Scottsdale Sustainability Plan

"Sustainability is a condition of living that enables the present generation to enjoy social well-being, a vibrant economy, and a healthy environment, without compromising the ability of future generations to enjoy the same." (Scottsdale General Plan 2035, page 280)

DRAFT

CITY OF
SCOTTSDALE

Sustainability for Scottsdale's Present and Future

Scottsdale is a special place known for unparalleled leisure, amenities, and a reputation for livability. The diversity and natural beauty of Scottsdale's landscapes are among its defining features, and the city has consistently championed environmental stewardship while maintaining high quality of life for residents, visitors, and businesses. Residents overwhelmingly say that the "overall quality of natural environment in Scottsdale" is essential or very important .

In recent years, many cities around the United States and the world have committed to being smart, resilient, and sustainable. Scottsdale's journey goes back decades, including a guiding principle to "Seek Sustainability" from the 1996 CityShape 2020. More recently, the city's leadership is seen in the Scottsdale General Plan 2035 (General Plan), which identifies five core elements of sustainability and the environment –Open Space, Environmental Planning, Conservation, Water Resources, and Energy. By adopting this Sustainability Plan 2022 (Plan), Scottsdale returns to an influential role in urban sustainability by embracing a proactive and comprehensive approach to achieving ambitious targets.

Sustainability represents more than environmental conservation, integrating social, environmental, and economic considerations to allow all to thrive. This more expansive view of sustainability encompasses factors such as health, walkability of urban spaces, access to open and natural spaces, and inclusive, shared community resources. Rather than conflicting with growth, thoughtful and fiscally-sound sustainability planning enables expansion while enhancing the quality of life for current residents and future generations.

The goals of environmental stewardship, economic vitality, and equity are interconnected yet achievable. Scottsdale has demonstrated numerous times that it can find innovative and balanced solutions when others see competing objectives, and the city recommits to equally considering all three elements of sustainability in planning and decision-making.

This community-wide Sustainability Plan builds on Scottsdale's legacy of effective, resident-centered governance and sound economic management. The plan preserves and improves what is already in place and seeks to 'fill in' system gaps, identifying areas where more needs to be done and where new and cost-effective approaches are needed. It provides a common framework to improve the quality of life for all residents, to preserve our Sonoran Desert environment, and to fulfill our responsibility to future generations.

The Plan is fundamentally a roadmap for policy and implementation. Together with existing plans and programs, it is designed to reflect the values of the City and chart a course for the next ten years. Early work will include crafting Heat Mitigation and Net Zero Strategic Energy plans, increasing the number of green events, and adding more trees and shade.

[1] *The National Community Survey: Scottsdale, AZ Trends Over Time 2020, Table 14; "essential" or "very important" responses = 89% in 2020. Accessed on 8/16/2022: tinyurl.com/4cae9chs*

How The Plan Was Developed

The City of Scottsdale initiated work to develop the Sustainability Plan in June 2021 and engaged the Rob and Melani Walton Sustainability Solution Service as a partner in this effort. ASU provided expert guidance and assistance in translating priorities into sustainability pathways and actions. ASU researchers assessed Scottsdale's progress in sustainability to date through interviews with city personnel and surveyed best practices to identify potential approaches and frameworks best suited to Scottsdale's needs.

The plan development process was just as important as the content, so after documenting current progress we reached out to staff, residents, and other stakeholders. Throughout 2022, the City of Scottsdale sought input and feedback from the community through workshops and regular meetings with the Scottsdale Environmental Advisory Commission (SEAC). To obtain perspectives from multiple stakeholder groups, presentations were made to other resident commissions and boards as part of the broader public input process. In addition, staff and other subject matter experts provided guidance and ideas.

The workshops helped record priorities, with participants sharing possible actions and their preferences for key strategies. The most commonly shared proposals addressed open space and trees, renewable energy and energy efficiency, water shortages, waste reduction, economic development, and heat mitigation. Other priorities included increasing active mobility options and electric vehicles, offering composting and other waste diversion tools, creating heat resilience centers, attracting green businesses, and increasing affordable housing.

Scottsdale Sustainability Framework

Scottsdale's Sustainability Plan 2022 addresses the three dimensions of sustainability, identifying five thematic **Pathways** based on a modified version of the framework developed by the International Council for Local Environmental Initiatives (ICLEI).

Fifteen **Topics**, partly drawn from the General Plan elements, reflect traditional sustainability topics as well areas where the city is adding sustainability connections to existing work. The strategies and actions for each topic will look beyond what the city is doing where there are existing plans or programs and provide policy direction where efforts are newer or are now more urgent. The structure facilitates collaboration and reinforces the connections between the topics.

The framework supports the protection of the Sonoran desert ecosystem in rural and urban areas. It also directs actions toward supporting and attracting residents and visitors, providing economic benefits, and ensuring a high quality of life.

Sustainability Pathways & Topics

Low Emissions & Climate Action: Reduces greenhouse gas and other environmentally harmful air emissions
• *Climate Planning* • *Energy* • *Mobility* • *Air Quality*

Nature-Based: Protects and enhances our city and natural environment by conserving resources, balancing land use and open space
• *Water Resources* • *Open Space & Land Management*

Equitable Community: Builds just, livable, and thriving communities reflecting the character of Scottsdale
• *Community Services* • *Character & Arts* • *Economic Vitality* • *Education & Lifelong Learning*

Resiliency: Anticipates and responds to shocks and stressors, preparing for new risks and impacts
• *Extreme Heat & Hazard Preparedness* • *Built Environment & Housing* • *Smart City*

Circular Systems: Supports models of production and consumption that support reducing, recycling, repairing, and repurposing products and materials
• *Waste as a Resource* • *Food Systems*

How To Read The Plan

For each topic, there are multiple elements outlining the planned work toward a more sustainable future. A success statement gives a clear vision of success for each topic. In Scottsdale sections discuss why each topic is important, highlight existing works, and share the starting points for success. Key strategies and actions will define the work to be done over the next few years. Building on data collected from 1998-2005, clearly defined sustainability indicators will help inform future data-driven work and the list of related actions makes connections between topics.

The City of Scottsdale is committed to implementing this Plan with robust participation from residents, businesses, and non-governmental organizations. Elected leaders and city officials cannot do this alone. Achieving sustainability for Scottsdale requires a common vision of the future and engagement from the whole community to address and prioritize effective solutions. When reading this Plan, consider what perspectives, knowledge, and community connections can help achieve these goals.

Sustainability Overlaps Across Topics

The following table shows the substantial overlaps and interconnections across topics:

	Climate Planning	Energy	Mobility	Air Quality	Water Resources	Open Space & Land Management	Community Services	Charcter & Arts	Economic Viability	Education and Lifelong Learning	Extreme Heat & Hazard Preparedness	Built Environment & Housing	Smart City	Waste as a Resource	Food System
Low Emissions & Climate Action															
Climate Planning		X	X	X		X			X		X	X			
Energy	X		X					X			X	X	X	X	
Mobility	X	X		X		X					X	X	X		
Air Quality	X	X	X			X						X			
Nature Based															
Open Space & Land Management	X		X	X	X			X			X	X			X
Water Resources					X				X	X	X	X			
Equitable Community															
Community Services									X	X	X				X
Charcter & Arts		X			X	X				X		X	X		X
Economic Viability	X						X								X
Education and Lifelong Learning	X			X			X				X			X	X
Resiliency															
Extreme Heat & Hazard Preparedness	X	X			X	X	X		X			X			
Built Environment & Housing	X	X	X					X			X			X	
Smart City		X	X									X			
Circular															
Waste as a Resource		X						X	X	X		X			X
Food System						X	X		X	X				X	

Synergy with Existing Plans and Efforts

The City of Scottsdale has already shown leadership in numerous areas related to sustainability, from its forward-thinking water policy and green building programs to its commitment to preserving open space. Much of this work is reflected in other city plans, sometimes with substantial overlaps in objectives.
In addition to the General Plan, these relevant plans should be viewed as 'partner' documents during implementation:

Low Emissions & Climate Action
- Transportation Action Plan (2022)
- Old Town Bicycle Master Plan (2022)
- Residential Solar Guidelines (2020)
- Commercial Solar Guidelines (2019)

