

City of Phoenix Climate Action Planning Virtual Workshop Series Workshop #2 – Water, Heat, Energy

December 3, 2020



C4O
CITIES

Climate Action Plan Survey Results

865 Responses



75% or more *extremely concerned* with:

- ✓ Extreme Temperature & Heat Waves
- ✓ Prolonged and extreme drought



Agenda



- | | |
|------------------|--|
| 4:30 p.m. | Welcome and Introduction |
| 4:45 p.m. | Overview of Water, Heat, Energy Sectors |
| 5:00 p.m. | Sectors Breakout Rooms |
| 5:40 p.m. | Report Out |
| 5:55 p.m. | Next Steps |
| 6:00 p.m. | Adjourn |

Introduction



- Phoenix joined C40 Cities in Feb. 2020
- Mayor Kate Gallego affirmed Phoenix commitment to the Paris Climate Accord
- C40-compliant Climate Action Plan by Dec 2021



Introduction



2009

**First City
Operations
Greenhouse
Gas
Emissions
Inventory**

**City
Operations
Climate
Action Plan**

2012

**First
Community-
Wide
Greenhouse
Gas
Emissions
Inventory**

2016

**2050
Sustainability
Goals**

2018

**City
Operations &
Community-
Wide
Greenhouse
Gas
Inventories**

**2020-
2021**

**Climate
Action
Planning**

**Climate
Action Plan
by December
2021**

2050

**Net-zero
GHG city**



Greenhouse Gas Inventory Sectors

Stationary Energy

Emissions mostly from electricity

Transportation

Emissions mostly from gasoline fuel

Waste

Emissions mostly from landfills

GHG Inventory



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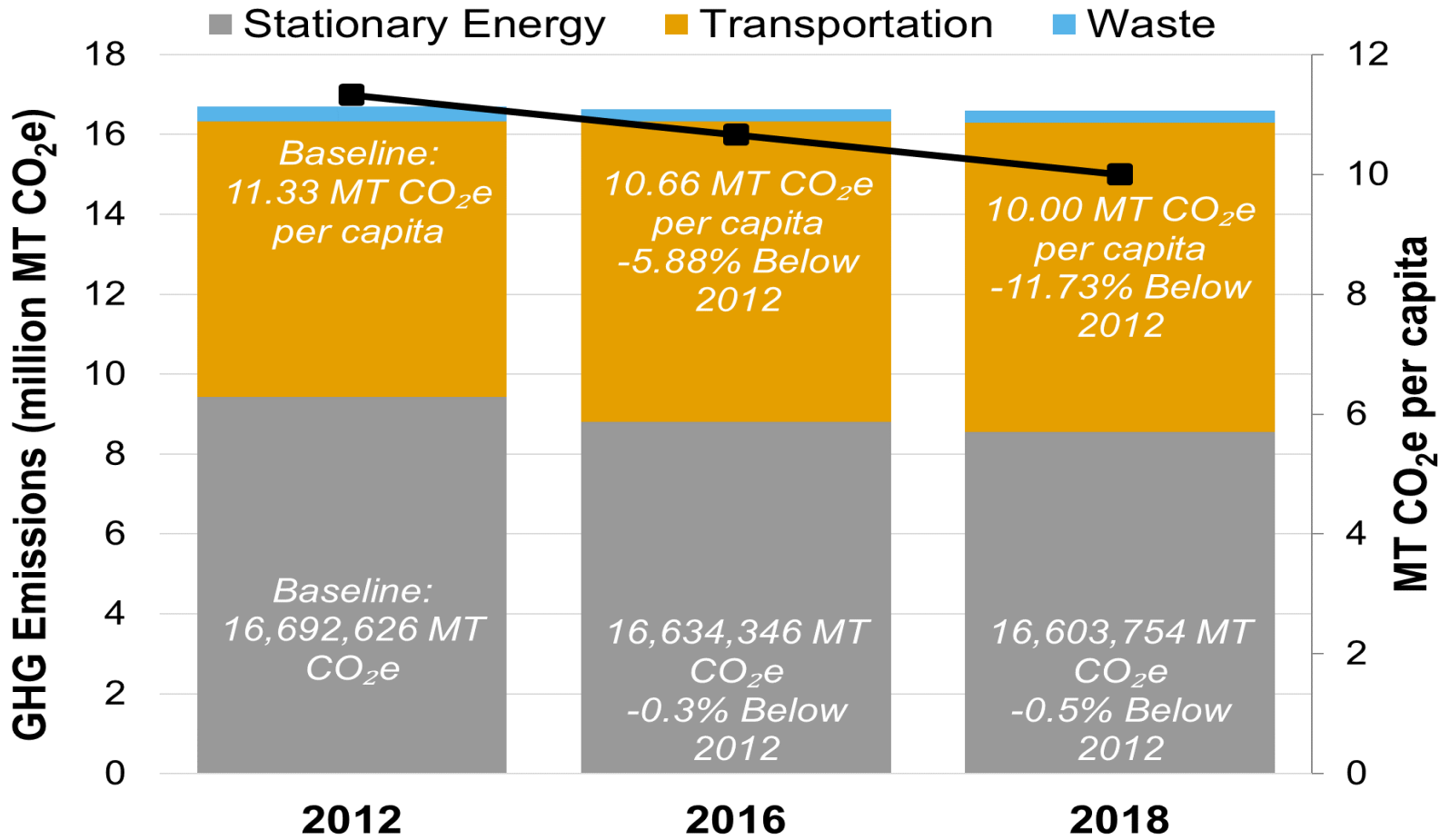
GHG Inventory



