

2. Sustainably manage our water resources.

A changing climate, weather patterns, increasing demands on water in the aquifer, and regional water management complexities pose challenges requiring increased planning and coordination. Sustainably and resiliently adapting to changes will require the region to re-examine how we think about water and how we approach the long-term management of our water resources—the Colorado River, our aquifers, rainfall, conservation, and water re-use efforts, as well as exploring other potential sources of supply. A central focus of these efforts is to reduce water use by businesses and households (gallons per capita per day) while balancing available resources, evolving technologies, growth trends, environmental impact, and cost to Austin residents and ratepayers. In addition to preparing for these general trends and carrying out current drought contingency plans, the city and region should strengthen planning for droughts worse than the current Drought of Record (which occurred in the 1950s).

Water resources are key to Austin’s quality of life and viability as a city. Protecting our streams and floodplains helps maintain Austin’s natural beauty while promoting public health and safety, improving water quality, and preserving habitat for native species, including threatened and endangered species.

Responding to this challenge requires extensive involvement in regional efforts and close coordination across all aspects of Austin’s water resources. Bringing together existing efforts allows us to move forward with integrated strategies that address the range of water resource issues such as supply, quality, conservation, public health, and recreation.

WORK PROGRAM

SHORT TERM (1-3 YEARS)

1. Update Austin Water Utility’s integrated water management plan, including water conservation goals, drought planning, and climate mitigation and adaptation strategies.
2. Enact a new watershed protection ordinance to streamline and expand protection of headwaters, and to promote low-impact stormwater management strategies, and reduce capital expenditures required to mitigate water quality problems, erosion, and flooding.
3. Coordinate efforts with Austin Energy and other local energy utilities to assess risks and propose risk mitigation strategies related to water demands for power generation.
4. Review and analyze auxiliary water regulations governing reclaimed water, graywater use, and rainwater harvesting to ensure that they encourage the use of these sources without compromising public health.

ONGOING AND LONG TERM (3+ YEARS)

5. Continue to use Austin’s rate structure to reduce water use while maintaining affordability for low water use households, funding further conservation and education efforts, and preserving Austin Water Utility’s financial stability.

LEAD
City of Austin Watershed Protection Department; Austin Water Utility
PARTNERS
City of Austin Transportation Department; Austin Parks and Recreation Department; Planning and Development Review Department
RELATED VISION COMPONENTS
Livable
Natural and Sustainable
RELATED POLICIES
LUT P21-P24, P34; E P5, P15; CE P2-P8, P10-P12, P14, P16; CFS P1-P6, P8-P14, P39, P43-P47.
RELATED ACTIONS
LUT A7, A10, A19, A37; HN A14, A22; CE A1-A9, A15-A18, A23, A24; CFS A8, A9, A11, A28, A29, A34-A44.

GOALS
Conserve water resources.
METRICS
- Average daily water usage
- Average daily water usage (residential)
GOALS
Improve watershed health.
METRICS
- Creek health (percent of assessed watersheds in excellent, very good, or good health)
- Impervious surface (total and per capita)
- Tree canopy (map and percentage)

6. Work collaboratively on water supply management and planning with the Lower Colorado River Authority to protect the City's water supply access and investments and ensure equitable and legal management of the Colorado River.
7. Maintain a non-degradation policy for the Barton Springs Zone.
8. Update the current Watershed Master Plan, expand the program to include other watersheds, and implement integrated strategies to protect and enhance water quality and supply, reduce flood risk, and prevent erosion.
9. Participate in state and regional water resources planning, including regional efforts to improve water quality and quantity of the Edwards Aquifer.
10. Implement Austin Water Utility's energy efficiency and demand reduction efforts to reduce greenhouse gas emissions and meet the City's climate protection goals.
11. Increase coordination between Watershed Protection, Austin Water Utility, Office of Sustainability, Planning and Development Review, and other City departments.

