region’s progress on critical, interlinking quality-of-life issues and provides examples of where things are working and ideas for how we can improve.



Key Findings from the 2016 San Diego Regional Quality of Life Dashboard

Venture capital and new high-tech and life science startups boosted the economy in 2015, but wages are growing slowly. p. 12

San Diego’s energy sources are getting cleaner, with more renewable energy coming from the region’s utility and local rooftop solar systems. p. 14

New data tracking electric vehicle sales and infrastructure development shows California in the lead to decarbonize transportation. p. 22

San Diego County continues to throw away the most trash compared to other major counties in California. p. 28

Top-down drought restrictions and limits on water supplies allocated to the region slowed consumption of water. p. 30

What’s your key indicator? Connect with the Equinox Project social networks on Facebook and Twitter to let us know.

What Gets Measured Gets Managed Better

As local communities grapple with the challenges of growing their economies and improving their environmental sustainability in an often politically charged atmosphere, we encourage policymakers, businesses and residents to use our research to make fact-based decisions. The dashboard is a way to bring innovation and action to the dialogue. With this tool we hope to move the needle in the right direction by *measuring what matters* for San Diego County residents.

YOUR GUIDE TO THE DASHBOARD

- Whether an indicator is trending up or down, we can always make improvements. “One idea for change” offers practical solutions and policy ideas for advancing quality of life in the San Diego region.
- Charts and infographics evaluate how individual San Diego County communities rank in quality of life issues and compare their progress to other regions and state benchmarks.
- “Bright Spots” highlight progress and achievements that have been made toward improving San Diego’s quality of life.
- “Featured Projects” give a snapshot of Equinox Project partners’ efforts to help steer the region to a more sustainable future while supporting dashboard research and outreach.

Air Quality

Unhealthy Air Quality Days

How are we doing?

The combined number of unhealthy air days and unhealthy air days for sensitive groups improved only slightly from 19 in 2013 to 18 in 2014, with San Diego remaining among the top major urban counties in California for air quality. The countywide rate of asthma hospitalizations per child increased from 9 to 10.3 per 10,000 residents aged 0-17.

N



1 idea for change

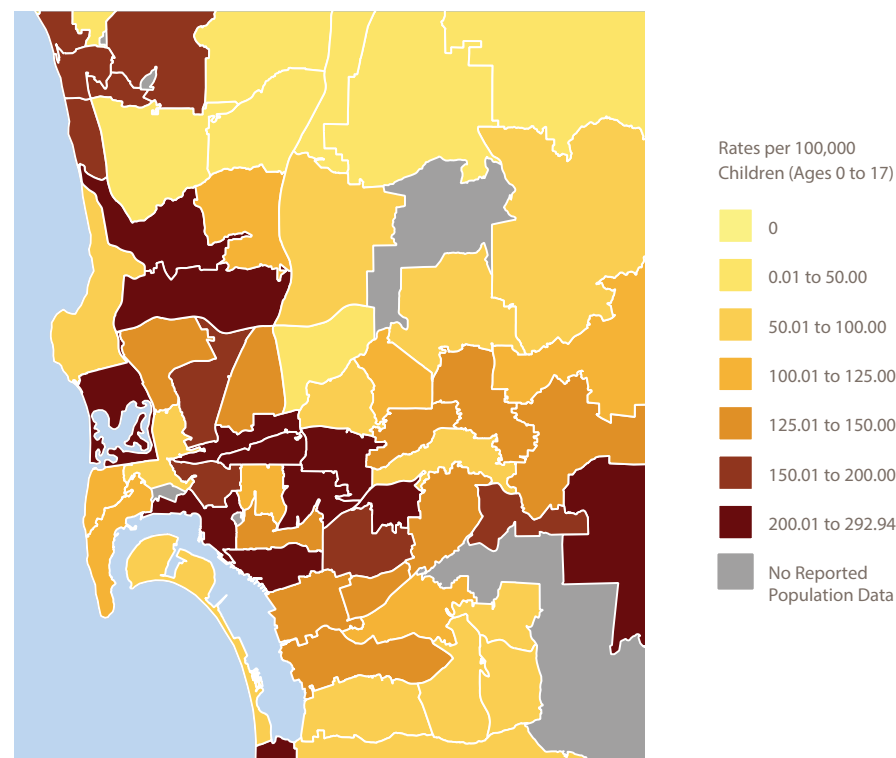
Policymaker

Five air quality control districts in California offer voluntary accelerated vehicle retirement programs to incentivize residents to retire older, less efficient vehicles. The local San Diego County Air Pollution Control District could implement a similar program targeting incentives to lower income populations to help get polluting vehicles off the road.

Why is it important?

- Some 400,000 San Diego County residents are at risk from air pollution because of lung diseases such as asthma and COPD (2014).
- Children face increased risk from air pollution because their lungs continue growing as they get older.

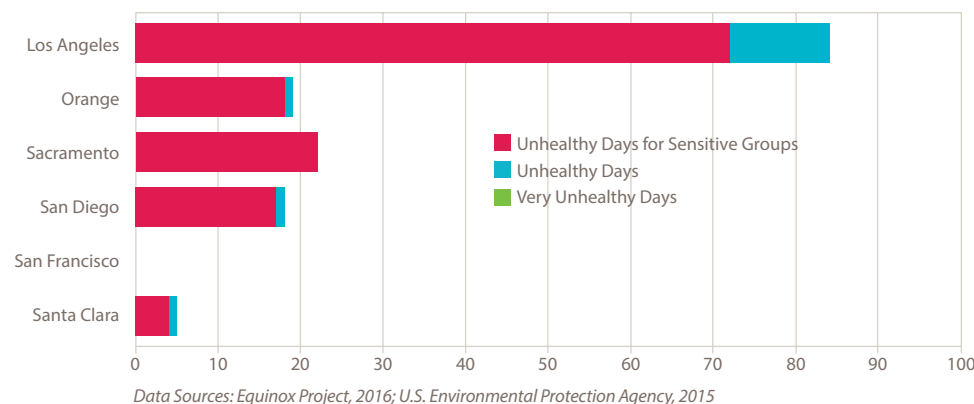
Children's Asthma Hospitalization Rates by ZIP code (ZIP codes with five or more events, rate per 100,000, 2015)



Data Sources: Equinox Project, 2016; Environmental Health Coalition, 2016; California Breathing, 2016; Center for Sustainable Energy, 2016

How we compare

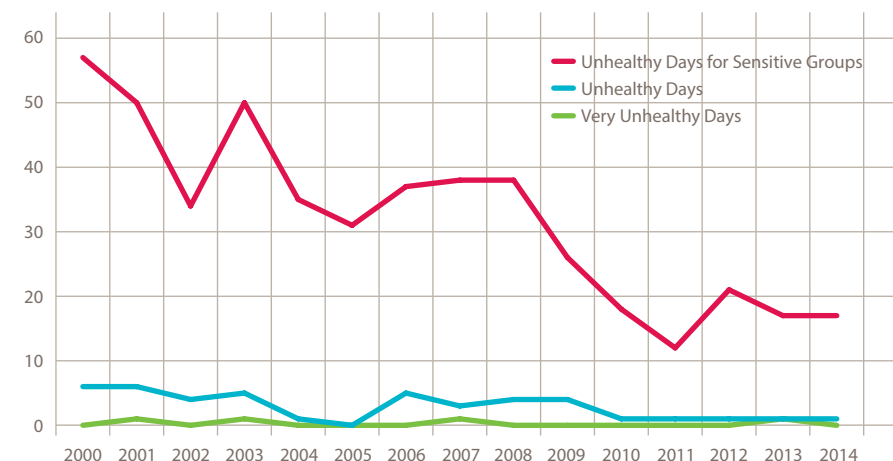
Unhealthy Air Quality Days (select counties, 2014)



Bright Spot

In 2015, for the first time since the American Lung Association began releasing its annual State of the Air report in 2002, the San Diego metropolitan area was not listed among the worst 25 cities in the U.S. for air quality. Progress should continue with improvements in cleaner vehicle technologies and standards and programs to enact local climate action mitigation.

Unhealthy Air Quality Days (San Diego County, 2000-2014)



What are we measuring?

Days when San Diego County's air quality is considered unhealthy for the total population or for sensitive groups (i.e., elderly adults, children and those with respiratory conditions) and children's asthma hospitalization rates throughout the county.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Border Region

Cross-Border Economic and Environmental Metrics

How are we doing?

The second year of the Border Region indicator yields a continued need for current and regularly updated data on cross-border environmental trends. For example, air quality data and greenhouse gas emissions inventories from areas south of the border are not current. Unfortunately, water quality issues remain a challenge for Tijuana's beaches. Economic data show a large increase in vehicles crossing San Ysidro and Otay Mesa ports of entry from 2014 to 2015.

N



Border Region

1 idea for change

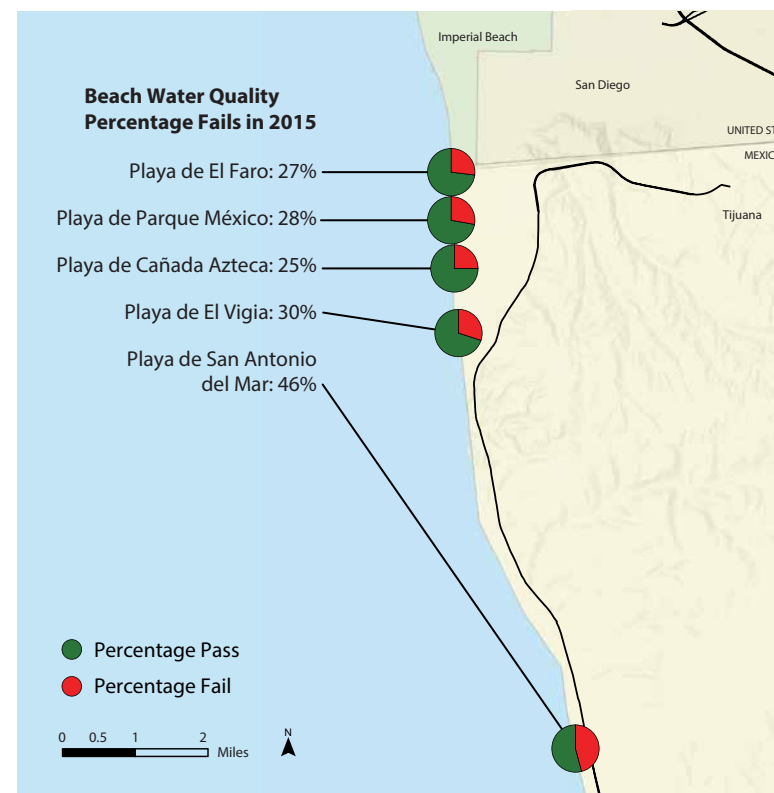
Why is it important?

- The combined San Diego–Tijuana region's environmental issues, such as air and water pollution, and the ongoing drought, don't stop on either side the border.
- Tijuana and Baja California are crucial components of the San Diego region's continued economic prosperity and quality of life.

