



# Welcome to the County of San Diego's 2018 Climate Action Plan Annual Monitoring Report!

The County of San Diego (County) is committed to helping all communities thrive and preserve the region's unique and diverse natural resources while maintaining unincorporated county community character. The unincorporated portion of the county encompasses approximately 3,570 square miles with a 2019 population of 515,403 residents. The unincorporated area is home to 26 distinct communities that vary from suburban densities adjacent to neighboring incorporated cities, to lower density rural communities surrounded by hillsides, deserts, and agricultural lands.

The County's Climate Action Plan (CAP), which was recommended for approval by the Planning Commission and adopted by the Board of Supervisors on February 14, 2018, is the County's plan to reduce greenhouse gas (GHG) emissions within the unincorporated communities and County-owned facilities. The CAP was prepared in coordination with top climate planning and environmental experts that included Ascent Environmental, and the Energy Policy Initiatives Center, a non-profit research center of the University of San Diego School of Law. These industry experts have worked on dozens of adopted CAPs in California and regularly coordinate with jurisdictions on methods to implement state GHG legislation. Supportive documentation for the CAP calculations

and findings are provided by the following: 2014 GHG Emissions Inventory and Projections Report, GHG Emissions Reduction Targets, Measures, and Gap Analysis, CAP Implementation Cost Report, CAP Cost Effectiveness Analysis, Preliminary Assessment of the County of San Diego Local Direct Investment Program, and the CAP Consistency Review Checklist.

The CAP builds upon and expands on other County efforts such as the Strategic Energy Plan, Strategic Plan to Reduce Waste, and the Live Well San Diego Food System Initiative and is the culmination of robust collaboration with over 50 stakeholder groups in the environmental, business, and community sectors. Multiple County departments oversee enforceable, achievable, and measurable GHG reductions efforts to increase water and energy efficiency, decrease air pollution and waste, conserve agriculture and open space, and improve access to sustainable transportation.

The CAP is designed to be a living document, with regular monitoring timelines to provide opportunities to respond to new technologies, new legislation, and course correct for under- or over-performing measures. This first Annual Monitoring Report (Annual Report) summarizes CAP measure implementation progress toward GHG reductions targets through 2018. The CAP inventory will be updated in 2020 to provide an updated snapshot of

COUNTY OF SAN DIEGO GHG EMISSIONS REDUCTIONS TARGETS Targets address GHG reductions for the unincorporated county in dark grey above and the approximately 430 County facilities located across 18 jurisdictions.

- · 1990 levels by 2020
- · 40% below 1990 levels by 2030
- · 80% below 1990 levels by 2050

the GHG emissions sources within the unincorporated county and County facilities, and the CAP itself will be updated in 2025 to ensure that the County's CAP measures will meet the 2030 target, and 2050 goal.

Currently the CAP's Environmental Impact Report (EIR) is being challenged in court and although the EIR is in litigation, the County chooses to continue to implement the CAP measures because the physical effects of climate change are becoming more evident every year and there is no time to waste. This Annual Report demonstrates that the County is on track to meet the 2020 GHG emissions reduction target and provides an early look at progress toward the 2030 emissions target.

To learn how you can contribute to the County's climate planning and sustainability efforts, please read this report and visit the updated CAP website at sandiegocounty.gov/sustainability.

Front Cover: Borrego Springs wildflowers. Learn about the new County library and park built there on page 11.

#### WHAT'S INSIDE

## **Table of Contents**



## **Guide to this Report**

WHAT YOU'LL FIND IN EACH SECTION

This report includes a section for each of the five emissions sectors in the CAP, and provides a snapshot of achievements made through calendar year 2018.



