

Scottsdale Community 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)

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Sustainability in Scottsdale

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 a high quality of life for residents, visitors, and businesses. The public overwhelmingly say that the “overall quality of natural environment in Scottsdale” is essential or very important.¹

The city of Scottsdale sustainability journey goes back decades, including a guiding principle to “Seek Sustainability” from the 1996 **CityShape 2020**. More recently, the city’s leadership is mirrored in the **Scottsdale General Plan 2035**, which identifies five core elements of sustainability and the environment – Open Space, Environmental Planning, Conservation, Water Resources, and Energy.

The city has been proactive and has “built on creative solutions to solve environmental challenges.”² The city responded to flooding problems by building the Indian Bend Wash Greenbelt, a series of parks and amenities covering 11 miles in the center of the city, which was also the first non-structural flood control solution in the country. Over 30,000 acres of desert habitat has been permanently preserved through the McDowell Sonoran Preserve, and the Environmentally Sensitive Lands and Native Plant Ordinances help protect and preserve additional natural area open space. Scottsdale has also pioneered total wastewater reuse and water banking through advanced purification systems, meaning water can be recycled and reducing reliance on non-renewable surface water.

The work continues through multiple municipal programs (see Appendix B), but more needs to be done. There are long-standing and systemic trends that compel further action on sustainability by Scottsdale and the region – including drought, extreme heat, air quality, and economic and social inequities.

By adopting this Community Sustainability Plan, Scottsdale embraces a comprehensive approach to achieving ambitious targets and commits to being held accountable for success.

Since the city cannot do this work alone, this is a community-wide plan that builds on Scottsdale’s legacy of effective, resident-centered governance, and sound economic management. The plan is fundamentally a roadmap for policy and will need implementation by both the city government and members of the community. Together with other plans and programs, it is designed to reflect the values of the city and chart a course of collective action for the next 10 years.

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.

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. This is not the end of our planning but rather a starting point for a continued sustainability journey.

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

² Scottsdale General Plan 2035, p. 70.

Framework

Scottsdale's Community Sustainability Plan 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 as areas where the city is adding sustainability connections to existing work. The strategies and actions for each topic look beyond what the city is doing and provide policy direction where efforts are newer or are now more urgent. The structure facilitates collaboration and reinforces the connections between the topics. There are also specific strategies and actions related to implementation of the plan.

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

Pathway One: Low Emissions and Climate Action Reduces greenhouse gas and other environmentally harmful air emissions

- **Air Quality** • **Climate Planning** • **Energy** • **Mobility**

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

- **Water Resources** • **Open Space & Land Management**

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

- **Community Services** • **Character & Arts** • **Economic Vitality**
- **Education & Engagement**

Pathway Four: Resiliency Anticipates and responds to shocks and stressors, preparing for new risks and impacts

- **Extreme Heat & Hazard Preparedness** • **Built Environment & Housing**
- **Smart City**

Pathway Five: Circular Systems Supports models of production and consumption that reduce, recycle, repair, and repurpose products and materials

- **Waste as a Resource** • **Food Systems**

How To Read The Plan

For each of the 15 topics, there are multiple elements outlining the planned work toward a more sustainable future. A **descriptive statement** gives a clear vision of success for each topic, while **introductory sections** include why each topic is important and highlight existing work. Key **strategies and actions** define the work to be done over the next few years. Building on data collected from 1998-2005, clearly defined **sustainability indicators** inform future data-driven work. When reading this plan, consider

what perspectives, knowledge, and community connections can help achieve the plan objectives.

The 29 strategies and more than 150 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. In total, the strategies reflect a comprehensive approach to

Pathway One: Low Emissions and Climate Action

- **Climate Planning 1** Establish framework to reduce climate emissions
- **Climate Planning 2** Increase adaptation to impacts of climate change
- **Energy 1** Develop a Net-Zero Energy Strategic Plan to accelerate renewable energy installation and expand adoption of energy efficiency practices
- **Energy 2** Improve municipal energy performance
- **Mobility 1** Strengthen integrated transportation planning
- **Mobility 2** Prioritize active transportation
- **Mobility 3** Ensure accessible mobility for all residents by improving transportation systems
- **Air Quality 1** Clean Scottsdale's air
- **Air Quality 2** Support adoption of electric vehicles (EVs) and other alternative fuel vehicles

Pathway Two: Nature-Based

- **Water 1** Ensure water system resiliency
- **Open Space 1** Expand management of open space and improve access
- **Open Space 2** Support practices that preserve the Sonoran desert ecosystem

Pathway Three: Equitable Community

- **Community Services 1** Expand community programs and services that support sustainability and equity goals
- **Character & Arts 1** Reflect sustainability in character-based planning
- **Character & Arts 2** Strengthen connections between arts and culture and sustainability
- **Economic 1** Integrate green innovation and sustainability into economic planning
- **Education 1** Improve community sustainability knowledge and capacity

Pathway Four: Resiliency

- **Heat & Hazard 1** Reduce urban heat impacts
- **Heat & Hazard 2** Address climate and natural hazards in integrated emergency management planning
- **Built Environment 1** Reduce impacts of the built environment through sustainable building practices and policies
- **Housing 1** Ensure benefits of greener buildings support high-quality, safe and affordable housing
- **Smart City 1** Improve community livability and municipal sustainability by combining smart technologies with traditional infrastructure

How To Read The Plan (cont.)

Pathway Five: Circular Systems

- **Waste 1** Increase the diversion rates for material streams
- **Waste 2** Strengthen local markets for recycled-content, recyclable and reusable materials
- **Waste 3** Expand opportunities for diverting organic waste from the landfill
- **Waste 4** Reduce waste generation
- **Food 1** Ensure access to healthy foods for all community members

Implementation

- **Implementation 1** Increase capacity for implementation
- **Implementation 2** Reflect community values in implementation
- **Implementation 3** Ensure transparency
- **Implementation 4** Leverage governance structures to speed execution



Administration

The city of Scottsdale will take the lead on implementation of this Community Sustainability Plan, with residents, businesses, and partner agencies and organizations contributing to its success. Achieving sustainability for Scottsdale requires a common vision and engagement from the whole community to address and prioritize effective solutions. The city efforts will serve as a catalyst for further action by the private sector, non-profits, and community members.

Implementation of the plan will be strategic and manage city resources while striving to maximize the benefits for all Scottsdale residents and visitors. It will be accomplished with a high level of transparency and stakeholder participation and based on a process of continuous evaluation and improvement. Recognizing that this is the city's first sustainability plan, the strategies and actions may take years to complete, so some implementation tasks will begin immediately, while others will start later due to more appropriate timing or funding opportunities.