Policymaker

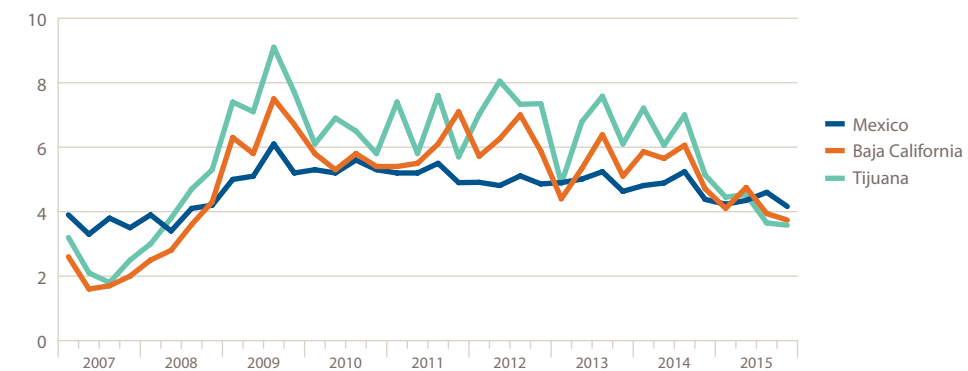
Local, state and federal policymakers on both sides of the U.S.–Mexico border should work together to ensure neighboring communities in Mexico have an air quality monitoring network providing timely regional data and are conducting greenhouse gas emissions inventories and climate action planning efforts.

Beach Water Quality (2015)



Data Sources: Equinox Project, 2016; County of San Diego, 2015; PFEA/Tijuana Waterkeeper, 2016

Quarterly Unemployment Rate Percentages (Mexico, Baja California & Tijuana, 2007-2015)



Data Sources: Equinox Project, 2016; Instituto Nacional De Estadística y Geografía, 2016



Bright Spot

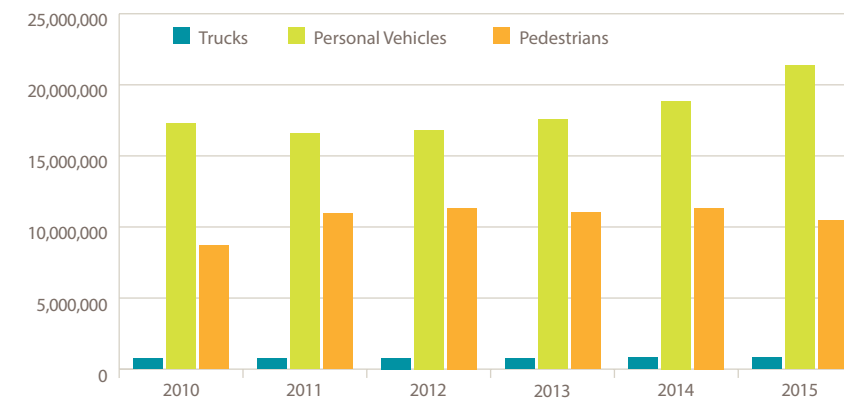
Tijuana Innovadora's new Tijuana Verde initiative is working to create an agenda to implement border environmental projects to support and promote the preservation of the San Diego–Tijuana region and to make Tijuana a leader in environmental conservation. Learn more at tijuainnovadora.com



What are we measuring?

Beach water quality in Tijuana area, border crossings at Otay Mesa and San Ysidro and unemployment levels in Mexico, Baja California and Tijuana.

San Ysidro and Otay Mesa Border Crossings into the U.S. (2010-2015)



Data Sources: Equinox Project, 2016; U.S. Department of Transportation, 2016



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Climate Change

Climate Emissions, Action Planning and Sea Level Rise

How are we doing?

San Diego County's greenhouse gas (GHG) emissions were last inventoried in 2012. Those estimates and forecasts have been updated with new data. An indicator of global warming, sea level rise continues, with an increase of more than 1.5 inches since 2000. Throughout the county, the number of new and updated municipal climate action plans is growing, with the City of San Diego approving its comprehensive plan in late 2015.

1 idea for change

Conscientious Resident

With on-road transportation accounting for more than 40 percent of annual GHG emissions, anytime San Diegans use public transportation, walk or bike leads to lower emissions, increased health and improved quality of life. Smart city growth and well-designed streets help make these alternative choices more attractive. For more information, visit the San Diego Associations of Governments' Land Use and Regional Growth pages at sandag.org.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Why is it important?

- Health and economic impacts of climate change can disproportionately affect already vulnerable environmental justice communities.
- Climate change-influenced storms and coastal flooding threaten San Diego's seaside bluffs, estuaries and real estate.
- A warmer climate affects precipitation patterns, contributing to drought and creating ideal conditions for wildfires.



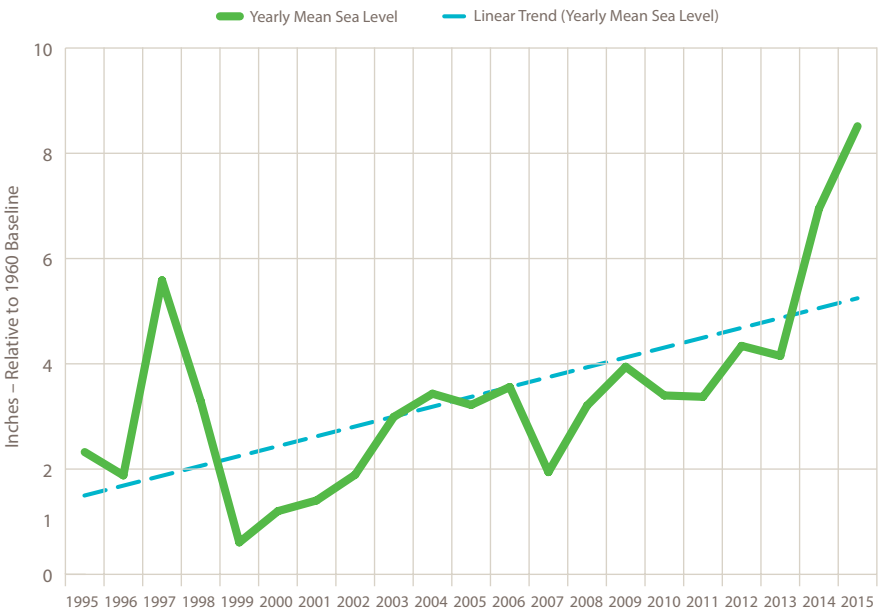
How we compare

Local Climate Planning Efforts (2000-2015)

Jurisdiction	GHG Inventory	Climate Action Plan (CAP)	
		Adopted	Developing or Updating
Carlsbad	X	2015	
Chula Vista	X	2000, 2008	X
Coronado	X		
County of San Diego (unincorporated)	X	2012	X
Del Mar	X		X
El Cajon	X		
Encinitas	X	2011	X
Escondido	X	2013	
Imperial Beach	X		
La Mesa	X		X
Lemon Grove	X		
National City	X	2011	
Oceanside	X		X
Port of San Diego	X	2013	
Poway	X		
San Diego	X	2005, 2015	
San Diego County Water Authority	X	2015	
San Marcos	X	2013	
Santee	X		X
Solana Beach	X		X
Vista	X	2012	

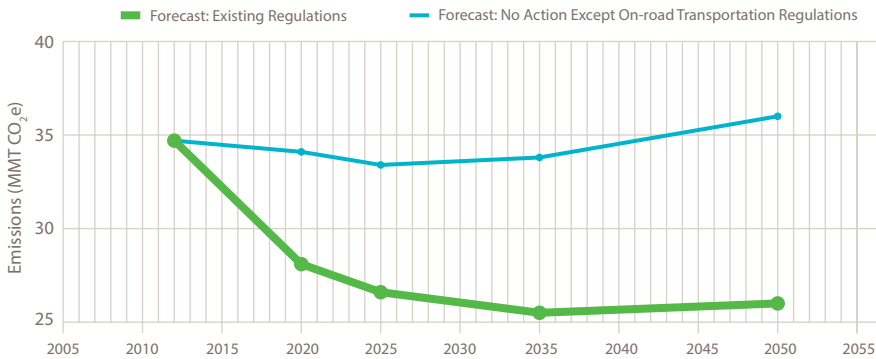
Data Sources: Equinox Project, 2016; Climate Action Campaign, 2016; SANDAG, 2014

Relative Sea Level Change (San Diego, 1995-2015)



Data Sources: Equinox Project, 2016; National Oceanic and Atmospheric Administration, 2016; U.S. Environmental Protection Agency, 2016

San Diego County GHG Emissions Forecast (2012-2050)



Data Sources: Equinox Project, 2016; Energy Policy Initiatives Center, 2015



Bright Spot

A new local nonprofit, the Climate Action Campaign, organized in 2015 to focus on stopping climate change through policy action. They built a base of 2,500 engaged community members, established working relationships local government agencies and served as a key stakeholder in securing support for the City of San Diego's 100 percent clean energy climate action plan. Learn more at climateactioncampaign.org.



What are we measuring?

San Diego County jurisdictions' progress in developing climate action plans, local sea level rise and updated greenhouse gas emissions forecasts.

Economy

Employment Metrics

How are we doing?

San Diego County's 5.1 percent unemployment rate remained lower than the California average by a full percentage point and inched below the national 5.3 percent rate. From 2014 to 2015, construction remained the region's highest growth supersector with a 9 percent increase in employment, while professional services, including scientific and technical services, had the largest number of employees with more than 244,000 jobs. Even with this growth, average wages for all private sector employees have improved by just 8 percent since 2007.



1 idea for change

Policymaker

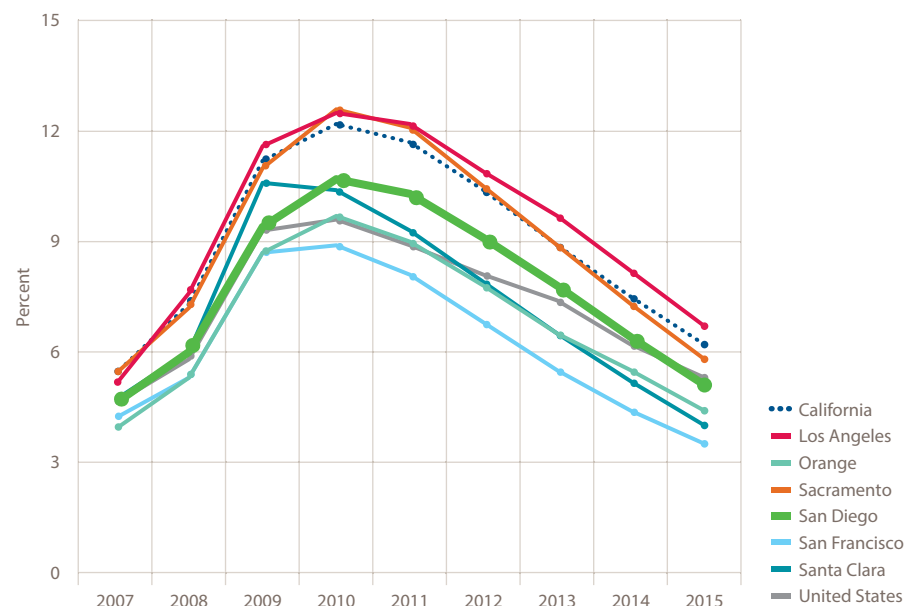
Create economic incentives for priority sector businesses to expand in low- and moderate-income neighborhoods such as City Heights and Southeastern San Diego. According to the San Diego Regional Economic Development Corporation, this could involve expedited permitting, waiving of fees or taxes and collaboration with neighborhood philanthropic organizations like the Jacobs Center and Price Philanthropies.

Why is it important?

- San Diego's economy, jobs, wage growth and ability to attract talented individuals and businesses are all part of the region's quality of life balance.
- Millennials account for 37 percent of California's workforce, but have a high unemployment rate, causing the state to lose more than \$200 million in tax revenue. When Generation Y struggles economically, the entire state feels it.