Community-Scale GHG Inventory

12%
↑
Population

26%
↑
Economy



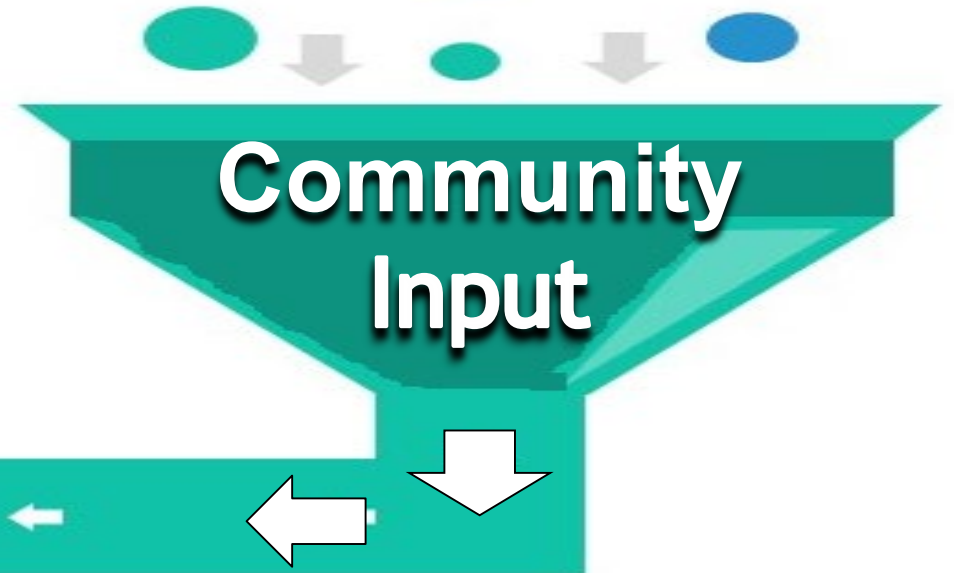
Climate Action Planning



Climate Liaisons - 28 Departments



C40 Pathways Modeling
Data Verification



ACTIONS

**Community
Input**



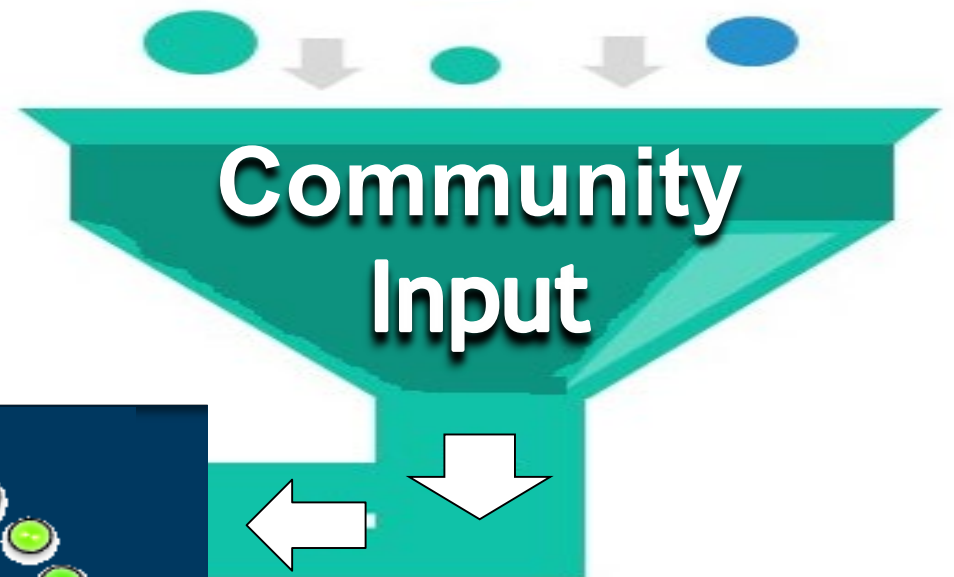
Climate Action Planning



Climate Liaisons - 28 Departments



C40 Pathways Modeling
Data Verification



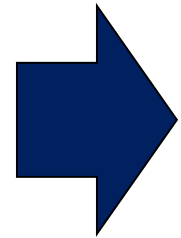
ACTIONS

Mitigation