Specific steps to administer and implement the plan will include:

- The city will originate specific projects (Table 1), noting which are the responsibility of a city agency (Public) and which may also have a direct role for non-governmental actors (Community).
- Through annual reports, the city will account for plan progress, update the implementation table, track the direct work of other entities, and include a section specifically chronicling municipal achievements and data. In addition, the full plan will be formally updated at least every 5 years.
- The city will seek funding for priority projects and work to identify possible City Code updates to address key strategies.
- To ensure these efforts serve the entire community, the city commits to using an equity lens for program implementation and future planning.
- To address capacity-building and cross-cutting efforts, specific implementation strategies and actions for city staff have been identified.
- One of these actions – an implementation toolkit (Table 2) – will be developed to provide an operational matrix to support future decision-making and help prioritize work where there are overlapping or even competing goals.

How The Plan Was Developed

The City of Scottsdale initiated work to develop the Community Sustainability Plan in June 2021 and engaged the Rob and Melani Walton Sustainability Solution Service as a partner in this effort. Arizona State University researchers interviewed city personnel on sustainability progress to date and surveyed best practices and frameworks to match Scottsdale's needs. ASU also provided expert guidance and assistance in translating priorities into sustainability pathways and actions.

The city also reached out to staff, residents, and other stakeholders for their input and feedback. Throughout 2022, city staff engaged the community through workshops and regular meetings with the Scottsdale Environmental Advisory Commission. To obtain perspectives from multiple stakeholder groups, presentations were made to other resident commissions and boards as part of the broader public input process. Staff and additional subject matter experts provided their guidance and ideas along the way. Public input was also collected on an early draft of the plan at a City Council Work Study Session in September 2022, through online comments, and a widely distributed survey.





**Pathway One:
Low Emissions & Climate Action**

Climate Planning

Develop mitigation and adaptation solutions to climate challenges.

Emissions from burning fossil fuels are increasing global average temperatures, magnifying extreme heat and precipitation, and causing 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.

Strategies and Actions

Climate Planning 1 Establish framework to reduce climate emissions and impacts

- 1.1 Perform baseline emissions inventories in 2023 citywide and for municipal operations; update regularly
- 1.2 Set carbon reduction goals, citywide and for municipal operations

Climate Planning 2 Address adaptation to impacts of climate change

- 2.1 Identify climate vulnerabilities and document revised climate projections
- 2.2 Complete a comprehensive climate adaptation plan including a resilience plan for populations most vulnerable to climate impacts Educate the public on impacts of climate change
- 2.3 Include climate resilience metrics in project planning

Sustainability Indicators

- Measurable reduction in greenhouse gas emissions, citywide and for municipal operations



Energy

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

Residents 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 generate cost savings. For example, efficient appliances and equipment can 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.

More work needs to be done to understand the most impactful and cost-efficient energy program for Scottsdale. The city has begun to audit its own buildings, adopted progressive building and energy codes, and offers Commercial Solar Guidelines. Scottsdale's residents used more than 2.3 million MWh of electricity in 2018, which is twice the amount per capita as in Phoenix.³ Arizona is ranked 5th in the nation for the total capacity of solar energy⁴, and the city of Scottsdale has installed over 350 kW on municipal buildings and issued close to 8,000 permits for solar photovoltaic systems.

Strategies and Actions

Energy 1 Develop a Net Zero Energy Strategic Plan to accelerate renewable energy installation and expand adoption of energy efficiency practices

- 1.1 Reduce per capita energy consumption by 15% by 2030 (relative to 2016)
- 1.2 Increase installations of solar energy to 20% of owner-occupied homes by 2030⁵
- 1.3 Work with utilities to promote energy efficiency improvements for residential and commercial properties and educate property owners on incentives
- 1.4 Investigate ways to develop battery or other storage capacity

Energy 2 Improve municipal energy performance

- 2.1 Employ a citywide energy management system and track city energy use
- 2.2 Dedicate staff resources to managing energy programs
- 2.3 Conduct energy audits for 50% of all municipal buildings and implement the remedial measures identified
- 2.4 Expand clean energy generation on city facilities
- 2.5 Continue to convert streetlight systems, park lighting and other civic lighting to LED technology
- 2.6 Join utility green power programs

Sustainability Indicators

- Total energy use (kWh), citywide and for municipal operations
- Solar energy installed, citywide and for municipal operations
- Percentage of households with an energy burden greater than 6%
- Number of municipal systems converted to LED lighting

³ [Maricopa County 2018 Community Greenhouse Gas Emissions Inventory](#)

⁴ "State Solar Spotlight: Arizona," Solar Energy Industries Association. <https://www.seia.org/sites/default/files/2022-09/Arizona%20State-Factsheet-2022-Q3.pdf>

⁵ Baseline is 8.2% in 2021; Source: CDS permit records and US Census 2019 housing estimates (Floyd)

Mobility

Support a well-designed, interconnected, safe, and accessible multimodal transportation system.

Scottsdale was among the first communities in the nation to adopt several important transportation policies: creating a comprehensive citywide trails system, accommodating bicycle users through comprehensive planning and facilities, and adopting the safer lagging left-turn arrows to manage intersection traffic. Highlights of current transportation programming include the free Scottsdale Trolley, a gold-level Bicycle Friendly Community designation, over 270 miles of paths and trails, and a state-of-the-art traffic management system to reduce congestion and emissions. 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.

Strategies and Actions

Mobility 1 Strengthen integrated transportation planning

- 1.1 Require pedestrian/bicycle access through/adjacent to all open spaces (outside of Preserve)
- 1.2 Increase frequency of transit service where needed and make necessary regional system connections to reduce automobile use and provide travel options
- 1.3 Improve maintenance of the existing paved shared use paths and unpaved trails (which includes private property)
- 1.4 Fill in gaps in the paved shared use path and unpaved trail system to increase safety and connectivity
- 1.5 Replace and widen the existing multi-use path system to address increased usage
- 1.6 Develop a micro-transit system tailored to community needs
- 1.7 Ensure adequate resources to maintain and upgrade our transportation network

Mobility 2 Prioritize active transportation

- 2.1 Modify the street network to safely include active transportation modes
- 2.2 Increase the walkability of neighborhoods
- 2.3 Achieve a Platinum Bicycle Friendly Community designation from the League of American Bicyclists
- 2.4 Provide more education on bicycle safety

Mobility 3 Ensure accessible mobility for all residents by improving transportation systems

- 3.1 Use Complete Streets as the framework for the transportation system; eliminate or repurpose unneeded vehicle lanes
- 3.2 Provide access to a shared use path within a ¼ mile for all residences

Sustainability Indicators

- Commute mode split (including single occupancy vehicle usage) and trip reduction performance
- Bus/trolley ridership
- Percentage of population within a quarter-mile walk of a collector or arterial street that provides 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
- Vehicle miles traveled, citywide

Air Quality

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

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), but also commits to additional steps to support cleaner air for residents and visitors. Scottsdale operates a fleet of six street sweepers on curbed streets monthly to reduce dust emissions and responds to high ozone pollution days with protocols and staff outreach. To support the regional transition from internal combustion engine-based transport, the city is currently working to install electric vehicle (EV) charging stations in at least five locations.