How we compare

Unemployment Rate (not seasonally adjusted, select counties vs. state & national averages, 2007-2015)



Data Sources: Equinox Project, 2016; U.S. Bureau of Labor Statistics, 2016

Growth in Employment by Sector (not seasonally adjusted, San Diego metropolitan area, 2014-2015)

Supersector and Industry	Total Jobs in December 2015 (1,000s)	Change from 2014
Total (Private and Government)	1,415.9	2.72%
Total Private	1,175.6	2.96%
Professional and Business Services	244.2	2.95%
Prof., Scientific & Tech. Services	140.6	5.16%
Mgmt. of Companies & Enterprises	21.8	2.35%
Administrative	81.8	-0.49%
Trade, Transportation and Utilities	229.4	2.46%
Wholesale Trade	45.3	2.95%
Retail Trade	156.3	2.56%
Transportation and Utilities	27.8	1.09%
Leisure and Hospitality	180.9	1.17%
Education and Health Services	201.3	5.34%
Education Services	31.9	2.57%
Health Care and Social Assistance	169.4	5.88%
Manufacturing	99.2	1.85%
Financial Activities	73.6	4.25%
Finance and Insurance	44.2	3.51%
Real Estate and Rental and Leasing	29.4	5.38%
Construction	69.2	9.15%
Other Services	51.6	-4.62%
Information	25.8	3.61%
Mining and Logging	0.4	0.00%
Government	240.3	1.56%
Federal Government	45.9	0.87%
State Government	46.0	3.91%
Local Government	144.7	1.04%

Data Sources: Equinox Project, 2016; U.S. Bureau of Labor Statistics, 2016



Bright Spot

In 2015, the San Diego County Office of Education announced a \$13 million grant to support career pathway programs focused on regional employment in advanced manufacturing, clean energy and information and communications technology. An alliance of school and college districts, nonprofits and industry partners established the San Diego County College and Career Readiness Consortium to use the award to create a sustainable infrastructure supporting career pathway development and work-based learning opportunities for students.



What are we measuring?

The unemployment rate in San Diego County compared to other California counties and job growth in major sectors.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Economy

Entrepreneurship

How are we doing?

San Diego's venture capital investment increased from 2014 to 2015 by more than \$330 million. Additionally, 446 new innovation startups were formed in 2014, the highest number recorded since CONNECT started the Innovation Report in 2005. These new startups created 1,861 jobs. Unfortunately new patent data for 2015 was not available at the time of publication.



Economy

1
idea
for
change

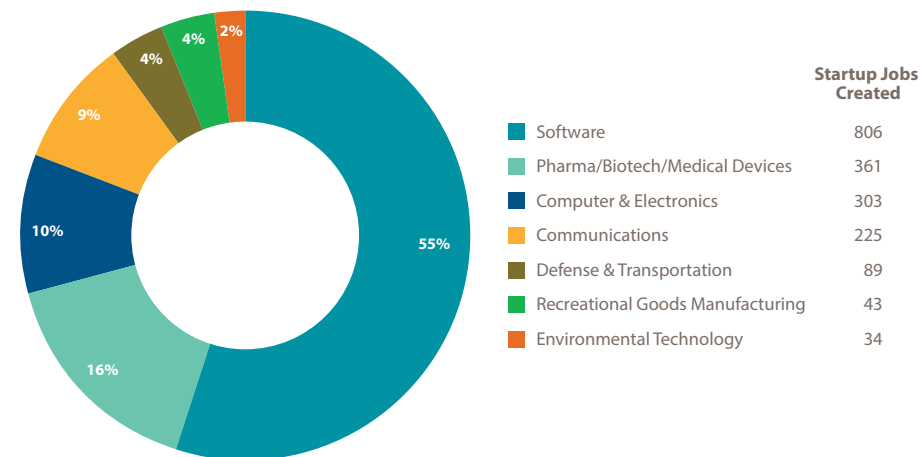
Policymaker and Business Leader

Immigrants are nearly twice as likely as native-born Americans to start businesses, and their entrepreneurship rates are especially high in engineering and technology. Community leaders in the public and private sectors can work together to create welcoming communities embracing diversity to attract job-creating immigrant entrepreneurs.

Why is it important?

- ➔ Although many cities and states promote entrepreneurship, the rate of new business formation is declining nationwide.
- ➔ Fostering a connected startup community leading to more interactions among individuals and organizations supporting business creation builds a better learning environment for local entrepreneurs.

Percentage of Startup Companies and Jobs Created by Sector (San Diego County, 2014)



Data Sources: Equinox Project, 2015; CONNECT, 2015



How we compare

Total Venture Capital Raised by Region (2015)

Metro Region	2015 Total \$	Difference in Total from 2014	\$ per Deal
Silicon Valley	\$27,347,831,700	\$1,919,330,400	\$20,516,003
New York	\$7,317,247,500	\$2,041,003,500	\$14,291,499
New England	\$6,052,815,300	\$1,071,814,700	\$12,302,470
Los Angeles - Orange County	\$5,105,655,100	\$2,147,950,800	\$15,661,519
Southeast	\$2,258,938,300	\$342,384,700	\$8,184,559
Midwest	\$2,248,873,600	\$89,761,900	\$5,918,088
Northwest	\$1,501,790,900	-\$33,437,400	\$9,101,763
Washington, DC - Metroplex	\$1,414,568,100	\$322,496,600	\$8,370,225
Texas	\$1,170,788,400	-\$256,022,800	\$7,182,751
San Diego	\$1,166,568,700	\$332,793,400	\$11,550,185
Southwest	\$919,046,700	-\$194,800,800	\$8,670,252
Colorado	\$782,622,600	-\$34,802,100	\$8,995,662
Philadelphia	\$609,898,400	\$121,726,800	\$4,918,535
North Central	\$598,898,500	\$93,163,000	\$8,204,089
Upstate New York	\$159,675,900	\$120,303,900	\$5,506,066
South Central	\$106,432,800	-\$25,908,500	\$3,670,097
Sacramento - Northern California	\$43,215,800	-\$85,593,300	\$3,601,317

Data Sources: Equinox Project, 2016; PWC, 2015



Bright Spot

San Diego's businesses innovating solutions to solve social problems received a big boost of support in 2015 when Impact San Diego started up as a new hub for social entrepreneurs. This local movement invests in the social capital of local communities and the binational region by educating aspiring social entrepreneurs and equipping them with tools and technologies to drive innovation and change. Learn more at impactsd.org.



What are we measuring?

Total venture capital raised by region and the number of new startup companies in San Diego County.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

🐦 @EquinoxProject

f facebook.com/
TheEquinoxProject
and use #SDQoL.

Energy

Renewable Energy

How are we doing?

In 2014, local renewable energy procurement jumped to 31.6 percent, and in 2015, San Diego Gas & Electric (SDG&E) became the first energy utility to reach the state-mandated goal of 33 percent renewables by 2020, five years ahead of schedule. Rooftop solar installations, which the state excludes from renewable portfolio reporting, continue to increase with new residential installations from 2014 to 2015 up by 75 percent and commercial installations up by 36 percent, totaling nearly 27,000 new installations for 2015.



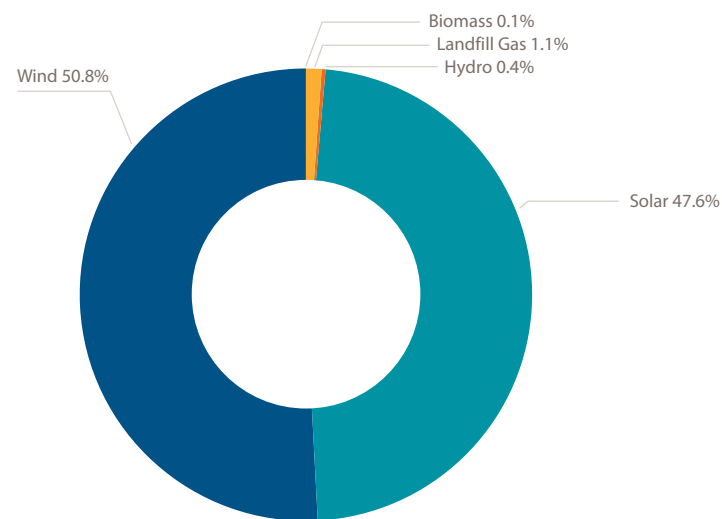
Conscientious Resident

For as little as \$25, invest in solar for nonprofit organizations like churches, schools and others. CollectiveSun connects small, medium and large investors with quality solar power projects for nonprofits in need, helping them finance clean energy so they can focus their resources in mission-critical areas. Find more information at collectivesun.com.

Why is it important?

- Increasing renewable energy production reduces greenhouse gas emissions from residential and commercial energy use and supports the growth of electric vehicle adoption.
- Renewable energy improves energy security as we become less dependent on limited fossil fuel resources and their volatile pricing.

SDG&E Renewable Energy Mix* (2014)



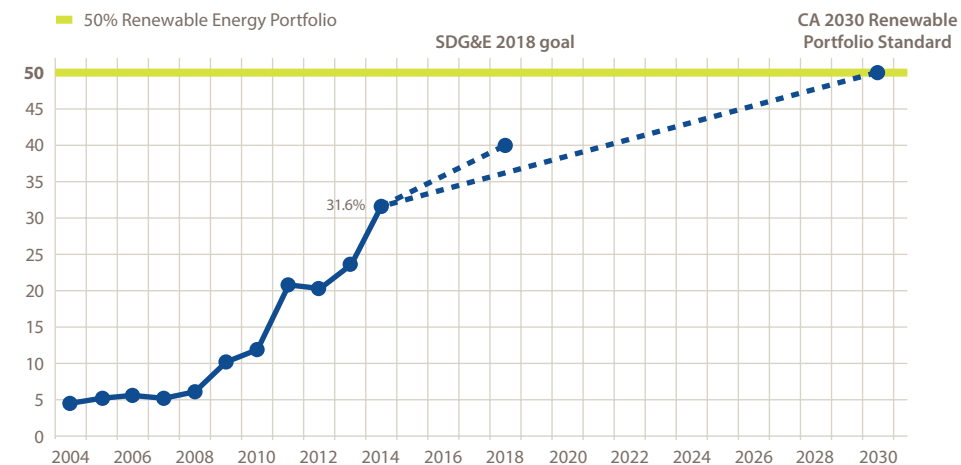
*Renewable energy mix is 31.6% of total procurement

Data Sources: Equinox Project, 2016; San Diego Gas & Electric, 2015, California Public Utilities Commission, 2015



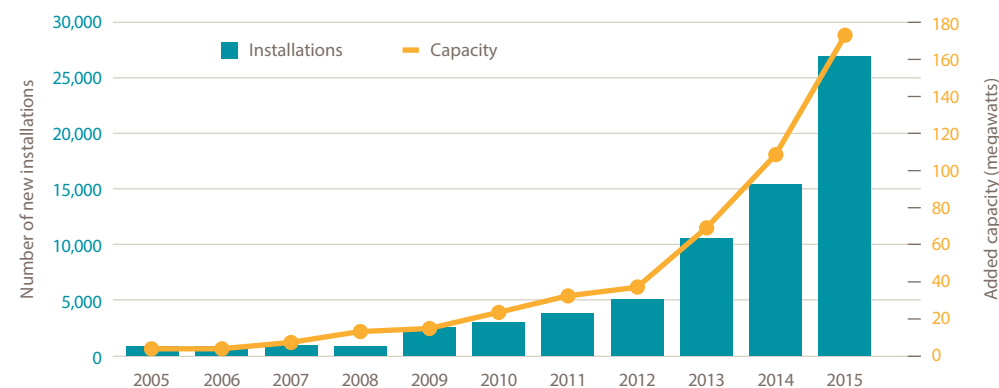
How we compare

Renewable Energy as a Percentage of SDG&E Sales (2014)



Data Sources: Equinox Project, 2016; San Diego Gas & Electric, 2015, California Public Utilities Commission, 2015

Growth in Distributed Solar Installations and Capacity (SDG&E Service Territory, 2005-2015)



Data Sources: Equinox Project, 2016; California Solar Statistics, 2016



Bright Spot

San Diego is the most concentrated major metropolitan region for clean-tech employment in the U.S., with roughly 2.5 times the expected sector employment for a region its size. According to the San Diego Regional Economic Development Corporation, direct employment in the sector exceeds 25,000 clean economy jobs as of January 2014; while a 2015 report from The Solar Foundation shows 8,300 jobs just in San Diego County's solar industry, the second highest total in the state.