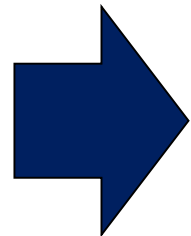
Adaptation



Climate Action Planning

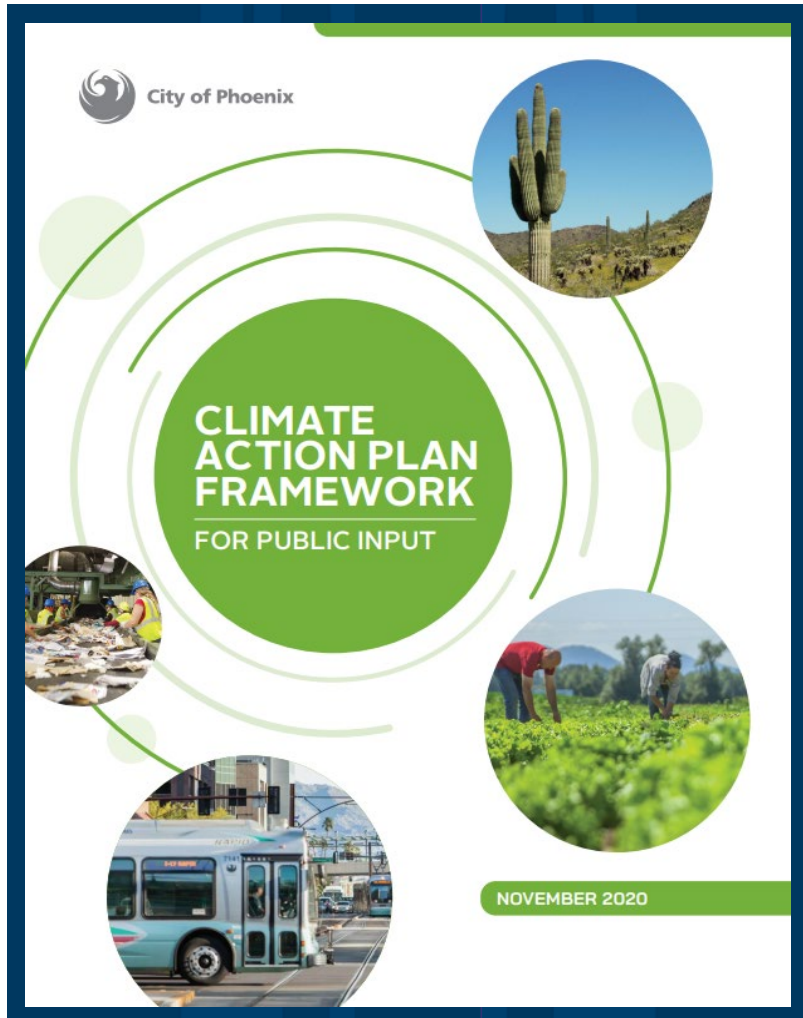


**Stationary Energy Sector
Transportation Sector
Waste Sector**



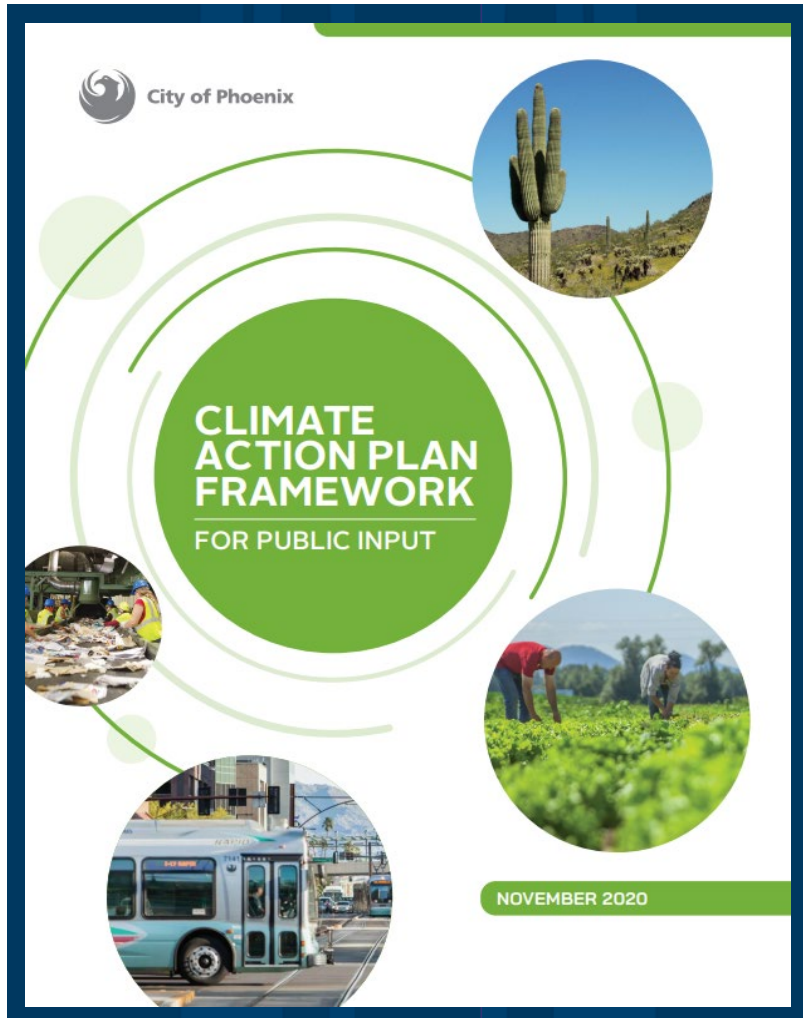
**Air Quality
Local Food Systems
Heat
Water**

Climate Action Plan Framework



phoenix.gov/oep/climate

Climate Action Plan Framework



Sector Goals

2050 Goals

Quickstart Action Examples

Short, Mid, Long-term Goals

Key Achievements



Presentations

Water



Heat



Energy



Presentations

Water



Heat



Energy

**Cynthia
Campbell**
Water Services
Department
Water
Resources
Management
Advisor

Water Goals



2050 Goal:



100-Year

Clean & reliable
supply of water

Goal 1:
Identify and implement
infrastructure projects to
ensure **water security**.

Goal 2:
Improve **conservation** of water resources
by improving stormwater management,
optimizing water use, conducting water
audits, and utilizing wastewater.

