

2. SUSTAINABILITY & ENVIRONMENT



INTRODUCTION

Scottsdale embraces environmental conservation and ample access to our magnificent open spaces. The community's distinctive natural and environmental features contribute significantly to quality of life and economic vitality. As stewards of the natural environment, community members commit to preserving the Sonoran Desert ecosystem, protecting biodiversity, and managing natural resources and open spaces to ensure the city remains a beautiful and enjoyable place.

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 also provides an exemplary open space system, which contributes to an exceptional quality of life and visitor experience. A large proportion of the city will remain as natural open space through privately-dedicated Natural Area Open Space (NAOS) within Environmentally Sensitive Lands District (ESL) areas and through citizen initiative. In established areas, a network of parks, scenic and vista corridors, paths, and trails provide access to nature, recreation opportunities, ecological benefits, and beauty. As the city nears build-out, almost half of all land in Scottsdale will be dedicated as open space and connected to the regional system of over 4,700 square miles of open space.

Scottsdale's population has steadily increased while the opportunity to create open space and preserve environmental resources has diminished. The city will need to acquire and create



new open space in areas where it is most lacking, preserve unique natural features and environmental quality, provide greater access to and connectivity between open spaces, and retrofit existing open spaces to accommodate the community's needs in the future.

Scottsdale recognizes that economic growth, environmental stewardship, the provision of open space, and fiscal responsibility are interrelated and mutually achievable goals. Therefore, when environmental and open space goals compete with other goals, such as those related to economic development, the city commits to equally considering environmental and open space objectives.

The Sustainability & Environment Chapter fosters the planning for, and implementation of, comprehensive, integrated, sustainable strategies that enhance the City of Scottsdale. These items include open space, natural resource conservation, energy efficiency, and water conservation; air and water quality protection; noise pollution; waste reduction; heat mitigation and ecosystem climate resiliency. The strategies also encourage local, state, regional, and national collaboration on environmental issues.

ELEMENTS IN THIS CHAPTER:

- Open Space
- Environmental Planning
- Conservation
- Water Resources
- Energy

Sustainability & Environment Chapter

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
- Goal EP 3** Improve air quality[‡]
- Goal EP 4** Expand recovery, reuse, and recycling
- Goal EP 5** Encourage environmentally sound design
- Goal EP 6** Surpass water quality standards[‡]
- Goal EP 7** Reduce heat islands
- Goal EP 8** Plan, prepare, adapt for climate impacts

CONSERVATION ELEMENT[‡]

- Goal CONSV 1** Achieve a sustainable balance[‡]
- Goal CONSV 2** Protect ecosystems[‡]
- Goal CONSV 3** Protect watersheds[‡]
- Goal CONSV 4** Conserve water[‡]
- Goal CONSV 5** Minimize erosion[‡]

WATER RESOURCES ELEMENT[‡]

- Goal WR 1** Ensure long-term water supplies[‡]
- Goal WR 2** Prepare for climatic impacts

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[‡]

[‡ = State-required]



OPEN SPACE ELEMENT[‡]

Safe, accessible open space is vital for sustaining a high quality of life, thus, a strategically planned, balanced, and connected system of open spaces is essential to both citizen and visitor enjoyment. The City of Scottsdale commits to providing, maintaining, enhancing, and expanding both active and passive open spaces throughout the community to serve the local citizens and remain a highly desirable tourism destination.

Common open spaces serve a variety of functions, such as recreation, aesthetics, and flood control. Throughout Scottsdale, several types of open spaces create different experiences. The Scottsdale McDowell Sonoran Preserve is a continuous tract of natural open space. It protects significant wildlife habitat, maintains the community's connection to the natural Sonoran Desert, and represents an image and character that is uniquely Scottsdale. Other important swaths of preserved natural open space include those dedicated within the Environmentally Sensitive Lands District (ESL). This forward-thinking ordinance serves as a regulatory guide for protecting our environmentally sensitive desert lands, washes, and wildlife corridors, including protection from natural hazards. The ESL District also promotes conservation of natural resources, including watersheds, streams, and aquifers. A major developed open space, the Indian Bend Wash Greenbelt serves as a recreation and flood control tool, as well as a significant segment of the regional park system. Smaller parks next to school sites allow for dual use by the neighborhood and school.

As Scottsdale nears build-out, sustaining existing open spaces and creating new open spaces will be even more important. Regional collaboration in open space matters will help to ensure that current and future community members and visitors continue to enjoy our open spaces.

