City Planning Department

## Overview of Climate Action Plan Strategy 5 Resilient Infrastructure and Healthy Ecosystems

Resiliency Advisory Board May 15, 2025





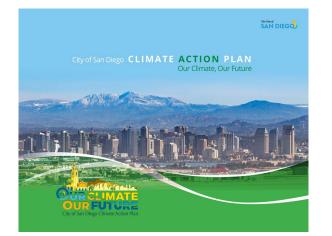
## **Planning for Climate Change**

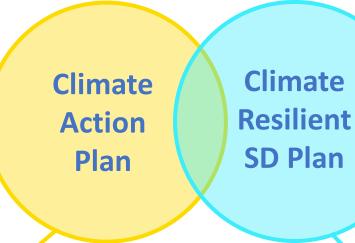
Climate Action Plan Reduce emissions that accelerate climate change Climate Resilient SD Plan

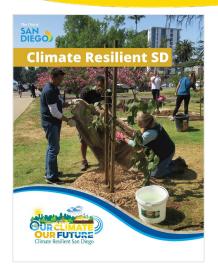
Manage risks of climate change impacts

## Plan Comparison









#### **Climate Action Plan**

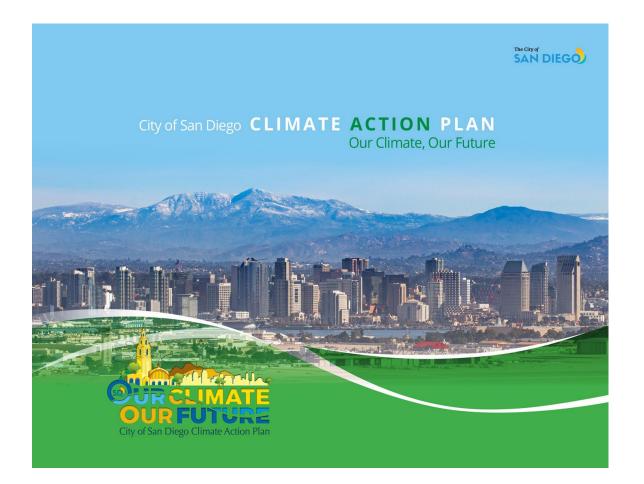
- Focuses on mitigation reducing GHG emissions to achieve net-zero emissions by 2035
- Emphasizes clean energy transition, building decarbonization, and sustainable mobility
- Establishes sector-specific GHG reduction strategies (buildings, energy, transportation, waste, water)

#### **Climate Resilient SD Plan**

- Focuses on adaptation preparing for unavoidable climate change impacts
- Addresses climate hazards like extreme heat, wildfires, flooding, and sea level rise
- Develops vulnerability assessments and adaptation strategies for infrastructure and communities