Nature-Based
- Parks & Recreation Strategic Plan (under development)
- Sustainable Water Management Principles (2022)
- Integrated Water Resources Master Plan (2022)
- Drought Management Plan (2021)
- Scottsdale Water Strategic Plan (2019-2024)
- McDowell Sonoran Preserve Ecological Resource Plan (2016)
- McDowell Sonoran Preserve, City Ordinance, Chapter 21

Equitable Community
- Tourism & Events Strategic Plan (anticipated adoption in Fall 2022)
- Scottsdale Consolidated Plan (2020)
- Economic Development 5-Year Strategic Plan (2021)
- Scottsdale Public Library Strategic Plan (2019)
- Community Services Master Plan (2015)

Resiliency
- Strategies for a Cooler Scottsdale (2022)
- Smart City Strategic Roadmap (2020)
- Design Standards and Policy Manual (2018)
- Emergency Preparedness Jurisdictional Project Summary (2018; 2021)
- Sensitive Design Principles (2001)
- Green Building Program

Circular Systems
- Community Solid Waste and Recycling Strategic Plan (2017)

"Much of Scottsdale's reputation is built on creative solutions to solve environmental challenges. The need for flood control in the southern part of the community became the world-renowned Indian Bend Wash Greenbelt. The desire to preserve the natural beauty and land forms of the Sonoran Desert while protecting people and property from hazardous conditions resulted in the Environmentally Sensitive Lands and Native Plant Ordinances and the Scottsdale McDowell Sonoran Preserve. The Green Building Program was created to promote more sustainable desert living and reduce the environmental impacts of development."

(Scottsdale General Plan 2035, page 70)

Climate Planning

Develop mitigation and adaptation solutions to climate challenges.

In Scottsdale

Emissions from the burning of fossil fuels are increasing global average temperatures and multiplying extreme heat and precipitation and other impacts. Addressing these problems will require a better understanding of the scale and scope of the problem, as well as the areas – like promoting greener buildings and alternate modes of transportation – where Scottsdale has already taken important steps.

Strategy and Actions

Climate Planning #1 Establish framework to reduce climate emissions and impacts
1. Set carbon reduction goals, city-wide and sector-specific
2. Calculate regular emissions inventories, city-wide and for municipal operations

Climate Planning #2 Address adaptation to impacts of climate change
1. Identify vulnerabilities and document updated climate projections
2. Complete a comprehensive climate adaptation plan including a resilience plan for southern Scottsdale
3. Include measures of climate resiliency in project planning
4. Educate the public on impacts of climate change

Sustainability Indicators
- % reduction in greenhouse gas emissions

Related Actions

Low Emissions	Air Quality: adoption of electric vehicles Energy: Net Zero Strategic Energy Plan Mobility: reducing vehicle miles traveled
Nature Based	Open Space & Land Management: nature-based solutions addressing impacts
Resiliency	Built Environment & Housing: additional connections between buildings and climate
	Extreme Heat & Hazard Preparedness: adaptation to extreme heat

Connection to General Plan

Environmental Planning Element: Goal EP 8 Plan, prepare, and adapt for significant climate impacts on city infrastructure and operations.

Energy

Maximize the use of renewable energy resources and energy efficiency to build resiliency and create economic benefits.

In Scottsdale

Resident and businesses use energy every day for things like computers, appliances, lighting, and cooling. Using less energy to get the same service can yield cleaner air and health benefits, support green jobs and local reinvestment, and generate costs-savings. For example, efficient appliances and equipment reduce the utility bill for the average household by $500 per year. Taking additional steps to use more clean or renewable energy also protects the environment by reducing the pollutants and greenhouse gases associated with burning fossil fuels. Arizona is ranked 5th in the nation for the total capacity of solar energy , and the city of Scottsdale has installed over 350 kW on municipal buildings and issued close to 8,000 permits for solar photovoltaic systems.

More work needs to be done to understand the most impactful and cost-efficient energy program for Scottsdale, especially for some of the larger energy users. The city has begun to audit its own buildings, adopted progressive building and energy codes, and offers Commercial Solar Guidelines.

Strategy and Actions

Energy #1 Develop a Net-Zero Energy Strategic Plan to accelerate renewable energy installation, expand adoption of energy efficiency practices, and attract investment
1. Reduce per capita energy consumption by 10% relative to 2016
2. Increase installations of solar energy to 20% of owner-occupied homes by 2030[3]
3. Work with utilities to promote energy efficiency improvements for existing residential and commercial properties and educate property owners on existing incentives
4. Improve compliance with energy and green construction codes for new buildings, additions, and remodeling
5. Investigate ways to expand battery storage capacity for renewable energy installations

Energy #2 Improve municipal energy performance
1. Employ a city-wide energy management system and track city energy use
2. Dedicate staff resources to managing energy programs
3. Conduct energy audits for 50% of existing of all buildings
4. Expand solar generation on city facilities
5. Continue to convert streetlight systems, park lighting, and other civic lighting to LED technology for energy efficiency and lower maintenance costs
6. Join utility green power programs

Sustainability Indicators
- Total energy use (kWh) – community-wide and municipal operations
- Solar energy installed
- % of households with an energy burden greater than 6%
- # of municipal systems converted to LED lighting

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[2] *"State Solar Spotlight: Arizona," Solar Energy Industries Association. https://www.seia.org/sites/default/files/2022-09/Arizona%20State-Factsheet-2022-Q3.pdf*

[3] *Baseline is 8.2% in 2021; Source: CDS permit records and US Census 2019 housing estimates (Floyd)*

Related Actions

Low Emissions	Air Quality & Mobility: efforts to reduce use of transportation energy
Resiliency	Built Environment & Housing: energy efficiency of new buildings
	Extreme Heat & Hazard Preparedness: connections between heat and energy use
	Smart City: importance of technology in reducing energy use

Connection to General Plan

The five goals and numerous policies included in the Energy Element call for creating a sustainable energy future by adding clean energy sources and reducing energy consumption, especially:

Goal E 1 Work toward becoming a net-zero energy community that balances energy efficiency with renewable energy generation.

Policy EP 5.5 Expand green building construction standards to include all new and remodeled residential and commercial buildings.

Mobility

Support a well-designed, inter-connected, safe, and accessible multi-modal transportation system.

In Scottsdale

Relying only on gasoline-powered vehicles for travel around Scottsdale may be convenient but increases air pollution, congestion, noise, and other environmental problems. In 2020, 7 out of every 10 workers in the city drove to work alone . The Transportation Action Plan (TAP) 2022 will inform future transportation decisions and includes a prioritized implementation plan to preserve and improve how we get around Scottsdale — whether by bicycle, scooter, horse, motorcycle, vehicle, bus or something yet to emerge — over the next 10 years

Some key TAP goals include:

- Emphasize traffic safety, livable streets and multi-modal community access over rapid traffic throughput
- Provide facilities and amenities that are recognized as contributing to complete streets
- Maintain and improve multi-modal circulation by narrowing roadways where appropriate
- Minimize heat island effects by reducing existing pavement where traffic demand is less than previously planned
- Develop Neighborhood Bikeways on low-volume, low-speed roadways to be used by a wide range of bicyclist abilities

Highlights of current transportation programming include the free Scottsdale Trolley, the CAB Connection taxi voucher program for Scottsdale seniors and people with disabilities, a gold-level Bicycle Friendly Community designation, over 120 miles of trails, and a state-of-the-art traffic management system to reduce congestion. Trip reduction surveys show that the largest municipal locations have seen a steady 5-year reduction in single-occupancy vehicle commuting (82% down to 66%, adjusted for telecommuting) and that Scottsdale is the single biggest user of the Maricopa County vanpool.