Strategies and Actions

Air Quality 1 Clean Scottsdale's air

- 1.1 Participate in regional efforts to improve air quality
- 1.2 Expand education/outreach to city employees and residents about air quality and High Pollution Advisory days, including benefits of electric-powered landscaping equipment and reduced single occupancy vehicle trips
- 1.3 Support county and state 'burn better' programs, 'no burn' restrictions, and fireworks restrictions

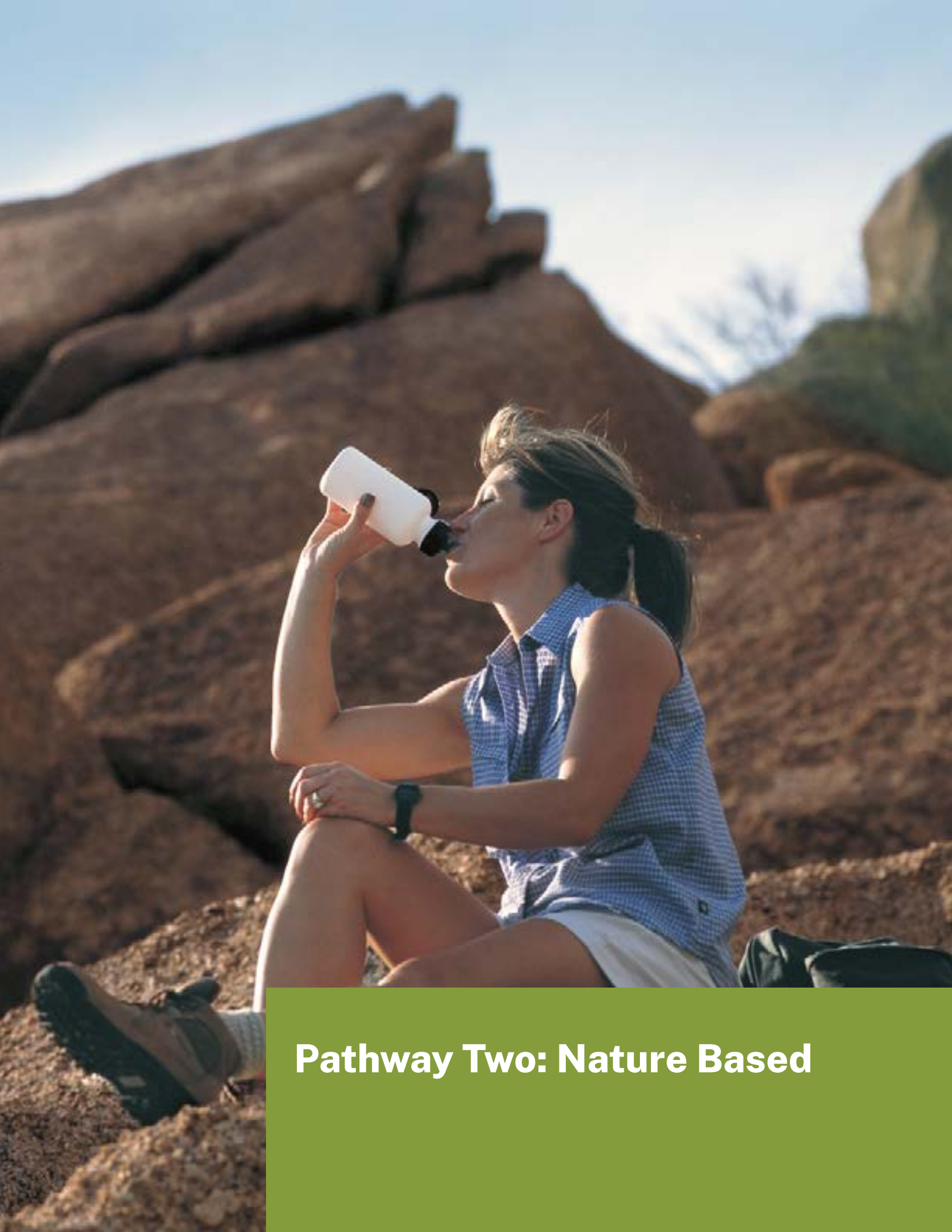
Air Quality 2 Support adoption of electric vehicles and other alternative fuel vehicles

- 2.1 Double number of publicly available EV charging stations to 600 by 2030
- 2.2 Develop a financially sustainable plan for purchasing additional electric and alternate fuel vehicles for the city fleet
- 2.3 Create a municipal EV charging policy
- 2.4 Foster program to expand the use of e-bicycles for commute trips

Sustainability Indicators

- Number of good to moderate air days plus Maricopa County air quality indices (ozone, carbon monoxide and particulates)
- Number and location of publicly available EV charging stations
- Gallons of gasoline and diesel used in municipal vehicles
- Number of city fleet powered by alternate energy sources

⁶ Baseline (July 2022) = 306; Source: [Alternative Fuels Data Center](#) (Level 2 and DC Fast), accessed July 2022.



Pathway Two: Nature Based

Water Resources

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

Water Resources planning and conservation has been a long-standing priority in Scottsdale. This is evident in the city's long record of substantial infrastructure investments and in the ongoing evolution of community water conservation programs. While these accomplishments have placed the city in a positive position related to its water resources, addressing the challenges of the future will require an even more substantial effort. The over-allocation of Colorado River water supplies, coupled with trends of a hotter and drier climate make protecting water resources essential.

Scottsdale has excelled at proactive long-range planning to ensure safe and adequate water supplies and goes beyond the best management practices on water conservation efforts, total wastewater reuse, and water banking. For decades, Scottsdale has used 100 percent of its reclaimed wastewater for direct, non-potable reuse or recharge. In 2021 the city enacted Stage 1 of its Drought Management Plan and in doing so also requested all customers to voluntarily reduce water consumption by at least 5%⁷.