# **2022 Climate Action Plan**

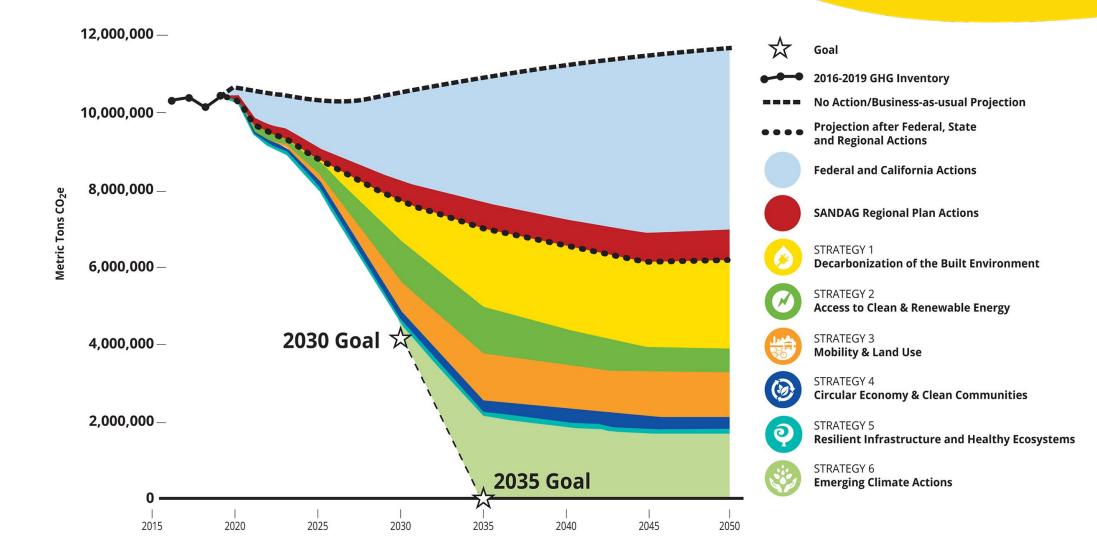


## Communitywide Goal: Net Zero Emissions by 2035

- Developed with community partners
- Prioritizes Communities of Concern
- Supports clean air & green jobs
- Maintains CEQA streamlining

## CURCLIMATE OURFUTURE City of San Diego Climate Action Plan

# **GHG Reductions by Strategy**



#### Strategy 1: Decarbonization of the Built Environment

This strategy aims to dramatically avoid greenhouse gas emissions from buildings across the City and to improve our indoor air quality. It includes measures to address emissions from existing buildings and municipal facilities and for new development.

2030 Target	2035 Target
Phase out <b>45%</b> of natural gas usage from existing buildings	Phase out <b>90%</b> of natural gas usage from existing buildings
All-electric reach code starting 2023 at new	v residential and commercial development
Phase out <b>50%</b> of natural gas usage in municipal facilities	Phase out <b>100%</b> natural gas usage in municipal facilities



**OCTOBER 2023:** The San Diego chapter of the Association of Environmental Professionals presented San Diego the Outstanding Innovation in Resilient or Sustainable Planning and Design award for its CAP Implementation Plan.





#### Strategy 2: Access to Clean & Renewable Energy

This strategy maintains the City's commitment to 100% renewable energy and now acknowledges that the pathway to achieving this target is through San Diego Community Power. It also sets more ambitious targets for converting the City's fleet of vehicles to electric and, for the first time, aims to increase the number of electric vehicles used by our communities.

% renewable or GHG-free power provided by SDCP for all SDCP Percent of all municipal fleet vehicles to be Percent of a	2035 Target	<u> </u>
<b>100%</b> renewable or GHG-free power provided by S	DCP for all SDCP customers in the City of San Diego	
Percent of all municipal fleet vehicles to be ZEVs: LDV: 50% MDV: 50% HDV: 50%	Percent of all municipal fleet vehicles to be ZEVs: LDV: 100% MDV: 75% HDV: 75%	

16% e-VMT out of all Light-duty VMT

25% e-VMT out of all Light-duty VMT





SEPTEMBER 2023: San Diego's Fleet Operations Division was honored as the fleet with "Best Policies and Procedures" by the National Association of Fleet Administrators for the fifth consecutive year, reflecting reduced emissions and eco-friendly vehicle use.





#### Strategy 3: Mobility & Land Use

This strategy focuses on emissions from transportation, which account for more than half of all greenhouse gas emissions in San Diego. It also includes actions that support mode shift through mobility and land-use actions and policies.

2030 Target	2035 Target
<b>19% walking</b> and <b>7% cycling</b> mode share of all San Diego residents' trips	<b>25% walking</b> and <b>10% cycling</b> mode share of all San Diego residents' trips
<b>10% transit</b> mode share of all San Diego residents' trips	<b>15% transit</b> mode share of all San Diego residents' trips
Achieve <b>4%</b> citywide VMT reduction through telecommute by 2030	Achieve <b>6%</b> citywide VMT reduction through telecommute by 2035
Install <b>13</b> new roundabouts	Install <b>20</b> new roundabouts
8% VMT (commuter and non-commuter) reduction per capita	15% VMT (commuter and non-commuter) reduction per capita



City of San Diego Climate Action Plan



### Strategy 4: Circular Economy & Clean Communities

This strategy maintains a 90% waste diversion rate and captures methane from our landfill and wastewater treatment facilities. It also includes actions to increase healthy food access and food recovery.