Through the goals and policies of this element, Scottsdale will sustainably protect and manage its open space resources.

Goals and Policies

Goal OS 1 †

Provide four primary public and private open space types: the Scottsdale McDowell Sonoran Preserve, natural open spaces, developed open spaces, and continuous open spaces.

Policies

- OS 1.1 Scottsdale McDowell Sonoran Preserve.** Provide an integrated public desert open space system consisting of mountains, desert, and natural areas to maintain scenic views, preserve wildlife and desert plant habitats, and protect archaeological and historical resources and sites, while providing public access for educational purposes and passive outdoor recreational opportunities. It is important to sustain Scottsdale's Preserve as natural Sonoran Desert for current and future generations. *[Cross-reference Land Use; Recreation; Environmental; Planning and Conservation Elements]*
- OS 1.2 Natural Open Space.** Provide public and private, natural open spaces to preserve wildlife habitat, views, and sensitive historical/archeological sites, and, where appropriate, incorporate areas for passive recreation. *[Cross-reference Environmentally Sensitive Lands District (ESL); and, Land Use; Healthy Community; Arts, Culture & Creative Community; Recreation; Environmental Planning; and Conservation Elements]*
- OS 1.3 Continuous Open Spaces.** Develop a system of continuous open spaces that connect citywide and regionally. Such open spaces include washes (inclusive of Vista Corridors), streetscapes, wildlife corridors, trails, and canals. *[Cross-reference Character & Design; Land Use; Healthy Community; Recreation; Environmental Planning; and Conservation Elements]*
- OS 1.4 Developed Open Space.** Offer public and private parks and open spaces to accommodate both active and passive recreation. *[Cross-reference Land Use; Healthy Community; and Recreation Elements]*



Goal OS 2

Fulfill the Scottsdale McDowell Sonoran Preserve initiative to create an integrated desert open space and wildlife corridor system that connects to the regional Sonoran Desert open space system.

Policies

OS 2.1 Complete the land acquisition for the Scottsdale McDowell Sonoran Preserve. *[Cross-reference Land Use; Conservation; and Environmental Planning Elements]*

OS 2.2 Ensure development in proximity to the Scottsdale McDowell Sonoran Preserve respects its unique location, minimizes impacts to the natural environment, and contributes to the community's visual and physical access to open space and the mountains. *[Cross-reference Character & Design; Land Use; Healthy Community; Environmental Planning; and Conservation Elements]*



OS 2.3 Restore ecological habitat in degraded areas (e.g., burned, grazed, vehicular damage, invasive species) of the Scottsdale McDowell Sonoran Preserve. *[Cross-reference Environmental Planning and Conservation Elements]*

OS 2.4 Protect wildlife corridors, habitat, and trail crossings when planning future mobility routes through and adjacent to the Scottsdale McDowell Sonoran Preserve. *[Cross-reference Recreation; Environmental Planning; Circulation; and Conservation Elements]*

Goal OS 3

Maintain the lush desert character and wildlife corridors by protecting and preserving natural open spaces.

Policies

OS 3.1 Celebrate Scottsdale's identity as a desert city by preserving existing natural open space, supporting the preservation of the natural ecosystem, and protecting sensitive environmental features. *[Cross-reference Land Use; Conservation; and Environmental Planning Elements]*

OS 3.2 Protect environmentally sensitive lands from the impacts of development. *[Cross-reference Land Use; Conservation; and Environmental Planning Elements]*

OS 3.3 Provide opportunities for people to experience and enjoy the Sonoran Desert and mountains, while balancing public access and preservation needs.

Goal OS 4

Visually and physically connect open spaces to maintain a continuous open space system.

Policies

- OS 4.1** Develop a public trail and path system that links to other city and regional systems. *[Cross-reference Healthy Community and Recreation Elements]*
- OS 4.2** Identify and consider the positive and negative impacts of proposed projects on viewsheds. *[Cross-reference Character & Design and Land Use Elements]*
- OS 4.3** As development and redevelopment occurs along transportation corridors, ensure the preservation of mountain viewsheds, the Sonoran Desert, natural features, and landmarks that enhance the unique image and aesthetics of major streets through open space buffering. The following Visually Significant Roadway designations should be applied:

- **Scenic Corridors** should be designated along major streets where a significant landscaped buffer is needed between streets and adjacent land uses, where an enhanced streetscape appearance is desired, and where views to mountains and natural or man-made features will be maximized. Scenic Corridors may provide enhanced opportunities for open space, scenic viewing, trails, and pathways in the community.
- **Buffered Roadways** should be designated along major streets to provide an aesthetic or environmental buffer, enhance the unique image of the streetscape, and reduce the impacts that major streets may have on adjacent land uses.
- **Desert Scenic Roadways** should be designated along the one-mile and half-mile streets within Environmentally Sensitive Lands that are not already designated as Scenic Corridors or Buffered Roadways. These designations maintain and enhance open spaces along streets in environmentally sensitive locations.
- Apply a **Preserve Scenic Buffer** along streets within and adjacent to the Recommended Study Boundary (RSB) of the Scottsdale McDowell Sonoran Preserve.

[Cross-reference Character & Design; Land Use; Arts, Culture & Creative Community; Recreation; Environmental Planning; Conservation Elements; and Visually Significant Roadways Map in Character & Design Element]

- OS 4.4** Encourage the use of drainage areas, Vista Corridors, and transmission line corridors as open space opportunities. *[Cross-reference Healthy Community; Recreation; Conservation; and Public Services & Facilities Elements]*
- OS 4.5** Locate parks to enhance unique landmarks and environmentally significant areas. *[Cross-reference Character & Design; Land Use; Recreation; and Conservation Elements]*

Goal OS 5

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

Policies

- OS 5.1** Ensure that open spaces in public ownership remain unrestricted and accessible to community members for compatible recreational use.

[Cross-reference Recreation and Public Services & Facilities Elements]

- OS 5.2** Locate publicly accessible and useable open spaces within Growth and Activity Areas and established neighborhoods.

[Cross-reference Land Use; Healthy Community; Growth Areas; Recreation; and Neighborhood Preservation & Revitalization Elements]



- OS 5.3** Capitalize on opportunities to create new, or connect and expand existing, open spaces in established areas when redevelopment occurs. *[Cross-reference Land Use and Conservation, Rehabilitation, & Redevelopment Elements]*

- OS 5.4** Expand resident use of city tourism venues, such as WestWorld and Scottsdale Stadium, to maximize the benefit of these facilities to the community. *[Cross-reference Character & Design; Land Use; and Recreation Elements]*

- OS 5.5** Develop a series of linked public spaces throughout downtown that are connected by pedestrian corridors. *[Cross-reference Character & Design; Land Use; Recreation; and Circulation Elements]*

Goal OS 6

Design and manage open spaces to relate to surrounding land uses and character.

Policies

OS 6.1 † Evaluate the design of open spaces with the following primary determinants: aesthetics, neighborhood and service area needs, public safety, visual and functional connectivity, social and economic impacts, maintenance requirements, water consumption, drainage considerations, multi-use, Character Area, desert preservation, and wildlife corridor protection. *[Cross-reference Character & Design; Land Use; Healthy Community; Recreation; Environmental Planning; Conservation; Water Resources; Cost of Development; Safety; Public Services & Facilities; and Neighborhood Preservation & Revitalization Elements]*

OS 6.2 Protect the different priorities and management objectives for each of the Open Space Land Use categories. *[Cross-reference Land Use Element]*

OS 6.3 Aesthetically and sensitively integrate utilities and other public facilities into open spaces. *[Cross-reference Character & Design and Public Services & Facilities Elements]*

OS 6.4 Ensure development plans respect existing topography, view corridors, wildlife corridors, and open space. Where possible, enhance existing viewsheds as areas are developed and redeveloped. *[Cross-reference Character & Design; Land Use; Environmental Planning; and Conservation Elements]*

OS 6.5 Provide ample shade in public open spaces as appropriate for the type of open space. *[Cross-reference Character & Design; Recreation; and Environmental Planning Elements]*



Goal OS 7 †

Manage a comprehensive open space program that is responsive to public and environmental needs.

Policies

OS 7.1 Continue to encourage active citizen involvement in the development and management of open space. *[Cross-reference Community Involvement Element]*

OS 7.2 Provide consistent and effective operations and maintenance for all open space facilities. *[Cross-reference Public Services & Facilities Element]*

OS 7.3 Promote “docent” or “steward” programs to help maintain open spaces and lower associated operational costs. *[Cross-reference Community Involvement and Healthy Community Elements]*

OS 7.4 Protect important natural areas, parks, and other open space systems as primary elements in growth planning and endangered species and watershed protection. *[Cross-reference Land Use; Growth Areas; Environmental Planning; and Conservation Elements]*



Goal OS 8 †

Acquire new, expand existing, and improve established open spaces for public use.