Find an online version of this report and other sustainability resources at sandiegocounty.gov/sustainability

#### **COUNTY OF SAN DIEGO**

## **Climate Action Plan**

The Climate Action Plan (CAP) reduces greenhouse gas emissions through 26 enforceable, achievable, and quantifiable measures within five sectors:



#### **BUILT ENVIRONMENT & TRANSPORTATION**

- Growth management
- Land conservation
- Street improvements
- Fleet efficiency



• Efficiency projects

• Renewable energy

Conservation

generation

Green Building

Solar permitting

**ENERGY** 



**SOLID WASTE** 

• Reduction

Recycling

Composting

Education

• Reuse





## **WASTE WATER**

- Conservation
- Water wise landscaping
- Rainwater harvesting

## **CONSERVATION**

- Tree planting
- Equipment replacement

#### WHAT IS MEASURED

From solar panels installed on homes in Borrego Springs to capturing rain in Jamul, we track how all 26 County CAP measures contribute to our GHG emissions reduction targets. In 2018 there were ten measures that were required to be quantified in order to begin tracking progress toward the 2020 target. The remaining 16 measures require the development of programs, plans, or ordinance updates for emissions reductions tracking toward the 2030 target. You can find our quantified progress on the ten measures on the next page, and detailed info about all of our measures at our website.

#### **HOW IT IS MEASURED**

You can't count what you don't measure. The County measures progress toward the 2020 target by capturing the number of acres of agricultural easements preserved, fleet fuel consumption, energy consumed, solar installed, renewable energy produced, water consumed, rain barrels distributed, irrigation pumps converted and trees planted since our baseline year (2014). when our first greenhouse gas inventory was prepared. We use that data as an input into a greenhouse gas emissions calculator we developed to measure emissions reductions. This allows us to identify where our work is most effective and devote resources to achieve future targets.

#### **HOW THE CAP ADAPTS**

The County reports annually on the CAP, conducts biennial greenhouse gas emissions inventories, and updates the CAP every five years, beginning in 2025. Continual monitoring allows for future updates to the CAP to adapt as new programs and technology become available, accommodate changes in legislation, and course correct for measures that may be underperforming or overperforming.

#### **VISIT THE CAP ONLINE**

Learn more about the status of each CAP measure and the 2020 and 2030 targets, read stories about recent efforts, and explore County programs.



#### MONITORING

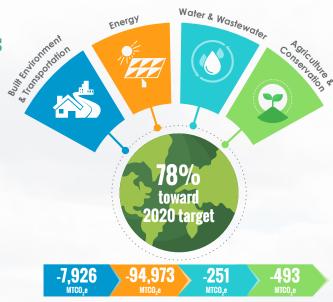
## **Climate Action Plan Progress**

The County reduced 103,643 MTC02e<sup>1</sup> of greenhouse gas emissions (GHG) through ten quantified measures listed in the table below within the built environment & transportation, energy, water & wastewater, and agriculture & conservation GHG emissions sectors. Find status updates on all 26 measures online at sandiegocounty.gov/cap/dashboard.

## **County GHG reductions are equivalent to** saving enough energy to power an average of 18,112 U.S. homes for one year!2

Metric tons of carbon dioxide equivalent is the standard unit of measurement for greenhouse gas monitoring and evaluation.

CONSERVATION



2018 = 103.643 MTC02e REDUCTION 2020 target = 132,205 MTC02e REDUCTION

#### **PROGRESS** THROUGH 2018 **CAP MEASURES WITH 2020 TARGET 2020 TARGET** STATUS **T-1.1 Acquire Conservation Land** 2,622 acres 3,628 acres **Exceeded target** (4,621 MTCO2e) **BUILT ENVIRONMENT T-1.2** Acquire Agricultural Easements 443 acres 793 acres **Exceeded target** & TRANSPORTATION (509 MTCO2e) **T-3.4** Reduce County's Fleet Emissions **Exceeded target** 10% reduction 11% reduction (2,796 MTCO2e) E-1.4 Reduce County Energy Use Intensity 10% reduction 20% reduction **Exceeded target** (8,692 MTCO2e) **ENERGY** E-2.3 Install Solar on Existing Homes 52,273 homes 38,510 homes 74% toward target (84.350 MTCO2e) E-2.4 Generate On-Site Renewable 10% renewable 5.5% renewable 55% toward target **Energy for County Operations** (1,931 MTCO2e) W-1.3 Reduce County Water Consumption 15% reduction 13% reduction 87% toward target (190 MTCO2e) Install 1,200 7,318 installed **Exceeded target** W-2.1 Increase Rain Barrel Installations **WASTE WATER** (61 MTCO2e) Incentives implementation A-1.2 Convert Irrigation Pumps to Electric **Convert 4 pumps** 0 pumps in progress **AGRICULTURE &** 13,930 planted 99% toward target A-2.2 Increase County Tree Planting Plant 14,000 trees