Strategy and Actions

Water #1 Ensure water system resiliency

- 1.1 Encourage registration for online visualization portal and leak alerts (WaterSmart)
- 1.2 Remove non-functional/non-recreational turf at city facilities and retrofit all municipal irrigation systems to smart controllers
- 1.3 Reduce non-functional turf by 30% through education and turf removal rebates
- 1.4 Promote improvements to irrigation equipment for residential and commercial customers
- 1.5 Support low impact development site planning, building design and streetscapes
- 1.6 Increase number and reach of water conservation community engagement activities
- 1.7 Expand water conservation programs in concert with the Drought Management and Water Master Plans
- 1.8 Review water use and conservation in development projects through the framework of the Scottsdale Sustainable Water Management Principles (Principle 4)

Sustainability Indicators

- Total water use
- Total residential daily use
- Gallons of reclaimed water recycled
- Gallons of groundwater treated
- Gallons of water recharged
- Square feet of turf removed
- Number of customers registered on WaterSmart
- Percentage of water meters converted to Automatic Meter Infrastructure
- Number of HOAs participating in conservation program
- Number of customers contacted through water conservation engagement activities

⁷ "Scottsdale asks residents to use five percent less water and conserve more," January 11, 2022, <https://www.scottsdaleaz.gov/water/news/Scottsdale-asks-residents-to-use-five-percent-less-water-and-conserve-more>

Open Space & Land Management

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

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 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 desert and mountain areas. The ESL ordinance requires that a percentage of each property be permanently preserved as Natural Area Open Space and that specific environmental features be protected through land use dedications and easements. Character Area Plans, like those for Desert Foothills and Dynamite Foothills, support these 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 ensures all residents can benefit from access and connection to nature.



Strategies and Actions

Open Space 1 Expand management of open space and improve access

- 1.1 Encourage connectivity of natural area open spaces, scenic corridors, developed open spaces and open drainage easements
- 1.2 Update Community Services Master Plan goals related to parks, open spaces and their proximity to households
- 1.3 Identify long-term maintenance funding

Open Space 2 Support practices that preserve the Sonoran Desert ecosystem

- 2.1 Increase awareness of best practices to reduce invasive species and wildfire concerns
- 2.2 Support the Native Plant Ordinance and its enforcement
- 2.3 Develop guidelines on the use of non-chemical and less-toxic pest management strategies and educate residents on these options and develop education campaign
- 2.4 Develop Design Guidelines that support native ecosystems and desert biodiversity
- 2.5 Maintain tree inventory and encourage use of desert-adapted trees to support heat reduction strategies

Sustainability Indicators

- Miles of bike lanes, bike routes, neighborhood bikeways, shared use paved paths and unpaved trails
- Acres of public and private open space, total and by census block
- Native plant salvage and restoration and invasive species removal
- Number of acres maintained to reduce wildfires



**Pathway Three:
Equitable Community**

Community Services

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

As part of a commitment to livability and quality of life, Scottsdale prioritizes services and facilities for residents, including 43 parks, 40,580 acres of preserve land, four public libraries, and eight resource centers. With over 240,000 residents and more than 9 million overnight and day trip visitors, these services are widely used. Another part of Scottsdale's commitment to public service is the way the city enriches the lives of all residents through a range of programs that support the more vulnerable in our community. Low and moderate income households may face employment barriers, financial instability, or lack of access to healthcare or other basic services. Programs include Scottsdale Cares, through which utility bill customers can support human services programs through donations, Brick-by-Brick, which manufactures energy-efficient low-cost earthen blocks, Operation Fix It projects and the Cab Connection taxi voucher program that assists about one-thousand seniors and people with disabilities each year.



Strategy and Actions

Community Services 1 Expand community programs and services that support sustainability and equity goals

- 1.1 Expand programs that serve low-income qualifying applicants
- 1.2 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
- 1.3 Support implementation of a Blue Zones program
- 1.4 Include users in planning for community services (food banks, low-income housing, etc.)
- 1.5 Create services to promote stable housing and prevent homelessness
- 1.6 Expand homeless outreach services and day relief center program
- 1.7 Offer translation services to those needing assistance

Sustainability Indicators

- Access to and use of community services (especially parks and library programs) by census block
- Library and senior center usage
- Number of Resiliency Hubs
- Number of Operation Fix It projects
- Number of Meals on Wheels participants

Character & Arts

Protect and enhance the diverse identity, features, and heritage of Scottsdale's Sonoran Desert character and build connections between sustainability, history, and the arts.

Scottsdale has long supported planning driven by the diverse character and qualities of our Sonoran Desert community. Connecting character area plans to sustainability outcomes is already underway, through initiatives such as 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 “sustainability that is sensitive to Scottsdale’s unique desert environment.” In addition, the city’s [Sensitive Design Program](#) articulates Scottsdale’s design vision for the built environment and outlines expectations to nurture the character and aesthetic qualities of the desert environment. Art can be another expression of the character of the city, especially to connect to youth interest in sustainability, and Scottsdale’s “Percent for the Arts” program incorporates art as part of city capital projects.



Strategies and Actions

Character & Arts 1 Reflect sustainability in character-based planning

- 1.1 Increase integration of sustainability and the importance of the Sonoran Desert environment into Character Area Plans
- 1.2 Encourage energy-efficient and dark sky friendly designs for outdoor lighting
- 1.3 Incorporate passive cooling strategies into building and site planning designs
- 1.4 Integrate Low Impact Development/Green Infrastructure into neighborhood-level street improvements
- 1.5 Investigate the application of energy performance codes to historic properties
- 1.6 Promote preservation and adaptive reuse as a sustainable practice

Character & Arts 2 Strengthen connections between arts and culture and sustainability

- 2.1 Fund public art with sustainability themes
- 2.2 Expand ‘Traceries’ trash/recycle bins program with Scottsdale Public Art
- 2.3 Develop and support youth arts programs
- 2.4 Promote the Scottsdale Heritage Connection and other historical programs

Sustainability Indicators

- Number of new LID/GI projects
- Number of arts programs in schools
- Number of programs, services and events with sustainability elements
- Number of sustainable public art pieces

Economic Vitality

Embrace a diverse and innovative economy that reinforces sustainability, equity, and character, improves economic wellbeing, sustains the community's high quality of life, and continues as the premier Southwest tourism and special events destination.

Scottsdale is one of the most desirable destinations and fastest-growing startup communities in the U.S.⁸ Of Scottsdale's approximately 18,000 registered businesses, 85% are small businesses of 50 or fewer employees. 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 Arizona, there are companies committed to strong partnerships with the city on sustainability initiatives. At the same time, the beauty and sustainability of the natural environment is integral to economic vitality, with tourism alone having an estimated annual economic impact of \$2 billion.

Strategy and Actions

Economic 1 Integrate green innovation and sustainability into economic planning

- 1.1 Attract businesses that support sustainability and smart city development
- 1.2 Create a green business recognition program
- 1.3 Develop sustainability goals for the Tourism & Events Strategic Plan
- 1.4 Work with anchor institutions to implement sustainable practices
- 1.5 Include environmental questions in Special Event Permit applications
- 1.6 Showcase the city's commitment to sustainability for business development

Sustainability Indicators

- Number of documented green businesses
- Number of green events

⁸ "Scottsdale is America's Fastest-Growing Startup City, Report," July 22, 2022.
<https://www.arizonafoothillsmagazine.com/in-house/in-house-news/scottsdale-is-americas-fastest-growing-startup-city-report>

Education & Engagement

Proactively support sustainability and environmental education opportunities for all citizens.