Policies

OS 8.1 Require landowners in the development process to dedicate useable public open space in new development. *[Cross-reference Character & Design; Land Use; Recreation; Environmental Planning; Conservation; Public Services & Facilities; and Neighborhood Preservation & Revitalization Elements]*

OS 8.2 Expand the provision of public open spaces through public/private partnerships. *[Cross-reference Character & Design; Land Use; and Recreation Elements]*



- OS 8.3** Require new development and redevelopment to connect and provide public access to neighboring open spaces, park sites, or planned open spaces. *[Cross-reference Character & Design and Land Use Elements]*
- OS 8.4 †** Encourage public acquisition of natural or developed open space through direct purchase, purchase of development rights, purchase of open space easements, donations, or other means. *[Cross-reference Land Use Element]*
- OS 8.5 †** Create usable open spaces from existing rights-of-way, sidewalk widening, street realignment, development of trails, and other creative solutions. *[Cross-reference Character & Design; Recreation; Circulation; and Public Services & Facilities Elements]*
- OS 8.6 †** Renovate, renew, and upgrade city parks and recreation facilities in response to changing community demographics, priorities, and needs. *[Cross-reference Public Services & Facilities Element]*
- OS 8.7** Ensure the interconnectivity of trails and streets while safeguarding existing rights-of-way. *[Cross-reference Circulation and Bicycling Elements]*
- OS 8.8** Increase the city's tree canopy to provide more shade, particularly in high-volume pedestrian areas, such as public parks, recreation facilities, and Growth and Activity Areas.
- OS 8.9** Provide open space access and trailhead areas with facilities for public use. *[Cross-reference Recreation and Public Buildings Elements]*

Goal OS 9 †

Cooperate with other agencies to preserve, protect, connect, maintain, and expand the regional open space system.

Policies

- OS 9.1 †** Engage with other public and private agencies on the planning and development of open space sites and facilities next to city boundaries.
- OS 9.2 †** Support the regional open space network and coordinate with adjacent jurisdictions to supply open space systems, interconnected trail networks, recreation opportunities, stormwater drainage, and sensitive wildlife habitat and migration routes. *[Cross-reference Recreation; Environmental Planning; and Conservation Elements]*

JENNY LIN RD.

CIRCLE MOUNTAIN RD.

HONDA BOW RD.

ROCKAWAY HILLS RD.

DESERT HILLS DR.

JOY RANCH RD.

STAGECOACH PASS

CAREFREE HWY.

DOVE VALLEY RD.

LONE MOUNTAIN RD.

DIXILETA DR.

DYNAMITE BLVD.

JOMAX RD.

HAPPY VALLEY RD.

PINNACLE PEAK RD.

DEER VALLEY RD.

LOOP 101

UNION HILLS DR.

BELL RD./FRANK LLOYD WRIGHT BLVD.

GREENWAY PKWY.

THUNDERBIRD RD.

CACTUS RD.

SHEA BLVD.

DOUBLETREE RANCH RD.

McCORMICK PKWY.

INDIAN BEND RD.

LINCOLN DR.

McDONALD DR.

CHAPARRAL RD./CAMELBACK RD.

CAMELBACK RD.

INDIAN SCHOOL RD.

THOMAS RD.

McDOWELL RD.

LOOP 202

McKELLIPS RD.

BARTLETT DAM RD.

RIO VERDE DR.

CAVE CREEK RD.

TATUM BLVD.

56th ST.

64th ST.

SCOTTSDALE RD.

HAYDEN RD.

PIMA RD.

LOOP 101

GALVIN PKWY.

96th ST.

104th ST.

112th ST.

120th ST.

128th ST.

134th ST.

142th ST.

PALISADES BLVD.

BEELINE HWY. (87)

Open Space†

-  *Continuous Open Space - Canal
-  *Continuous Open Space - Wash
-  *Continuous Open Space - Streetscape
-  Developed Open Space - Public/Private
-  Developed Open Space - Civic Center
-  Golf Course
-  **Natural Open Space - Public/Private
-  Scottsdale McDowell Sonoran Preserve

†Trails are recognized as Continuous Open Space, but are illustrated in the Recreation Element.

**Does not include on-lot or tract NAOS dedications.



JENNY LIN RD.

