APPROVED 3/20/2024

SUMMARIZED MEETING MINUTES
City of Scottsdale
Scottsdale Environmental Advisory Commission (SEAC)
***Special* Meeting**

5:30 p.m. Wednesday, January 31, 2024
Community Development Conference Rooms
One Civic Center, 7447 E. Indian School Road, Scottsdale, 85251

Call to Order 5:35 P.M.

PRESENT: Chair Ute Brady, Vice Chair Andrew Scheck (virtually); Commission Members: Natalie Chrisman Lazarr (virtually), Tony Coletta, Walter Cuculic (virtually and in-person; arrived at 5:40 p.m.), Ryan Johnson, Alisa McMahon

ABSENT: None

STAFF PRESENT: Lisa McNeilly, Sustainability Director; Cindi Eberhardt, Planning & Development Area Director; Bri Laneuville Khan, Communications & Outreach Coordinator; Dave Bennett and Gina Azima, Scottsdale Solid Waste Services (virtually).

PUBLIC COMMENT: There was one public comment on litter in the Greenbelt.

1) **Scottsdale Community Sustainability Plan**
Lisa McNeilly, Sustainability Director, discussed the draft text of the Sustainability Plan ("Plan") for the remaining three chapters: Energy, Extreme Heat, and Waste which was attached to the meeting agenda packet and shared with Commissioners on January 26. Commissioners addressed questions they had related to targets and indicators included in the Waste section of the Plan with Dave Bennett, Scottsdale Solid Waste Services, and provided suggestions related to the city's proposed Waste targets and indicators. The discussion continued to possible data sources and targets in the Heat section, including distinguishing between air and surface temperatures. Commissioners provided further suggestions and input on all three chapters for staff's consideration and were encouraged to share any additional input or specific text for inclusion in the draft plan with Ms. McNeilly. Ms. McNeilly advised that feedback received will be evaluated and reviewed with staff for possible incorporation in the next version of the draft Plan.

The Commission held further discussion and a vote for recommendation at the February 21, 2024 meeting.

Adjournment 8:47 p.m.

Persons with a disability may request a reasonable accommodation by contacting the Office of Environmental Initiatives at 480-312-2831. Requests should be made 24 hours in advance, or as early as possible, to allow time to arrange the accommodation. For TTY users, the Arizona Relay Service (1-800-367-8939) may contact the Office of Environmental Initiatives at 480-312-2831.

Scottsdale Community Sustainability Plan

SEAC – January 31, 2024

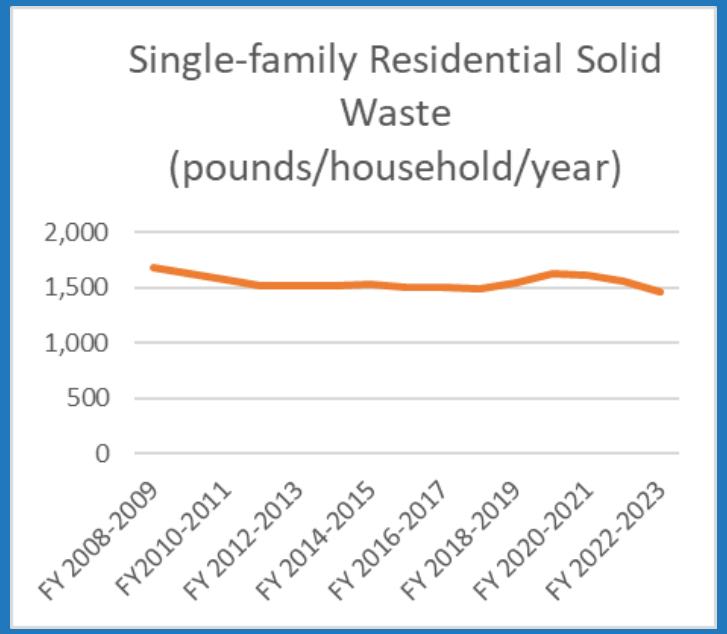
WATER	
Residential Use	Reduce residential water use (gallons per capita per day) to 170 by 2033
Municipal Use	Reduce municipal potable water use by an additional 5% relative to 2022 by 2027
HOA Irrigation Use	Reduce irrigation water use for HOA properties by 10% from 2022 levels by 2033
Commercial Use	Reduce commercial water use by 10% from 2022 levels by 2033
Golf Course Use	<direction at a later date>
Return Flow	Increase return flow percentage by 10% by 2033, capturing indoor/outdoor efficiency for both residential and commercial customers
Banking	Maximize annual water banking
Groundwater Treatment	Maintain treated groundwater deliveries to Safe Yield levels

AIR QUALITY	
Unhealthy Air Days	Reduce unhealthy air days in Scottsdale by 2030
Health-Related	<no consensus>
Municipal Fleet Fuel Use	Reduce municipal fleet fuel use by 10% from 2023 levels by 2030 & 40% by 2050
Electric Vehicle Charging Ports	Quadruple number of publicly available charging ports from 2023 levels three years after adoption of plan; add 10x by 2030

SOLID WASTE

SOLID WASTE

In 2022, Scottsdale Solid Waste collected 84,717 tons of waste and recyclables (10% less than in 2009). At the same time, the amount of trash discarded per household is down almost 13% to under 1,500 pounds.