Strategy and Actions

Mobility #1 Strengthen integrated transportation planning
1. Require pedestrian/bicycle access through/adjacent to all open spaces to promote mobility
2. Modify the street network to safely include active transportation modes
3. Improve the maintenance of the existing trail system (which includes private property)
4. Fill in the trail system gaps to increase safety and connectivity
5. Replace and widen our existing multi-use path system to address increased usage
6. Develop a micro-transit system tailored to community needs
7. Ensure adequate resources to maintain and upgrade our transportation network

Mobility #2 Prioritize active transportation
1. Increase frequency of transit service where needed and make necessary regional system connections to reduce automobile use and provide travel options
2. Increase the walkability of neighborhoods
3. Achieve a Platinum Bicycle Friendly Community designation from the League of American Bicyclists
4. Provide more education on bicycle safety

[4] *U.S. Census Bureau (2021). Sex of Workers by Means of Transportation to Work American Community Survey 1-year estimates. Retrieved from* https://censusreporter.org *on 8/12/2022*

Mobility #3 Ensure accessible mobility for all residents by improving transportation systems
1. Use Complete Streets as the framework for the transportation system and eliminating unneeded vehicular lanes
2. Provide access to a shared use path within a ¼ mile for all residences

Sustainability Indicators
- Vehicle Miles Traveled (VMT)
- Bus ridership
- Commute mode split (including single occupancy vehicle usage) and trip reduction performance
- % of population within quarter mile walk of a collector or arterial street providing access to sidewalks and bike lanes.
- # miles of completed bike lanes, neighborhood bikeways, and shared use paths and trails
- # miles of sidewalk with shade trees along the outside of sidewalks on the north side and west side of streets

Related Actions

Low Emissions	Air Quality: increased adoption of EVs Energy: efforts to reduce building energy use
Nature Based	Open Space & Land Management: connection to design guidelines
Resiliency	Built Environment & Housing: overlap between commutes and building infrastructure

Connection to General Plan
The goals and policies in the Connectivity Chapter (Circulation and Bicycling Elements) contribute to reducing the environmental impacts of moving people and goods.

Air Quality

Reduce contaminants and pollutants to improve air quality and protect community health.

In Scottsdale

Because of the extended transport of air pollutants into and within the Valley, improving air quality requires regional cooperation and a long-term commitment to taking daily steps to reduce emissions. The city follows federal and state requirements as well as those set by Maricopa County (for example, for dust or burning). As part of this commitment, the city operates a fleet of six street sweepers to clean curbed streets monthly to reduce dust emissions and responds to high ozone pollution days with protocols and staff outreach. The city is currently working to install electric vehicle (EV) charging stations in at least five locations.

Strategy and Actions

Air Quality #1 Clean Scottsdale's air
1. Participate in regional efforts to improve air quality
2. Expand education/outreach to city employees and residents about air quality and High Pollution Advisory days, including benefits of electric-powered lawn equipment and of reduced single occupancy vehicle (SOV) trips
3. Support reductions in fireworks use and 'burn better' programs during holidays

Air Quality #2 Accelerate electric vehicle (EV) adoption
1. Double number of EV charging stations to 600[5] by 2030
2. Develop a financially sustainable plan to replace city fleet vehicles and buses with EVs
3. Create an EV charging policy and master plan
4. Foster program to expand the use of e-bicycles for commute trips

Sustainability Indicators
- # of good to moderate air days plus Maricopa County air quality indices (ozone and particulates)
- # and location of EV charging stations (municipal and private)
- # of gallons of gasoline and diesel used in municipal vehicles
- # of city fleet powered by alternate energy sources (CNG, electric)

Related Actions

Low Emissions	Mobility: steps to reduce tailpipe emissions
Nature Based	Open Space & Land Management: connection between air quality and natural areas
Resiliency	Extreme Heat & Hazard Preparedness: increase the number and health of trees

Connection to General Plan

Environmental Planning Element: Goal EP 3 Participate in local and regional efforts to improve air quality.

[5] Baseline (July 2022) = 306; Source: Alternative Fuels Data Center (Level 2 and DC Fast), accessed July 2022.

Water Resources

Conserve, protect, and deliver quality drinking water safely and reliably to the community, now and into the future.

In Scottsdale

The over-allocation of Colorado River water supplies and the twin trends of a hotter and drier climate make protecting water resources an urgent task. Scottsdale has excelled at proactive long-range planning to ensure safe and adequate water supplies and goes beyond the best management practices from the state on water conservation efforts. Scottsdale Water's vision is to achieve water sustainability through stewardship, innovation, and people. The city's Integrated Water Resources Master Plan was recently updated to reflect changes due to increasing stresses on the Colorado River, new population, demand, and flow projections, and the impacts of the pandemic. The Drought Management Plan has been activated, with steps taken to reduce water consumption by 5% and to minimize over-seeding. The Strategic Plan (2019-2024) goals include doubling the potable water recharge capacities by 2024 and implementing a real-time customer interface by 2023. Scottsdale Water has set a standard to reduce the carbon footprint and increase power source redundancy through increased use of alternative energy sources. Scottsdale utilizes 100 percent of its reclaimed water for direct, non-potable reuse or recharge.

Strategy and Actions

Water #1 Ensure water system resiliency
1. Achieve 100% automated metering water infrastructure across the city
2. Incentivize WaterSmart Portal Participation and notification signups
3. Remove non-functional/non-recreational turf at city facilities
4. Incentivize turf removal and improvements to irrigation equipment
5. Retrofit all municipal irrigation systems to smart controllers
6. Support low impact development site planning, building design, and streetscapes
7. Increase number and reach of community engagement activities
8. Expand water conservation programs in concert with the Drought Management and Water Master Plans

Sustainability Indicators
- Total water use and total residential daily use
- Square feet of turf removed
- # of customers registered on WaterSmart
- # of water meters converted to Automatic Meter Infrastructure
- # of HOAs participating in conservation program and Residential Outdoor Water Efficiency Checks
- # of customers engaged
- Gallons of reclaimed water used for irrigation purposes
- Gallons of groundwater treated

Related Actions

Nature-based	Open Space: protecting and improving watersheds
Equitable Community	Education & Lifelong Learning: outreach on water conservation
Resiliency	Built Environment & Housing: reducing water use in buildings and connection between affordable housing and cost of water
	Extreme Heat & Hazard Preparedness: connection between water use, tree canopy, and wildfire mitigation

Connection to General Plan

Goals in both the Water Resources and Conservation Elements highlight the importance of water to Scottsdale, especially:

Goal WR 1 Ensure renewable, long-term water supplies for the community.

Goal WR 2 Plan, prepare for, and adapt to significant climatic impacts on the water supply, such as short-term and extended drought.

Goal CONSV 4 Conserve water and encourage the reuse of wastewater.

Open Space & Land Management

Create, protect, and expand vibrant, safe, and accessible open spaces and boost land use patterns that conserve resources.

In Scottsdale

Currently, 37% of Scottsdale is open space (public and private including the McDowell Sonoran Preserve). Meaningful desert open space – whether actively or passively managed – is a fundamental part of Scottsdale's character and is created and maintained with the support of our residents and for the benefit of the environment. Through land management policy including the Environmentally Sensitive Lands Overlay District (ESL), the city uses zoning and other requirements to guide development in its desert and mountain areas. The ESL ordinance requires that a percentage of each property be permanently preserved as Natural Area Open Space (NAOS) and that specific environmental features be protected from inappropriate development. Character Area Plans, like those for Desert Foothills and Dynamite Foothills, support these same goals. The city also manages developed open spaces, like the Indian Bend Wash Greenbelt and other parks. An equitable distribution of these open spaces and parks can help all residents benefit from access and connection to nature.

Strategy and Actions

Open Space #1 Expand management of open space and improve access
1. Encourage connectivity of natural area open spaces, scenic corridors, developed open spaces, and open drainage easements
2. Update Community Services master plan goals related to parks, open spaces, and proximity for households
3. Identify long term maintenance funding

Open Space #2 Support practices that preserve the Sonoran desert ecosystem
1. Develop plans to reduce invasive species and increase awareness of best management practices for invasive species management and connection to wildfire concerns
2. Support Native Plant Ordinance and its enforcement
3. Develop guidelines on the use of non-chemical and less-toxic pest management strategies
4. Develop sustainability-aligned Design Guidelines, supporting native ecosystems and desert biodiversity
5. Maintain tree inventory and encourage thoughtful planning relative to low water tree planting

Sustainability Indicators
- # of miles of bike lanes, bike routes, neighborhood bikeways, shared use paved paths, and unpaved trails
- Distribution of open space
- Native plant salvage and restoration and invasive species removal

Related Actions

Low Emissions	Mobility: relationship between transportation and land use
Resiliency	Extreme Heat & Hazard Preparedness: how the city will increase the number and health of trees

Connection to General Plan

Given the importance of open space and land conservation to Scottsdale, work in this area is driven by multiple goals and policies in the Open Space and Land Use elements, as well as those in the Environmental Planning and Conservation elements. Of special note are:

Goal OS 5 Provide developed open space and outdoor opportunities in Scottsdale neighborhoods, giving priority to areas that are most lacking open space.