CIRCLE MOUNTAIN RD.

HONDA BOW RD.

ROCKAWAY HILLS RD.

DESERT HILLS DR.

JOY RANCH RD.

STAGECOACH PASS

CAREFREE HWY.

DOVE VALLEY RD.

LONE MOUNTAIN RD.

DIXILETA DR.

DYNAMITE BLVD.

JOMAX RD.

HAPPY VALLEY RD.

PINNACLE PEAK RD.

DEER VALLEY RD.

LOOP 101

UNION HILLS DR.

BELL RD./FRANK LLOYD WRIGHT BLVD.

GREENWAY PKWY.

THUNDERBIRD RD.

CACTUS RD.

SHEA BLVD.

DOUBLETREE RANCH RD.

McCORMICK PKWY.

INDIAN BEND RD.

LINCOLN DR.

McDONALD DR.

CHAPARRAL RD./CAMELBACK RD.

CAMELBACK RD.

INDIAN SCHOOL RD.

THOMAS RD.

McDOWELL RD.

LOOP 202

McKELLIPS RD.

BARTLETT DAM RD.

RIO VERDE DR.

CAVE CREEK RD.

TATUM BLVD.

96th ST.

104th ST.

112th ST.

120th ST.

128th ST.

134th ST.

142th ST.

PALISADES BLVD.

BEELINE HWY. (87)

GALVIN PKWY.








SCOTTSDALE RD.

HAYDEN RD.

PIMA RD.

LOOP 101

Scottsdale McDowell Sonoran Preserve[†]

-  Recommended Study Boundary (RSB)
-  Scottsdale McDowell Sonoran Preserve, City Owned
-  Other Preserved lands, within RSB
-  State Trust Land, within RSB, not reclassified**
-  State Trust Land, within RSB, reclassified, suitable for conservation***
-  Existing Trailheads*
-  Planned Trailheads*

* Refer to McDowell Sonoran Preserve Access Areas Report for additional trailhead detail.

** Land that was not reclassified by the State Land Commissioner as suitable for conservation and therefore has no conservation restrictions.

*** Land reclassified by the State Land Commissioner as suitable for conservation, but not restricted to conservation use.



JENNY LIN RD.

CIRCLE MOUNTAIN RD.

HONDA BOW RD.

ROCKAWAY HILLS RD.

DESERT HILLS DR.

JOY RANCH RD.

STAGECOACH PASS

CAREFREE HWY.

DOVE VALLEY RD.

LONE MOUNTAIN RD.

DIXILETA DR.

DYNAMITE BLVD.

JOMAX RD.

HAPPY VALLEY RD.

PINNACLE PEAK RD.

DEER VALLEY RD.

LOOP 101

UNION HILLS DR.

BELL RD./FRANK LLOYD WRIGHT BLVD.

GREENWAY PKWY.

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CACTUS RD.

SHEA BLVD.

DOUBLETREE RANCH RD.

McCORMICK PKWY.

INDIAN BEND RD.

LINCOLN DR.

McDONALD DR.

CHAPARRAL RD./CAMELBACK RD.

CAMELBACK RD.

INDIAN SCHOOL RD.

THOMAS RD.

McDOWELL RD.

LOOP 202

McKELLIPS RD.

BARTLETT DAM RD.

RIO VERDE DR.

CAVE CREEK RD.

TATUM BLVD.

PALISADES BLVD.

BEE LINE HWY. (187)

56th ST.

64th ST.

SCOTTSDALE RD.

HAYDEN RD.

PIMA RD.

LOOP 101

GALVIN PKWY.

96th ST.

104th ST.

112th ST.

120th ST.

128th ST.

134th ST.

142th ST.

Visually Significant Roadways[†]

-  Scenic Corridor*
-  Scenic Corridor/Desert Foothills Scenic Drive
-  Buffered Roadway
-  Themed Streetscape
-  Recommended Study Boundary (RSB)**
-  Scottsdale McDowell Sonoran Preserve

*Note: Desert Scenic Roadways are designated along one-mile and half-mile streets within Environmentally Sensitive Lands that are not already designated as Scenic Corridors or Buffered Roadways, as defined by Policy OS 3.3.

**Note: Preserve Scenic Buffers are applied along streets within and adjacent to the Recommended Study Boundary (RSB) of the Scottsdale McDowell Sonoran Preserve, as defined by Policy OS 3.3.



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