INDICATOR

Total solid waste collected (landfill + recycling + composting)
(2022-2023 = 84,717 tons for single-family residents (landfill + recycling); 20,263 (brush & bulk))

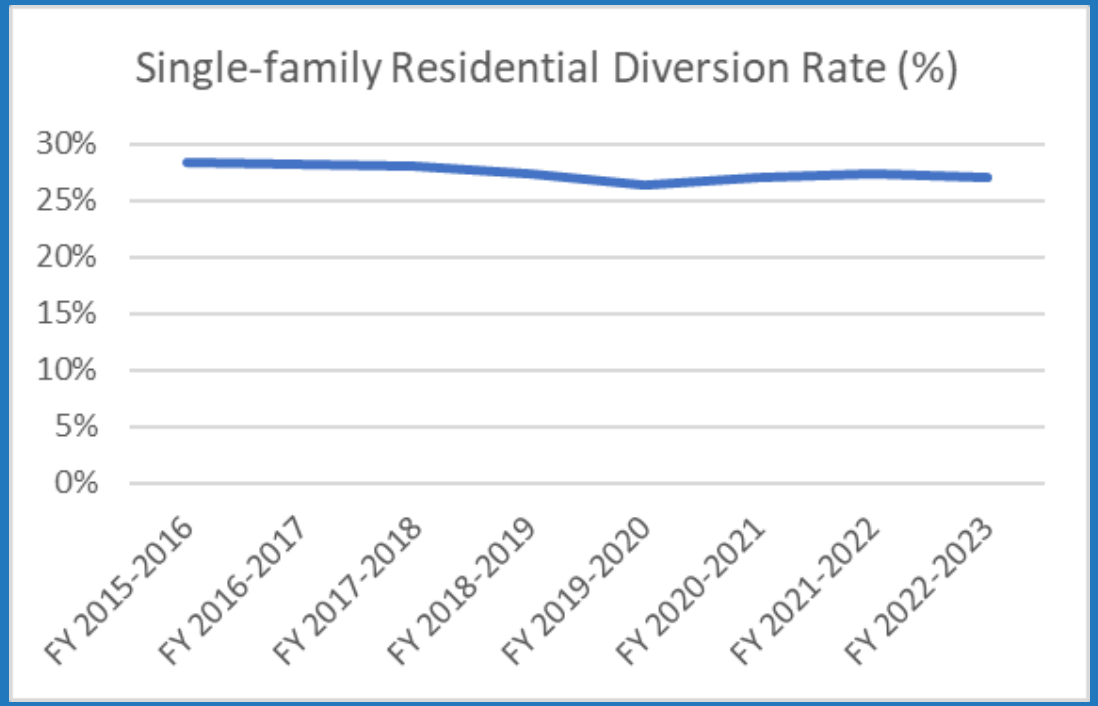
INDICATOR

Landfill waste per household (single-family residents only)

(2022-2023 = 1,465 pounds)

SOLID WASTE

In fiscal year 2022/23 Scottsdale diverted 27% of the material by weight from disposal in the landfill through recycling, a rate that has held steady for several years.



INDICATOR

Overall diversion rate (2022-2023 = 27% for single-family residents)

SOLID WASTE

INDICATOR

Total municipal waste collected (landfill + recycling + composting) (tons) (TBD)

INDICATOR

Total amount of waste composted (tons) (TBD)

INDICATOR

Recycling contamination rate (2019 = 14%)

WASTE: Develop a circular economy approach for materials management and effective citywide diversion of all waste streams
Possible Targets
Total Waste
Reduce landfill waste per single family household by 25% from 2022 levels by 2030 and reduce total waste by 90% by 2050
Increase composted waste to 10,000 tons by 2030
Reduce municipal waste collected in 5 buildings by 25% from 2020 levels by 2030 and by 90% in all buildings by 2045
Diversion Rate
Achieve a 33% diversion rate (single-family residents only) by 2030 and a 90% diversion rate (city-wide) by 2050 Higher target (multiple)
Achieve a 33% diversion rate for 8 municipal buildings by 2030 and a 90% rate for all buildings by 2045
Ensure 40% of Scottsdale Solid Waste commercial accounts recycle by 2030 (McMahon)
Contamination Rate
Maintain a recycling contamination rate below 15% Lower contamination rate (Cuculic)

SCOTTSDALE SUSTAINABILITY PLAN TARGET/STRATEGY/ACTION REVIEW MATRIX: WASTE PRIORITY (1/31/2024)

Note: Actions will be shortened in final version (for this table only); they will also be listed separately as written below.

IMPLEMENTATION: WASTE				
ACTION	**TIME HORIZON**	**LEAD AGENCY(IES) & PARTNERS**	**COSTS**	**BENEFITS**
Waste 1 Increase diversion rates for material streams				
1.1 Encourage addition of recycling infrastructure in commercial and multi-family housing	1-3 years	Lead: OEI Partners: Developers	$-$$$	Less waste Municipal savings
1.2 Support code requirements for a 50% diversion rate of construction and demolition waste for commercial projects	*Quick win*	Lead: OEI Partners: Developers	$	Less waste Municipal savings
1.3 Promote commercial and multi-family recycling	1-3 years	Lead: Solid Waste Partners: Businesses, residents	$-$$	Less waste Municipal savings
1.4 Work to make city-sponsored events zero waste	*Quick win*	Lead: Solid Waste Partners: Parks & Recreation, Tourism, Stadium, Scottsdale Arts, attendees	$-$$	Less waste
1.5 Develop a green event program and update guide for event planners	On-going	Lead: Solid Waste Partners: Event planners	$	Less waste
1.6 Host an expo with vendors to promote and educate about green event options	1-3 years	Lead: Solid Waste Partners: Event planners, city-owned venues, vendors	$-$$	Less waste
1.7 Investigate ways to encourage private haulers to bring recycling to transfer station	1-3 years	Lead: Solid Waste Partners: Private haulers	$$	Less waste
1.8 Build new transfer station with permanent household hazardous waste installation	1-3 years	Lead: Solid Waste Partners: Capital Projects	$$$+	Less waste Resident convenience
1.9 Conduct waste characterization studies	*Quick win*	Lead: Solid Waste Partners: ASU	$	Less waste Increased composting
1.10 Investigate ways to improve data collection from private haulers and for municipal waste	1-3 years	Lead: Solid Waste Partners: Private haulers	$$	Less waste Municipal savings
Waste 2 Strengthen local markets for recycled content, recyclable and reusable materials				
2.1 Adopt municipal green purchasing policies that prioritize purchasing based on sustainability practices/reduce waste generation	1-3 years	Lead: Purchasing Partners: Solid Waste	$-$$$	Less waste Local jobs
2.2 Attract circular economy companies and entrepreneurs	3-10 years	Lead: Economic Development	$	Less waste Local jobs
2.3 Encourage innovative reuse of materials	1-3 years	Lead: Solid Waste	$	Less waste

