Preservation and Environmental Planning

VISION STATEMENT

Scottsdale is a community that embraces conservation and preservation of the environment. Because of its rich history and legacy of long-range thinking, it has a particularly handsome endowment to protect and retain. Scottsdale will continue its environmental stewardship partnership with the public. We commit to preserving the Sonoran Desert and mountains for the purpose of maintaining scenic views, ensuring protected habitats for wildlife and desert plants, protecting archaeological and historical resources and sites, and providing appropriate access for educational and passive outdoor recreational opportunities for residents and visitors. Scottsdale will be a community that offers our residents and visitors a healthy, safe, clean and sustainable environment. Its policies and programs will foster energy, land, and water conservation, reduced solid waste generation, cleanup of contaminated sites, and participation in finding solutions to regional environmental issues. The city's decision makers will work to conserve elements of the natural environment where possible and restore areas where past development has degraded it.

Introduction

Scottsdale citizens have often affirmed that one of our community's highest priorities is preserving and protecting the environment. Scottsdale's distinctive natural resources and environment contribute to our quality of life and the community's economic vitality. Natural resources and the natural environment are not inexhaustible commodities to be exploited, but are valuable assets to be judiciously used and wisely managed for the benefit of present and future generations. These resources are essential components of life including land, air, habitat, water, and energy.

The protection and conservation of these distinct and valuable resources is everyone's responsibility. Environmental stewardship means that Scottsdale has a responsibility to manage local resources, now and in the future, to assure a healthy and productive environment. Individual citizens, businesses, and the government working together can achieve it. This is a widespread issue that requires Scottsdale to work judiciously with other cities and interest groups.

Scottsdale must also comply with Federal and State mandates, such as the Clean Air and Clean Water Acts.

see landforms map and graphic in Reference Guide

Landforms

Land is the first resource that most people think of in the natural environment. The existing character of the land can be described as four different landforms: hillside, upper desert, lower desert and valley floor with each containing several conditions that define the character of that landform. The sensitivity of each landform to development varies. If development of the more environmentally sensitive lands is unchecked, fragile and valuable natural assets will be degraded or destroyed.

Land Preservation v. Density **Intensification**

Scottsdale is vigorously committed to preserving land in its natural state for purposes of growth management, environmental protection and intrinsic aesthetic appeal. Reducing the amount of acreage made available for residential and commercial development does not, however, automatically stem population inflows or reduce the burden of providing necessary services and Scottsdale is an attractive destination for people to visit and to live. Thus, land preservation can increase the pressure to intensify land uses in already developed portions of the community and closer to city core areas, and for infill development that fits the neighborhood context.

Hillside Ordinance and ESLO

Reflecting strong community sentiment to protect the McDowell Mountains and retain areas of natural desert, the city adopted zoning regulations in 1977 called the Hillside Ordinance. This ordinance established where development could occur on desert and mountain lands and focused on no development on high mountain slopes. The ordinance was challenged soon after it was adopted. The Appeals Court declared the Hillside Ordinance unconstitutional, and the Arizona Supreme Court upheld that decision in July 1986. Scottsdale used interim ordinances giving landowners the option of continuing to use the Hillside District standards while the city worked on a new ordinance between 1986 and 1991. The Environmentally Sensitive Lands Ordinance (ESLO) was adopted by Scottsdale in February 1991. ESLO was designed to control development in fragile desert lands and mountains in 134 square miles of land in northern parts of Scottsdale. In 2001, the city took another look at the ESLO, and has made some changes to the Ordinance.

McDowell Sonoran Preserve

In 1990, Scottsdale citizens initiated the preservation of the McDowell Mountains and Sonoran Desert. The vision was to create an integrated desert open space system - the McDowell Sonoran Preserve - consisting of mountains, desert, and natural corridors linking open spaces in Scottsdale with open spaces adjacent to Scottsdale. The purpose of the Preserve is:

- to maintain scenic views
- to preserve habitat for wildlife and desert plants
- to protect archaeological and historical resources and sites, while …
    * providing appropriate public access for educational purposes, and
    * providing passive outdoor recreational opportunities for residents and visitors.