2030 Target2035 Target82% Waste Diversion Rate and<br/>85% Landfill Gas Capture90% Waste Diversion Rate and<br/>90% Landfill Gas Capture99% Methane Capture99% Methane Capture

DECEMBER 2023: San Diego was granted A-list status by the Carbon Disclosure Project among 119 cities worldwide, marking its third appearance on the list and its first A rating, joining visionary cities like Barcelona, Toronto and Buenos Aires.







#### Strategy 5: Resilient Infrastructure and Healthy Ecosystems

This strategy will help the City thrive in the face of the impacts of climate change through a greater focus on the greening of our City, starting with our Communities of Concern. It also includes targets for the restoration of salt marshland for sequestration and increasing our local water supply through Pure Water San Diego.

2030 Target	2035 Target
Restore <b>350 acres</b> of salt marshland and other associated tidal wetland and riparian habitats	Restore <b>700 acres</b> of salt marshland and other associated tidal wetland and riparian habitats
28% urban canopy cover	35% urban canopy cover
Provide <b>33,000 acre-feet</b> local water supply from Pure Water San Diego	Provide <b>93,000 acre-feet</b> local water supply from Pure Water San Diego







OCTOBER 2023: San Diego came in *first out of the 100 largest U.S. cities in WalletHub's* "Greenest Cities in America" ranking, with scores on Environment, Energy Sources, and Lifestyle & Policy propelling it to the top.





#### Strategy 6: Emerging Climate Actions

This strategy addresses greenhouse gas emissions that remain after all currently identified measures have been achieved. These emissions must be addressed to achieve our net-zero goal. The City will continue to identify additional actions, pursue technological innovation, expand partnerships, and support research that reduces GHG emissions in all sectors.

## 2030 Target

#### 2035 Target

#### 2,262,000 additional reduction/removal needed













2022 Climate Action Plan

Update to the 2015 Climate Action Plan

High level planning document, sets goal of net zero GHG emissions by 2035

6 Strategies, 21 Measures, 190 Actions



#### Climate Action Implementation Plan

Details steps City will take over the next 5 years to implement 2022 CAP

Includes Implementation Cost Analysis which estimates funding needed to implement the CAP