		Partners: Residents, businesses		Local jobs
Waste 3 Expand opportunities for diverting organic waste from the landfill				
3.1 Establish a green or organic waste drop-off program	3-10 years	Lead: Solid Waste Partners: Capital Projects	$$$+	Less waste Business savings
3.2 Promote organic waste diversion	*Quick win*	Lead: Solid Waste Partners: Communications	$$	Less methane Local jobs
3.3 Promote composting throughout food industry	1-3 years	Lead: Solid Waste Partners: Restaurants, grocery stores	$-$$	Less methane
Waste 4 Reduce waste generation				
4.1 Promote donation of reusable items through City media channels and education campaigns, prioritizing recovery over landfill disposal	1-3 years	Lead: Solid Waste Partners: Non-profits	$-$$	Less waste
4.2 Expand reuse of surplus municipal goods	1-3 years	Lead: Purchasing Partners: Solid Waste, City departments	$	Less waste Municipal savings
4.3 Educate on the benefits of reusable and compostable packaging and bags	On-going	Lead: Solid Waste Partners: OEI, Communications	$-$$	Less waste Resident savings
4.4 Create program to reuse building materials	3-10 years	Lead: OEI Partners: Developers, construction industry	$$$	Less waste Business savings

(a) Time Horizon (Quick Win, 1-3 yrs, 3-10 yrs, Ongoing)
(b) Lead Agency(ies) & Partners
(c) Costs ($, $$, $$$)
(d) Benefits (TBD)

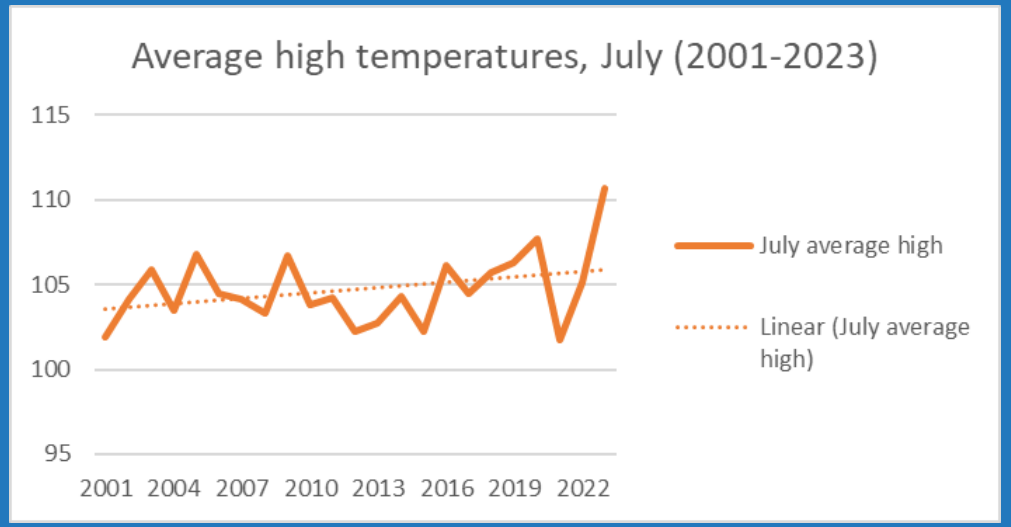
EXTREME HEAT

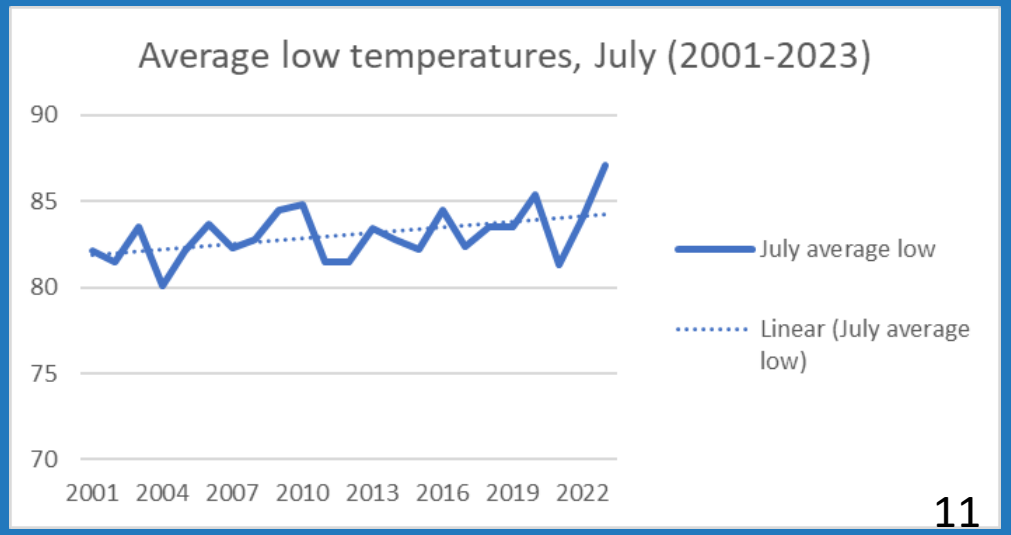
EXTREME HEAT

NOAA records show that Scottsdale is experiencing an upward trend in air temperatures both during the day and at night. This rise can be seen in average summer temperatures as well as the highest temperatures each month.