The Preserve will be left in as pristine a state as possible to maintain for this and future generations a nearby natural desert refuge. The voters of Scottsdale passed three election propositions about funding the purchase of land for the McDowell Sonoran Preserve. The first was to increase sales tax to pay for land acquisition and the second and third to allow the use of bonds to acquire land (using proceeds from the Preserve tax). The total land area proposed for the McDowell Sonoran Preserve is 36,400 acres, about 1/3 of the city's total land area. Sixteen thousand six hundred acres of this area is State Trust land, which was under application under the Arizona Preserve Initiative (API) for reclassification to "suitable for conservation" by the State Land Department. On August 30, 2001, the State Land Commissioner reclassified approximately 11,390 acres as suitable for conservation with a deed restriction on the land to ensure that the property purchaser would conserve these lands. An additional 1,630 acres were reclassified as suitable for conservation; however, no deed restriction has been placed on these lands. The State Land Commissioner did not reclassify approximately 3,543 acres. All of the land remains in the McDowell Sonoran Preserve Recommended Study Boundary (RSB) as shown on the maps in the General Plan.

Much of Scottsdale's reputation for the quality of life in our community is built upon the unique environmental solutions found to overcome problems in the past. The need for a storm water drainage channel became the world-renowned Indian Bend Wash. The need to preserve the natural beauty of the McDowell Mountain tops, hillsides, and Sonoran desert areas resulted first in the Hillside, ESLO, and Native Plant Ordinances and more recently in the purchase of Preserve lands to protect against development of these sensitive environments. The city's innovative Green Buildings program continues the tradition of sustainable desert living. Historical and cultural preservation represents a responsibility of Scottsdale citizens to maintain unique and significant structures and areas established in the past for the use, instruction, and enjoyment of future generations.

Within its urban environment, Scottsdale uses common open spaces to serve a variety of functions, such as recreation, aesthetics, and flood control. The continual enhancement and conservation of the open space system is essential to the long-term viability of the city. Throughout Scottsdale, several types of open space create different experiences. The McDowell Sonoran Preserve is an effort to secure large continuous tracts of natural open space. Indian Bend Wash serves as a recreation and flood control spine as well as a significant neighborhood park system. Small parks next to schools allow for dual use by the neighborhood and school. Preserved desert washes help maintain the lush desert character and wildlife corridors in new developments.

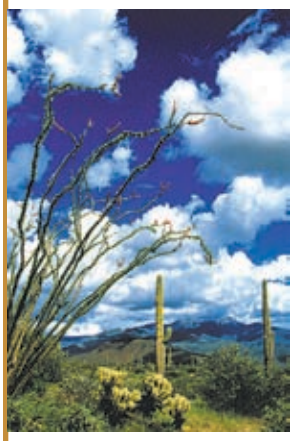
Scottsdale's future is dependent upon a sustainable approach to planning that includes consideration of environmental opportunities and challenges at the earliest stages and throughout the planning process. Unique opportunities in our region, such as the abundance of solar energy, have been underutilized. At the same time, the issue of finite resources, such as water supply and the shrinking area of native desert and mountain environment, has only recently received the attention it deserves.
Future challenges will require innovative environmental solutions:

- Developing a built environment that is sustainable and in harmony with the natural environment.
- Redeveloping, restoring, and revitalizing existing neighborhoods, infrastructure, retail commercial and residential areas in the city in ways that are environmentally sustainable.
- Implementing the acquisition of land for the McDowell Sonoran Preserve.
- Preserve and improve the quality of the air we breathe.
- Providing an ensured, safe, and assured supply of water far into the future.
- Developing affordable and sustainable energy supplies without polluting our air, water and land. (Perhaps capitalizing on solar energy)
- Sustaining economic vitality without congesting roads and polluting the air.
- Balancing preservation of land, including urban open spaces, with provision of appropriate recreational opportunities.

This element translates the values and vision of the community into a set of concrete goals to achieve an environmentally sustainable community. This element infuses the importance of environmental sensitivity into the city's planning efforts. The goals and approaches are outlined to ensure that environmental stewardship occurs in a way that is beneficial for economic development and tourism, while maintaining a high quality of life for our citizens. They reflect both local opportunities and contributions that Scottsdale can make to stewardship beyond our boundaries.

Scottsdale Values ...