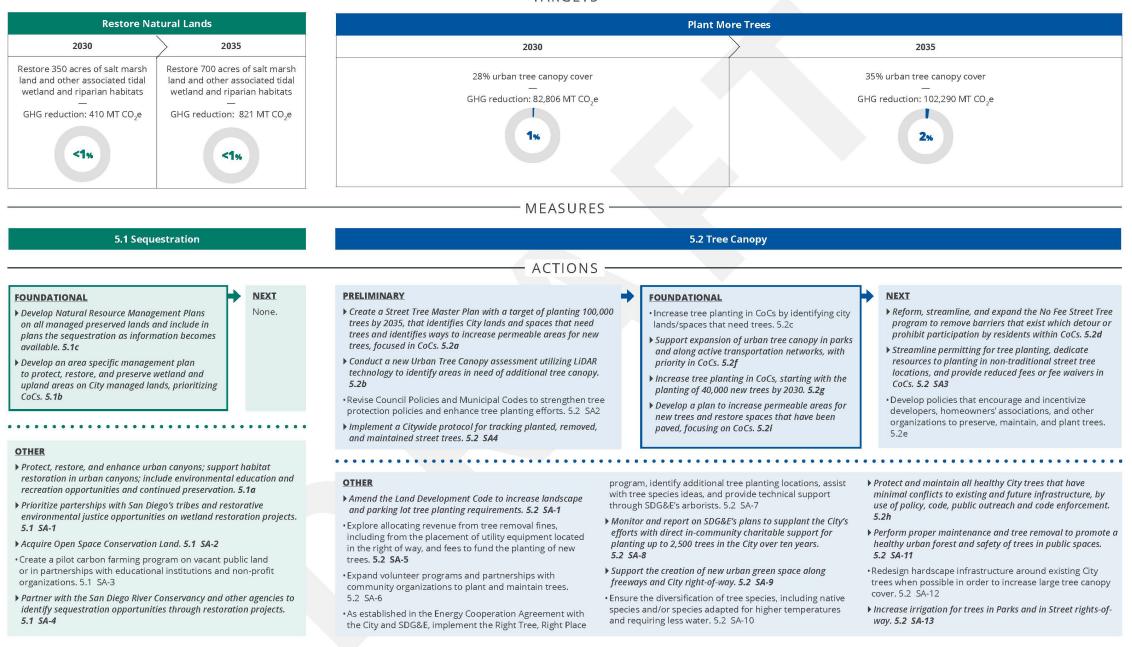
### Annual Department Work Plans

Supporting document to the annual budget process

Departments complete template identifying which CAP actions they plan to move forward in the **upcoming FY** and what funding is needed

#### Strategy 5: Resilient Infrastructure and Healthy Ecosystems

- TARGETS -



– MEASURING SUCCESS –

Acres of natural lands restored (by land cover/habitat type)

▶ Number of new street trees planted (total and relative to 100,000 street tree goal by 2035) ▶ Percentage urban tree canopy coverage

#### Measure 5.1 Sequestration

	CAP ACTION TYPE			ESTIMATED	COSTS TO IMP	LEMENT NEW A	- STATUS	COUNCIL POLICY PRIORITIZATION		
LAPACITON	ITPE	[SUPPORT]	PARTNERSHIPS	FY24	FY25	FY26	FY27	FY28		SCORE
▶ Foundational										
Develop Natural Resource Management Plans on all managed preserved lands and include in plans the sequestration as information becomes available <b>5.1c</b>	Planning Action	Parks & Rec (Planning, Public Utilities)	(1711)	\$86,000	\$89,000	\$91,000	\$94,000	\$96,000	Ongoing: plans are continually developed and sequestration information is not currently included	#
Develop an area specific management plan to protect, restore, and preserve wetland and upland areas on City managed lands, prioritizing Communities of Concern. <b>5.1b</b>	Planning Action	Parks & Rec (Planning)	(ARM)	\$520,000	\$532,000	\$544,000	\$557,000	\$570,000	In progress	#
▶ Next										
None.										
▶ Other										
Protect, restore, and enhance urban canyons. Support habitat restoration of urban canyons, inclusion of environmental education and recreation opportunities, and continued preservation. <b>5.1a</b>	Plan Implementation	Parks & Rec	(1999)	\$4,531,000	\$4,630,000	\$4,732,000	\$4,837,000	\$4,416,000	Ongoing	#
Prioritize partnerships with San Diego's tribes and restorative environmental justice opportunities on wetland restoration projects. <b>5.1 SA-1</b>	Planning Action	Planning (Parks & Rec, Stormwater, E&CP)	<u>ش</u>	\$78,000	\$80,000	\$82,000	\$84,000	\$87,000	Ongoing	#
Acquire Open Space Conservation Land. 5.1 SA-2	Identify Funding	Planning (DREAM, Parks & Rec)	(1990)	\$184,000	\$189,000	\$194,000	\$199,000	\$204,000	Ongoing	#
Create a pilot carbon farming program on vacant public land or in partnerships with educational institutions and non-profit organizations. <b>5.1 SA-3</b>	Policy Change	Planning (EDD)		\$0	\$0	\$0	\$110,000	\$144,000	Not started	#
Partner with the San Diego River Conservancy and other agencies to identify sequestration opportunities through restoration projects. <b>5.1 SA-4</b>	Plan Implementation/ Identify Funding	Parks & Rec	<b>m</b>	\$77,000	\$80,000	\$82,000	\$84,000	\$86,000	Ongoing	#