What are we measuring?

The number and capacity of new rooftop solar installations over the last decade and the percentage and type of renewable energy procurement for the SDG&E service territory.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Energy

Residential Electricity Consumption

How are we doing?

While San Diego County residents only reduced their daily per capita electricity use by less than one-tenth of a kilowatt-hour (kWh) per day from 2013 to 2014, local consumption remained lower than the state average. California's leadership in energy efficiency continues to chart new territory with market transforming incentives, innovations and policy, but statewide, residential energy consumption hasn't decreased significantly in the last 20 years.



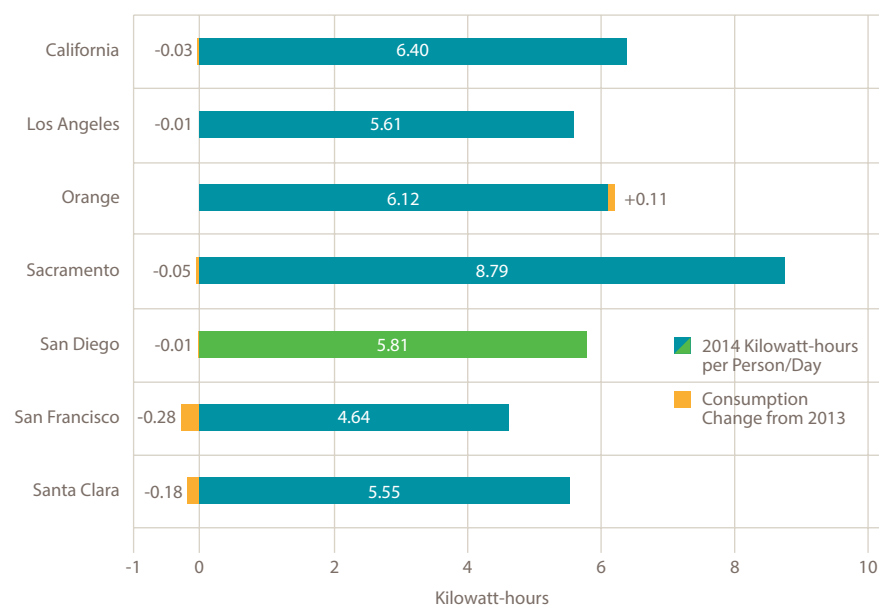
Policymaker

Benchmarking and transparency of building energy and water use information is a cost-effective pathway for improving efficiency. In 2015, the California legislature passed a bill requiring commercial and multifamily building owners and operators to benchmark energy use and make certain energy data available to the public. In advance of and in addition to the statewide program, municipalities have the opportunity to join leading cities, such as San Diego, in developing benchmarking and transparency policies that align with the state's goals.

Why is it important?

- Increased energy efficiency and reduced energy consumption are needed to meet climate action goals set by San Diego and California.
- Statewide, California homes account for 32 percent of electricity and 35 percent of natural gas consumption.
- Energy efficiency is a key part of the clean and green economy, and employment in the sector grew by 15 percent from 2002 to 2012.

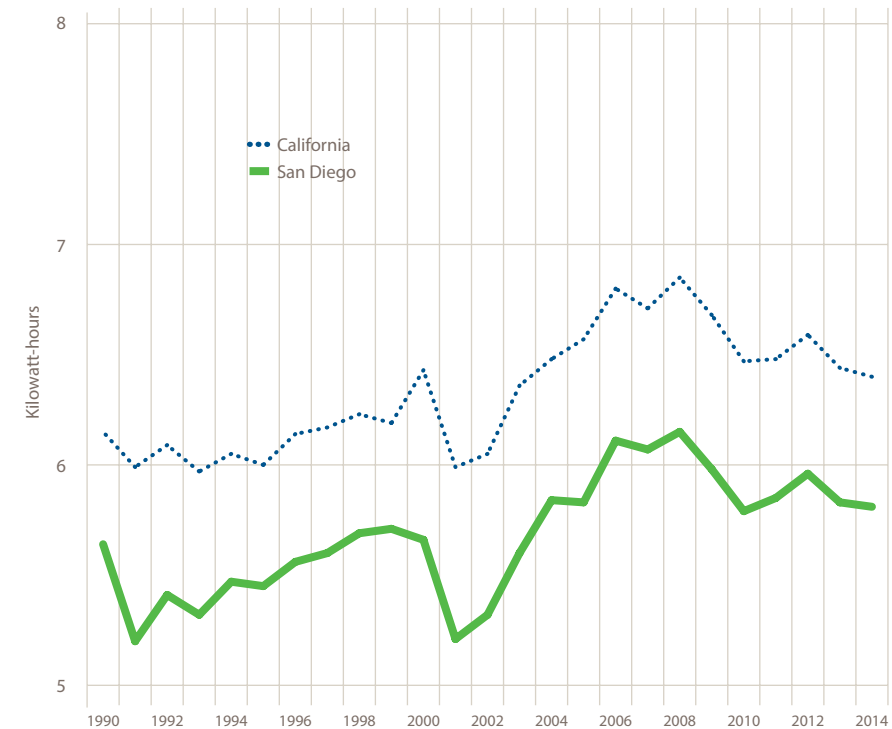
Residential Electricity Consumption per Person per Day (select counties, 2013-2014)



Data Sources: Equinox Project, 2016; California Energy Commission, 2015; California Department of Finance, 2015

How we compare

Average Residential Electricity Consumption per Person per Day (State of California vs. San Diego County, 1990-2014)



Data Sources: Equinox Project, 2016; California Energy Commission, 2015; California Department of Finance, 2015

Featured Project



Energy Upgrade California® is a statewide initiative to help residents take action to save energy and conserve natural resources, reduce demand on the electricity grid and make informed energy choices. The program offers rebates for energy-saving improvements – up to \$6,500 for an advanced home upgrade. It also has created Go Green Financing as a way to help residents find the best financing options for their energy efficiency projects. Visit energyupgradeca.org for more information.

What are we measuring?

Per capita daily residential energy consumption compared to other California counties and San Diego versus statewide consumption since 1990.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/

TheEquinoxProject

and use #SDQoL.

Housing

Housing Affordability

How are we doing?

Housing prices increased 10.8 percent from 2014 to 2015, higher than the state average of 8 percent. Additionally, the housing affordability index remained low, meaning fewer people can afford to purchase an entry-level home. Nearly 42 percent of homeowners and 57 percent of renters spend more than the maximum recommended amount of income on their housing.



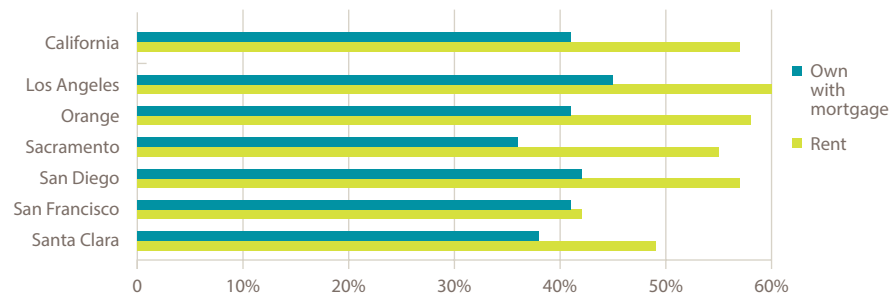
Policymaker

Developments with 20 percent affordable units have fewer restraints and requirements than 100 percent affordable developments. Incentivizing these mixed-income projects will take advantage of unused tax credits and increase housing availability.

Why is it important?

- ➔ High housing costs limit disposable income that residents would otherwise spend back into the economy.
- ➔ Housing costs influence our region's competitiveness against other metropolitan regions in attracting and retaining businesses and a talented workforce.
- ➔ Housing unaffordability can drive people to less expensive areas farther away from jobs and services, increasing traffic congestion and air pollution.

Percentage of Households Paying Over 30% of Income on Housing by Type (select counties, 2014)



Data Sources: Equinox Project, 2016; American Community Survey, 2015

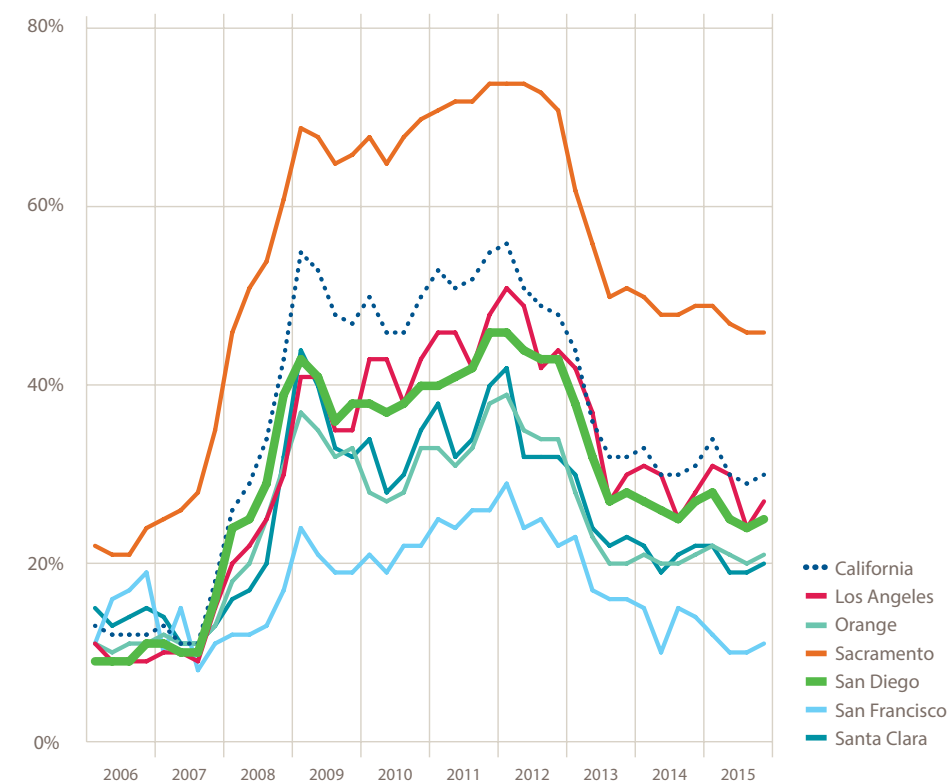
Median Single-family Home Price (select counties, 2014-2015)

State/County	December 2014	December 2015	Year to Year Percentage Change
California	\$453,270	\$489,310	8.0%
Los Angeles	\$464,650	\$502,750	8.2%
Orange	\$683,490	\$710,940	4.0%
Sacramento	\$269,350	\$297,600	10.5%
San Diego	\$494,500	\$548,080	10.8%
San Francisco	\$1,058,820	\$1,215,620	14.8%
Santa Clara	\$846,500	\$920,000	8.7%

Data Sources: Equinox Project, 2016; California Association of Realtors, 2016

How we compare

Housing Affordability Index (select counties, 2006-2014)



Data Sources: Equinox Project, 2016; California Association of Realtors, 2016

Bright Spot

The San Diego City Council's Smart Growth and Land Use Committee voted in December 2015 to develop ordinances intended to bring down the cost of housing development and incentivize affordable housing projects. The vote followed the San Diego Housing Commission's report "Addressing the Housing Affordability Crisis in San Diego and Beyond." For more information, visit sdhc.org.