RELATIONSHIP TO OTHER PRIORITY PROGRAMS:

- Use green infrastructure to protect environmentally sensitive areas and integrate nature into the city. Innovative stormwater techniques, a healthy urban forest, additional water quality lands, and improved site design are key elements in the wise use of Austin's water resources, maintaining the region's hydrology, and adapting to Austin's future climate.
- Revise Austin's development regulations and processes to promote a compact and connected city. Updating the Land Development Code should improve the city's site and landscape design requirements.
- Invest in a compact and connected Austin. Maintain and upgrade existing infrastructure, including improvements to reduce water leaks.

RELATED CITY INITIATIVES:

- Austin Climate Protection Plan
- Austin Water 140 GPCD Conservation Plan
- Peak Demand Plan
- Austin Water Utility Master Plan
- Watershed Protection Master Plan
- Austin's State of the Environment Report

4. Use green infrastructure to protect environmentally sensitive areas and integrate nature into the city.

A green infrastructure program will create an interconnected system of parks, waterways, open space, trails, green streets, tree canopy, agriculture, and stormwater management features that mimic natural hydrology. It will also allow the City of Austin to expand upon existing efforts to protect environmentally sensitive areas such as waterways and riparian zones, springs, aquifer recharge features, canyonlands, and prairies. These diverse elements of Austin’s green infrastructure serve multiple purposes and provide numerous benefits. The most visible of these benefits – the one most Austinites will experience firsthand – relates to how we experience the outdoors. These efforts will maintain our pleasant outdoor setting and provide safe access to green space and recreation for all Austinites, particularly in urban activity centers and corridors. The interconnected green spaces can provide recreational opportunities and transportation connections in the form of hiking and biking trails. The benefits to the environment are numerous and include enhanced stream health and improved water quality, reduced flood risk, and preserved and enhanced ecosystems and habitats. An integrated green infrastructure system can also reduce energy consumption and greenhouse gas emissions by providing alternatives to automobiles, reducing water use, and shading buildings.

A primary goal of the program is to manage Austin’s urban and natural ecosystems in a coordinated, sustainable manner. The City currently plans for many of these elements independently; however, gaps remain.

WORK PROGRAM

SHORT TERM (1-3 YEARS)

1. Create an integrated green infrastructure plan and ongoing green infrastructure program.

The plan should:

- a. Define Austin’s green infrastructure, its elements, and how those elements interact to benefit the city.
- b. Perform an initial inventory and evaluation of existing green infrastructure resources, such as conserved land, the urban forest, habitat, trails and bike paths, greenbelts, community gardens, urban farms, parks and recreation areas, and green streets. Identify current plans, such as the Travis and Hays County Greenprint plans, networks, and identify gaps.
- c. Develop green infrastructure targets (such as percentage of tree cover, connectivity, or current or anticipated residents within walking distance of parks, see Figure 4.11) and priorities for new areas for conservation, parks and open space, green streets, and urban trails.
- d. Include a series of interactive maps illustrating the components of the green infrastructure network, along with priority conservation and restoration areas.

LEAD
Sustainability Leadership Team
PARTNERS
Office of Sustainability; Austin Energy; Austin Water Utility; Austin Resource Recovery; Watershed Protection Department; Public Works; Economic Growth and Redevelopment Services; Austin Transportation Department; Parks and Recreation Department; Travis, Hays and Williamson Counties
RELATED VISION COMPONENTS
Livable
Mobile and Interconnected
Natural and Sustainable
RELATED POLICIES
LUT P21-P25, P34; HN P13; E P5; CE P1-P8, P11, P12, P14, P16; CFS P8, P10, P11, P14, P40, P42-P48; S P3.
RELATED ACTIONS
LUT A7, A19, A20, A32, A33, A36, A37, A39-A41; HN A14, A20, A22; CE A1-A6, A8-A11, A15-A24; CFS A1-A12, A23, A24, A34-A36, A39, A43.