Goal LU 5 Promote land use patterns that conserve resources, including land, clean air, water, and energy.

Goal CONSV 2 Protect and manage Sonoran Desert biodiversity and native ecosystems.

Goal EP 1 Protect and enhance Scottsdale's human and Sonoran Desert habitats.

Community Services

Provide high-quality community programs, services, and physical facilities that protect the health, safety, and well-being of all residents.

In Scottsdale

To realize outstanding livability, Scottsdale prioritizes services and facilities for residents, including forty-three parks, 274 miles of trails, four public libraries, and eight resource centers. Low-and-moderate income household may face employment barriers, financial instability, or lack access to healthcare or other basic services, so additional effort may be needed to connect these households to sustainability and other programs. The Human Services department works to enrich the lives of all residents through a range of programs that support the more vulnerable in our community. One example is Brick by Brick, a green building program that manufactures energy-efficient low-cost earthen blocks. The program encourages cooperation with local, national, and international institutions and stakeholders to make energy efficient dwellings more accessible and attainable throughout the Valley.

Strategy and Actions

Community Services #1 Expand community programs and services that support sustainability goals
1. Expand programs that serve low-income qualifying applicants
2. 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. Support implementation of Blue Zones Initiative
4. Expand partnerships with communities to identify and address needs
5. Include users in planning for community services (food banks, low-income housing, etc.)
6. Create services for preventing homelessness and stable housing
7. Expand homeless outreach services and Day Relief Center program
8. Offer translation services to those needing assistance

Sustainability Indicators
- Access to community services (especially parks and library programs) by Census block
- Use of community services
- % of households with internet access
- # of homeowners assisted by Operation Fix It

Related Actions

Equitable	Education & Lifelong Learning: additional support for communities
Resiliency	Extreme Heat & Hazard Preparedness: addressing heat vulnerability Built Environment & Housing: programs related to affordable housing

Character & Arts

Conserve, protect, and deliver quality drinking water safely and reliably to the community, now and into the future.

In Scottsdale

Scottsdale has long supported long range planning driven by the value placed on the diverse character and qualities of our Sonoran Desert community. Connecting these area-based plans to sustainability outcomes is already underway, including through landscaping standards, scenic corridors and the Environmentally Sensitive Lands Overlay District. As an example, one value of the Old Town Scottsdale Character Area Plan is that "sustainability that is sensitive to Scottsdale's unique desert environment." In addition, the city's Sensitive Design Program articulates Scottsdale's design vision and outlines design expectations and values to nurture the character and aesthetic qualities of our desert environment. Art can be another of the expressions of the character of the city, especially as a way to connect to youth interest in sustainability and as part of the public expression of the community's collective interest.

Strategy and Actions

Character & Arts #1 Support character-based planning
1. Increase integration of sustainability and the importance of the Sonoran Desert environment into Character Area Plans
2. Encourage energy-efficient designs for outdoor lighting that reflect the local context
3. Incorporate passive design cooling strategies for building and site planning designs
4. Integrate LID/GI into neighborhood-level street improvements
5. Investigate code updates based on energy performance for historic preservation and promote preservation as a sustainable practice

Character & Arts #2 Strengthen connections between arts and culture and sustainability
1. Fund public art creation and maintenance with sustainability themes
2. Expand 'Traceries' trash/recycle bins program
3. Develop and support youth arts programs
4. Promote the Scottsdale Heritage Connection and other historical programs

Sustainability Indicators
• # of programs, services and events with sustainability programming Square feet of turf removed
• # of arts programming in schools
• # of public art collection pieces with sustainability theme

Related Actions

Resiliency	Built Environment & Housing: additional character-based planning efforts

Connection to General Plan

Goals and policies in the Arts, Culture and Creative Community and Character & Design Elements will guide work in this area, especially:

Goal CD 5 Promote the value and visual significance landscaping has on the character of the community.

Goal NPR 1 Preserve and enhance the character, identity, and quality of Scottsdale's diverse neighborhoods.

Economic Vitality

Provide high-quality community programs, services, and physical facilities that protect the health, safety, and well-being of all residents.

In Scottsdale

A local economy that supports businesses offering sustainable goods and services or adopting green practices can be a catalyst for other components of this Plan. From high profile zero waste events to small businesses certifying through Local First, there are companies committed to being strong partners with the city on this issue. Scottsdale is one of the most desirable destinations and fastest-growing communities in the U.S. Economic development initiatives are based on the city's vision that Scottsdale is a prosperous, sustainable destination for diverse talent, investment, and innovative businesses. Of Scottsdale's approximately 18,000 registered businesses, 85% are small businesses comprised of 50 or fewer employees.

Strategy, Actions, and Metrics

Economic #1 Integrate green innovation and business into economic planning
1. Attract businesses that support sustainability and smart city development
2. Create a green business recognition program
3. Develop sustainability goals for the Tourism & Events Strategic Plan
4. Work with anchor institutions to implement sustainable practices
5. Include environmental questions in Special Event Permit application
6. Showcase the city's commitment to sustainability for business development

Sustainability Indicators
• # of green businesses

Related Actions

Resiliency	Built Environment & Housing: making housing more affordable
Circular Systems	Waste: efforts to promote green events

Connection to General Plan

Sustainability can support and enhance the economic development goals in the Economic Vitality Element, especially Policy EV 1.4 Recruit and retain companies with core values that include both innovation and environmental stewardship and encourage partnerships between these companies and research institutions.

Education & Lifelong Learning

Proactively support sustainability and environmental education opportunities for all citizens.

In Scottsdale

The benefits of environmental education at any age are numerous. Academic performance can increase and learning about nature generally leads to spending more time in nature. Combined with service learning, environmental education can also strengthen communities . The goal is to find ways to make learning fun and accessible for all ages – like the Recycle Bin project of the Scottsdale Unified School District (SUSD), the pilot tree inventory initiated by the Scottsdale Environmental Advisory Commission or through events hosted by the Scottsdale Public Library.

Strategy and Actions

Education #1 Improve community sustainability knowledge and capacity
1. Develop a Sustainability Academy
2. Maintain and continue Green Building webinar series
3. Collaborate with SUSD and other schools to develop a K-12 sustainability curriculum with locally relevant assignments and add sustainability leadership positions to student councils
4. Promote libraries, community centers, parks, and other city facilities as resources and connections to nature
5. Create a culture of sustainability within city operations and launch an employee Green Team
6. Offer sustainability-related opportunities in Volunteer Program
7. Participate in sustainability events hosted by Mayor's Youth Council
8. Develop interactive ways for people to interact with sustainability features (e.g., talking garbage cans)

Sustainability Indicators
- # of community members engaged and/or educated
- # of schools engaged

Related Actions

Low Emissions	Climate Planning: climate change-specific efforts
Nature-Based	Water Resources: information on water conservation
Resiliency	Extreme Heat & Hazard Preparedness: community preparedness and knowledge
Circular Systems	Waste As A Resource: recycling and composting outreach

Connection to General Plan

The inclusion of sustainability programming can support the goals and policies of the Education Element.

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[6] *National Environmental Education Foundation, https://www.neefusa.org/education/benefits, accessed 10/3/2022.*

Extreme Heat & Hazard Prepardness

Ensure that the community prevents, is prepared for, responds to, and recovers from natural hazards that can diminish quality of life or impact the environment.

In Scottsdale

Scottsdale actively prepares for natural hazards including extreme heat, flooding, drought, and wildfire. These emergencies are estimated to become more severe and frequent as the climate continues to warm. The city of Scottsdale's Emergency Manager oversees the city's preparation for disasters and emergencies and coordinates large-scale emergency responses. For one important area of preparedness – extreme heat – the city is focusing additional resources to address the far-reaching impacts on our community's health, infrastructure, environment and economic well-being. In 2020, Scottsdale partnered with Arizona State University to assess patterns of urban heat in the city Scottsdale, and the *Identifying Strategies for a Cooler Scottsdale* study will provide a framework for the planned heat mitigation and management efforts.