What are we measuring?

The National Association of Realtors' Housing Affordability Index, the percentage of households that can afford a median home price; households paying more than 30 percent of income on housing, creating higher financial risk; and real estate market trends.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Land Use

Park Access

How are we doing?

In 2014, 77 percent of City of San Diego residents were living within a half mile of a park, up 1 percent from 2013. Meanwhile, Chula Vista, the only other San Diego County municipality in the Trust for Public Land's annual Park Score survey, also increased by 1 percent. San Francisco is the highest at 99 percent, and San Diego is well ahead of Los Angeles at 52 percent.



1 idea for change

Policymaker

Establish a master permit for streamlined permitting and efficient environmental review for rehabilitation of urban canyons throughout San Diego, including trail improvements, habitat restoration, educational signage and other enhancements.

Why is it important?

- San Diego County has more biodiversity than any other county in North America and, along with the rest of California, is among the top 10 biodiversity regions on earth.
- A report released in 2009 by The City Project and The San Diego Foundation included maps showing a direct relationship between increased childhood obesity and longer distances from recreational facilities, while other studies show access to nature for youth can improve mental health.
- The presence of green space alone is not enough. In order to truly benefit from these resources, San Diego residents must have access to green space.

How we compare

Park Acres per 1,000 Residents vs. Percent of Population with Walkable Park Access (select cities, 2014)



Data Sources: Equinox Project, 2016; Trust for Public Land, 2015

San Diego County Park Access (2015)



Data Sources: Equinox Project, 2015; SANDAG, 2016; Center for Sustainable Energy, 2016



Bright Spot

In his 2016 State of the City address, San Diego Mayor Kevin Faulconer announced plans to move forward on developing 50 parks over the next five years and creating a new master plan for San Diego's park system for the first time since the 1950s. Dozens of those parks will be built or upgraded through the "Play All Day" initiative, a joint use partnership between the city and the San Diego Unified School District.



What are we measuring?

The percentage of regional residents who live within a half mile of a park and the number of acres of accessible park space per 1,000 residents, including parks, school yards, beaches, forests, mountains and canyons with public access.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Transportation

Electric Vehicle Sales and Infrastructure

How are we doing?

San Diego County's per capita electric vehicle (EV) sales dropped by almost 1 percent in 2015, while statewide sales trended up. The per capita vehicle count is also lagging slightly behind the state average. Within the county, Del Mar is the jurisdiction with the highest number of EVs and charging sites per 10,000 residents. Countywide, charging infrastructure is increasing with more than 140 nonresidential charging sites with 600 connections.



1
idea
for
change

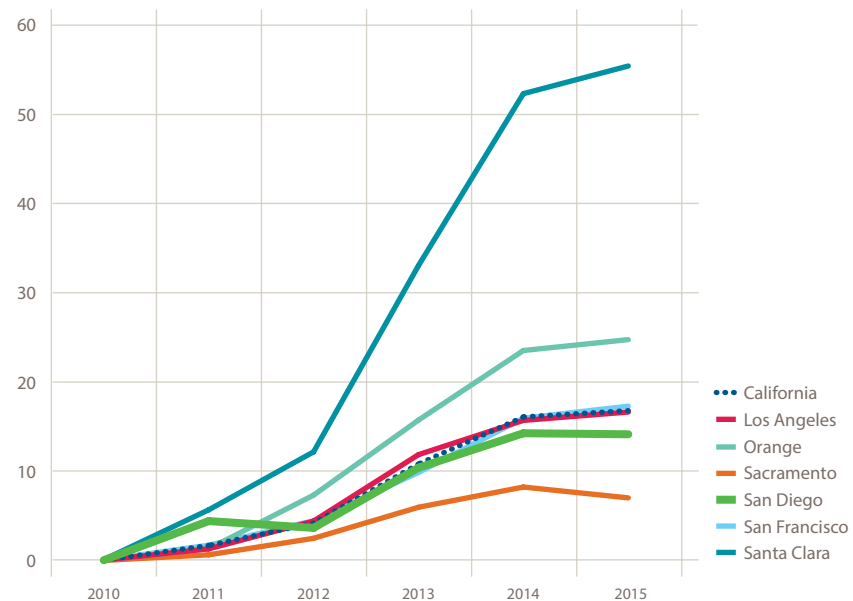
Policymaker and Business Leader

According to recent surveys, many car shoppers interested in electric vehicles are facing dissuasion from car dealers. Policymakers and industry leaders should work together to provide education and incentives specifically for dealers, similar to what has been offered to consumers.

Why is it important?

- ➔ More EV charging stations and infrastructure promotes adoption of these cleaner and cheaper-to-operate transportation options.
- ➔ Curbing tailpipe emissions will help the state meet its greenhouse gas reduction targets and reduce harmful pollutants that are causing elevated levels of smog and other health hazards.

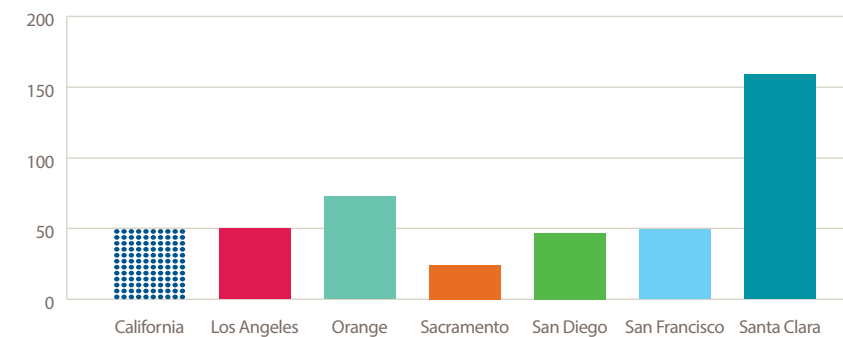
Electric Vehicle Sales per 10,000 capita (select counties, 2010-2015)



Data Sources: Equinox Project, 2016; Clean Vehicle Rebate Project, 2016; California Department of Finance, 2016

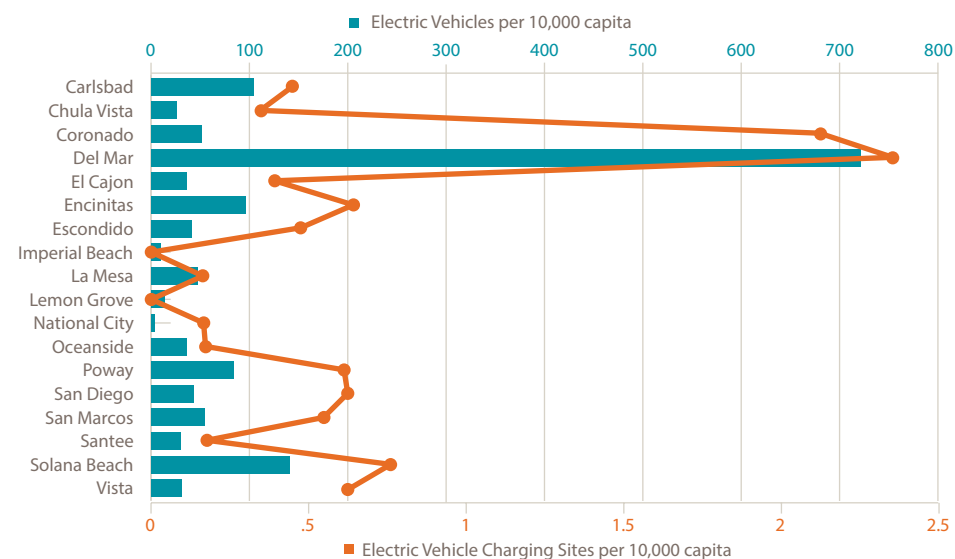
How we compare

Total Number of Electric Vehicles per 10,000 capita (select counties, 2010-2015)



Data Sources: Equinox Project, 2016; Clean Vehicle Rebate Project, 2016; California Department of Finance, 2016

Total Number of Electric Vehicles and Charging Sites per 10,000 capita (San Diego County jurisdictions, 2010-2015)



Data Sources: Equinox Project, 2016; Clean Vehicle Rebate Project, 2016; U.S. Department of Energy, 2016; California Department of Finance, 2016

Featured Project



In January 2016, the California Public Utilities Commission approved a pilot project allowing San Diego Gas & Electric to install 3,500 EV charging stations at business and multifamily communities through its Power Your Drive program. At least 10 percent of the charging stations will be in disadvantaged communities. In combination with the Clean Vehicle Rebate Project's new low-income rebate increases, more San Diegans can participate in EV adoption to help reach state goals.

What are we measuring?

EV sales and EVs per 10,000 capita in California regions (estimated from rebate records) and number of publicly accessible EV charging sites (not individual connections) per 10,000 capita in San Diego County jurisdictions.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Transportation

Transportation Choices

How are we doing?

San Diego County's workplace commuting via public transit decreased by one-half percent from 2013 to 2014. The number of San Diegans who drove alone to work saw a small increase, remaining high at 76 percent. Additionally, there was a small increase in people that commute to work by bicycle but it remains less than 1 percent of total commuters.



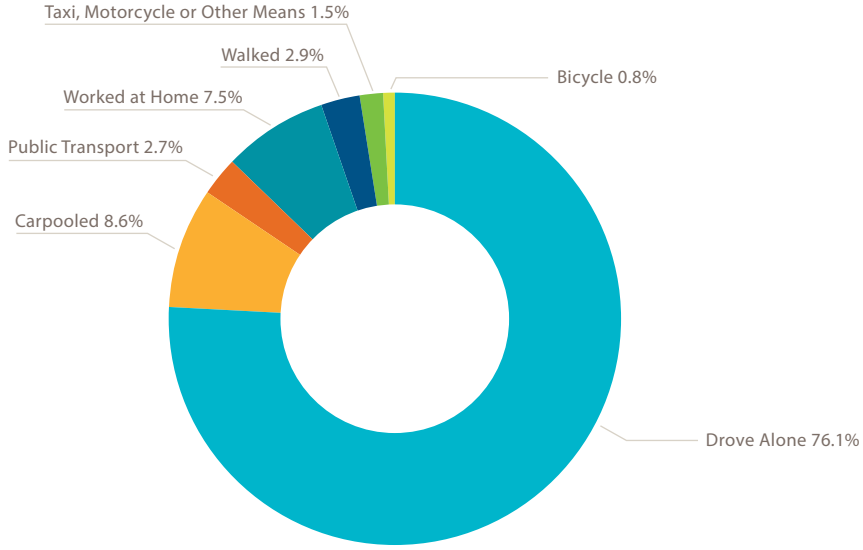
Business Leader

The Metropolitan Transit System (MTS) should improve its Compass Card, or any other future payment cards to ensure riders can securely store fare value for extended periods of time. This allows all riders to more easily access transit and would bring the system in line with other U.S. transit agencies. According to Circulate San Diego, MTS is one of only six of the top 20 transit agencies not providing payment card value storage.

Why is it important?