GOALS
Increase protection of environmentally sensitive land.
METRICS
- Amount of permanently preserved land for protection of water quality, threatened or endangered species habitat, or other environmental resources
- Inventory of land, buildings, and other assets for current and potential food production sites (size, type, location)
GOALS
Improve tree cover in every neighborhood.
METRICS
- Tree canopy (map and percentage)
GOALS
Improve health of watershed.
METRICS
- Impervious surface (total and per capita)
- Creek health (percentage of assessed watersheds in excellent, very good, or good health)
GOALS
Improve access to parks.
METRICS
- Units within walking distance of parks (1/4 mile in urban core, 1/2 mile outside the urban core)

e. Include implementation strategies and approaches to promote interdepartmental, intergovernmental, and interagency coordination.

f. Calculate direct and indirect costs and savings from green infrastructure projects, when compared with traditional “gray” infrastructure, including the asset value of ecosystem services and contribution to long-term risk management.

g. Develop and implement unified, comprehensive land management of all City of Austin lands for integrated environmental sustainability, including carbon sequestration, wildlife habitat, water quality and quantity, and education.

h. Identify a lead to oversee ongoing implementation of the plan and program.

2. Assess options to coordinate and expand incentives for residential and commercial property owners to install green infrastructure elements, such as green roofs, rainwater harvesting, pervious pavement, and rain gardens.

ONGOING AND LONG TERM (3+ YEARS)

3. Provide guidance on best practices for property owners interested in green infrastructure improvements. Develop demonstration projects and share information with residents and business owners.

4. Continue funding support and acquisition of land in the Balcones Canyonlands Preserves and in other environmentally significant areas to protect water quality, conserve endangered species habitat, and provide open space for passive public use.

5. Protect farmland and conduct and stimulate research to facilitate growing techniques that minimize water usage and build healthy soils accounting for regional climate change.

6. Track and monitor citywide implementation of the green infrastructure plan, including planned parks and open space, green streets, and bicycle, pedestrian, and transit projects.

7. Make available dynamic, online, interactive maps of the existing and planned green infrastructure networks to allow the community to see the program’s progress.

8. Identify approaches to track and monitor the costs and savings associated with green infrastructure projects. Solicit research and funding partners, such as the University of Texas’ Lady Bird Johnson Wildflower Research Center and The Trust for Public Lands.

9. Solicit partners, such as conservation and bicycle advocacy groups, to help implement the recommendations of the green infrastructure plan and program.

10. Hold public and educational events to share green infrastructure benefits and pursue program partnerships with local organizations.

RELATIONSHIP TO OTHER PRIORITY PROGRAMS:

- Create a Healthy Austin Program. Investing in accessible walking and biking networks, community gardens, family farms, parks, and open space will provide Austin residents increased opportunities for outdoor exercise as well as contribute to healthy lifestyles by increasing access to local and nourishing food and reducing air pollution.
- Sustainably manage our water resources. Expanding Austin's green infrastructure will impact the City's ability to protect and conserve water resources. By increasing the urban tree canopy and decreasing stormwater runoff, the green infrastructure program will contribute to reducing flooding, improving water quality, and lessening the need for water treatment.
- Invest in a compact and connected Austin. The green infrastructure program will include priorities for trails and greenway networks that provide alternative ways to get around the city.
- Revise Austin's development regulations and processes to promote a compact and connected city. Green infrastructure and low-impact development standards should be included in the revised Land Development Code and Criteria Manuals.

RELATED CITY INITIATIVES:

- Austin Climate Protection Plan
- Austin Strategic Mobility Plan
- Bicycle Master Plan
- Central Texas Greenprint Plan
- Healthy Austin Code
- Invasive Species Management Plan
- Parks and Recreation Department Long Range Plan
- Trails Master Plan
- Travis County Colorado River Corridor Plan
- Urban Forestry Management Plan
- Urban Parks Workgroup Report
- Watershed Protection Master Plan
- Town Lake Plan