Strategy and Actions

Heat & Hazard #1 Reduce urban heat impacts
1. Finalize Heat Mitigation Plan and Shade/Tree plans; implement priority strategies
2. Increase tree canopy and building-integrated and free-standing shade structures
3. Reduce the area of exposed dark asphalt, dark roofs, and other hot surfaces
4. Review parking and other related requirements
5. Require all new multi-family residential and commercial buildings to have cool roofs and promote cool infrastructure technologies; promote cool roofs for single-family homes
6. Inventory Scottsdale's trees and increase tree planting especially in underserved or older neighborhoods; evaluate a 'matching tree' initiative
7. Implement an urban forestry program to balance shade and water use and to ensure maintenance of trees (especially in city parks)
8. Create a tree ordinance for proper maintenance and replacement near commercial and multi-family buildings
9. Require shading for 50% of site hardscape and minimize turf areas on new commercial and multifamily developments
10. Develop partnerships with local utilities for weatherization and tree planting programs
11. Seek additional funding for weatherization and air conditional repair/replacement for low-income households.

Heat & Hazard #2 Ensure public safety with integrated emergency management planning
1. Create an Emergency Management Plan & Program
2. Work with regional entities, hospitals, faith-based organizations, schools, community groups, and large employers to ensure continuity of operations
3. Provide education, emergency preparedness, and response training at the neighborhood level
4. Increase the number of cooling centers and awareness of locations

Sustainability Indicators
- % neighborhoods with increased tree canopy
- # of new trees planted or replaced
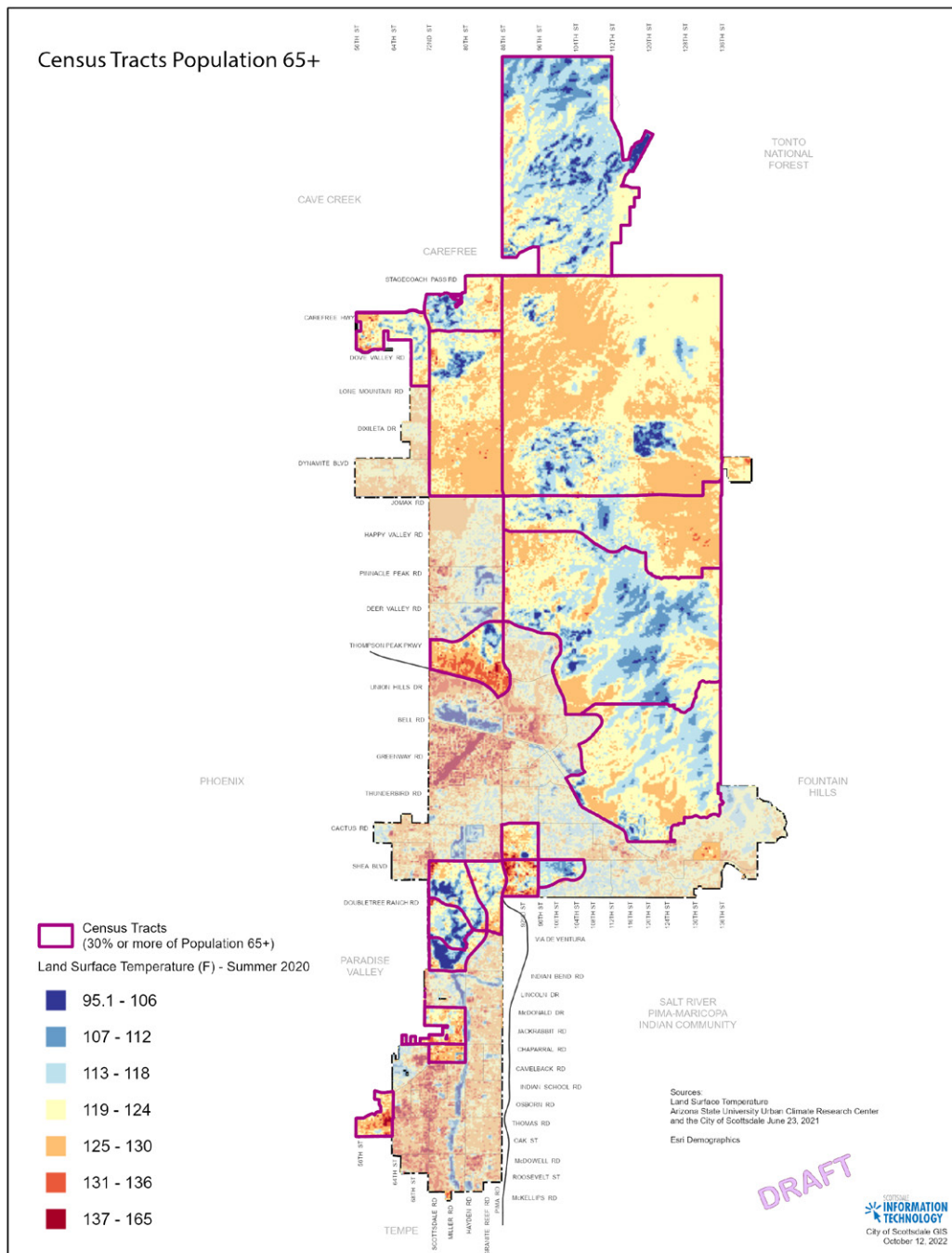- # and $ damage of disasters occurring by category/type

Related Actions

Low Emissions	Climate Planning: framework for emissions reduction and adaptation
Nature Based	Water Resources: connection between water use and tree canopy
Equitable Community	Community Services: additional supportive programs
Resiliency	Built Environment: how buildings support preparedness

Connection to General Plan

Both the Environmental Planning and Safety Elements provide guidance for this topic:

Goal EP 7 Identify and reduce heat islands.

Goal S 2 Prepare for disasters and emergencies.

Built Environment & Housing

Integrate resource-efficient, sustainable practices in buildings and infrastructure and provide housing options that minimize resource use and address affordability.

In Scottsdale

People spend most of their times indoors so the features of buildings can significantly impact finances, health and safety, and comfort. Energy use in buildings is a major contributor to climate change and can impact whether occupants can afford to cool their home. Scottsdale's Green Building Program encourages a whole-systems approach through design and building techniques to minimize environmental impact and reduce the energy consumption of buildings while contributing to the health of its occupants.

The Scottsdale Community Assistance Office oversees Community Development Block Grant (CDBG) funds that improve the livability of homes with fair access to resources through the Housing Rehabilitation Programs. The Housing Rehabilitation Programs remodel older homes to become more energy efficient and make repairs for the health and safety of low-and-moderate income residents. In addition, CDBG funds are directed towards public improvements that are beneficial to entire neighborhood, including repaving older roads and adding ADA curbs, replacing playgrounds, and the demolition and reconstruction of inoperable bathrooms in a community park. In FY2019/2020, there were 71 City of Scottsdale Community Assistance Office home rehabilitations.

