

Environment, Energy, & Resources

Over the years, Iowa City has made a significant commitment to preserving natural resources—especially land and water. Current land use policies emphasize compact and contiguous development; include incentives for small lot development that discourage sprawl; and a planned development process that provides flexibility for clustered development to preserve sensitive features and open space. Our Sensitive Areas Ordinance identifies and protects natural features—woodlands, wetlands, stream corridors, prairies, and slopes. Efforts by community members have led directly to the preservation of a number of unique natural areas—Ryerson’s Woods, Hickory Hill Park, and Sand Prairie Park, to name a few.

Subdivision regulations require that developers plan for how stormwater will drain from the area. In some situations stormwater is required to be retained on site in basins. In other cases, the run-off from urban development drains to a regional system, such as the Sycamore Greenway. In a number of subdivisions, buffer areas required along urban streams are set aside as private open space and include trails that provide connections between neighborhoods.

Subdivision regulations also encourage efficient transportation and provision of services by limiting block lengths and requiring a well-connected street pattern that provides multiple routes through and between neighborhoods. Cul-de-sacs are discouraged. Shade trees and sidewalks are required along all new public streets. The City’s adopted “Complete Streets Policy” ensures that all public rights-of-way are built to accommodate all modes of transportation. Ongoing efforts to improve the City street network for cyclists have resulted in a Bicycle Friendly designation by the League of American Bicyclists.

In 2007, the Iowa River was named one of America’s “Most Endangered Rivers.” This dubious designation, followed by the record-setting flood of 2008, spurred the community to rethink its relationship with the river. Since 2009, the U.S. Environmental Protection Agency has worked actively with the City of Iowa City and the University of Iowa on projects to enhance the riverfront, both for recreational purposes and to improve water quality, fish habitat, riverbank stability, and safety. The Riverfront Crossings Master Plan calls for the transformation of a significant portion of the riverfront from a flood-prone industrial area to a new regional park that can better absorb future floodwaters while providing a focal point for a new transit-oriented, mixed-use neighborhood located adjacent to Downtown Iowa City and the University of Iowa campus.



Iowa City’s Eastside Recycling and Environmental Education Center provides a site for the public to reuse and recycle materials and to learn about waste, stormwater, energy, and green building. The center is home to the Friends of Historic Preservation’s Salvage Barn and Habitat for Humanity’s ReStore, two non-profit programs that salvage and redistribute reusable building materials and furnishings.



Above: Iowa City Recycling Coordinator Jennifer Jordan shows off Iowa City's "Community Compost." Photo Courtesy of Sustainability at Iowa.

Iowa City has expanded its composting program, which now includes yard waste and commercial food waste composting. The pre-consumer food waste composting program began in 2007 as a project proposed by students from the Civil and Environmental Engineering and Sustainable Systems class and is now offered to commercial kitchens throughout Iowa City. University of Iowa engineering students are now working on a program for post-consumer food waste that could divert as much as 350 tons of food waste into compost each year.

The City has also made great strides with a number of other environmental sustainability initiatives, including the expansion of the recycling and composting programs. The City collects more than 2,000 tons of recyclables annually through the curbside program and collection sites; another 2,000 tons are collected at the City Carton collection center on Benton Street. The Furniture Project, Rummage in the Ramp, Habitat for Humanity's ReStore, and Friends of Historic Preservation's Salvage Barn collect furniture and reusable construction materials for re-use. Recycling is now integrated into many community events as well, including three of the Summer of the Arts events in Downtown Iowa City. Twice-a-year pharmaceutical collection events provide safe disposal for about 250 pounds of unused prescription drugs, and the household hazardous waste facility at the landfill has one of the highest user rates in Iowa, diverting approximately 60,000 pounds of hazardous waste from the landfill each year. Most recently the Food Scrap Program, which began with the University of Iowa in 2007, was expanded to include three commercial customers (Regina School, New Pioneer Food Co-op, and the University of Iowa's Burge and Hillcrest Food Service), diverting approximately 10 tons of compostable food scraps per month.