- The best possible management of our finite and renewable environmental, economic, social, and technological resources to ensure that they exist to serve future needs.
- Maintaining or improving the level of services, environmental quality, economic vitality, and access to amenities that contribute to the quality of life Scottsdale offers today.
- The use of renewable energy resources like solar energy.
- Development that incorporates sustainable and healthy building practices and products.
- The protection of the natural Sonoran Desert environment.
- Implementation of proactive environmental programs and conservation practices (such as ESLO, Native Plant Ordinance, Indian Bend Wash, and the McDowell Sonoran Preserve, Golf Course Policy, etc.).
- The development of partnerships with regional jurisdictions, educational institutions, and State and Federal agencies to meet environmental challenges.
- Protection and orderly use of our natural and historical resources.
- The character of Scottsdale as defined in large part by the surrounding Sonoran Desert and mountains, and natural and man-made amenities.
- Intelligent integration of urban and rural development into the ecosystem as evidenced by:
  - Improved water and air quality.
  - Increased biodiversity.
  - Bringing open spaces within walking distances of every home.
  - A close and supportive relationship among and between natural resources, environmental quality and the economy of the area.
  - Restored ecosystems protected from future degradation and decline.
  - Protection of the character of the Sonoran desert.



Goals and Approaches

1. Acquire the land within the Recommended Study Boundary of the McDowell Sonoran Preserve to create an integrated desert open space system linking open spaces in Scottsdale with open spaces adjacent to Scottsdale.

2. Enhance the quality of life in Scottsdale by safeguarding the natural environment.

- Retain Scottsdale's image and heritage of the Sonoran Desert.
- Implement the acquisition of land for and the ongoing maintenance of the McDowell Sonoran Preserve.
- Preserve the unique, rare and significant features of Scottsdale's natural environment.
- Encourage developments to retain and integrate the desert ecosystem where appropriate.
- Educate landowners on their preservation options.
- Preserve local plants, wildlife, and natural resources to maintain the biodiversity and long-term sustainability of the area's ecology.
- Protect historical and archaeological resources.
- Maintain scenic views to preserve the aesthetic values of the area for all to enjoy and for its contribution to the quality of life for residents and visitors.
- Manage natural resources by cooperatively using the best ecological, social, and economic information to enhance, restore, and sustain the health, productivity and biodiversity of our Sonoran Desert ecosystem.
- Integrate environmental quality protection into all phases of local planning and policy implementation.
- Encourage cooperation among natural resources management agencies, other professionals and local school districts in developing environmental education materials and outreach programs.
- Implement innovative policies and practices that support the city's leadership in environmental stewardship.

3. Achieve a sustainable balance between the conservation, use and development of Scottsdale's natural resources.

- Develop programs to attract environmentally sensitive industry to Scottsdale.
- Encourage local industry to adopt water and energy conservation measures that would minimize impacts to the environment in their operations.

- Promote public and private partnerships to reduce natural resource consumption through aggressive conservation, reuse, and recycling programs.
- Lead through city government being an example of natural resource conservation practices.
- Investigate and implement techniques, which minimize use of chemicals in maintaining turf and landscape materials, for example, in parks and golf courses.
- Encourage retention of the 100-year floodplains as natural drainage ways without permanent construction, rechannelization (where possible), and bank clearing or straightening.
- Manage watersheds to protect, restore and maintain the integrity of streams, washes and floodplains, their multiple biological, physical and social values.
- For flood control channels, a high priority in the design criteria should be placed on:
  - Sensitive aesthetic treatment.
  - Multiple uses that harmonize with the character of the adjacent neighborhood.
  - Impact on habitat.

4. Reduce energy consumption and promote energy conservation.

Energy includes electricity and fuels for transportation heating and cooling. In Scottsdale, the most viable renewable energy resource is solar energy. Other sources of renewable energy sources are water- and wind- generated, however, Scottsdale has no significant sources of water- or wind- generated energy production. Natural Gas is a non-renewable source of fuel that is used widely as a fossil fuel alternative.

- Promote mechanical, physical, and natural energy conservation measures.
- Use natural properties (sun, shade, thick walls, insulation, etc.) for building cooling and heating systems.
- Use landscaping that contributes to energy conservation in commercial and residential environments.
- Increase the use of natural and man-made shading for parking lots, streets, and pedestrian areas.
- Promote solar energy opportunities in building and site design.
- Seek ways to assure solar access potential.
- Promote the use of energy efficient lighting sources in interior and outdoor lighting areas.
- Encourage the commercial and residential sectors to consider energy conservation in design and construction.
- Conserve fuel in city vehicles, and promote fuel conservation through education and example.