#### Measure 5.2 Tree Canopy

			CITY LEAD [SUPPORT]	PARTNERSHIPS	ESTIMATED O	OSTS TO IMP	LEMENT NEW		COUNCIL POLICY		
	CAP ACTION	TYPE			FY24	FY25	FY26	FY27	FY28	– STATUS	PRIORITIZATIO
▶ Prelim	inary										
<ul><li></li></ul>	Create a Street Tree Master Plan with a target of planting 100,000 trees by 2035. Within the Street Tree Master Plan, identify City lands and spaces that need trees and identify ways to increase permeable areas for new trees, focused in Communities of Concern. <b>5.2a</b>	Planning Action	Transportation (Planning)	<b>1</b>	\$5,977,000	\$5,703,000	\$5,716,000	\$5,729,000	\$5,743,000	In planning phase	#
	Conduct a new Urban Tree Canopy assessment utilizing light detection and ranging (LiDAR) technology to identify areas in need of additional tree canopy. <b>5.2b</b>	Study/Analysis	Transportation (SuMo)		\$23,000	\$187,000	\$0	\$212,000	\$37,000	LiDAR assessment last conducted in fall of 2021 Data analysis in process.	#
•	Revise Council Policies and Municipal Codes to strengthen tree protection policies and enhance tree planting efforts. <b>5.2 SA-2</b>	Code Change	Transportation (Planning)		No estimated	costs are provid	led because new anticipated	/ or expanded a	ctivities are not	In progress	#
	Implement a Citywide protocol for tracking planted, removed, and maintained street trees. <b>5.2 SA-4</b>	Plan Implementation	Transportation		\$177,000	\$178,000	\$179,000	\$179,000	\$180,000	Currently standardizing monthly reporting	#
▶ Found	ational			<u>4</u> .							
I A A A A A A A A A A A A A A A A A A A	Increase tree planting in Communities of Concern by identifying city lands/spaces that need trees. <b>5.2c</b>	Planning Action	Transportation	<b>1990</b>	No estimated o	costs are provid	led because new anticipated	v or expanded a	ctivities are not	Ongoing	#
	Support expansion of urban tree canopy in parks and along active transportation networks. Prioritize implementation in Communities of Concern. <b>5.2f</b>	Planning Action	Transportation (Parks & Rec)		\$131,000	\$135,000	\$139,000	\$142,000	\$146,000	Ongoing: implementation of Parks Master Plan	#
Ø	Increase tree planting in Communities of Concern starting with the planting of 40K new trees in these communities by 2030. <b>5.2g</b>	Identify Funding	Transportation (Parks & Rec)	(1991)	\$131,000	\$135,000	\$139,000	\$142,000	\$146,000	Ongoing	#
Ø	Develop a plan to increase permeable areas for new trees and restore spaces that have been paved, focused in Communities of Concern. <b>5.2i</b>	Planning Action	Transportation	(MAN)	\$53,000	\$54,000	\$56,000	\$57,000	\$59,000	Not started	#
▶ Next											
	Reform, streamline, and expand the No Fee Street Tree program to remove barriers that exist which detour or prohibit participation by residents within Communities of Concern. <b>5.2d</b>	Policy Change	Transportation	<b>1</b>	\$190,000	\$192,000	\$195,000	\$197,000	\$200,000	In progress	#
Ø	Streamline permitting for tree planting, dedicate resources to planting in non-traditional street tree locations, and provide reduced fees or fee waivers in Communities of Concerns. 5.2 SA-3	Policy Change	Transportation (DSD)		\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	In progress	#