INDICATOR

Average temperatures, July (2023 = average high = 110.7; average low = 87.1)





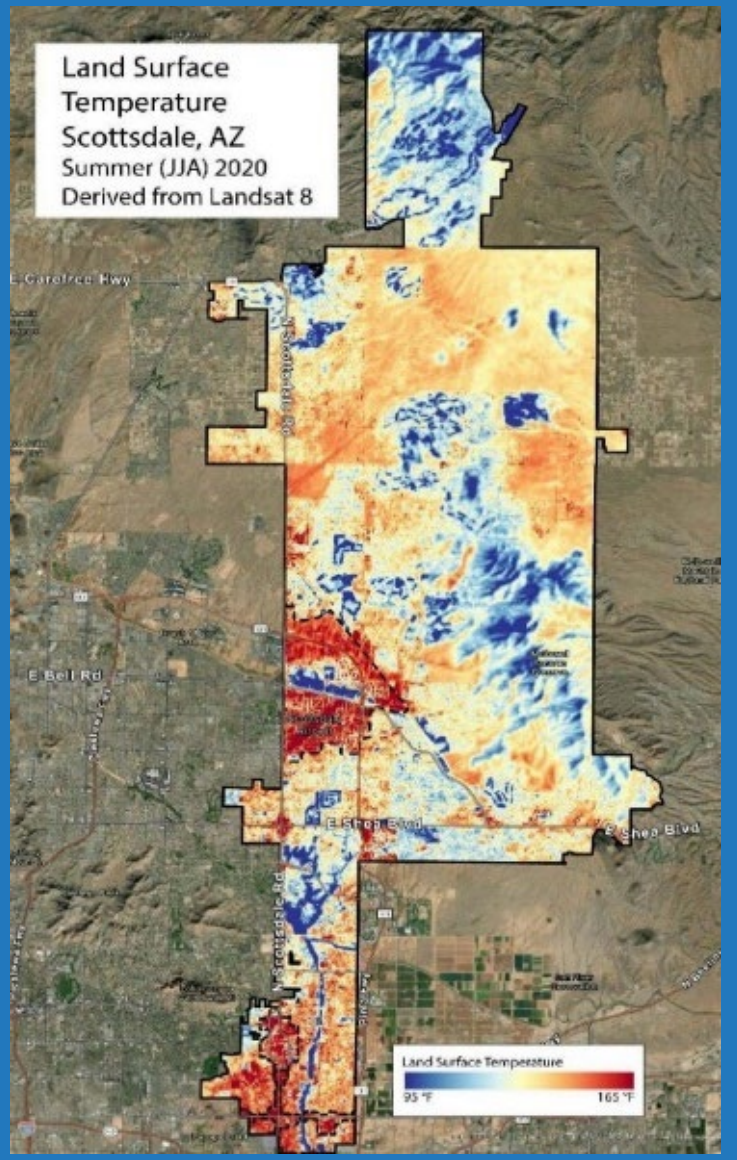
EXTREME HEAT

The number of excessively hot days and nights is also increasing, indicating that the heat season is getting longer. Comparing recent averages (2015-2023) to earlier years (2001-2014), there are now 5-8 additional days each year with extreme heat.

Annual Summarized Data: Scottsdale Airport Weather Station				
		Average (2001-2014)	Average (2015-2023)	Maximum (year observed)
Number of Days 110+		8	16	30 (2023)
Number of Nights 90+		2	7	20 (2023)

EXTREME HEAT

Surface temperatures vary substantially across Scottsdale, ranging between 95.1 and 165.5°F.



Review Matrix: EXTREME HEAT

Heat-related morbidity and mortality in Scottsdale is lower than in other parts of Maricopa County and has varied over time.

(Source: Maricopa County Department of Health)

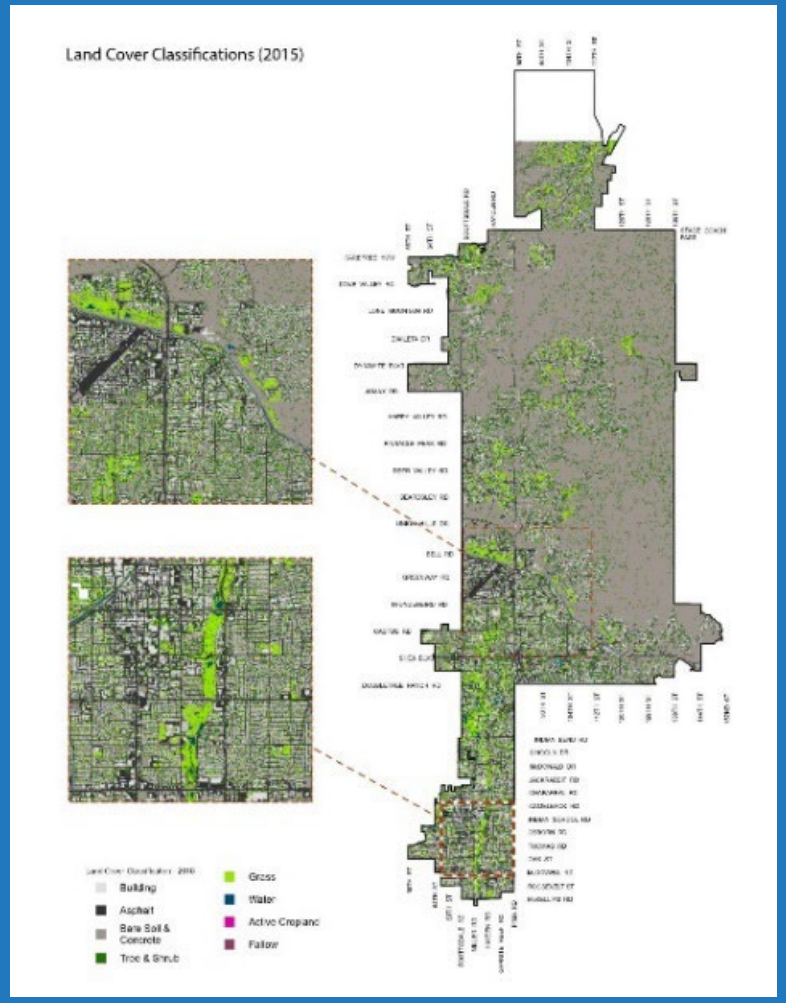
Incidents per 100,000 population					
	2018	2019	2020	2021	2022
Heat Deaths					
Maricopa County Residents	3.24	3.81	6.19	6.05	7.41
Scottsdale Residents	3.66	1.6	3.92	3.14	2.75
Heat Illnesses					
Maricopa County Residents	52.99	52.86	49.45	54.02	67.01
Scottsdale Residents	34.14	38.31	32.16	32.55	39.61