2018 = 103.643 MTC02e REDUCTION

(493 MTCO2e)

Check out our updated Climate Action Plan website at: sandiegocounty.gov/sustainability



<sup>&</sup>lt;sup>2</sup> U.S. EPA, Greenhouse Gas Equivalencies Calculator, 2019



Built Environment &

**Transportation** 

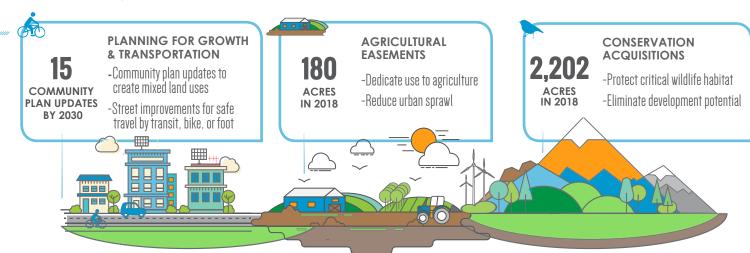
Built environment and transportation measures decrease greenhouse gas emissions by reducing the number and length of vehicle trips through the conservation of agricultural and open space lands, planning for the use of alternative modes of transportation, encouraging a shift to electric and alternatively-fueled vehicles, and increasing the mix of uses within established community plan areas so residents can obtain goods and services closer to home.

In 2018, the County reduced vehicle emissions by 11%.

In 2018, the County continued to update the community plan for the Alpine Community Plan Area. To prevent future development on agricultural and conservation lands, the County acquired 180 acres of agricultural easements through the Purchase of Agricultural Conservation Easements program and 2,202 acres of conservation open space through the Multiple Species Conservation Plan.

Since 2014, the Clean Vehicle Rebate Project provides rebates up to \$7,000 for the purchase or lease of new, eligible zero-emission vehicles. Learn more at cleanvehiclerebate.org.

#### The County reduces emissions across built, agricultural, and open space lands through:



Our agricultural easement freed up capital for farm improvements. I'm glad to know the property won't be subdivided, which takes away from the beauty of rural San Diego county.

-MATT

AVOCADO FARMER IN FALLBROOK



## AGRICULTURAL CONSERVATION PACE PROGRAM

San Diego agriculture feeds families, supports livelihoods, and stores carbon in the soil. Through the Purchase of Agricultural Conservation Easement Program (PACE), the County compensates farmers who place a permanent easement on their property. PACE provides fair compensation to farmers who dedicate their property's future use to agriculture, eliminating development potential and reducing sprawl. In 2018, the County preserved 180 acres of agricultural easements.



# OPEN SPACE PROTECTION MOUNTAIN MEADOW

North of Escondido lies

Mountain Meadow, the County's recent 670-acre conservation acquisition.

Secured in partnership with Escondido Creek Conservancy and the United States Navy, the preserve protects California gnatcatcher and orange throated whiptail habitat within willow scrub, chapparal, and Engelmann and coast live oak woodland in alignment with the County's Multiple Species Conservation Plan.

# 2030 Resiliency + Adaptation

As the climate changes, we must adapt and build resiliency. To protect our region from emerging hazards such as extreme heat, wildfire, flooding, and drought, the County:

- Approved a Local Coastal Program to protect the unique environment of the County's Coastal Zone.
- Continues to implement the Multiple Species Conservation
   Program to preserve unique, native habitats and wildlife.
- Developed a Multi-Jurisdictional Hazard Mitigation Plan to improve disaster resilience efforts.
- Continues to restore the San Elijo County Park to improve tidal exchange, absorb flooding from sea level rise, and expand lagoon access.

## **Action + Progress**

The County's Energy Management team works together to maximize energy cost savings and minimize the environmental impacts of our facilities. In 2018, we took our commitment to sustainability even further and achieved a LEED for Communities Platinum certification for the entire unincorporated County, the first in California.