- ➡ **Bicycling for transportation improves San Diego's air quality and decreases greenhouse gas emissions.**
- ➡ **More regional smart growth strategies that bring jobs, residential developments and transit centers close to each other will help support walking.**
- ➡ **Increasing bike lanes, walking paths and complete streets will keep those making healthy transportation choices safe.**

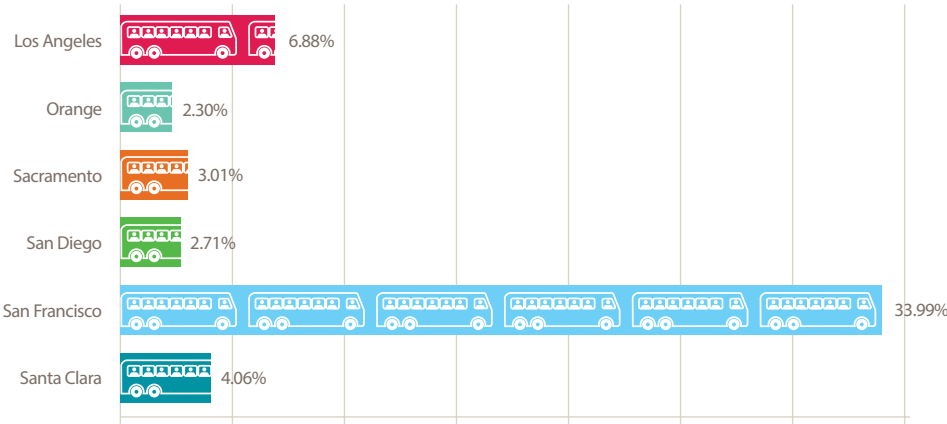
Percentage of Population Commuting by Transportation Option (San Diego County, 2014)



Data Sources: Equinox Project, 2016; American Community Survey, 2016

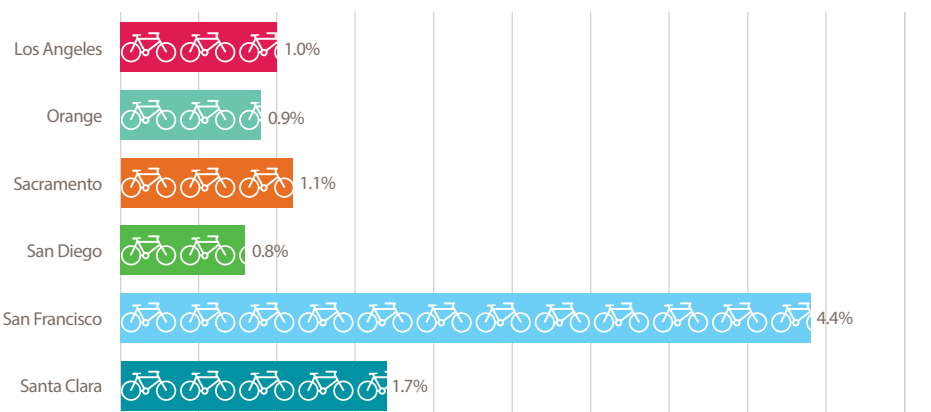
How we compare

Percentage of Population Commuting via Public Transit (select counties, 2014)



Data Sources: Equinox Project, 2016; American Community Survey, 2015

Percentage of Population Commuting via Bicycle (select counties, 2014)



Data Sources: Equinox Project, 2016; American Community Survey, 2014

Bright Spot

SANDAG recently passed the San Diego Regional Bicycle Plan, which proposes a system of interconnected bicycle corridors, support facilities and programs to make cycling more practical and desirable to a broader range of people. Planning for a more bicycle-friendly region helps to improve traffic congestion, air quality, climate change, public health and livability. For more information explore sandag.org.

What are we measuring?

Percent of San Diego County's population that commutes to work via bike, public transit or other modes of transportation and comparisons to other counties.

WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/TheEquinoxProject and use #SDQoL.

Transportation

Vehicle Miles Traveled

How are we doing?

Daily highway vehicle miles traveled (VMT) by San Diegans have once again increased, this time by 2.2 million miles in 2015. Taking into account San Diego's growing population, this averages 0.7 additional miles a day per capita. Compared to other California counties and the state, San Diego County has the highest average VMT per person. Annual vehicle hours of delay are also up by more than three hours per person, meaning San Diegans are spending more time on the road.



1 idea for change

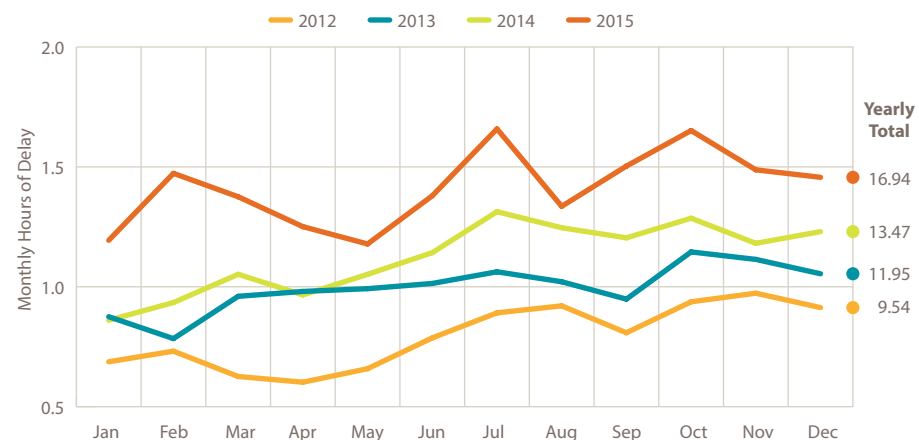
Policymaker and Business Leader

To plan regional transportation needs more effectively, policymakers and ride-share businesses, such as Uber, Lyft and Car2Go, should work together to securely share and analyze aggregate trip data, which can help determine where to locate and offer various transportation options, and even prioritize maintenance issues.

Why is it important?

- ➔ More VMT adds to greenhouse gas emissions. See the Climate Change section for more information.
- ➔ Reducing VMT and hours of delay can help the economy. Research shows housing values increase in walkable neighborhoods, and savings on fuel costs can go back into the local economy. It also allows for spending more time with family and friends, improving everyone's quality of life.
- ➔ Recent research from UC Davis shows that highway expansion leads to increases in VMT and greenhouse gas emissions, with little economic benefits.

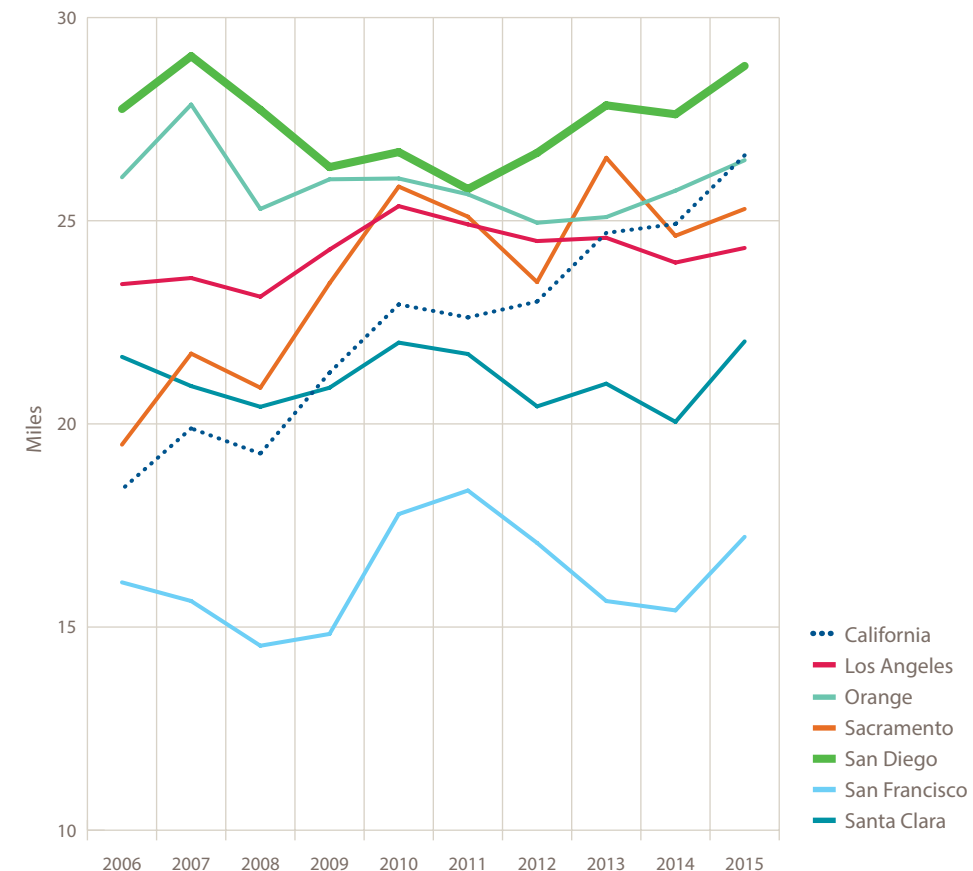
Monthly Vehicle Hours of Delay per Commuter (San Diego County, 2012-2015)



Data Sources: Equinox Project, 2016; CALTRANS, 2016; American Community Survey, 2016

How we compare

Daily Freeway Vehicle Miles Traveled per Commuter (select counties, 2006-2015)



Data Sources: Equinox Project, 2016; California Department of Transportation, 2015; American Community Survey, 2016

Bright Spot

The payroll tax savings that employers can offer their employees increased as of January 2016 to \$255 per month through SANDAG's iCommute program. Employees can purchase transit passes or vanpool vouchers up to this amount with pretax dollars, decreasing their time behind the wheel and the number of vehicles on the road. The iCommute program decreased San Diego County's overall VMT by more than 136 million miles in fiscal year 2015. Find out more at icommutesd.com.

What are we measuring?

Per capita VMT – the number of freeway miles driven by individuals on a daily basis; and the annual hours of delay for San Diego County commuters.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Waste

Landfill Waste Disposal

How are we doing?

While a few local cities slightly decreased their daily per capita waste, the overall trend shows a gradual increase over the last few years. Countywide, San Diego waste disposal increased by 3 percent in 2014, increasing the amount of trash in local landfills by nearly 250 million pounds in one year.



Waste



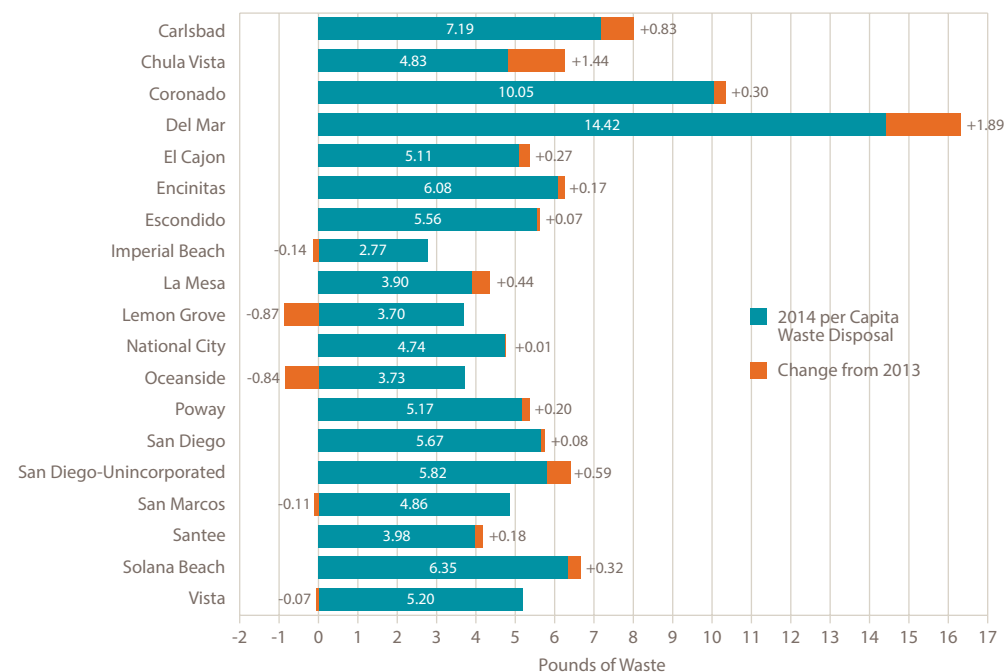
Polymaker

Cities throughout the region should amend their mandatory recycling ordinances to include yard trimmings and unpainted wood from multifamily properties and yard trimmings, unpainted wood, food scraps and food soiled paper mixed with food from commercial properties. These actions would greatly reduce methane-generating organics going to landfills.