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.⁹ Engaging residents and finding ways to make learning fun and accessible for all ages can yield benefits well into the future. Examples abound, like the Recycle Bin project of the Scottsdale Unified School District, the pilot tree inventory initiated by the Scottsdale Environmental Advisory Commission, or the community science programs offered by the McDowell Sonoran Conservancy and Scottsdale Public Library.



Strategy and Actions

Education 1 Improve community sustainability knowledge and capacity

- 1.1 Develop a Sustainability Academy
- 1.2 Maintain and continue Green Building education series
- 1.3 Collaborate with schools to develop a K-12 sustainability curriculum with locally relevant assignments and add sustainability leadership positions to student councils
- 1.4 Promote libraries, community centers, parks and other city facilities as resources and connections to nature
- 1.5 Offer sustainability-related opportunities in the City of Scottsdale's Volunteer Program
- 1.6 Work with Mayor's Youth Council on sustainability events
- 1.7 Develop ways for people to interact with sustainability elements and projects

Sustainability Indicators

- Number of community members engaged and/or educated
- Number of schools engaged

⁹ National Environmental Education Foundation, <https://www.neefusa.org/education/benefits>, accessed 10/3/2022.



Pathway Four: Resiliency

Extreme Heat & Hazard Preparedness

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.

Extreme heat already causes many deaths annually across the country, and heat and other natural hazards like flooding, drought, and wildfire are estimated to become more severe and frequent as the climate continues to warm. In 2020, Scottsdale partnered with Arizona State University to assess patterns of urban heat in the city. The result was [Identifying Strategies for a Cooler Scottsdale](#), a study that provides a framework for heat mitigation and management efforts including tree planting and structured shade. Having been an early adopter of required landscaped parking and support for roadside and median landscaping, the city will focus additional resources to address the far-reaching impacts of heat on health, infrastructure, environment and economic wellbeing. The city will continue to prepare for all emergencies, with a focus on the segments of the population that are most vulnerable.

Strategies and Actions

Heat & Hazard 1 Reduce urban heat impacts

- 1.1 Prepare an Extreme Heat Strategic Action Plan and implement priority strategies
- 1.2 Increase tree canopy and building-integrated and free-standing shade structures through an Urban Shade and Tree Plan
- 1.3 Inventory Scottsdale's trees and plant more trees, especially in underserved or older neighborhoods; evaluate a 'matching tree' initiative
- 1.4 Implement an urban forestry program to balance shade and water use and to ensure trees are maintained (including in city parks)
- 1.5 Create a tree ordinance for proper maintenance and replacement near commercial and multi-family buildings
- 1.6 Support private and public strategies to reduce the area of exposed dark asphalt, dark roofs and other hot surfaces
- 1.7 Support code requirements for cool roofs for all new flat roof buildings and promote other cool infrastructure technologies
- 1.8 Support code requirements for shading for 50% of site hardscape and minimize turf areas on new commercial and multifamily developments
- 1.9 Develop partnerships with local utilities for weatherization and tree planting programs
- 1.10 Seek additional funding for weatherization and air conditioner repair/replacement for low-income households.

Heat & Hazard 2 Address climate and natural hazards in integrated emergency management planning

- 2.1 Create an Emergency Management Plan & Program
- 2.2 Work with regional agencies, hospitals, faith-based organizations, schools, community groups and large employers to ensure continuity of operations
- 2.3 Provide education, emergency preparedness and response training at the neighborhood level
- 2.4 Expand response strategies for extreme heat and increase the number of cooling centers and awareness of locations

Sustainability Indicators

- Percentage of tree canopy
- Percentage of neighborhoods with increased tree canopy
- Number of trees in inventory and new trees planted or replaced
- Square feet of cool surfaces added
- Number of disasters occurring by category/type and their financial impact

Built Environment & Housing

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

The features of buildings can significantly impact finances, health, safety, and comfort, and the energy used in buildings is a major contributor to climate change. Scottsdale's first-in-the-state Green Building Program encourages a whole-systems approach through building design and construction to minimize environmental impacts and reduce the energy consumption of buildings while contributing to occupant health. The program led to the construction of the first LEED Platinum certified fire station in the country – Scottsdale Fire Station 602. While the city has pursued energy efficiency in facilities and operations, such efforts may not be as easy for residents. One quarter of low-income households in the Phoenix area have a high energy burden, with at least 12% of income spent on residential energy.¹⁰ As one way to address this problem, the Scottsdale Community Assistance Office oversees the Housing Rehabilitation Program that remodels older homes to be more energy efficient and makes repairs for the health and safety of income-qualified residents. In FY 2019/20, the city completed 71 home rehabilitations.¹¹

Strategies and Actions

Built Environment 1 Reduce impacts of the built environment through sustainable building practices and policies

- 1.1 Implement a green retrofit and cool roof program for buildings
- 1.2 Adopt and implement energy and green construction codes beyond minimum model codes
- 1.3 Support code requirements for new construction and remodels to install solar systems or be 'solar ready'
- 1.4 Strengthen enforcement of all building codes
- 1.5 Continue LEED Gold requirement for new civic structures
- 1.6 Encourage site development strategies that incorporate green infrastructure, low impact development and stormwater harvesting

Housing 1 Ensure benefits of greener buildings support high-quality, safe and affordable housing

- 1.1 Encourage retrofits of older homes with energy efficient technology
- 1.2 Ensure that sensitive-design, low-water and low-energy use strategies are applied equitably
- 1.3 Refresh guidelines for Green Housing Rehabilitation Program and seek additional funding
- 1.4 Develop sustainability guidance for repair and replacement programs
- 1.5 Develop a fund for building new affordable housing stock
- 1.6 Coordinate workforce housing locations with adjacent transit routes, bike lanes, and major employment centers

Sustainability Indicators

- Number of green buildings
- Energy use per square foot
- Number of LEED certified buildings
- Number of homes retrofitted by Human Services programs
- Percentage of households that pay for more than 30% of income on housing

¹⁰ ACEEE, "*Energy Burdens in Phoenix*," September 2020.

¹¹Scottsdale Human Services, "*CDBG Public Facilities and Housing: Accomplishments for FY 2019/20*."

<https://www.scottsdaleaz.gov/Assets/ScottsdaleAZ/Social+Services/Funding/CDBG+PF+and+Housing+Infographic.pdf>

Smart City

Integrate smart technologies for a safer and more efficient city.

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 the 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 its [smart city](#) story, provides updates on upcoming and ongoing efforts, and offers ways for residents, businesses and community members to get involved. There are numerous smart city solutions already in place, which help the city manage traffic flow, 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 municipal sustainability by combining smart technologies with traditional infrastructure

- 1.1 Continue implementation of the Smart Cities Strategic Roadmap by solving problems using smart city solutions
- 1.2 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
- 1.3 Explore emerging smart technologies (such as lighting, water, sensors, GIS) and integrate cost-effective solutions to optimize existing infrastructure

Sustainability Indicators

- Number of smart technologies adopted in municipal operations



Pathway Five: Circular Systems

Waste as a Resource

Develop a circular economy approach for materials management and effective citywide diversion of all waste streams.