The energy sector offers the greatest opportunity to achieve emissions reductions in the unincorporated county. The Department of General Services improves energy efficiency in County facilities by designing green buildings, implementing energy efficiency upgrades, and increasing solar generation to reduce the demand for electricity in our community. The County's Building Department provides incentives to increase residential solar generation and help reduce overall fossil fuel use, leading to better air quality and public health benefits. The County's Parks and Recreation Department incorporates renewable energy systems and electric vehicle charging stations in new and existing parks, preserves, and recreational facilities.

Looking to the future, the County is pursuing a renewable energy generation program to achieve 90% renewable power by 2030 to make our community more resilient and boost our local economy.



ENERGY EFFICIENCY

## ZERO NET ENERGY & LEED CERTIFICATION

# The Alpine Library is the first County-owned zero net energy (ZNE) building

certified by the International Living Future Institute in February 2018. ZNE buildings generate as much energy as they consume. The library will generate over 108 MWh per year, enough electricy to power 13 US homes on average for one year. All new County facilities are reviewed for their ZNE and LEED Gold certification potential.



EASY SOLAR PERMITTING

#### **ENCOURAGING SOLAR**

The County permitted 194,868 kw of residential solar photovoltaics since 2014, which is equivalent to 38,510 homes. In 2018, **we processed 5,871 online residential solar permits** through a streamlined web-based service. The County debuted online residential solar permitting in 2013, serving as an example for the state

permit streamlining law passed in 2014.



RENEWABLE GENERATION

# ON-SITE SOLAR PRODUCTION

Efficient facility management and increased onsite renewable energy generation saves money in County operations. Savings are reinvested back into projects that serve our community.

The County produced
6,083 MWh through on-

The County produced 6,083 MWh through onsite solar PV on County facilities in 2018, enough electricity to power 515 US homes for one year on average.

The County's online services for permitting roof mount solar is the easiest of any jurisdiction. You can get a permit within 24 hours.

— LINDSAY

SOLAR PERMITTING CONSULTANT

GREEN BUILDING

#### **LEED CERTIFICATION**

To date over 20 County buildings have received LEED certification. The Department of Parks and Recreation led the way with a Platinum certification for the San Elijo Lagoon Nature Center in 2009, and in 2018 the Ramona Library received Gold certification in LEED for Existing Buildings.

2030 90% Renewable Energy Sources

with a feasibility study to explore the possible development of a **Community Choice Aggregation Program** to provide clean, reliable energy at competitive rates for our community as one possible path toward 90% renewable power by 2030. This item will be brought to the Board of Supervisors in fall 2019.

The County is moving forward

In recognition of our work to improve accessibility to solar PV development and foster local solar market growth, the County earned a **Gold-level designation as a SolSmart community.** 

## Action + Progress

#### ORGANIC WASTE REDUCTION

Organic materials, such as food scraps, landscape trimmings, brush, and animal manures, represent 39% of unincorporated county waste disposal.

The Department of Public Works' recycling program reduces organic waste by:

- Preventing food waste through a restaurant guide and a newsletter called Waste Not, Leftovers Wanted;
- Partnering with food facilties to encourage surplus food donation and materials like spent brewery grain for use as animal feed; and
- Encouraging composting at horse ranches and schools.

# **Solid Waste Diversion**

To reduce greenhouse gas emissions from waste, the Department of Public Works is implementing its *Strategic Plan to Reduce Waste*. The County diverts 60%\* of solid waste from landfills through waste reduction, recycling, and composting programs by helping residents and businesses reduce, reuse, and recycle waste. Next, the County aims to divert more organic material and construction and demolition debris from landfills to extend county landfill life, reduce transportation costs, avoid methane emissions, and improve air quality. Organic waste processed into compost and mulch can be applied on local farms, rangelands, and gardens to improve soil health, conserve water, and reduce the need for synthetic fertilizers.



PARTNERING WITH LOCAL SCHOOLS AND ORGANIZATIONS

#### REGIONAL FOOD RECOVERY

In 2018, the Department of Public Works collaborated with the Ramona Unified School District (District) to **prevent 16,337 lbs of wasted food from heading to landfills by adjusting food preparation practices, donating food, diverting food scraps to feed animals at their local farm, and composting on site**. Not surprisingly, the District's food recovery program has garnered local, state, and national awards!