- Encourage the use of alternative-fuel city vehicles.
- Use landscaping and stabilizing paving materials other than black asphalt to reduce the "heat island" effect and reduce need for cooling fuel use.
- Reduce energy consumption per capita by using passive and active design and technology to capitalize on the natural energy resources available in the desert southwest.
- Minimize energy consumption in the provision of municipal services without affecting the quality and quantity of services.
- Promote energy conservation measures in the maintenance and operation of city facilities and equipment.
- Reduce energy consumption by using land use and design policies for new and revitalized buildings.
- Explore emerging energy technologies and use them whenever possible.
- Promote energy conservation education throughout the community.

5. Conserve water and encourage the reuse of wastewater.

see also the Public Services and Facilities Element

- Continue and expand the current water conservation program and investigate feasibility of using reclaimed wastewater for irrigation and water features throughout the city.
- Consider multiple use of facilities when planning resource conservation programs, including the integration of recharge sites with natural habitat.
- Continue the development of the effluent reuse system, and management policies to guide efficient use of reclaimed water.
- Review future development impacts on water use and encourage development design that fosters water conservation.
- Encourage the retention of mature native trees as they use less water to maintain.
- Encourage landscape improvements, which limit the amount of turf area (to "people places") and make optimal use of indigenous desert plants.
- Recognize the necessity for reduced water consumption per capita in the desert setting, as well as maintenance/improvement of total water quality.
- Protect local water supply sources.
- Reduce reliance on imported water in the city's total water supply through water conservation.
- Promote residential and commercial water conservation.
- Minimize the amount of water loss by maintaining an efficient distribution system.
- Reuse treated wastewater whenever it is permitted and cost effective to do so.
- Use the city's Water Campus as an environmental education center to foster public awareness and acceptance of water reuse and wastewater reclamation.

- Increase recycled water use by local industries and increase groundwater recharge rates.
- Develop programs to attract environmentally sensitive businesses to Scottsdale and to encourage area wide businesses to adopt water-conserving measures.
- Reduce the rate of growth in residential water consumption per household through educational programs and perhaps incentive programs in the future.
- Protect the region's water resources and assure the sensitivity of development to environmental features.
- Integrate water-harvesting techniques into site planning and design for large-scale landscapes including parks, schools, commercial sites, parking lots and apartment complexes.
- Explore and promote the use of gray water.

6. Ensure the quality of our groundwater and surface water supplies.

- Continue efforts to remediate groundwater contamination and implement preventative measures to avoid future contamination of groundwater resources.
- Monitor storm water runoff to identify opportunities to reduce surface water pollution.
- Educate citizens on best management practices for preventing storm water pollution.
- Provide drinking water that meets or exceeds Federal drinking water standards.
- Develop new and use existing partnership programs between public agencies and private citizens to monitor the city's water quality.

7. Promote local and regional efforts to improve air quality.

- Reduce automobile emissions through traffic management and mobility system improvements.
- Use land use strategies, like creating "live, work, play" relationships or mixed-use structures to reduce air quality impact.
- Expand opportunities for citizens to live in close proximity to work.
- Reduce emissions for city fleet vehicles.
- Promote ridesharing, the use of non-auto travel modes (walking, biking, horseback riding, roller blading, etc), tele-work, and off-peak traveling in order to reduce traffic congestion, energy consumption and air pollution.
- Actively participate in regional discussion about coordination and funding questions regarding air quality improvements.
- Participate in regional efforts to encourage ridesharing and off-peak commuting.

see Community Mobility Element

see Land Use and Community Mobility Elements

see Community Mobility Element

see Community Mobility Element

- Support the development of programs that allow traffic reduction incentives, such as flextime, transit passes, ridesharing, free parking, telecommunications, etc.
- Provide carpooling and transit information to the general public.
- Support completion of the bikeway system.
- Develop partnerships with other communities, agencies and the State to implement alternative fuel demonstration projects. (Existing city/School District partnership.)
- Promote regional mass transit opportunities that provide appropriate links to Scottsdale's bus system and transit facilities.
- Promote efforts for better air quality, to enhance the environment and protect health and welfare.
- Maintain regional compliance with air quality standards.
- Provide for healthy indoor air quality in city and public facilities.
- Encourage the use of alternative-fuel city vehicles and non-gasoline equipment (e.g. leaf blowers) to reduce emissions and improve air quality.