Strategy and Actions

Built Environment #1 Reduce impacts of the built environment by instituting sustainable building practices and policies
1. Implement a green retrofit and cool roof program for existing buildings
2. Require new construction and remodels install solar systems or be 'solar ready'
3. Establish mandatory green building standards, including for use of sustainable materials
4. Strengthen enforcement of all building-related codes
5. Continue LEED Gold Council Resolution for new civic structures
6. Encourage development where existing infrastructure capacity is available
7. Require/encourage site development strategies that incorporate green infrastructure, low impact development, and stormwater harvesting
8. Adopt and implement the latest energy and green construction codes for residential and commercial buildings
9. Establish a stormwater harvesting ordinance

Housing #1 Ensure benefits of greener buildings support the preservation and creation of high-quality, safe, and affordable housing
1. Coordinate workforce housing locations with adjacent transit routes, bike lanes, bike routes, and shared use paths
2. Develop a fund for construction of new affordable housing stock
3. Incentivize retrofits of older homes with energy efficient technology
4. Ensure that sensitive-design, low-water, and energy use strategies are applied equitably
5. Refresh guidelines for Green Housing Rehabilitation Program and seek additional funding
6. Develop sustainability guidance for repair and replacement programs

Sustainability Indicators
- # of green building permits
- # of LEED certified buildings
- # of annual acre-feet of stormwater harvesting
- # of homes retrofitted by Human Services programs
- % of households that pay for more than 30% of their income on housing

Related Actions

Low Emissions	Energy: other efficiency programs
Nature Based	Water Resources: other water conservation programs
Equitable Community	Character: connections to character planning
Resiliency	Extreme Heat & Hazard Preparedness: additional infrastructure actions
	Smart City: building automation controls
Circular Systems	Waste: actions that increase diversion of waste in buildings

Connection to General Plan
Goals and policies related to buildings, housing, and infrastructure are in multiple elements, with several directed at increasing sustainability and reducing utility use and cost:

Goal CONSV 1 Achieve a sustainable balance between the conservation of natural resources and development of the built environment.

Policy EP 2.4 Expand Scottsdale's Green Building Program to maintain regional and national leadership in green and low-impact development.

Goal PB 2 Design, construct, rehabilitate and renovate public buildings to demonstrate Scottsdale's Sonoran Desert context, promote excellence in architectural design, and showcase the city's leadership in environmental sustainability.

Goal H 1 Support diverse, safe, resource-efficient, and high-quality housing options.

Smart City

Integrate smart technologies for a safer and more efficient city.

In Scottsdale

Scottsdale's Smart City initiative is focused on combining traditional infrastructure such as roads and buildings, with technology to enrich people's lives. The initiative strives to engage with people in our community about the use of smart city solutions to solve community challenges, improve the quality of life and enhance interactions with the city. The Scottsdale Smart City Strategic Roadmap was accepted by the City Council in April 2021 and is being implemented by an inter-department team of city staff. Scottsdale tells the story of Scottsdale's smart city journey, provides updates on upcoming and ongoing efforts and offers ways for residents, businesses and community members to get involved. Scottsdale's departments have a number of smart city solutions already in place, including Community Services, Fire, Police, Public Works, and Water. These solutions help the city do such things as manage traffic flow throughout the city, monitor crime response in real time, control facilities, lighting, and irrigation controllers remotely, and help customers monitor their water usage.

Strategy and Actions

Smart City #1 Improve community livability and city operations by combining smart technologies with traditional infrastructure
1. Continue implementation of the Smart Cities Strategic Roadmap by conducting projects to solve problems using smart city solutions
2. Involve the community in smart cities projects, including those planned for the SkySong area relating to sustainability, public safety and economic development, and for Old Town Scottsdale regarding wayfinding and sound mitigation
3. Explore emerging smart technologies (such as lighting, water, sensors, GIS) and integrate cost-effective solutions to optimize existing infrastructure

Sustainability Indicators
- # of smart technologies adopted

Related Actions

Low Emissions	Energy: importance of technology in reducing energy use
Resiliency	Built Environment: building automation controls

Waste as a Resource

Develop a circular economy approach for materials management and maintain effective city-wide diversion of all waste streams.

In Scottsdale

Striving for zero waste go can reduce the pressure on landfills and yield other environmental benefits like energy savings from recycling aluminum. Businesses and cities are exploring innovations that also create jobs, lower methane emissions and reduce pollution from extraction and manufacturing of new goods through reuse. The City of Scottsdale's Community Solid Waste Reuse and Recycling Strategic Plan, adopted in 2016, outlines eight policy statements driven by the community's values and vision. Focused on improving the city's 27% rate of waste kept out of the landfill, the plan sets goals for 2030 for improvement: showing city leadership with a 90% diversion rate; asking single-family homes to divert 60%; and working with multi-family buildings to recycle or compost 30% of their waste. The popular Canal Convergence and Waste Management Phoenix Open events achieved zero waste by focusing on recycling, changing how vendors packaged their offerings, and offering composting.

Strategy and Actions

Waste #1 Increase the diversion rates for material streams by expanding services
1. Work with city-sponsored events to be zero waste
2. Require builders to include space for recycling in new multi-family housing
3. Require a 50% diversion rate of construction waste for new commercial projects
4. Promote commercial and multi-family recycling
5. Develop a green event program
6. Host an expo with vendors to promote and educate about green event options
7. Investigate how to increase recycling or reuse of cardboard boxes
8. Expand reuse of surplus municipal goods including through sale of excess containers and equipment
9. Reduce use of single-use, non-recyclable, and non-compostable packaging and bags

Waste #2 Strengthen local markets
1. Adopt city green purchasing and local policies and practices
2. Attract circular economy companies and entrepreneurs
3. Create program to reuse building materials

Waste #3 Expand opportunities for diverting organic waste from the landfill
1. Offer composting at five city-owned or -managed buildings or venues by 2025
2. Develop a city-wide composting program
3. Establish a green/yard waste drop-off program
4. Incentivize composting by providing backyard composters
5. Promote commercial and multi-family green waste diversion

Sustainability Indicators
• Overall diversion rate, plus amount of solid waste generated
• Recycling contamination rate
• # of city events that are zero waste annually
• # of additional businesses adding recycling services each year

Related Actions

Equitable Community	Arts & Culture: public art and recycling bins
	Education & Lifelong Learning: broader outreach and engagement actions
Resiliency	Built Environment: actions that increase diversion of residential and construction waste
Circular	Food Systems: food waste reduction

Connection to General Plan

The connection between waste diversion and the circular economy are highlighted in two specific goals from the Environmental Planning and Public Services & Facilities Elements:

Goal EP 4 Expand the circular economy by maximizing resource recovery, reuse and recycling, and promoting use of recycled, recyclable, and renewable materials.

Goal PSF 1 Maintain an innovative, sustainable solid waste collection, recycling, and disposal delivery system.

Food Systems

Support food production from farm to table to farm by encouraging local farmers, ensuring access to fresh healthy food sources, and recovering nutrients from organic waste.

In Scottsdale
Even though Arizona grows 12% of the fruits and vegetables consumed nationwide, there are still a significant number of people who face food insecurity . A lack of access to food can mean that healthy and nutritious food is not readily available or that a household cannot afford those food items. According to the USDA Food Access Research Atlas, there are parts of Scottsdale where a significant number of lower-income residents are more than 1/2 mile from the nearest supermarket. At the same time, food waste – whether it could have been donated or composted – compounds the problem of insecurity. Existing programs addressing food insecurity include gardens and weekend meals for students, a food bank at Vista del Camino, free or reduced cost school lunches, partnerships with nonprofits like Waste Not, and the Brown Bag Food Program for seniors. In its fourteenth year, the Old Town Farmers Market features local growers and specialty food producers.

Strategy and Actions

Food #1 Ensure access to healthy foods for all community members
1. Expand operations of the Vista del Camino Food Bank
2. Partner with non-profits, grocery stores and food businesses to reduce food waste and donate food to those in need, especially children
3. Establish community gardens throughout the city
4. Encourage sustainable food purchases for events
5. Assess and map food deserts
6. Evaluate creation of a food policy council

Sustainability Indicators
• Access to healthy food sources, by Census tract
• Tons of food waste donated
• # of community gardens created

Related Actions

Equitable Community	Community Services: participation in BlueZones initiative
Circular	Waste: other food waste reduction efforts

Connection to General Plan
Healthy Community Element: Goal HC 2 Strive to provide access to healthy, local foods throughout the community.

[7] Arizona Food Bank Network, https://azfoodbanks.org/hunger-in-arizona/. Accessed 9/30/2022.

Plan Implementation

Implementing this Sustainability Plan involves not only municipal government, but an array of other civic stakeholders. This drives a focus beyond government to governance – the process through which residents, stakeholders, and governments work together to guide independent and collective action. Bringing these interests together to collaborate on implementation has numerous benefits and yields better outcomes. The collaboration can also ensure that the benefits of the plan are distributed equitably across the city.