INDICATOR

Heat-related morbidity and mortality, per 100,000 population
(2022 = 2.75 (deaths); 39.61 (illnesses))

Review Matrix: EXTREME HEAT

13% of Scottsdale is covered with trees and shrubs, with other areas being asphalt and buildings (33%) or bare soil and concrete (45%). The amount of green landscape varies across the city, and tree canopy coverage is as low as 6% in south Scottsdale. (Source: Cooler Scottsdale study)



HEAT: Ensure that the community prevents, is prepared for, responds to, and recovers from extreme heat and other natural hazards that diminish quality of life or impact the environment
Possible Targets
Temperatures
Reduce day- and night-time temperatures
Heat-Related Illnesses
Cut hospitalizations for heat-related health events (per 100,000 population) by 25%
Tree Canopy %
Increase percentage of tree & shrub canopy to 15% by 2040

SCOTTSDALE SUSTAINABILITY PLAN TARGET/STRATEGY/ACTION REVIEW MATRIX: HEAT PRIORITY (1/31/2024)

Note: Actions will be shortened in final version (for this table only); they will also be listed separately as written below.

IMPLEMENTATION: HEAT				
ACTION	**TIME HORIZON**	**LEAD AGENCY(IES) & PARTNERS**	**COSTS**	**BENEFITS**
Heat 1 Expand heat relief communication and education				
1.1 Engage employees and residents in creative ways on needed response to heat options, especially in the hottest areas	*Quick win*	Lead: OEI Partners: Residents	$	Health
1.2 Collaborate with regional, statewide, and national governmental and other entities on best practices on heat mitigation engagement strategies.	On-going	Lead: OEI Partners: Other government agencies	$	Health
1.3 Expand communication on locations of cooling and hydration centers in the city	*Quick win*	Lead: Human Services Partners: OEI, Arizona Department of Health Services	$	Health Equity
1.4 Support and expand existing outreach programs like "Beat the Heat"	1-3 years	Lead: Human Services	$-$$$	Health Equity
Heat 2 Protect people from the health effects of extreme heat				
2.1 Expand response strategies for extreme heat and increase the number of cooling centers and explore the value of pop-up cooling stations	3-10 years	Lead: Human Services Partners: OEI	$$-$$$	Health Equity
2.2 Seek grant or other funding for supplies for cooling centers and expanded efforts by Human Services to assist those most vulnerable to heat	1-3 years	Lead: Human Services Partners: OEI	$-$$$	Health Equity
2.3 Seek additional funding for weatherization, green rehab and air conditioner repair/replacement programs for low-income households	3-10 years	Lead: Human Services Partners: OEI	$$$	Health Cost savings
2.4 Develop partnerships with local utilities for weatherization and tree planting programs	1-3 years	Lead: OEI Partners: Utilities	$	Health Cost savings
2.5 Create Resiliency Hubs for neighborhoods with higher populations of seniors and lower income residents, starting with Vista del Camino and the Granite Reef Senior Center	3-10 years	Lead: OEI Partners: Human Services	$$$	Health Equity
2.6 Develop a more robust and detailed plan for large scale heat disaster response including power grid failure	3-10 years	Lead: Emergency Management	$	Safety
2.7 Review municipal guidelines for heat protection for employees	1-3 years	Lead: OEI Partners: Facilities, Parks & Recreation	$	Health
Heat 3 Identify urban design improvements including structured shade and built environment				
3.1 Support private and public strategies to reduce the area of exposed dark asphalt, dark roofs and other hot surfaces	1-3 years	Lead: OEI	$	Health

		Partners: Planning and Development, developers, residents		
3.2 Support code requirements for cool roofs and sidewalks for all new flat roof buildings and promote other cool infrastructure technologies and options	On-going	Lead: Planning and Development Partners: Developers	$	Health
3.3 Promote shading for site hardscape on commercial and multifamily developments	1-3 years	Lead: Planning and Development Partners: Scottsdale Water, developers, businesses	$-$$$	Health
3.4 Identify areas most impacted by the heat island effect and prioritize mitigation for these areas to reduce heat impacts	On-going	Lead: OEI	$	Health
3.5 Coordinate heat and shade work with other active plans such as the Oldtown Character Area Plan	On-going	Leads: OEI/Planning and Development	$	Health
Heat 4 Plant more trees and implement other nature-based solutions				
4.1 Increase tree canopy and building-integrated and free-standing shade structures through a Shade and Tree Plan; study the value of shade on a return-on-investment basis and balance benefits of natural shade and water usage	3-10 years	Lead: OEI Partners: Multiple city departments	$$$	Health Air quality
4.2 Inventory Scottsdale's trees and encourage use of desert-adapted trees to support heat reduction and water conservation strategies	On-going	Leads: OEI/Parks & Recreation	$$$	Health Air quality
4.3 Investigate an urban forestry program to balance shade and water use and to ensure trees are maintained (including in city parks)	1-3 years	Lead: Parks & Recreation	$$$	Health Air quality
4.4 Study options to improve proper tree maintenance and replacement near commercial and multifamily buildings	On-going	Lead: Parks & Recreation Partners: OEI, Planning and Development	$-$$$	Health Air quality
4.5 Partner with non-profits, volunteers, and businesses to plant more trees especially in underserved or older neighborhoods and in areas of high pedestrian activity; evaluate a 'matching tree' initiative	On-going	Lead: Parks & Recreation Partners: OEI, Planning and Development	$-$$$	Health Air quality