8. Maximize resource recovery and reuse, and promote recycling and promote the use of recycled, recyclable, and renewable materials.

- Reduce waste and encourage recycling and reuse of resources.
  - Develop and implement citywide recycling programs.
  - Encourage the commercial and industrial sectors to establish recycling programs for paper, cardboard, and other materials.
  - Consider establishing waste-to-energy facilities as part of the solid waste management plan.
  - Establish policies and regulations to minimize waste generation through effective waste reduction, reuse, and recycling; and through expanding demand for recycled products.
  - Encourage and develop markets for recycled materials.
  - Develop and implement a comprehensive, regional hazardous waste handling, transportation and remediation plan, which includes enforcement procedures and non-compliance penalties.

- Promote the safe storage of hazardous materials in locations that do not endanger neighborhoods.
- Promote partnerships through public and private agencies to reduce natural resource consumption through aggressive conservation, reuse and recycling programs.
- Develop incentive programs to reduce energy and water consumption in the collection and transport of solid waste.
- Minimize the consumption of non-renewable fuel required to travel to garbage disposal sites by using alternative-fuel vehicles.
- Explore opportunities for expanded recycling opportunities for commercial and institutional uses.

9. Protect and conserve native plants as a significant natural and visual resource.

- Enhance, restore, and sustain the health, productivity and biodiversity of our Sonoran Desert ecosystem through native plant retention.
- Retain and preserve native plants to retain a Sonoran desert character.
- Encourage the retention of mature trees because trees recycle air pollutants through photosynthesis.
- Retain and protect indigenous native vegetation to reduce water consumption, stabilize the soil, and provide desert wildlife habitat.
- Encourage landscape improvements that limit the amount of turf area and make optimal use of indigenous desert plants.
- Discourage non-indigenous plants (e.g. olives) that produce pollen in landscape design.

10. Encourage environmentally sound "green building" alternatives that support sustainable desert living.

- Incorporate healthy, resource- and energy-efficient materials and methods in design, construction, and remodeling of buildings.
- Encourage "green building" techniques and alternatives in conjunction with revitalization, neighborhood conservation and redevelopment efforts.
- Protect and enhance the natural elements of all development sites.
- Improve the energy efficiency of the building envelope, equipment, and appliances.
- Use low impact building materials.
- Integrate water-harvesting techniques into site planning and design where appropriate.

Related Plans and Policies:

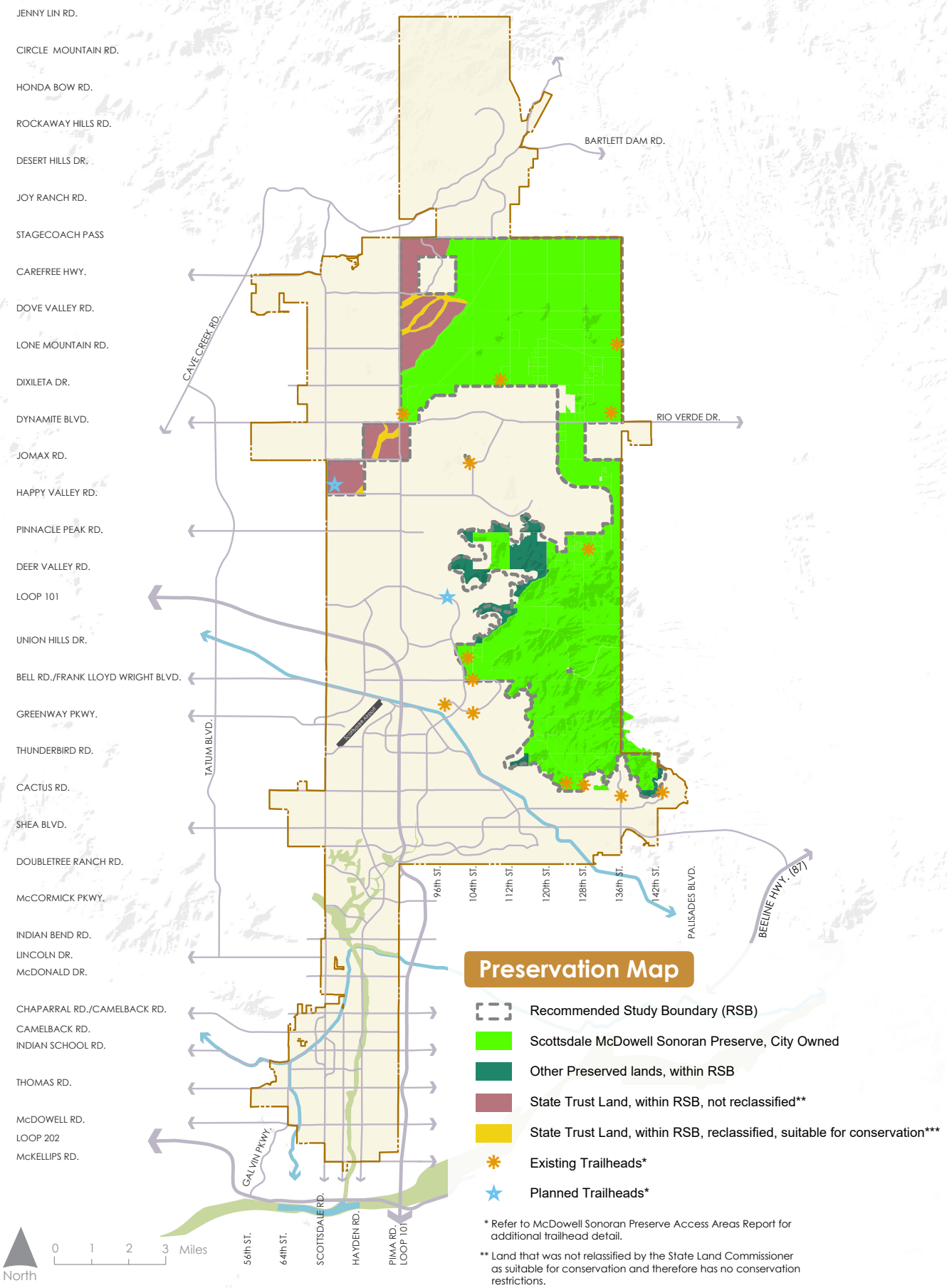
- Scottsdale Sustainability Indicators Report, 2000
- Scottsdale Code of Ordinance, Chapter 21, McDowell Sonoran Preserve
- Energy Policy (1991, updated 1999)
- Fireplace Ordinance
- Golf Course Policy (1997)
- Sustainable City Facilities Policy (2001)
- Environmental Initiatives (2000)
- Maricopa Association of Governments (MAG) Desert Spaces Plan (1995)
- MAG Environmentally Sensitive Desert Areas: Policies and Design Guidelines (6/2000)
- Environmentally Sensitive Lands Ordinance
- Scottsdale Trails Master Plan (2004)
- Parks & Recreation 2018-2019 Strategic Plan
- Community Services Master Plan (2015)
- Community Solid Waste and Recycling Strategic Plan
- Greater Phoenix Green Infrastructure Handbook – Low Impact Development Details for Alternative Stormwater Management