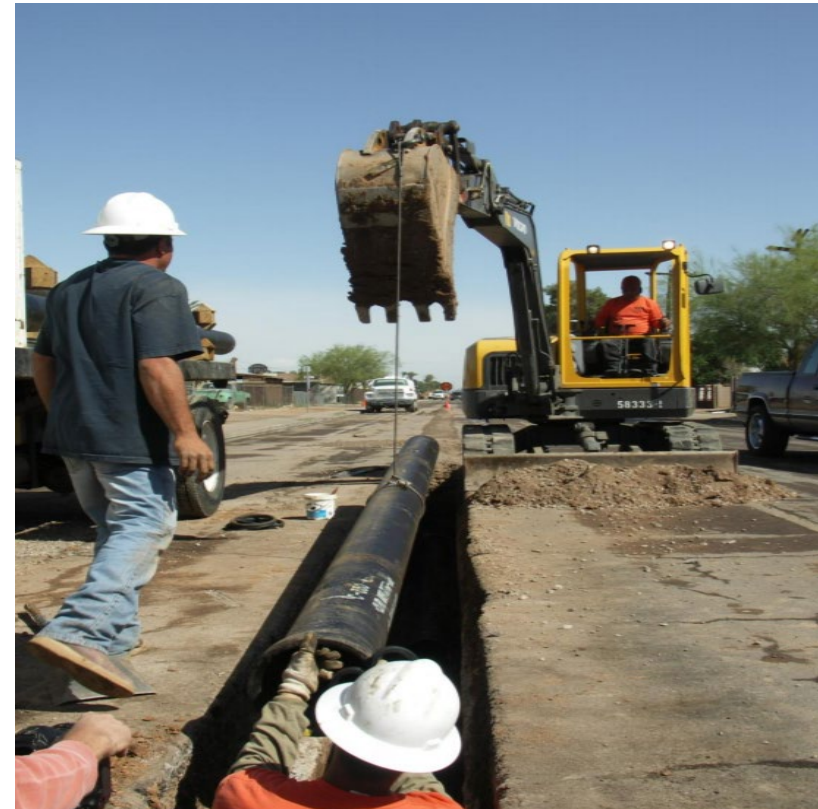
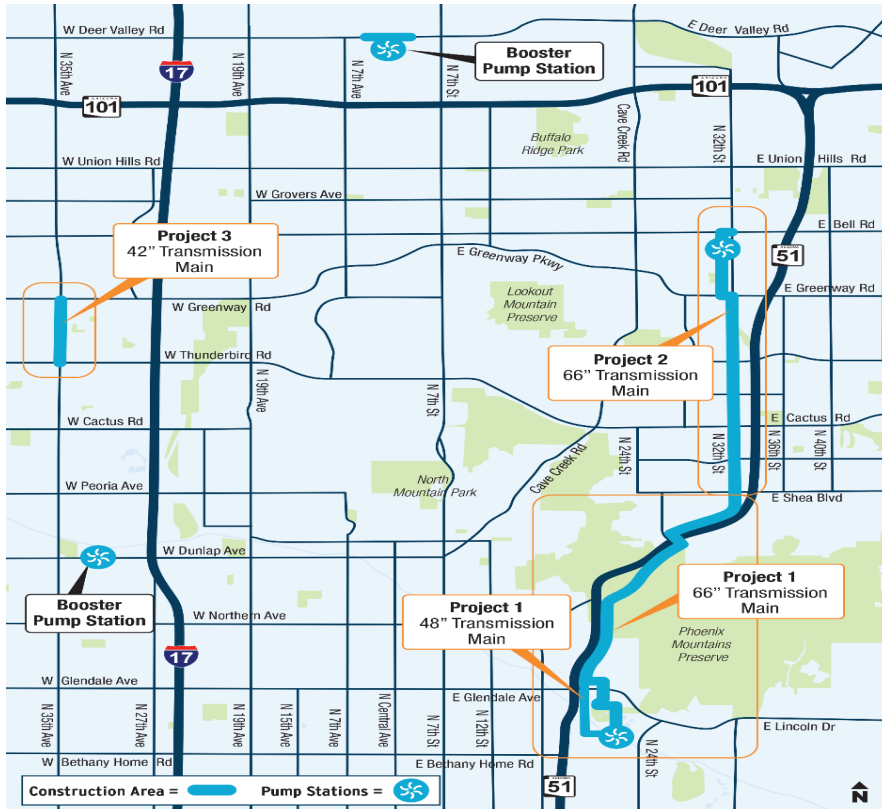
Goal 3:
Increase **outreach** and provide
programs to residents and businesses
to reduce water use.