Why is it important?

- While overall waste diversion rates among cities in San Diego County continue to improve, they are largely influenced by the recycling of heavy construction and demolition materials. Commercial and residential diversion remains low, between 23 and 26 percent in the City of San Diego.
- Organic waste makes up one-third of the material diverted to landfills, much of which is compostable or able to be converted into other landscaping materials.

Daily Waste Disposal per Capita (San Diego County jurisdictions, 2013-2014)

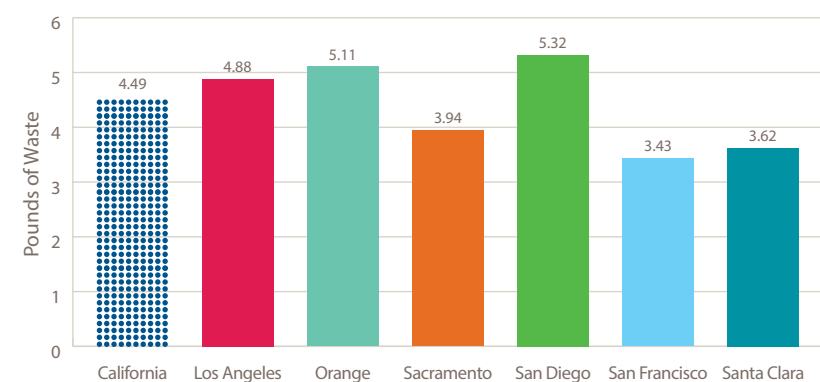


Data Sources: Equinox Project, 2016; CalRecycle, 2016; California Department of Finance, 2015



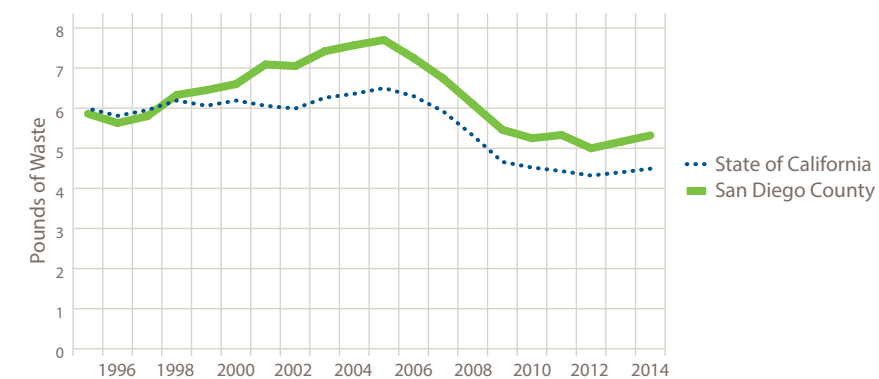
How we compare

Daily Waste Disposed per Capita (select counties and California, 2014)



Data Sources: Equinox Project, 2016; CalRecycle, 2016; California Department of Finance, 2015

Daily Waste Disposed per Capita (San Diego County and California 1995-2014)



Data Sources: Equinox Project, 2016; CalRecycle, 2016; California Department of Finance, 2015



Bright Spot

Although county trash disposal was up, there were significant steps taken addressing the problem in 2015. The Surfrider Foundation started a new countywide Ocean Friendly Restaurant program that encourages restaurants to reduce plastic in their operations. The City of San Diego's Zero Waste Plan was approved, laying out strategies to divert 90 percent of its trash by 2035. Meanwhile, Encinitas and Del Mar took steps to prohibit single-use plastic bags at grocery stores.



What are we measuring?

Average daily pounds of solid waste disposed per person in San Diego County jurisdictions, select counties and California.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Water

Water Use

How are we doing?

The San Diego region responded well to calls for curtailing water consumption in 2015, the fourth year of an ongoing drought. Heeding Governor Jerry Brown's statewide emergency regulations requiring demand reductions and supply cutbacks from the Metropolitan Water District of Southern California, consumers reduced county per capita residential water use by 13 percent. These extraordinary conservation efforts helped drop total water use among local agencies by 112,700 acre-feet.



1 idea for change

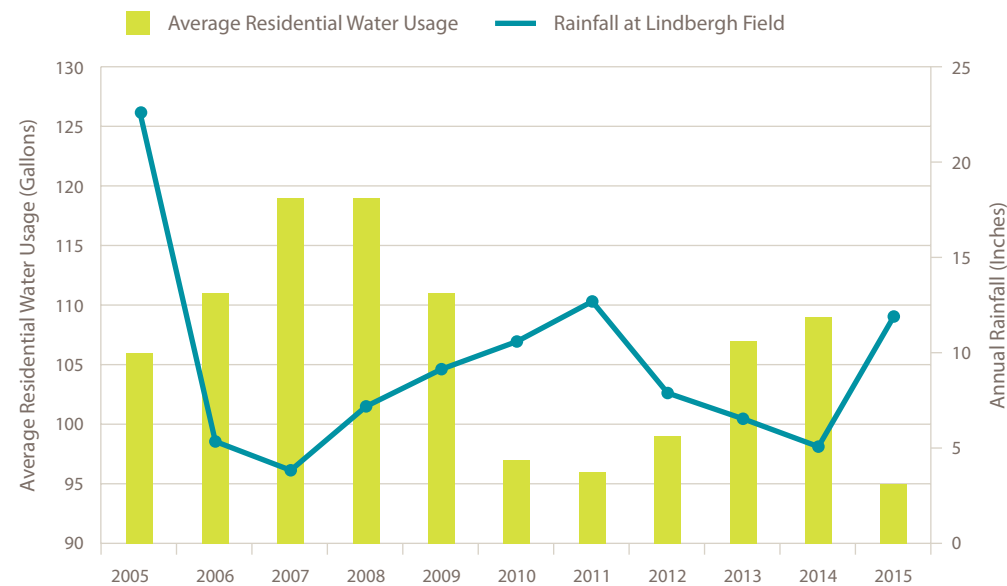
Business Leader

Businesses have opportunities to reduce water use with incentive programs through the San Diego County Water Authority and the Metropolitan Water District of Southern California for water efficiency projects. Another consideration is property assessed clean energy (PACE) financing for water efficiency upgrades that can eliminate out-of-pocket costs and have extended paybacks over time through property tax bills.

Why is it important?

- ➔ Transportation and treatment of water, treatment and disposal of wastewater and the energy used to heat and consume water account for nearly 20 percent of the total electricity used in California and 30 percent of nonpower plant-related natural gas consumption.
- ➔ Annually, more than half of the water county residents use, and half of all urban water use in California, is for outdoor irrigation.
- ➔ Even though 2015 rainfall was higher than normal, long-term drought conditions mean water conservation is critical.

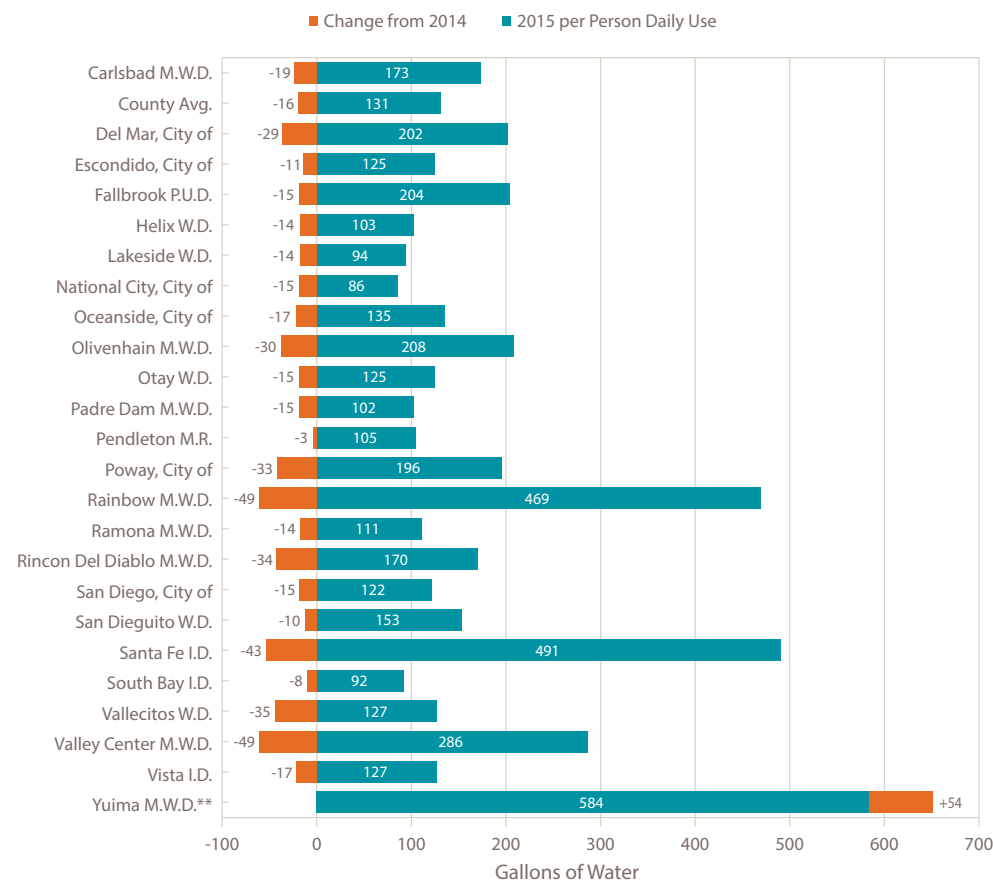
San Diego Region Daily per Capita Estimated Residential Water Use vs. Rainfall (2005-2015)



Data Sources: Equinox Project, 2016; San Diego County Water Authority and Member Agencies, 2016

How we compare

Estimated Daily Municipal & Industrial Water Use per Capita* (SDCWA member agencies, FY 2015 vs. change from 2014)



*Includes non-certified agricultural water use and/or agricultural water use served by local water

**Yuima M.W.D. increase in municipal and industrial GPCPD attributable to a decreased proportion of Special Agricultural Water Rate (SAWR) supply to total potable use in FY 2015

Data Sources: Equinox Project, 2016; San Diego County Water Authority and Member Agencies, 2016

Bright Spot

The Claude "Bud" Lewis Carlsbad Desalination Plant opened in December 2015 and will produce up-to 50 million gallons of drinking water per day for San Diego County. The plant provides a highly reliable water supply that will minimize the region's vulnerability to drought and is the first water infrastructure project in the state to have a zero net carbon footprint.

What are we measuring?

San Diego County Water Authority member agencies' fiscal year 2015 (ending June 30, 2015) residential per capita water consumption vs. rainfall at Lindbergh Field and individual member agencies' municipal and industrial per capita consumption, including residential, business and institutional uses.



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Water

Beach Closures and Advisories

How are we doing?

San Diego County's total number of beach closures and water quality advisories increased from 2014 to 2015. During 2015, the region experienced the most water quality advisories since 2008 due to increased precipitation in the region (even though the state's long-term drought continues). Despite greatly increased advisories, actual beach closures dropped in 2015.