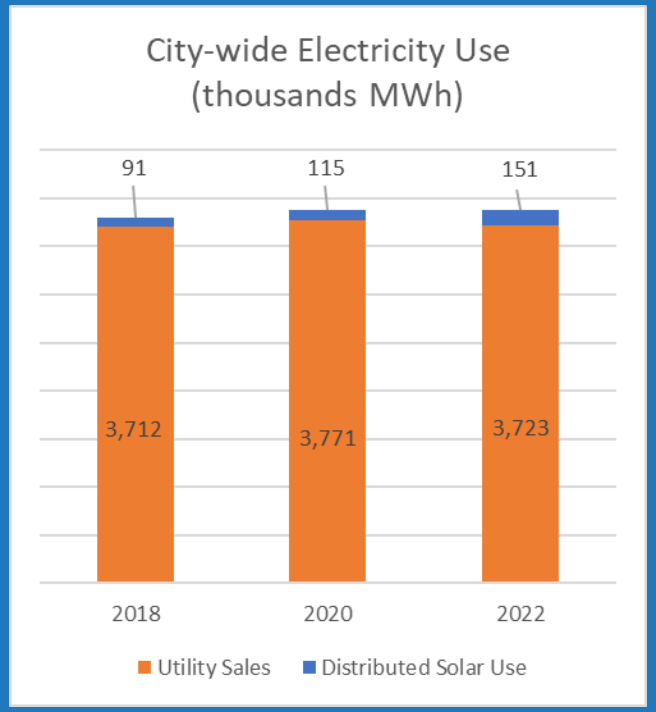
ENERGY

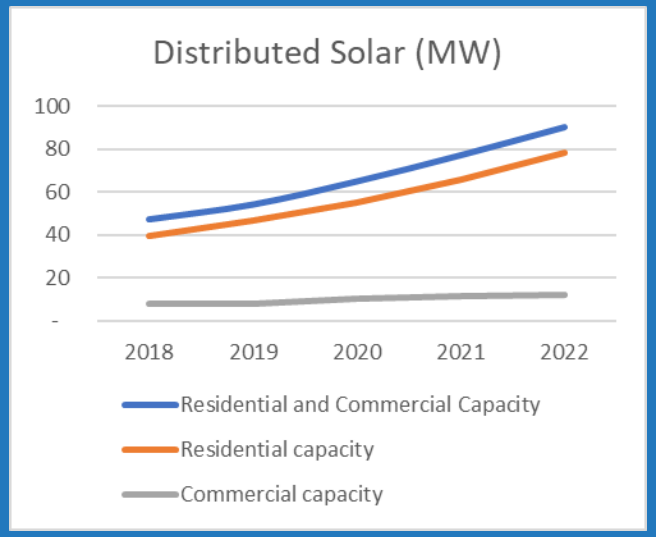
ENERGY

- City-wide, electricity purchased from utilities has remained constant since 2018, but would have been 4% higher without the solar installations on houses and businesses.
- The amount of solar energy installed on homes and businesses has almost doubled since 2018 (up 90%) driven mostly by the residential sector.

INDICATOR
City-wide electricity use
(2022 = 3,874,290 megawatt hours)

INDICATOR
Distributed solar installed
(2022 = 90.1 megawatts;
350 kilowatts municipal)





ENERGY

- Municipal electricity use dropped slightly driven by energy efficiency improvements and increased numbers of staff working from home.
- Municipal natural gas use rose by 27%, while natural gas city-wide use rose slightly (up 2.6%).

INDICATOR
Municipal electricity use
(2022 = 280,021 megawatt hours)

INDICATOR
Municipal natural gas use
(2022 = 625,185 therms)

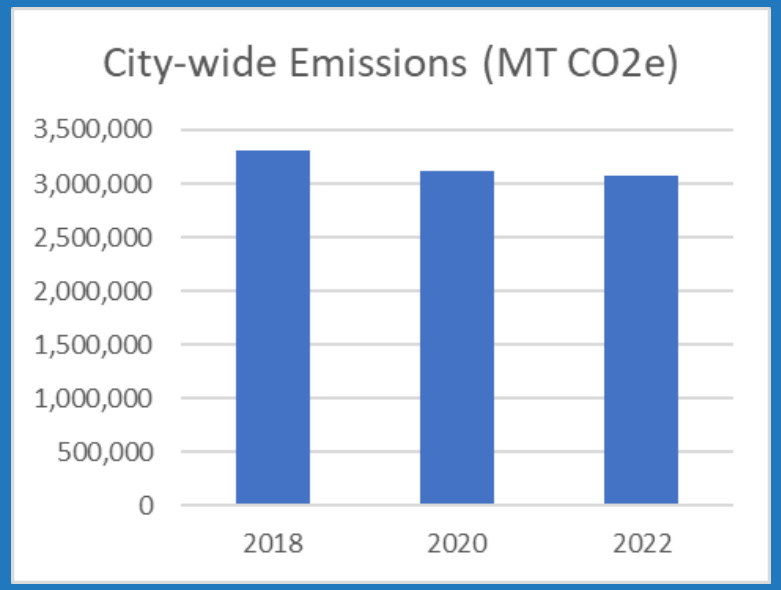
INDICATOR
City-wide natural gas use
(2022 = 49,779,824 therms)

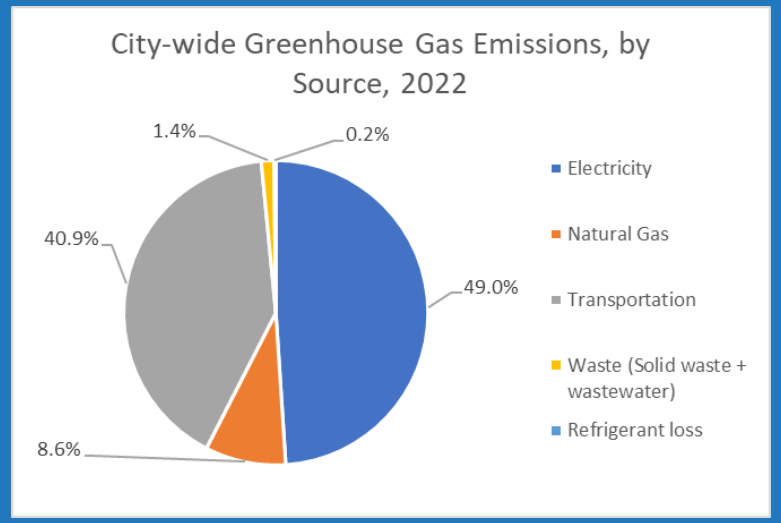
ENERGY

- Between 2018 and 2022, city-wide greenhouse gas emissions decreased by 7% to 3,078,925 MT CO_2e.
- The majority of these emissions were the result of electricity use (49%), with transportation (41%) also being an important contributor