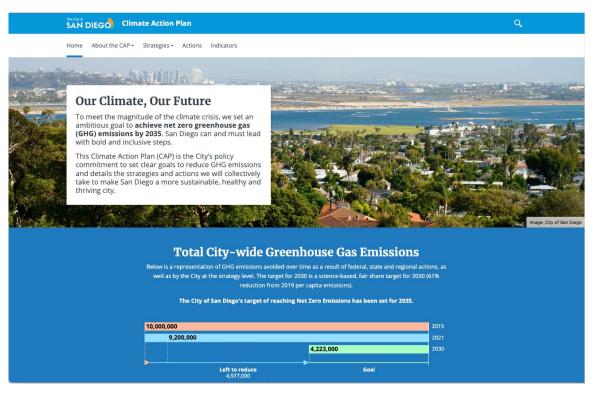
CAP ACTION		CITY LEAD		ESTIMATED	соѕтѕ то імр			COUNCIL POLIC				
	Develop policies that encourage and incentivize developers,	ТҮРЕ	[SUPPORT]	PARTNERSHIPS	FY24	FY25	FY26	FY27	FY28	- STATUS	PRIORITIZATION SCORE	
JNITY IFIED	Ø	Develop policies that encourage and incentivize developers, homeowners' associations, and other organizations to preserve, maintain, and plant trees. <b>5.2e</b>	Planning Action	Transportation (DSD)		No estimated	l costs are provic	ed because new anticipated	or expanded a	ctivities are not	In progress	#
	Other											
		Amend the Land Development Code to increase landscape and parking lot tree planting requirements. <b>5.2 SA-1</b>	Planning Action	Planning		\$0	\$3,000	\$0	\$0	\$0	Complete	#
		Explore allocating revenue from tree removal fines, including from the placement of utility equipment located in the right of way, and fees to fund the planting of new trees. <b>5.2 SA-5</b>	Study/Analysis	Transportation (DSD)		No estimated	l costs are provic	ed because new anticipated	or expanded a	ctivities are not	Not started	#
NITY FIED		Expand volunteer programs and partnerships with community organizations to plant and maintain trees. <b>5.2 SA-6</b>	Partnerships	Transportation	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	\$0	\$0	\$37,000	\$38,000	\$39,000	Ongoing: Existing grant partnerships	#
INITY	Ø	As established in the Energy Cooperation Agreement with the City and SDG&E, implement the Right Tree, Right Place program (or successor programs), identify additional tree planting locations, assist with tree species ideas, and provide technical support through SDG&E's arborists. <b>5.2 SA-7</b>	Partnerships	Transportation	S	No estimated	l costs are provic	ed because new anticipated	or expanded a	ctivities are not	Ongoing: Energy Cooperation Agreement in place First 400 trees in place	#
	0	Monitor and report on SDG&E's plans to supplant the City's efforts with direct in-community charitable support for planting up to 2,500 trees in the City over ten years. <b>5.2 SA-8</b>	Partnerships	SuMo (Transportation)		No estimated	l costs are provic	ed because new anticipated	or expanded a	ctivities are not	Ongoing	#
NITY FIED		Support the creation of new urban green space along freeways and City right-of-way. <b>5.2 SA-9</b>	Planning Action	Transportation (Parks & Rec)	Ĺ	\$131,000	\$135,000	\$139,000	\$142,000	\$146,000	Not started	#
INITY		Ensure the diversification of tree species, including using native tree and shrub species and/or species that are adapted to higher temperatures and require less water. <b>5.2 SA-10</b>	Planning Action	Transportation (Planning)		\$0	\$0	\$0	\$57,000	\$59,000	Ongoing	#
NITY FIED		Protect and maintain all healthy City trees that have minimal conflicts to existing and future infrastructure, by use of policy, code, public outreach and code enforcement. <b>5.2h</b>	Identify Funding	Transportation (DSD, Parks & Rec)		\$687,000	\$697,000	\$708,000	\$719,000	\$730,000	Ongoing	#
		Perform proper maintenance and tree removal to promote a healthy urban forest and safety of trees in public spaces. <b>5.2 SA-11</b>	Plan Implementation	Transportation (Parks & Rec)	(Alen)	\$1,362,000	\$1,684,000	\$1,698,000	\$1,713,000	\$1,728,000	Ongoing	#
		Redesign hardscape infrastructure around existing City trees when possible in order to increase large tree canopy cover. <b>5.2 SA-12</b>	Plan Implementation	Transportation (EDD)		\$0	\$0	\$129,000	\$133,000	\$136,000	Ongoing	#
NITY Fied		Increase irrigation for trees in Parks and in Street rights-of-way. <b>5.2 SA-13</b>	Code Change	Transportation (Parks & Rec)		\$323,000	\$325,000	\$327,000	\$330,000	\$332,000	Complete	#