Besides having created “Godzilla”, the first mechanized trash collection system, Scottsdale is home to several zero waste events including Waste Management’s Phoenix Open and several city-sponsored ones. Broadening efforts to increase recycling, change how vendors package their offerings, and offer composting will reduce the pressure on landfills, save energy, and reduce upstream pollution from manufacturing. 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 Community Solid Waste Reuse and Recycling Strategic Plan outlines eight policy statements driven by the community’s values and vision. The plan is focused on improving the 27% rate of waste kept out of the landfill, showing city leadership with a 90% diversion rate, asking single-family homes to divert 60%, and working with commercial buildings to recycle or compost 30% of their waste.

Strategies and Actions

Waste 1 Increase diversion rates for material streams

- 1.1 Support code requirements for builders to include space for recycling in new commercial and multi-family housing
- 1.2 Support code requirements for a 50% diversion rate of construction and demolition waste for commercial projects
- 1.3 Promote commercial and multi-family recycling
- 1.4 Work to make city-sponsored events zero waste
- 1.5 Develop a green event program
- 1.6 Host an expo with vendors to promote and educate about green event options
- 1.7 Investigate how to recycle and/or reuse more cardboard boxes
- 1.8 Investigate a ‘pay as you throw’ rate structure for solid waste

Waste 2 Strengthen local markets for recycled content, recyclable and reusable materials

- 2.1 Adopt municipal green purchasing policies
- 2.2 Attract circular economy companies and entrepreneurs
- 2.3 Encourage innovative reuse of materials

Waste 3 Expand opportunities for diverting organic waste from the landfill

- 3.1 Establish a landscaping waste drop-off program
- 3.2 Promote commercial and multi-family organic waste diversion
- 3.3 Offer composting at five city-owned or -managed buildings or venues by 2025
- 3.4 Incentivize composting by providing backyard or electric composters
- 3.5 Promote use of household composters

Waste 4 Reduce waste generation

- 4.1 Promote donation as an alternative to bulk collection
- 4.2 Expand reuse of surplus municipal goods
- 4.3 Reduce use of single-use, non-recyclable and non-compostable packaging and bags
- 4.4 Create program to reuse building materials

Waste as a Resource (cont.)

Develop a circular economy approach for materials management and effective citywide diversion of all waste streams.

Sustainability Indicators

- Total amount of solid waste generated, recycled and composted by type (tons)
- Tons of construction and demolition materials diverted from the landfill
- Overall diversion rate
- Recycling contamination rate
- Number of zero waste city events
- Number of green events
- Number of businesses adding recycling services each year

Food Systems

Support food production from farm to table to farm by encouraging local farmers and ensuring access to fresh healthy food sources.

Even though Arizona grows 12% of the fruits and vegetables consumed nationwide, there are still a significant number of people who face food insecurity.¹² 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 ½-mile from the nearest supermarket.¹³ Programs addressing food insecurity in Scottsdale 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

- 1.1 Assess and map food deserts
- 1.2 Partner with non-profits, grocery stores, restaurants and other food-related businesses to reduce food waste and donate food to those in need
- 1.3 Expand operations of the Vista del Camino Food Bank
- 1.4 Establish community and personal gardens throughout the city
- 1.5 Encourage purchasing sustainable or local food for events
- 1.6 Evaluate creating a food policy council

Sustainability Indicators

- Access to healthy food sources, by census block
- Tons of food donated
- Number of community gardens created

¹² Arizona Food Bank Network, <https://azfoodbanks.org/hunger-in-arizona/>. Accessed 9/30/2022.

¹³ USDA Economic Research Service, Food Access Research Atlas. <https://www.ers.usda.gov/data-products/food-access-research-atlas.aspx>. Accessed 9/30/2022.

Implementation

Implementing this Community Sustainability Plan starts with municipal government actions. Collaboration with stakeholders 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 implement the plan will yield better outcomes and also help ensure that the benefits of the plan are distributed equitably across the city.

To address capacity-building and cross-cutting efforts, specific implementation strategies and actions will be initiated by city staff. Two other elements will also support robust implementation – a list of initial programs and actions and a toolkit to evaluate future initiatives.

Strategies and Actions

Implementation 1 Increase capacity for implementation

- 1.1 Identify and nurture staff and community champions for sustainability
- 1.2 Create staff training modules and community outreach media to increase awareness of sustainability solutions and to build the constituency for continuous improvement
- 1.3 Craft a ‘build-a-plan’ toolkit for residents and small and medium businesses, including a mechanism for reporting on progress
- 1.4 Regularly engage with communities and residents

Implementation 2 Reflect community values in implementation

- 2.1 Build an implementation toolkit to drive decision-making in execution of strategies and actions
- 2.2 Expand community engagement to give more community members a voice on implementation
- 2.3 Partner with Diversity, Equity and Inclusion program on development of priorities
- 2.4 Develop checklists for evaluating projects and proposals

Implementation 3 Ensure transparency

- 3.1 Produce an annual report on progress toward sustainability goals including data on the Sustainability Indicators and a section specifically chronicling city achievements and data
- 3.2 Track operating and capital spending on sustainability-related work and operational savings and project rebates in partnership with the City Treasurer
- 3.3 Document estimated co-benefits, like improved air quality and health and consumer savings
- 3.4 Host a regular community event to share successes and solicit feedback

Implementation 4 Leverage governance structures to speed execution

- 4.1 Use the Sustainable Scottsdale Steering Team as a forum to elevate to leadership important or citywide issues that impact the achievement of sustainability goals
- 4.2 Set a green procurement goal as a percentage of total municipal purchasing
- 4.3 Formally update the Community Sustainability Plan at least every 5 years
- 4.4 Share successes and challenges with other cities locally and nationally
- 4.5 Create a culture of sustainability within city operations through departmental and performance goals and efforts by the employee Green Team.

Table 1 outlines the initial programs and actions to realize the goals of the plan, noting which are the responsibility of a city agency (Public) and which also have a direct role for the non-governmental actors (Community). Through the annual reporting process, the city will update this implementation table, although changes and additions may also be made at other times. Recognizing that this is the city’s first sustainability plan, the strategies and actions may take years to complete, so some implementation tasks will need to begin immediately, while others will wait for more appropriate timing and/or funding opportunities. Timelines for completion of programs will vary and some may be on-going, and the City Council may fund or not fund programs at any time.