To strengthen the regional food donation network, the County's *Live Well San Diego* Food System Initiative partnered with food banks, pantries, and organizations to produce a Food Donation Action Plan. The plan provides recommendations about how to recover more food and feed those experiencing food insecurity.

#### BY THE NUMBERS

- **60% of waste diverted** in unincorporated county in 2017
- **5,318 residents and businesses assisted** with recycling and hazardous waste disposal inquiries online, by phone, and in-person
- **220 school presentations**on waste reduction, recycling,
  and composting benefiting 16,650
  students
- 469 presentations and inspections to improve recycling programs, reaching 3,398 employees and residents at businesses, multifamily complexes and schools

- **220,000 guides distributed** on recycling, and reduction of wasted food to residents and businesses
- 6,442 recycling bins supplied to 224 schools, commercial and multi-family facilities
- **3,911 tires collected** at four tire recycling events
- 32 composting workshops for 1,169 people
- bins donated or sold to unincorporated county schools and residents

### **Food Recovery Hierarchy**

Source Reduction

duce the volume of surplus food generated

#### Feed Hungry People

Donate extra food to food banks, soup kitchens, and shelter

Feed Animals

#### Industrial Uses

rovide waste oils for rendering and fuel onversion and food scraps for digestion

Composting
Create a nutrient-rich

Landfil Last resort to disposal

2030
Carbon Farming

Nutritious food and healthy plants from orchards, cropland, rangeland, and farms need healthy soil.

Processing organic materials such as food waste, animal waste, and green materials into compost and mulch puts nutrients back into the soil and stores carbon. To encourage this process called carbon farming, the County is:

- Ensuring that waste collection meets state-mandated organics collection requirements.
- Updating local regulations to allow for more efficient organics material composting and processing.

Greater organics collection and processing will improve county agricultural soils, help us reach 80% solid waste diversion by 2030, and make working lands more resilient to drought and wildfires.

\* 2017 data, 2018 data anticipated availability in 2020 from CalRecycle.





The County reduces emissions from petroleum- and diesel-powered agricultural equipment and water use within County operations and residential and commercial development in the unincorporated county. In 2018, the San Diego Air Pollution Control District funded \$1.2 million for farmers to replace agricultural equipment with low-emission engines. To reduce County water use, in 2018 the County followed strict water wise landscaping design in the planning for new facilities and implemented water reductions in outdoor landscaping in new private development. To understand the climate's impact on agriculture, the County partners with the University of California Cooperative Extension (UCCE) to conduct climate resilient agriculture research, education and outreach programming.



#### CARBON SEQUESTRATION TREE PLANTING

The County partnered with local high school students to help restore riparian habitat lost to the Cedar Fire. They planted over 2,000 trees including native oak, sycamore, cottonwood, and willow that will result in longterm carbon sequestration.

#### **RAIN BARRELS**

In 2018, the County distributed 281 rain barrels to unincorporated county residents through an incentive program to reduce indirect electricity use from the extraction, transportation, and treatment of water. Look for a demonstration rain barrel at the Solana Center to learn how to save on irrigation costs, reduce stormwater runoff, and conserve a precious resource.



## RAINWATER HARVESTING



#### WATER CONSERVATION

#### WATER WISE LANDSCAPING

The new Borrego Springs Library, Park, and Sheriff's office implemented sustainability practices such as water wise landscaping which follows a watershed approach by using native trees and shrubs, cacti, and boulders to hold and clean water and create habitat while requiring less irrigation. See the sustainable landscapes guide in Resources + Links to learn more.

#### **DID YOU KNOW?**

Native plants reduce water use by up to 60% by storing water in roots up to 14 feet long, compared to lawns whose roots are only inches deep.



I water my garden from November to March with only rain water.