#### Measure 5.3 Local Water Supply

	TVDE	CITY LEAD	DADTHERCHIP	ESTIMATED	со <mark>ятя то ім</mark> р		COUNCIL POLICY			
CAP ACTION	ТҮРЕ	[SUPPORT]	PARTNERSHIPS	FY24	FY25	FY26	FY27	FY28	- STATUS	PRIORITIZATIO
Foundational										
Develop local water supply and reduce dependence on imported water. <b>5.3a</b>	Planning Action	Public Utilities (E&CP)		No estimated	costs are provic	led because new anticipated	v or expanded a	ctivities are not	Ongoing	#
Maximize planning and implementation of green infrastructure at watershed scale and site specific with focused stakeholder engagement efforts in Communities of Concern. <b>5.3 SA-3</b>	Planning Action	Stormwater	(1991)	No estimated	costs are provic	led because new anticipated	v or expanded a	ctivities are not	Ongoing	#
Investigate opportunities to capture and reuse rain water. 5.3 SA-4	Study/Analysis	Stormwater (Public Utilities)		No estimated	costs are provic	led because new anticipated	v or expanded a	ctivities are not	Ongoing	#
▶ Next										
None.										
> Other										
Support ongoing gallon per capita water use (GPCD) targets. <b>5.3b</b>	Outreach and Education	Public Utilities	ш	No estimated	costs are provic	led because new anticipated	v or expanded a	ctivities are not	Ongoing	#
Expand awareness of the City's Rainwater Harvesting Rebates and Grass Replacement Rebates programs to increase participation in the programs and facilitate accessibility to residents across the City, prioritizing those within Communities of Concern and areas that have had historically lower participation in the programs. <b>5.3 SA-1</b>	Outreach and Education	Stormwater (Public Utilities)	<b>m</b> 🔊	No estimated costs are provided because new or expanded activities are not anticipated				Ongoing	#	
Advance undergrounding of utilities to provide a means to reduce energy use, increase green space preservation, sustainably process and store water and wastes, securely and efficiently site critical infrastructure, prevent and reverse degradation of the urban environment, and enhance quality of life. <b>5.3 SA-2</b>	Plan Implementation	Transportation		No estimated	costs are provic	led because new anticipated	v or expanded a	ctivities are not	Ongoing	#
Implement Waterways Restoration projects. <b>5.3 SA-5</b>	Plan Implementation	Stormwater		No estimated	costs are provic	led because new anticipated	v or expanded a	ctivities are not	Ongoing	#
Increase opportunities for Stormwater harvesting by evaluating new harvesting methodology to determine viability. <b>5.3 SA-6</b>	Study/Analysis	Stormwater (Public Utilities)		\$2,000,000	\$4,624,000	\$5,516,000	\$5,790,000	\$5,264,000	Ongoing	#
Amend building code regulations to require a percentage of all non-roof (e.g., hardscape) surfaces around new buildings meet certain criteria to reduce urban heat island effect. <b>5.3 SA-7</b>	Code Change	SuMo		No estimated costs are provided because new or expanded activities are not anticipated					<b>⊠</b> Complete	#
Install cool pavement material on City parking lots and in the public right- of-way, prioritizing Communities of Concern, to increase building energy efficiency and reduce urban heat island effect. <b>5.3 SA-8</b>	Study/Analysis	Transportation (E&CP)		\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	Feasibility study not started	#

## **Climate Action Plan Dashboard**

- The timing of data availability for the GHG inventory means that the impact of the City's CAP actions in any given year will not be observable for at least 1-2 years in the future.
- To enhance transparency and offer more timely updates on City progress, the City prepared a CAP dashboard.
- The platform, developed by Kausal Ltd, is specialized for climate action plan reporting.



City of San Diego Climate Action

https://climatedashboard.sandiego.gov

## **Climate Action Plan Dashboard**

- Filter by Strategies, Measures, Actions
- Performance targets, GHG reduction potential
- Status of actions (overall and individual)
- Performance indicator progress
- Sequence, relationship of actions
- Council Prioritization Scoring

## Links for CAP Strategy 5

#### Measure 5.1 Sequestration

7 actions

#### Measure 5.2 Tree Canopy

• 22 actions

#### Measure 5.3 Local Water Supply

• 10 actions

# **OURCLINATE OURFUISE** City of San Diego Climate Action Plan

# Thank you!

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