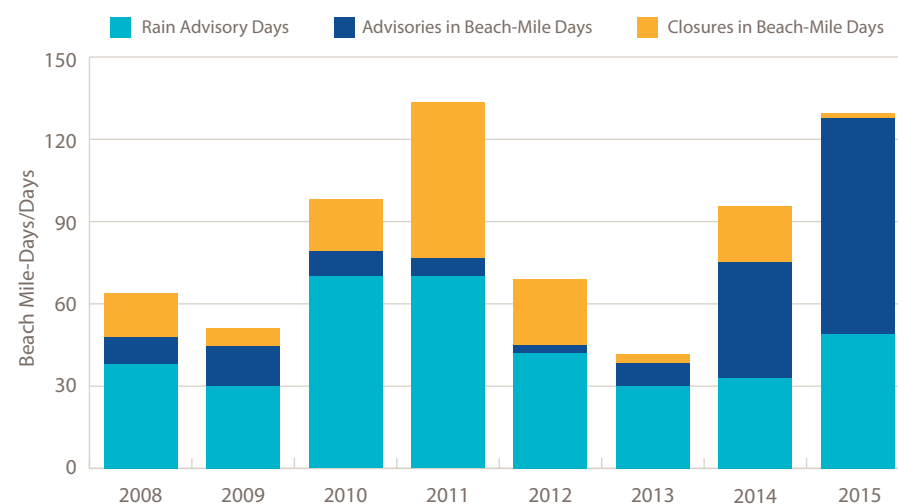
Conscientious Resident

You can help stop water pollution by joining in I Love a Clean San Diego and Think Blue San Diego's storm drain stenciling program that reminds residents that no oil, soap or debris should go down the drain. The storm drain system does not filter water; it is designed to prevent flooding by carrying runoff straight to the ocean. Learn more at cleansd.org.

Why is it important?

- Beaches draw many visitors, making water quality critical for growth in San Diego's billion-dollar tourism industry.
- Upstream use of pesticides, improper disposal of pet waste and inadequate maintenance of sewer infrastructure can degrade ocean water quality.
- Water quality is vital to conservation of biodiversity – from migrating birds to myriad species of fish that are impacted by polluted water.

Beach Water Quality Advisories and Closures (San Diego County, 2008-2015)

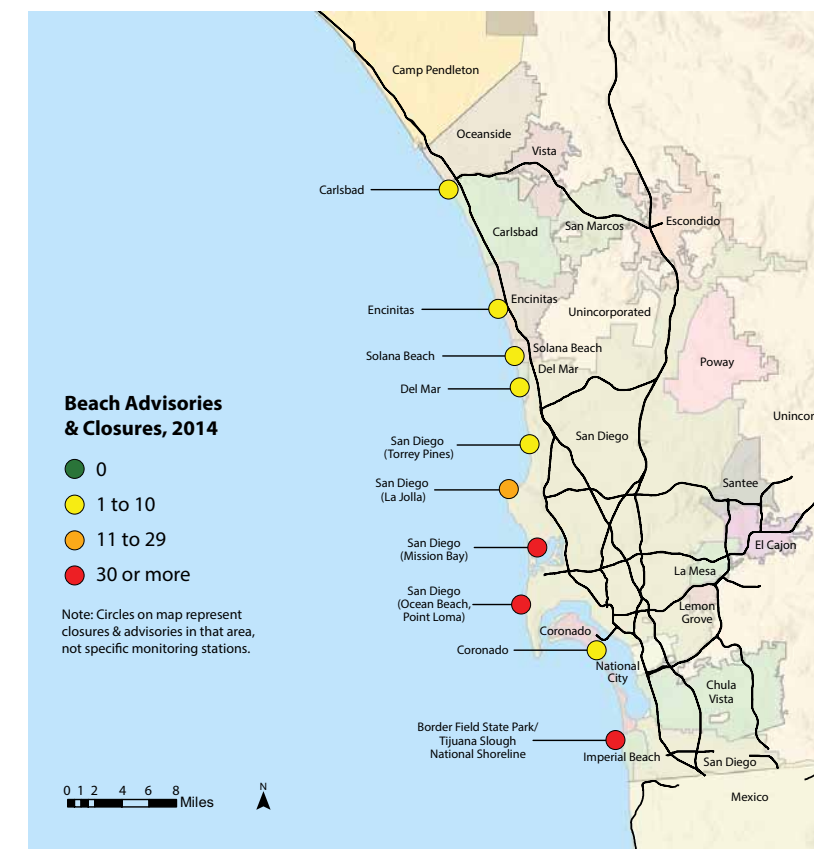


Data Sources: Equinox Project, 2016; San Diego County Department of Environmental Health, 2016



How we compare

Beach Advisories and Closures in Beach Mile-Days (2014)



Data Sources: Equinox Project, 2016; County of San Diego, 2015; Map Layers from SanGIS, Center for Sustainable Energy, 2016



Bright Spot

San Diego Coastkeeper partnered with Surfrider Foundation to clean up 9,825 pounds of trash through their volunteer beach cleanup program in 2015. More than 40 percent of debris collected was plastic, which doesn't easily biodegrade and can be ingested by wildlife. Learn more about this effort and how to get involved at sdcoastkeeper.org.



What are we measuring?

Number of days San Diego beaches were closed or flagged with advisories due to health risks, measured in beach mile-days (BMD = number of days X length in miles of beach under advisory or closed).



WHAT'S YOUR IDEA FOR CHANGE?

Let us know on

@EquinoxProject

facebook.com/
TheEquinoxProject
and use #SDQoL.

Thank You, Partners

In addition to our Title Partner, San Diego Gas & Electric, we'd like to thank the following additional Equinox Project Partners.



Please consider underwriting the Equinox Project’s work to improve quality of life in the San Diego Region. Our collective impact on the community would be at risk without sustaining support of individuals, foundations, local businesses and agencies. Contact us at (858) 244-1177 or equinox@energycenter.org for more information.

Organizations Consulted

Organizations Consulted	Website
American Community Survey	census.gov
American Lung Association	lung.org
California Association of Realtors	car.org
California Breathing	californiabreathing.org
California Department of Finance	dof.ca.gov
California Department of Resources, Recycling and Recovery (CalRecycle)	calrecycle.ca.gov
California Department of Transportation (Caltrans)	dot.ca.gov
California Energy Commission	energy.ca.gov
California Public Utilities Commission	cpuc.ca.gov
California Solar Initiative	gosolarcalifornia.ca.gov
Circulate San Diego	circulatesd.org
City of San Diego, Environmental Services Department	recyclingworks.com
Clean Vehicle Rebate Project	cleanvehiclerebate.org
Climate Action Campaign	climateactioncampaign.org
CONNECT	connect.org
Energy Policy Initiatives Center (EPIC)	sandiego.edu/law/centers/epic
Environmental Health Coalition	environmentalhealth.org
I Love A Clean San Diego	cleansd.org
Instituto Nacional de Estadística y Geografía	inegi.org.mx
National Oceanic & Atmospheric Administration (NOAA)	noaa.gov
Proyecto Fronterizo de Educación Ambiental (PFEA)	pfea.org
PwC	pwc.com
San Diego Association of Governments (SANDAG)	sandag.org
San Diego Coastkeeper	sdcoastkeeper.org
San Diego County Air Pollution Control District	sdapcd.org
San Diego County Department of Environmental Health	sandiegocounty.gov/deh
San Diego County Water Authority	sdcwa.org
San Diego Gas & Electric	sdge.com
San Diego Regional Economic Development Corporation	sandiegobusiness.org
Tijuana Verde	tijuanainnovadora.com/tijuana-verde
Trust for Public Land	tpl.org
U.S. Bureau of Labor Statistics	bls.gov
U.S. Bureau of Transportation Statistics	rita.dot.gov
U.S. Department of Energy (DOE)	energy.gov
U.S. Environmental Protection Agency (EPA)	epa.gov

Acknowledgements

We are grateful for our growing network of talented volunteers and staff who continue to help the Equinox Project achieve its mission.

Equinox Project Advisory Board

Marty Brown Elcelyx Therapeutics, Inc.	Chris Frahm Brownstein Hyatt Farber Schreck, LLP	Atul Suri Qualcomm, Inc.
Aaron Contorer FP Complete	Peter James MacCracken, APR Strategic Communications	Kristen Victor Sustainability Matters, Inc.

CSE & Equinox Project Staff

Stephen Heverly Senior Project Manager	John Bogich Research Fellow
Cecily Taylor Research Fellow	Sarah Olson Research Fellow

Leaders 2020 Steering Committee

Nicole Borunda – Co-Chair San Diego State University	Kristina Houck Union-Tribune Community Press	Melanie Wilson Office of San Diego County Supervisor Ron Roberts
Tony Cruz – Co-Chair Office of U.S. Senator Barbara Boxer	Jake Sneed Southwest Strategies, LLC	
Sarah Czarnecki Nuffer, Smith, Tucker	Kaison Tanabe Impact San Diego	

Photo Credits

Front Cover: (top) First graders from Rodriguez Elementary visit Suzie's Farm (Credit: Suzie's Farm); (right) Historic California Building and Tower in Balboa Park; (bottom) Cyclists enjoying a Class II bike lane along the coast (Credit: Joel Flood, San Diego Bicycle Coalition)	Housing (p. 18): Dense housing in the Little Italy-Bankers Hill area
Key Findings (pp. 2-3): (top left to right) San Diego Bay cleanup (Credit: Port of San Diego); Congressman Scott Peters connects with students to support San Diego's STEM initiatives (Credit: Underground Elephant); A San Diego County vineyard; Julian Hunt, Cambridge professor shows global temperature increases at a Climate Change workshop at UC San Diego (Credit: Calit2 & The Qualcomm Institute at UC San Diego); (bottom) San Diego Bay looking south	Land Use (p. 20): Lookout at Volcan Mountain's Sky Island Trail (Credit: Jeff Holt, Volcan Mountain Foundation)
Air Quality (p. 4): Bikers on Soledad Mountain	Transportation/Electric Vehicles (p. 22): A zero emission electric vehicle at the beach (Credit: SDG&E's Power Your Drive Program)
Border Region (p. 6): Pedestrians heading out of San Ysidro and the U.S. to Tijuana through the border crossing	Transportation/Transportation Choices (p. 24): San Diego MTS's new Rapid bus in City Heights (Credit: SANDAG)
Climate Change (p. 8): Surf pounds the coastline in La Jolla	Transportation/Vehicle Miles Traveled (p. 26): Traffic congestion clogs the freeway
Economy/Employment (p. 10): Infrastructure construction underway on one of San Diego County's streets	Waste (p. 28): Discarded waste at a transfer facility eventually will be loaded into large containers for shipping to local landfills
Economy/Entrepreneurship (p. 12): Tech entrepreneurs test robotics at UC San Diego (Credit: Calit2 & The Qualcomm Institute at UC San Diego)	Water/Water Use (p. 30): Drought-tolerant landscaping helps reduce San Diego County's residential water use
Energy/Renewable (p. 14): Solar shaded parking structures at Balboa Park	Water/Water Quality (p. 32): Inland coastal freshwater creek
Energy/Residential (p. 16): Contractors work on an Energy Upgrade California project (Credit: Energy Upgrade California)	Back Cover: (top) North Park, one of San Diego's iconic urban neighborhoods and home of the North Park EcoDistrict; (left) A mom and her sons take a hike along San Diego County open space trails; (bottom) Tijuana's El Arco del Milenio (Reloj Monumental Tijuana 2000)



Equinox Project
Center for Sustainable Energy
9325 Sky Park Court, Suite 100
San Diego, CA 92123

energycenter.org/equinox



Printed with vegetable based ink.



EQUINOX PROJECT

An initiative of



Center for Sustainable Energy®