The strategies and actions in this Plan are complex and intersect with numerous existing priorities established by the City of Scottsdale. Some are extensions of programs and initiatives that are already well-developed, while others are completely new and need to be started from scratch. Implementation of the Plan should be strategic in managing city and stakeholder resources while striving to maximize the benefits for all Scottsdale residents and visitors. Because achieving sustainability is an ongoing process, the Plan is based a process of on continuous evaluation and improvement. As each step is completed, new steps will emerge.

The City of Scottsdale is committed to implementing this Sustainability Plan with a high level of transparency and stakeholder participation. This Plan is a flexible, living design for realizing a common vision for the future broadly shared by all members of the community, including residents, civic organizations, and businesses. Our implementation strategy is four-fold.

City Leadership to City-Wide Effort This Plan is grounded in actions already initiated but that should be more fully embraced throughout the city to maximize the sustainability benefits.

Incremental to Transformative This Plan is ambitious in scope and outlines steps to advance Scottsdale on its sustainability journey and includes ambitious actions that will ensure widespread change.

Center Equity It is common to use an equity lens for urban sustainability planning and Scottsdale is committed to ensuring that implemented programs impact the populations that need more attention.

Implementation to Institutionalized This Plan is designed for action and accountability and aims to make sustainability the 'default' consideration in Splanning and policy.

Strategy and Actions

Implementation #1 Leverage governance structures for faster progress
1. Use the Sustainable Scottsdale Steering Team as a forum to elevate to leadership important or city-wide issues that impact the achievement of sustainability goals
2. Recognize achievement and encourage aspiration
3. Share successes and challenges with other cities locally and nationally
4. Set a green procurement goal as a percentage of total municipal purchasing
5. Formally update the Sustainability Plan on a regular cycle

Implementation #2 Increase capacity for implementation
1. Identify and nurture staff and community champions for sustainability
2. Create staff training modules and community outreach media to increase awareness of sustainability solutions and to build the constituency for continuous improvement
3. Craft a 'build-a-plan' toolkit for residents and small and medium businesses, including a mechanism for reporting on progress
4. Regularly engage with communities and residents

Implementation #3 Reflect community values in implementation
1. Build an implementation toolkit to drive decision-making in execution of strategies and actions
2. Partner with Diversity, Equity, and Inclusion program on implementation prioritization
3. Focus on cross-cutting issues such as purchasing and procurement, communication, and checklists for evaluating current projects and proposals
4. Expand community engagement to give more community members a voice on implementation

Implementation #4 Ensure transparency
1. Produce an annual report on progress and challenges associated with implementing the Sustainability and related plans and on the Sustainability Indicators
2. Track operating and capital spending on sustainability-related work and make savings transparent by tracking operational savings and project rebates in partnership with the City Treasurer
3. Document estimated co-benefits, like improved air quality and health and consumer savings
4. With the Scottsdale Environmental Advisory Commission, host a regular community open house to share successes and solicit feedback

Glossary

Americans with Disabilities Act (ADA): 1990 Federal legislation specifying provisions for design or redesign of buildings, parking, and outdoor areas to remove barriers for persons with disabilities and guaranteeing equal access opportunity to public accommodations, transportation, and government services.

Affordability, Affordable (Housing): Housing that can be rented or purchased by a household with entry-level or "workforce" income or spending no more than 30% of annual household income on housing expenses.

Alternative Energy or Fuel: Energy sources that do not rely on fossil fuels, such as, sunlight and wind.

Bicycle Lane: A section of a road that is marked for exclusive bicycle use.

Built Environment: Human-made elements including, buildings, structures, roads, canals, paths, and trails, that together create the physical character of an area or community.

Circular Systems (Pathway): Supports models of production and consumption that support reducing, recycling, repairing, and repurposing products and materials.

Cool roof: A roof that is either painted white, covered in vegetation (green roof), or covered with solar panels.

Electric Vehicle (EV): A car or truck that runs solely on an electric motor, with no internal combustion engine.

Energy Burden: The percentage of gross household income spent on energy costs

Environmentally Sensitive Lands Overlay (ESL): A set of zoning regulations to guide development throughout the 134 square miles of desert and mountain areas of Scottsdale.

Equitable Community (Pathway): Builds just, livable, and thriving communities reflecting the character of Scottsdale.

Extreme heat: A period of at least 2-3 days of high heat with temperatures above 90 degrees (Arizona Emergency Information Network, https://ein.az.gov/hazards/extreme-heat)

General Plan: The Scottsdale General Plan is a comprehensive, long-range plan consisting of community goals and policies setting forth objectives, principles and standards for the state mandated and other elements.

Greenhouse gas (GHG): A gas that contributes to the greenhouse effect by absorbing infrared radiation (like carbon dioxide and methane), usually emitted upon combustion of fossil fuels for energy.

Heat Island: The phenomenon involving elevated temperatures in urban/suburban areas as compared with outlying rural/undeveloped surroundings. Heat islands are generally caused by reduced vegetation, solar heat absorption, material heat capacity, use of energy, and building spacing.

Homeowners' Association (HOA): An organization typically responsible for administration of the subdivision's codes, covenants and restrictions (CC&Rs), and other property controls for maintaining a safe and quality environment and design uniformity.

ICLEI: International Council for Local Environmental Initiatives.

Livability: The balance of elements in the physical environment that contribute to the physical, social, economic, political, and emotional well-being of residents.

Kilowatt (kW): A unit of measure of electrical power equal to 1,000 watts (capacity)

Kilowatt hour (kWh): A measure of energy consumption equal using 1,000 watts for one hour (use)

LED: Light-emitting diode, an energy-efficient lighting source.

LEED: Leadership in Energy and Environmental Design, a green building certification program.

Low-Impact Infrastructure, Green Infrastructure: An approach to stormwater management that mimics the natural hydrology of a site and uses captured stormwater run-off. The low-impact model views stormwater as a resource, reduces stormwater runoff, uses natural systems for filtration, and helps protect ecologically sensitive areas within a development.

Glossary

Low Emissions & Climate Action (Pathway): Reduces greenhouse gas and other environmentally harmful air emissions.

Metric: A measurable indicator of success.

Multimodal: An approach to transportation that includes pedestrians, bicyclists, transit vehicles except rail and modern streetcar, equestrians, and motorists of all ages and abilities, and aims to create a comprehensive, integrated, and connected transportation network.

Natural Area Open Space (NAOS): An important part of the ESL regulations, the NAOS requirements are designed to preserve the desert in its natural state.

Nature-Based (Pathway): Protects and enhances our city and natural environment by conserving resources, balancing land use and open space.

Net-Zero Energy: The practice of producing as much energy as is consumed by off-setting energy use through a combination of energy efficiency and renewable power (from General Plan 2035).

Open Space: Any parcel or area of water or land that is essentially unimproved and devoted to an open space use for the purpose of (1) the preservation of natural resources; (2) the managed production of resources; (3) outdoor recreation; or (4) public health and safety.

Renewable Energy: Energy sources that do not rely on fossil fuels, including, sunlight and wind.

Resiliency (Pathway): Anticipates and responds to shocks and stressors, preparing for new risks and impacts.

Resiliency Hubs: Community-serving facilities augmented to support residents and coordinate resource distribution and services before, during, or after a natural hazard event (Urban Sustainability Directors' Network)

Scottsdale Environmental Advisory Commission: A City Council appointed citizen commission to advise the Council on issues related to preservation and enhancement of the environment.

Scottsdale Sustainability Steering Team: A group of city staff advising the City Manager and making recommendations on issues related to sustainability and the environment, as defined in the General Plan 2035. Operationally, the team provides a forum to elevate to leadership important or city-wide issues that impact the achievement of sustainability goals.

Sustainability: From the General Plan, sustainability is a condition of living that enables the present generation to enjoy social well-being, a vibrant economy, and a healthy environment, without compromising the ability of future generations to enjoy the same.

Traceries Project: A series of metal recycle/waste bins that include public art features on the canal waterfront.

Walkability: The ability to access municipal amenities on foot, usually based on an objective metric (e.g., Walk Score).

Watershed: The area of land where all of the water underneath it, or draining off it, goes to the same place.

Zero Waste: The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health (Zero Waste International Alliance).