Goal 4:
Reduce **GHG emissions** from water
and wastewater treatment by
capturing biogas from treatment
processes and increasing **renewable**
sources of energy.

Water - Quickstart Action Example



- Complete construction of Drought Pipeline Project by 2025.



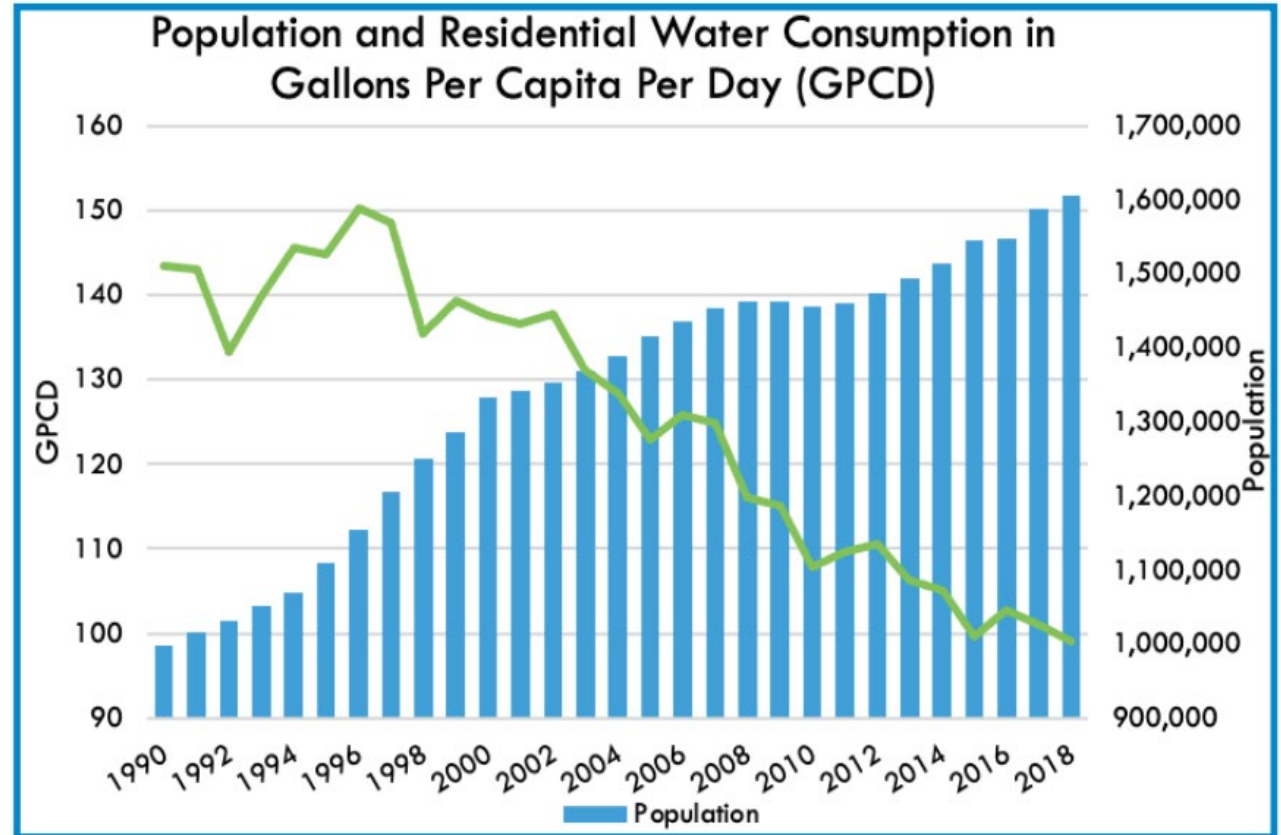
[phoenix.gov/waterservices/droughtpipeline](https://www.phoenix.gov/waterservices/droughtpipeline)