Strategy	Ongoing	Years 1-2	Years 3-5	Responsible Entity(ies)
Low Emissions & Climate Planning				
Energy 1 (also Built Environment 1): Net Zero Strategic Energy Plan		√	√	Public (Public Works, OEI), Community (e.g., utilities, residents, large energy users)
Energy 2: Municipal energy management & solar installations	√			Public (Public Works)
Climate Planning 1: Emissions inventory and reduction goals		√	√	Public (OEI)
Climate Planning 2: Initiate adaptation and resiliency planning		√		Public (OEI), Community (e.g., residents)
Mobility 1: Shared use path improvements	√	√		Public (Transportation)
Mobility 1: Introduction of protected bike lanes	√	√		Public (Transportation)
Mobility 1: Recycling of storm residue to address roadway erosion	√			Public (Transportation)
Mobility 2: Refinement of trolley system and bus stops	√	√		Public (Transportation)
Air Quality 1: Outreach about high pollution days	√			Public (OEI), Community (e.g., large emitters, major employers, residents)

Strategy	Ongoing	Years 1-2	Years 3-5	Responsible Entity(ies)
Nature-Based				
Water 1: Reduce amount of non-functional turf	√			Public (multiple), Community (e.g., HOAs, commercial properties, residents)
Water 1: Expand water conservation programs and improve water use efficiency	√			Public (multiple), Community (e.g., HOAs, large water users, residents)
Open Space 2: Reduce invasive species	√			Public (multiple), Community (e.g., residents, landscapers)
Open Space 2: Wildfire risk reduction	√			Public (multiple), Community (e.g., residents, landscapers)

Strategy	Ongoing	Years 1-2	Years 3-5	Responsible Entity(ies)
Equitable Community				
Community Services 1: Create a Resiliency Hub		√	√	Public (Community Services, OEI), Community (e.g., non-profit organizations, residents)
Character & Arts 2 (also Education 1): Collaborate with schools and libraries	√	√		Public (Public Library, OEI), Community (e.g., school districts)
Economic 1: Attract green businesses	√	√		Public (Economic Development)
Education 1 (also Implementation 1 & 2, others): Outreach and education	√	√		Public (multiple); Community (e.g., major institutions, school districts, businesses, residents)
Education 1: Expand sustainability-related volunteer opportunities	√	√		Public (OEI, Volunteer Program), Community (e.g., residents, major institutions)

Strategy	Ongoing	Years 1-2	Years 3-5	Responsible Entity(ies)
Resiliency				
Heat & Hazard 1: Extreme Heat Strategic Action Plan		√		Public (OEI, CPM)
Heat & Hazard 1: Shade and Tree Plan		√		Public (OEI, CPM), Community (e.g., residents, HOAs, commercial properties)
Heat & Hazard 1: Increase tree canopy	√			Public (multiple), Community (e.g., developers)
Heat & Hazard 2: Emergency Management Plan		√		Public (Emergency Management)
Built Environment 1 (also Water 1, Character & Arts 1): Increase use of low impact development		√		Public (Plan Review), Community (e.g., developers)
Built Environment 1 (also Energy 1, Waste 1): Adopt and implement new building codes	√	√		Public (Plan Review, Inspections), Community (e.g., developers, architects)
Smart City 1: Implement Smart City roadmap	√			Public (Economic Development)



Strategy	Ongoing	Years 1-2	Years 3-5	Responsible Entity(ies)
Circular				
Waste 1: Improve commercial recycling	√			Public (Solid Waste), Community (e.g., contractors)
Waste 1: Zero waste and green event program	√	√		Public (Solid Waste, Tourism, OEI), Community (e.g., hospitality industry)
Waste 2 (also Implementation 4): Expand green purchasing program		√		Public (Purchasing)
Waste 3: Increase commercial composting		√		Public (Solid Waste), Community (e.g., multi-family and commercial building managers)
Food 1: Include sustainable food purchases for green events	√	√		Public (OEI, Solid Waste), Community (e.g., hospitality industry)

Strategy	Ongoing	Years 1-2	Years 3-5	Responsible Entity(ies)
Implementation				
Implementation 1: Create 'build-a-plan' tool		√		Public (Communications, OEI)
Implementation 2: Finalize implementation toolkit		√		Public (OEI)
Implementation 3: Produce annual report	√	√		Public (Communications, OEI)
Implementation 3: Track spending and savings	√	√		Public (Treasurer, OEI)
Implementation 4: Expand work of SSST and employee green team	√			Public (SSST, OEI)

Office of Environmental Initiatives (OEI)
Scottsdale Unified School District (SUSD)
Capital Project Management (CPM)
Sustainable Scottsdale Steering Team (SSST)

An implementation toolkit will be developed to provide an operational matrix to support future decision-making. This matrix will include criteria to help evaluate projects and initiatives by asking questions related to specific community values and help prioritize work where there are overlapping or even competing goals. By focusing on a knowledge gathering framework, this toolkit can help address the concerns of the community. The draft framework below will be expanded with input from the community to help explain how the plan will be deployed. Table 2 includes sample elements of the toolkit.

Category	Sample Questions
<p>General</p>	<p>What problem or problems does this program address?</p> <p>What is the public value of the program?</p> <p>Is there current data related to the program and what does it indicate?</p> <p>Are there legal barriers to implementation of the program ?</p> <p>Does the program require changes to city code?</p> <p>Who is accountable for the program?</p> <p>What is the process to amend the program design based on community feedback?</p> <p>Does the program replace an existing effort and what is the cost to do so?</p>
<p>Environmental</p>	<p>What is the impact on greenhouse gas emissions?</p> <p>What is the impact on water use?</p> <p>What is the impact on the amount of waste sent to the landfill</p> <p>How does the program expand access to healthy/clean transportation?</p> <p>How does the program help restore or protect ecosystem health?</p> <p>How does the program improve air quality?</p> <p>Are there any other negative or positive environmental impacts?</p> <p>What is the impact on public health?</p> <p>How does the program increase access to open space?</p>

Category	Sample Questions
<p>Equity</p>	<p>How were the people who will be impacted by the program consulted in the design?</p> <p>How are community members already working in this area included in the program?</p> <p>Does the program create a financial burden (directly or indirectly) to communities of color or low-income populations? If yes, are there opportunities to mitigate these impacts?</p> <p>How does the program build the capacity of the community to develop or implement solutions?</p>
<p>Economic</p>	<p>Do the benefits exceed the costs? Over that timeframe?</p> <p>What is the return on the investment?</p> <p>Is funding for the program already identified?</p> <p>Does the program support greener business operations?</p>



Glossary

Active Transportation: Any self-propelled, human-powered mode of transportation, such as walking, skateboarding or bicycling.

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.

Blue Zones: A non-profit organization that partners with communities to help people live longer and better by improving their surroundings

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 reduce, recycle, repair and repurpose products and materials.

Complete streets: Streets designed and operated to enable safe and comfortable access for all users: motorists, pedestrians, bicyclists, and transit.

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.

Equity lens: A tool used to improve planning, decision-making, and resource allocation leading to more equitable policies and programs.