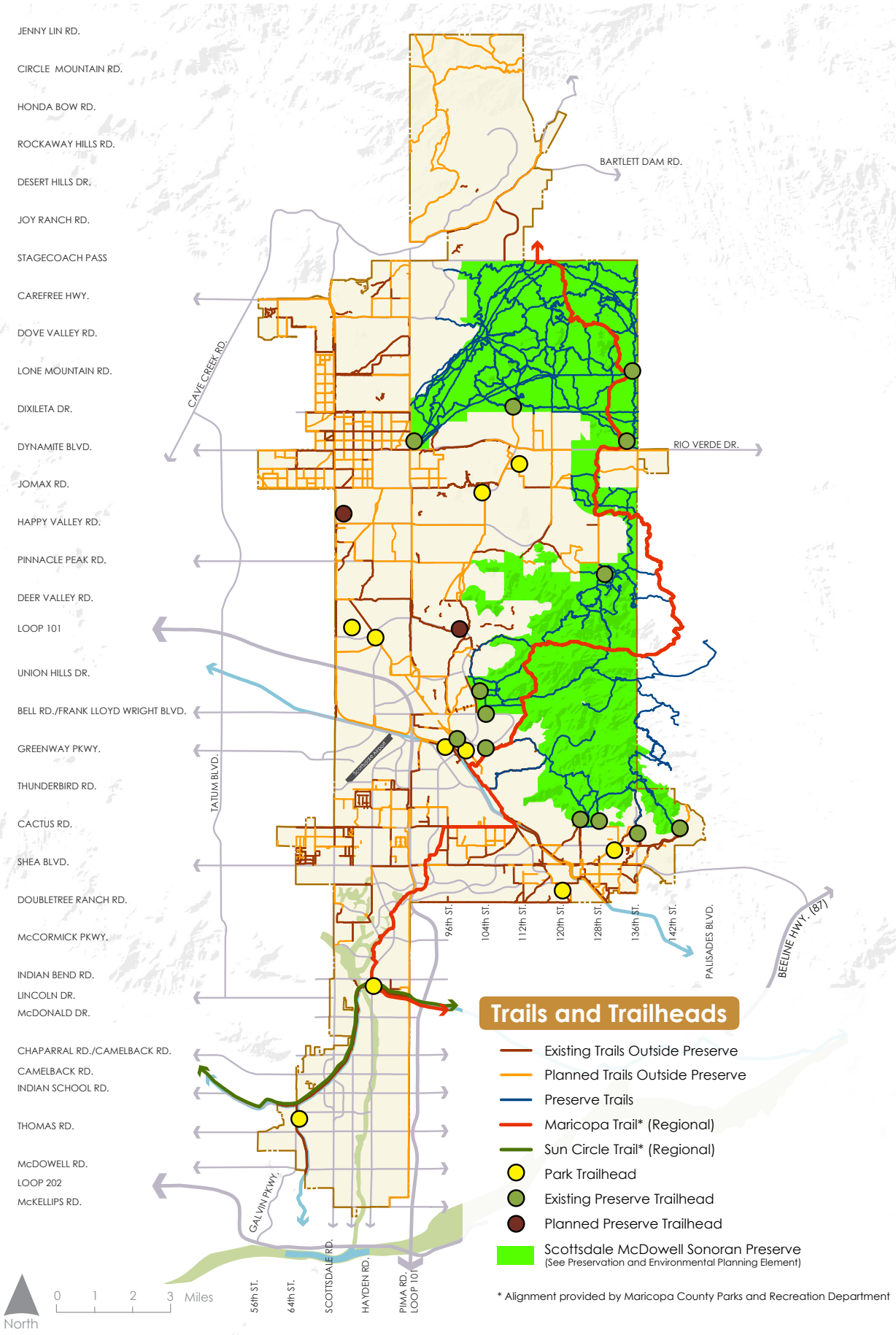
Reference:

- McDowell Sonoran Preserve Access Areas Report
- Environmental Year Communications Calendar
- Green Building Program and Guidelines
- Household Hazardous Waste Program
- Residential Water Use Conservation
- STAR Community Indicators

Element Graphics:

- Preservation map
- Trails and Trailheads map


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.
CAVE CREEK RD.
TATUM BLVD.
SCOTTSDALE RD.
GALVIN PKWY.
BARTLETT DAM RD.
RIO VERDE DR.
96th ST.
104th ST.
112th ST.
120th ST.
128th ST.
136th ST.
142th ST.
PALISADES BLVD.
BEELINE HWY. (87)
56th ST.
64th ST.
SCOTTSDALE RD.
HAYDEN RD.
PIMA RD.
LOOP 101
0 1 2 3 Miles
North
Preservation Map
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 relassified 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.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SCOTTSDALE RD.
HAYDEN RD.
PIMA RD./ LOOP 101
0 1 2 3 Miles
North
Trails and Trailheads
Existing Trails Outside Preserve
Planned Trails Outside Preserve
Preserve Trails
Maricopa Trail* (Regional)
Sun Circle Trail* (Regional)
Park Trailhead
Existing Preserve Trailhead
Planned Preserve Trailhead
Scottsdale McDowell Sonoran Preserve
(See Preservation and Environmental Planning Element)
* Alignment provided by Maricopa County Parks and Recreation Department