Water - Key Achievement



PHX WATER SMART

- Leads water conservation efforts
- Distributes tap water to 1.7 million customers
- Wastewater treatment for 2.5 million residents in 5 valley cities



Water - Ongoing Efforts



- Phoenix Water received a WaterSmart Marketing Grant from the U.S. Bureau of Reclamation to develop the Central Arizona Water Clearinghouse – a transactional discovery tool for all water users in Central Arizona to collaborate on ways to share resources and infrastructure to optimize efficiency of available water supplies
- Phoenix Water continues to collaborate with other parties to improve its water supply portfolio through opportunities to augment supplies
- Phoenix Water continues to study demand management trends to guide targeted water conservation efforts



Presentations

Water



Heat



Energy

**Michael
Hammett**

Communications
Office

Interim Deputy
Communications

Heat Goals



2050 Goal:



Everyone within a
**5-Minute
Walk**
of a park or pathway



25%
Tree and
shade canopy

Goal 1:

Create a **network of cool corridors** in vulnerable communities to facilitate movement from residents' homes to their places of employment, education and play.

Goal 2:

Increase **shade** provided by trees or constructed shade in parks, streets and right-of-way.

Goal 3:

Provide **resources and services** to residents to manage heat.

Goal 4:

Increase the use of high albedo, or **reflective, materials** in infrastructure projects.

Goal 5:

Develop **HeatReady** certification for cities.

Heat – Quickstart Example



- Increase outreach about resources and services to residents to manage heat.



- Comprehensive program providing heat- and water-related information.
- phoenix.gov/summer



Heat – Key Achievement



Heat Respite Center

- Human Services led the efforts for and coordinated with multiple City departments to create a Heat Respite Center at the Phoenix Convention Center.
- The hours of operation were 9:00 a.m. to 7:00 p.m., seven days a week and was staffed by City employees.
- Several providers were on site for case management, medical evaluations, HIV/Hepatitis C testing, and flu shots.



Heat – Key Achievement



Heat Respite Center

- Computer stations with internet access were available for guests to conduct employment and housing searches.
- St. Vincent de Paul was contracted to provide lunch and dinner daily.
- From May 29 through September 30, over 27,000 guests utilized the Heat Respite Center.





Presentations

Water



Heat



Energy

Mark Hartman

Office of
Sustainability

Chief
Sustainability
Officer

Stationary Energy Goals



2050 Goal:



New buildings are
Net Positive
in energy & materials



15
vibrant compact
complete centers

Goal 1

Add 50 MW **Solar** by
2030

Goal 2

Reduce energy use
25% by 2025

Goal 3

Secure 200MW of
renewable energy to
offset electricity use in
City Operations.

Goal 4

Three new
**conservation and
renewable-energy
programs** by 2025.

Goal 5

Promote development
of **microgrids**

Goal 6

**Net-Positive
Buildings** by 2050

Goal 7

**Net-zero electrical
grid** by 2050

Stationary Energy – Quickstart Example



- Install solar at city housing sites for a total of 872 kW by 2021.

Osborn



Fillmore Gardens



Stationary Energy – Key Achievement



Solar on 48 City Properties



**Rental Car Center Solar
Installation: 4.2 Mega-watts**



Burton Barr Library: 148 KW



**Lake Pleasant Water
Treatment Plant – 7.5 MW**

Breakout Sessions



- Please mute your device when you are not speaking.
- Please be respectful and courteous to other participants.



Quickstart Actions, Ideas, Solutions

Water

Heat

Energy

Next Steps



Public Engagement
Virtual Workshops & Topic-Driven Surveys

Spring 2021

Public Comment Period

Through December 31, 2020

Complete C40 Pathways Modeling

Spring 2021

Draft Plan Completed

Spring 2021

Plan Public Comment Period

Summer 2021

**Final Plan to TII Subcommittee &
Council**

Fall 2021

Comments & Questions



Climate Action Plan Framework

www.phoenix.gov/oep/climate

Public can submit questions to:

climate@phoenix.gov

Thank you