INDICATOR

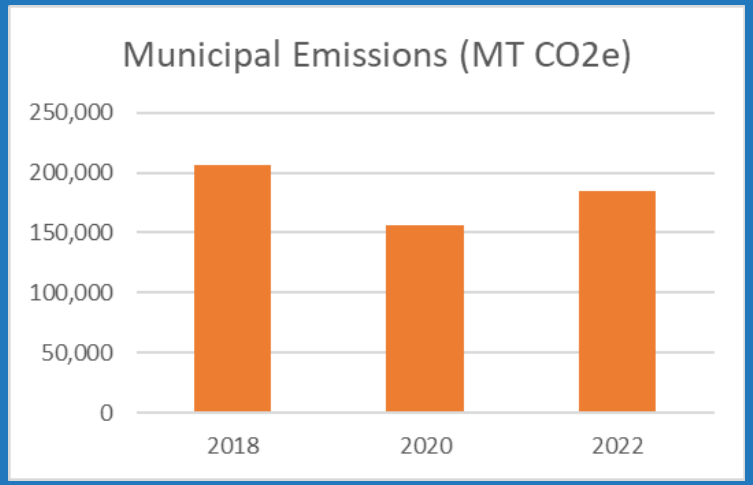
City-wide greenhouse gas emissions (2022 = 3,078,925 metric tons CO_2 equivalent)





ENERGY

- Greenhouse gas emissions from Scottsdale's municipal operations decreased roughly 10% to 184,299 MT CO_2e (or 6% of the city-wide total).
- Because the city's emissions are mostly driven by electricity use in buildings (61%), 2020 emissions were markedly lower during pandemic-related shutdowns. Waste-related emissions (23%) play a larger role than city-wide, due to municipal collection of residential waste and treatment of water.

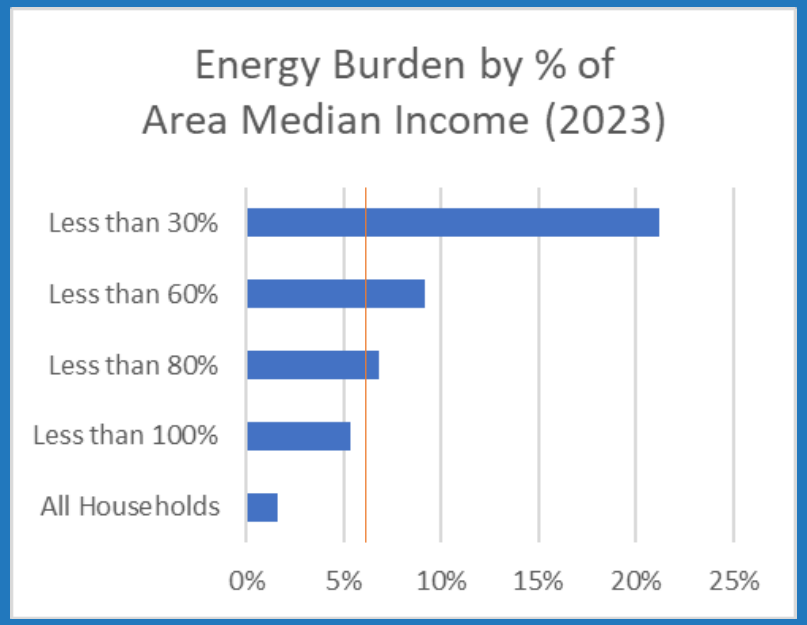


INDICATOR

Municipal greenhouse gas emissions
(2022 = 184,299 metric tons CO_2 equivalent)

ENERGY

.The average energy burden -- calculated as the percentage of household income spent on energy -- for all households in Scottsdale is 2%. However, households making 80% or less than the area median income (AMI) have an average energy burden above 6%, with that number rising to 21% for households below 30% of the AMI. (Source: DOE LEAD Tool; data accessed August 2023).

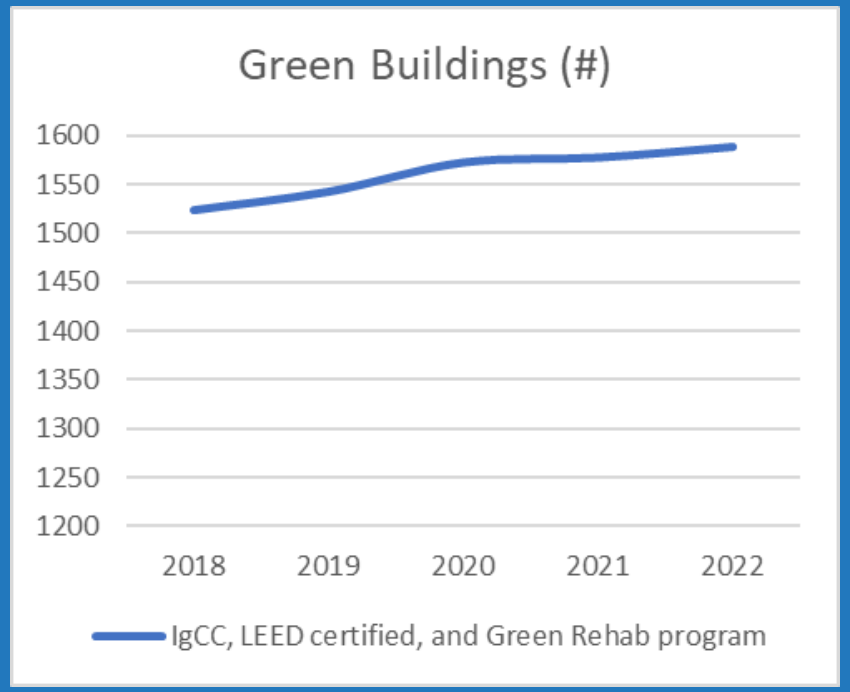


INDICATOR

Average energy burden by income bracket (2022 = 21% for households below 30% of area median income)

ENERGY

The number of green buildings – that comply with IgCC, LEED or Green Rehab guidelines – has been steadily increasing and is expected to rise more quickly with the adoption of mandatory green construction codes. Currently, just under 2% of all buildings have met a green building standard.