Appendix: Relevant General Plan Goals

Low Emissions & Climate Action

Climate Planning	Environmental Planning Element Goal EP 8 – Plan, prepare, adapt for climate impacts

Energy	Energy Element
	    Goal E 1 – Become a net-zero community
	    Goal E 2 – Reduce energy consumption
	    Goal E 3 – Promote energy efficiency
	    Goal E 4 – Increase energy efficiency of city facilities
	    Goal E 5 – Develop renewable energy sources
	Environmental Planning Element
	    Goal EP 5 - Encourage environmentally sound design
	    Goal EP 8 - Plan, prepare, adapt for climate impacts

Mobility	Circulation Element
	    Goal C 1 – Design safe/efficient transportation corridors
	    Goal C 2 – Reduce automobile trips
	    Goal C 3 - Develop a connected multi-modal system
	    Goal C 4 - Plan for future expansion
	    Goal C 6 – Participate in regional coordination
	    Goal C 8 - Provide a comfortable and accessible system
	Bicycling Element
	    Goal B 1 – Develop accessible and interconnected networks
	    Goal B 2 - Encourage increased bicycle use
	    Goal B 3 - Promote bicycle education and safety
	Growth Areas Element
	    Goal GA 2 - Improve transportation access
	Tourism Element
	    Goal T 2 - Enhance mobility and wayfinding
	Environmental Planning Element
	    Goal EP 8 - Plan, prepare, adapt for climate impacts

Air Quality	Circulation Element
	    Goal C 2 - Reduce automobile trips
	Bicycling Element
	    Goal B 2 - Encourage increased bicycle use
	    Goal B 3 - Promote bicycle education and safety
	Environmental Planning Element
	    Goal EP 3 - Improve air quality
	    Goal EP 8 - Plan, prepare, adapt for climate impacts

Appendix: Relevant General Plan Goals

Nature-Based

Water Resources	**Environmental Planning Element**
	    Goal EP 6 – Surpass water quality standard
	Water Resources Element
	    Goal WR 1 – Ensure long-term water supplies
	    Goal WR 2 – Prepare for climatic impacts
	Conservation Element
	    Goal CONSV 3 – Protect watersheds
	    Goal CONSV 4 – Conserve water
	    Goal CONSV 5 – Minimize erosion

Open Space & Land Management	**Open Space Element**
	    Goal OS 1 - Provide open space types
	    Goal OS 2 - Fulfill Preserve initiative
	    Goal OS 3 - Preserve natural open spaces
	    Goal OS 4 - Maintain a continuous open space system
	    Goal OS 5 - Provide developed open space opportunities
	    Goal OS 6 - Relate to land use and character
	    Goal OS 7 - Manage open space
	    Goal OS 8 - Acquire, expand, improve open spaces
	    Goal OS 9 - Expand the regional open space system
	
	Environmental Planning Element
	    Goal EP 1 - Protect and enhance habitats
	    Goal EP 2 - Demonstrate environmental stewardship
	
	Conservation Element
	    Goal CONSV 2 - Protect ecosystems
	
	Land Use Element
	    Goal LU 2 - Sensitively integrate land uses
	    Goal LU 3 - Maintain a balance of land uses
	    Goal LU 4 - Develop land use patterns that support mobility
	    Goal LU 5 - Promote land use patterns that conserve resources

Appendix: Relevant General Plan Goals

Equitable Community

Community Services	Public Services & Facilities Element
	Goal PSF 4 - Provide a library system
	Goal PSF 5 - Partner with other jurisdictions
	Healthy Community Element
	Goal HC 1 - Promote access to health and human services
	Goal HC 3 - Build on wellness and healthful living
	Goal HC 4 - Ensure diversity and inclusion
	Goal HC 5 - Accommodate senior citizens
	Goal HC 6 - Foster a caring community
	Recreation Element
	Goal R 1 - Develop quality recreation facilities
	Goal R 2 - Provide recreational diversity
	Circulation Element
	Goal C 5 - Protect neighborhoods
	Goal C 7 - Coordinate with schools and neighborhoods
	Neighborhood Preservation & Revitalization Element
	Goal NPR 3 - Provide neighborhood safety
	Goal NPR 5 - Promote community building
	Safety Element
	Goal S 7 - Maintain safety through crime prevention
Character & Arts	Character & Design Element
	Goal CD 1 - Determine development appropriateness
	Goal CD 2 - Develop, maintain, refine Character Area Plans
	Goal CD 3 - Foster quality design
	Goal CD 4 - Enhance streets and public spaces
	Goal CD 5 - Promote character through landscaping
	Goal CD 6 - Minimize light and noise pollution
	Goal CD 7 - Honor western/equestrian lifestyle
	Neighborhood Preservation & Revitalization Element
	Goal NPR 1 - Preserve neighborhood character
	Goal NPR 4 - Develop neighborhood planning
	Arts, Culture and Creative Community Element
	Goal ACC 1 - Support arts and cultural programs
	Goal ACC 2 - Build on arts, culture, and creativity
	Goal ACC 3 - Promote creative placemaking
	Goal ACC 4 - Protect historic and cultural resources
	Goal ACC 5 - Promote a creative community

Appendix: Relevant General Plan Goals

Equitable Community

Economic Vitality	Economic Vitality Element
	Goal EV 1 - Foster economic resiliency
	Goal EV 2 - Enhance socioeconomic prosperity
	Goal EV 3 - Manage land uses to enhance economic development
	Goal EV 4 - Ensure fiscal sustainability
	Land Use Element
	Goal LU 1 Enhance economic viability and character
	Goal LU 6 - Improve economic well-being
	Goal LU 7 - Protect the Scottsdale Airport
	Tourism Element
	Goal T 1 - Strengthen tourism
	Goal T 3 - Support special events and venues
Education and Lifelong Learning	Education Element
	Goal EDU 1 - Encourage lifelong learning
	Goal EDU 2 - Deliver equitable, quality education
	Goal EDU 3 - Support safe, healthy, positive learning environments
	Goal EDU 4 - Collaborate with public entities

Appendix: Relevant General Plan Goals

Resiliency

Extreme Heat & Hazard Preparedness	<u>Environmental Planning Element</u>
	    Goal EP 7 - Reduce heat islands
	<u>Safety Element</u>
	    Goal S 1 - Prevent hazards
	    Goal S 2 - Prepare for emergencies
	    Goal S 3 - Deliver emergency response
	    Goal S 4 - Prepare for disaster recovery
	    Goal S 5 - Maintain airspace/transportation safety
	    Goal S 6 - Flood impact protection
	    Goal S 8 - Promote hazardous materials safety

Built Environment/Housing	<u>Cost of Development Element</u>
	    Goal COD 1 - Require development pay its share
	    Goal COD 2 - Promote timing and adequacy of public services
	    Goal COD 3 - Coordinate infrastructure investment and decisions
	<u>Conservation Element</u>
	    Goal CONSV 1 - Achieve a sustainable balance
	<u>Environmental Planning Element</u>
	    Goal EP 2 Demonstrate environmental stewardship
	    Goal EP 5 - Encourage environmentally sound design
	<u>Growth Areas Element</u>
	    Goal GA 1 - Provide direction for growth
	    Goal GA 3 - Conserve resources
	    Goal GA 4 - Promote infrastructure planning
	    Goal GA 5 - Build on character and diversity
	<u>Public Buildings Element</u>
	    Goal PB 1 - Provide safe, accessible, and adaptable public buildings
	    Goal PB 2 - Design, construct, & renovate public buildings
	<u>Public Services & Facilities Element</u>
	    Goal PSF 2 - Provide and maintain utility and infrastructure systems
	    Goal PSF 3 - Plan and manage public service operations
	<u>Housing Element</u>
	    Goal H 1 - Support diverse housing options
	    Goal H 2 - Provide a variety of housing options
	    Goal H 3 - Provide generational housing options
	    Goal H 4 - Prevent housing discrimination
	<u>Neighborhood Preservation & Revitalization Element</u>
	    Goal NPR 2 - Promote homeownership

Appendix: Relevant General Plan Goals

Circular Systems

Waste as a Resource	Environmental Planning Element
	    Goal EP 4 - Expand recovery, reuse, and recycling
	Public Services & Facilities Element
	    Goal PSF 1 - Maintain an innovative solid waste system

Food Systems	Healthy Community Element Goal HC 2 - Provide access to healthy, local foods