- RAIN BARREL INCENTIVE PROGRAM PARTICIPANT

**DID YOU KNOW?** Forests and natural lands absorb 18% of national greenhouse gas emissions.



To achieve a 40% outdoor water use reduction from new and existing residential and non-residential the County is amending its ordinance to require water wise practices.

fixtures in all new residential construction in accordance with

practices to reduce potable water Look for water efficiency and water

- San Ysabel Nature Center
- North Coastal Health & Human Services Agency Regional Center
- Assessor/Recorder/County Clerk East County

## **Climate Action Plan**

**RESOURCES + LINKS** 





#### **BUILT ENVIRONMENT & TRANSPORTATION**

- Purchase of Agricultural Easements (PACE): sandiegocounty.gov/pds/advance/PACE
- Multiple Species Conservation Program (MSCP): sandiegocounty.gov/pds/mscp/
- County Hazard Mitigation Plan: sandiegocounty,gov/oes/emergency management/oes jl mitplan
- Local Coastal Program: sandiegocounty.gov/content/sdc/pds/advance/county-of-san-diego-local-
- San Elijo Park: sdparks.org/content/sdparks/en/park-pages/SanElijo



#### ENERGY

- LEED Platinum for Communities: usgbc.org/articles/four-new-leed-cities-and-communities-certifyacross-us
- LEED Gold for Ramona Library: countynewscenter.com/ramona-librarys-so-green-its-gold/
- Alpine Library, Borrego Springs Library, 2018 NACO Award for ZNE Portfolio: living-future.org/ lbc/case-studies/alpine-branch-library/
- Strategic Energy Plan: sandiegocounty.gov/content/dam/sdc/dgs/Doc/EnergyStrategicEnergyPlan.pdf
- SolSmart: solsmart.org/communities/san-diego-county-ca/
- DPR Energy Efficiency Education and Outreach: livewellsd.org/content/livewell/home/allarticles/news/april-2018/program-and-education-manager-leads-teens-on-an-energy-saving-adventure



#### SOLID WASTE

- Strategic Plan to Reduce Waste: sandiegocounty.gov/dpw/recycling/plan
- DPW Recycling: sandiegocounty.gov/content/sdc/dpw/recycling
- Online Recycling Database: WasteFreeSD.org
- Live Well San Diego Food Donation Action Plan: livewellsd.org/content/dam/livewell/ TipsandToolsOrgs/Food-Donation-Action-Plan-for-the-San-Diego-Region.pdf
- DPW Food to Good to Waste: sandiegocounty.gov/content/sdc/dpw/recycling/Food



#### WATER & WASTE WATER

- Tree Planting: countynewscenter.com/students-give-life-to-oakoasis-county-preserve/
- Strategic Energy Progress Report: sandiegocounty.gov/content/dam/sdc/dgs/Doc/Energy2017-2018ProgressReport.pdf
- San Diego Sustainable Landscapes Guidelines: sandiegocounty.gov/content/sdc/dpw/ watersheds/residential/San Diego Sustainable Landscape Guidelines



#### **AGRICULTURE & CONSERVATION**

 FARMER, CAPP Grant Programs: sdapcd.org/content/sdc/apcd/en/grants-and-incentives/carl-moyerprogram

#### TAKING ACTION

## What You Can Do

All individual and collective actions add up. Every person, every business, and every entity has a role to play in addressing climate change. Here are some simple things you can do at home, in your workplace, or in your community to make a difference. For more information visit our website and find links in the blue tiles below.

HOW YOU CAN CONTRIBUTE TO SUSTAINABLE AND THRIVING COMMUNITIES

**Check out** electric vehicles incentives







**Participate in County** tree planting and park events



Install solar panels on your home or business



Reduce waste by composting and recycling









Take advantage of rain barrel incentives



Get involved in community plan updates



Take shorter showers and turn off water!



Eat a more plant-based diet and prevent wasted food



Avoid single-use plastics and use eco-friendly products



Use less energy. Turn off lights when not in use.



## **Stay Connected**

For updates, to view the digital Annual Monitoring Report, or to sign up for our e-newsletter visit: sandiegocounty.gov/sustainability



















#### **COUNTY OF SAN DIEGO**

Planning & Development Services
Climate Action Plan

sandiegocounty.gov/sustainability







For media inquiries, please contact:
Group Communication Officer
Land Use and Environment Group
Jessica.Northrup@sdcounty.ca.gov
619.531.5186

For other questions, please contact:
Project Manager – Sustainability
Planning & Development Services
Kelly.Bray@sdcounty.ca.gov
858.495.5384



Rain barrels, incentives, future efforts?

We want to hear from you and get you involved!

cap@sdcounty.ca.gov