INDICATOR

Number of green buildings
(2022 = 1,588 out of 96,703)

ENERGY: Maximize the use of renewable energy resources, energy efficiency, and responses to climate challenges
Possible Targets
Energy Use
Citywide: Reduce electricity use by 15% by 2035 (relative to 2022) Citywide: Reduce electricity use by 25-30% by 2035 (Scheck)
Municipal: Reduce electricity use by 10% by 2035 (relative to 2022) Municipal: Higher target (McMahon)
Solar Energy
Citywide: Increase installations of solar energy to 180 MW by 2030 and to 500 MW by 2040 Citywide: Increase installations of solar energy to 180 MW by 2028 (Bosse)
Greenhouse gases
Citywide: Reduce greenhouse gas emissions (relative to 2022) by 40% by 2035 and 90% by 2050
Municipal: Reduce greenhouse gas emissions (relative to 2022) by 40% by 2035 and 90% by 2050 More ambitious (multiple)
Energy Burden
Reduce the average energy burden to 6% or less for all households
Green Buildings
Increase the percentage of green buildings to 10% by 2035

SCOTTSDALE SUSTAINABILITY PLAN TARGET/STRATEGY/ACTION REVIEW MATRIX: ENERGY PRIORITY (1/31/2024)

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IMPLEMENTATION: ENERGY				
ACTION	**TIME HORIZON**	**LEAD AGENCY(IES) & PARTNERS**	**COSTS**	**BENEFITS**
Energy 1 Reduce energy use and greenhouse gas emissions				
1.1 Promote energy efficiency improvements for existing residential and commercial properties especially for lower income households and educate property owners on utility and other incentives	*Quick win*	Lead: OEI Partners: Utilities, residents, businesses	$	Cost savings Lower emissions Lower energy burden
1.2 Develop guidance on ways to reduce utility bills	1-3 years	Lead: OEI Partners: Utilities, residents, businesses	$	Cost savings Lower emissions Lower energy burden
1.3 Provide education for homeowners about solar financing options	1-3 years	Lead: OEI	$	Cost savings Lower emissions
1.4 Consider free solar permits for residential installations	1-3 years	Lead: OEI, Plan Review	$	Cost savings Lower emissions
1.5 Join EPA Green Power Partnership	1-3 years	Lead: OEI	$	Lower emissions
1.6 Increase participation in state weatherization program.	1-3 years	Lead: Community Services Partners: OEI, State of Arizona, residents	$-$$$	Cost savings Local jobs Lower energy burden
1.7 Update greenhouse gas inventory at least every three years and expand to include refrigerant emissions; estimate impact of strategies and actions on emission	3-10 years	Lead: OEI	$$	Lower emissions
1.8 Publicly report on greenhouse gas emissions and reduction strategies	1-3 years	Lead: OEI	$	Lower emissions
1.9 Educate the public on the impacts of climate change and mitigation strategies	*Quick win*	Lead: OEI Partners: Residents, businesses	$	Lower emissions
1.10 Increase awareness of 811 and other ways to reduce accidental leaks or releases from gas lines	1-3 years	Lead: OEI	$	Lower emissions
Energy 2 Improve municipal energy performance				
2.1 Employ a citywide energy management system and track city energy use	3-10 years	Lead: Facilities	$$-$$$	Municipal savings Lower emissions
2.2 Increase the number of large city-owned buildings connected to the energy management systems				
2.3 Conduct energy audits and assessments for all municipal buildings	1-3 years	Lead: Facilities	$$-$$$	Municipal savings

				Lower emissions
2.4 Continue to convert streetlight systems, park lighting and other civic lighting to LED technology	On-going	Lead: Facilities, Transportation & Streets	$$-$$$	Municipal savings Lower emissions
2.5 Dedicate staff resources to managing energy programs	3-10 years	Lead: Facilities	$$	Municipal savings Lower emissions
2.6 Develop a master plan for solar development on city-owned properties	3-10 years	Lead: Facilities	$$-$$$	Municipal savings Lower emissions
2.7 Share information on savings achieved through municipal solar installations	1-3 years	Lead: Facilities	$	Municipal savings Lower emissions
2.8 Evaluate joining utility green power programs, establishing city-utility partnership agreements and/or the use of microgrids	1-3 years	Lead: OEI Partners: Utilities	$	Municipal savings Lower emissions
2.9 Continue to participate in utility demand response programs; identify other opportunities to contribute to grid needs	On-going	Lead: Facilities, Water	$	Municipal savings Lower emissions
2.10 Investigate ways to develop battery or other storage capacity	3-10 years	Lead: Facilities, OEI	$$-$$$	Municipal savings Lower emissions
Energy 3 Reduce energy impacts of the built environment through sustainable building practices and policies				
3.1 Adopt and implement energy and green construction codes that advance efficient construction practices to address affordability and regional characteristics	3-10 years	Lead: OEI, Plan Review	$	Cost savings Local jobs
3.2 Support code requirements for new residential construction to install solar systems or be 'solar ready'	3-10 years	Lead: OEI, Plan Review	$	Cost savings Local jobs
3.3 Strengthen enforcement of all building codes	On-going	Lead: OEI, Plan Review	$	Cost savings Lower emissions
3.4 Encourage installation of solar panels when a new roof or deep retrofit occurs	3-10 years	Lead: OEI, Plan Review	$	Cost savings Local jobs
3.5 Continue LEED Gold requirement for new civic structures	On-going	Lead: OEI, Capital Projects	$$-$$$	Cost savings Local jobs