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.

Green business: An organization with a minimal negative impact or positive effect on the environment, community, society, or economy

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.

Invasive species: A plant, animal, or microbial species introduced into an area accidentally or unknowingly that may adapt, thrive, and aggressively spread, stressing indigenous and balanced ecosystems.

Glossary

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 Development: 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.

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

Metric: A measurable indicator of success.

Micro-transit: Small-scale, on-demand public transit services that that can offer fixed routes and schedules, as well as flexible routes and on-demand scheduling.

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 and 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).

Office of Environmental Initiatives (OEI): The Office of Environmental Initiatives (OEI) acts as a resource for environmental regulatory compliance, supports the City's Green Building Programs, manages the new sustainability plan and provides a wide range of environmental resources to the community and City staff.

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 citywide issues that impact the achievement of sustainability goals.

Stormwater harvesting: The collection, accumulation, treatment, and/or storage of stormwater for its eventual reuse.

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.

Glossary

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).

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Transportation and Streets	Environmental Initiatives
Solid Waste	Community Services
Facilities	Parks & Recreation
Fleet	Police
Water	Fire Department and Emergency Management
Planning & Development Services	Web and Design Services

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Appendix A: Related Scottsdale General Plan 2035 Goals

Pathway One: Low Emissions and Climate Action

Climate Planning	<u>Environmental Planning Element</u> Goal EP 8 – Plan, prepare, adapt for climate impacts
Energy	<u>Energy Element</u> 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 <u>Environmental Planning Element</u> Goal EP 5 - Encourage environmentally sound design Goal EP 8 - Plan, prepare, adapt for climate impacts
Mobility	<u>Circulation Element</u> 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 <u>Bicycling Element</u> Goal B 1 – Develop accessible and interconnected networks Goal B 2 - Encourage increased bicycle use Goal B 3 - Promote bicycle education and safety <u>Growth Areas Element</u> Goal GA 2 - Improve transportation access <u>Tourism Element</u> Goal T 2 - Enhance mobility and wayfinding <u>Environmental Planning Element</u> Goal EP 8 - Plan, prepare, adapt for climate impacts
Air Quality	<u>Circulation Element</u> Goal C 2 - Reduce automobile trips <u>Bicycling Element</u> Goal B 2 - Encourage increased bicycle use Goal B 3 - Promote bicycle education and safety <u>Environmental Planning Element</u> Goal EP 3 - Improve air quality Goal EP 8 - Plan, prepare, adapt for climate impacts

Appendix A: Related Scottsdale General Plan 2035 Goals

Pathway Two: Nature-Based

<p>Water Resources</p>	<p><u>Environmental Planning Element</u> Goal EP 6 – Surpass water quality standard</p> <p><u>Water Resources Element</u> Goal WR 1 – Ensure long-term water supplies Goal WR 2 – Prepare for climatic impacts</p> <p><u>Conservation Element</u> Goal CONSV 3 – Protect watersheds Goal CONSV 4 – Conserve water Goal CONSV 5 – Minimize erosion</p>
<p>Open Space & Land Management</p>	<p><u>Open Space Element</u> 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</p> <p><u>Environmental Planning Element</u> Goal EP 1 - Protect and enhance habitats Goal EP 2 - Demonstrate environmental stewardship</p> <p><u>Conservation Element</u> Goal CONSV 2 - Protect ecosystems</p> <p><u>Land Use Element</u> 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</p>

Appendix A: Related Scottsdale General Plan 2035 Goals

Pathway Three: Equitable Community

<p>Community Services</p>	<p><u>Public Services & Facilities Element</u> Goal PSF 4 - Provide a library system Goal PSF 5 - Partner with other jurisdictions</p> <p><u>Healthy Community Element</u> 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</p> <p><u>Recreation Element</u> Goal R 1 - Develop quality recreation facilities Goal R 2 - Provide recreational diversity</p> <p><u>Circulation Element</u> Goal C 5 - Protect neighborhoods Goal C 7 - Coordinate with schools and neighborhoods</p> <p><u>Neighborhood Preservation & Revitalization Element</u> Goal NPR 3 - Provide neighborhood safety Goal NPR 5 - Promote community building</p> <p><u>Safety Element</u> Goal S 7 - Maintain safety through crime prevention</p>
<p>Character & Arts</p>	<p><u>Character & Design Element</u> 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</p> <p><u>Neighborhood Preservation & Revitalization Element</u> Goal NPR 1 - Preserve neighborhood character Goal NPR 4 - Develop neighborhood planning</p> <p><u>Arts, Culture and Creative Community Element</u> 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</p>

Appendix A: Related Scottsdale General Plan 2035 Goals

Pathway Three: Equitable Community

<p>Economic Vitality</p>	<p><u>Economic Vitality Element</u></p> <ul style="list-style-type: none"> 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 <p><u>Land Use Element</u></p> <ul style="list-style-type: none"> Goal LU 1 Enhance economic viability and character Goal LU 6 - Improve economic well-being Goal LU 7 - Protect the Scottsdale Airport <p><u>Tourism Element</u></p> <ul style="list-style-type: none"> Goal T 1 - Strengthen tourism Goal T 3 - Support special events and venues
<p>Education and Lifelong Learning</p>	<p><u>Education Element</u></p> <ul style="list-style-type: none"> 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 A: Related Scottsdale General Plan 2035 Goals

Pathway Four: Resiliency

<p>Extreme Heat & Hazard Preparedness</p>	<p><u>Environmental Planning Element</u> Goal EP 7 -Reduce heat islands</p> <p><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</p>
<p>Built Environment/ Housing</p>	<p><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</p> <p><u>Conservation Element</u> Goal CONSV 1-Achieve a sustainable balance</p> <p><u>Environmental Planning Element</u> Goal EP 2 Demonstrate environmental stewardship Goal EP 5-Encourage environmentally sound design</p> <p><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</p> <p><u>Public Buildings Element</u> Goal PB 1-Provide safe, accessible, and adaptable public buildings Goal PB 2-Design, construct, & renovate public buildings</p> <p><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</p> <p><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</p> <p><u>Neighborhood Preservation & Revitalization Element</u> Goal NPR 2-Promote homeownership</p>

Appendix A: Related Scottsdale General Plan 2035 Goals

Pathway Five: Circular Systems

Waste as a Resource	<u>Environmental Planning Element</u> Goal EP 4 - Expand recovery, reuse, and recycling
	<u>Public Services & Facilities Element</u> Goal PSF 1 - Maintain an innovative solid waste system
Food Systems	<u>Healthy Community Element</u> Goal HC 2 - Provide access to healthy, local foods

Appendix B:

Synergy with Existing Plans and Efforts

Low Emissions & Climate Action

- [Transportation Action Plan](#) (2022)
- [Old Town Bicycle Master Plan](#) (2022)
- [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](#) (2018)