In 2007 Iowa City signed the U.S. Mayors Climate Protection Agreement, and in 2008 became a member of the International Council for Local Environmental Initiatives (ICLEI), an association of more than 1200 local governments from 70 countries dedicated to sustainable development. Soon after, Iowa City became the first city in Iowa to complete a community-wide and municipal operations greenhouse gas inventory. While City staff are working on a plan that will set goals and measures for future energy conservation and greenhouse gas emissions, what follows is a list of a few efforts that have already been undertaken to reduce resource and energy use:

- Iowa City's traffic lights are LED, using about half of the electricity of standard lights. LED lights in municipal parking ramps save approximately \$50,000 per year in energy costs.
- Operational changes at Iowa City's wastewater treatment facilities have reduced energy use by 13% over the last 2 years. The plant also uses biogas in place of some natural gas to heat the aerobic digesters.
- The Water Division (drinking water) has reduced its energy use by 15% over the last 2 years by operational changes alone.
- The Iowa City Landfill has reduced greenhouse gases by two-thirds by capping and flaring methane. The Iowa City Landfill hopes to partner with the University to substitute methane from the landfill for natural gas at the Oakdale Campus.
- The following City facilities meet LEED standards: Fire Station 2 (geothermal), Fire Station 4

(geothermal and biocells for stormwater management), and the Environmental and Recycling Center (geothermal, solar, and wind energy, pervious pavement, a green roof, a living wall, and biocells with native plants along the creek).

- Iowa City offers paperless utility billing and on-line payment and registration for a variety of programs. The City is also in the process of converting to an electronic process for building and subdivision applications—something that will reduce expenses and paper waste for developers and builders as well as the City.

The actions and programs described above signify the commitment the City has made to manage resources and minimize greenhouse gas emissions. It is not only the environment that benefits from these efforts, but also the City's bottom-line, as many of these improvements create financial savings.

Vision:

The people of Iowa City value the unique natural heritage of our area and are committed to environmental protection and wise resource management that contributes to our quality of life and long-term sustainability. Iowa City will grow by following patterns of compact development that emphasize pedestrian access and that preserve sensitive ecological features, critical wildlife habitats, natural terrain, and future green space. We will be wise in our expansion of infrastructure, ensuring the efficient and effective provision of waste treatment, water purification, stormwater management, transportation, and delivery of services. We will work cooperatively to expand energy conservation, waste reduction, and recycling in both the public and private sector.



Above: Iowa City's Fire Station #2 (top) and #4 (bottom), both LEED certified buildings.

Fire Station #2 on the west side of Iowa City and Fire Station #4 on the city's northeast side, incorporated geothermal heating and cooling systems and recycled construction materials to achieve LEED Gold Standard. Lights in both stations work on motion sensors, and Fire Station #4 makes use of bioswales for stormwater infiltration.



Because multi-family buildings with more than four units rely on private haulers for their solid waste removal, four out of five households in Iowa City do not have access to curbside recycling.

In 2012, the Iowa City Landfill and Recycling Center implemented a pilot recycling program for multi-family apartments and condominiums in Iowa City. Five apartment complexes and condominium associations were selected to participate. Based on the findings from the pilot, a Best Management Practices Manual was created to offer recommendations for apartment and condominium recycling. Private recycling services are readily available and affordable in the Iowa City area and City staff can help representatives from the multi-family and condominium community work through the logistics of implementing a recycling program for their residents.

Environmental Goals & Strategies:

Recognize the essential role our land use policies play in preserving natural resources and reducing energy consumption.

- Continue to support Iowa City's adopted principles for creating healthy and sustainable neighborhoods as described in the growth section of this Comprehensive Plan.
- Encourage compact, efficient development that reduces the cost of extending and maintaining infrastructure and services.
- Support preservation of valuable farmland, open space, and environmentally sensitive areas.
- Discourage sprawl by promoting small-lot and infill development.
- Raise awareness of the environmental benefits of urban development that makes efficient use of land and infrastructure and that reduces reliance on cars for transportation.

Identify, preserve, and enhance environmentally sensitive areas and publicly-owned natural areas.

- Continue enforcement of the Sensitive Areas Ordinance.
- Maintain natural areas by controlling invasive species, using prescribed fire when necessary, and adhering to management plans.
- Discourage or prohibit the planting of invasive exotic plant species by the City, other public agencies, and property owners.

Work to protect and enhance our watersheds, floodplains, wetlands, and greenways.

- Continue to monitor water quality of local streams through the IOWATER program.
- Promote regional stormwater management systems and cooperate with local agencies regarding watershed issues and the creation of a regional stormwater management plan.
- Assess and map physical properties of local streams in cooperation with the University of Iowa.
- Continue to incorporate greenways into the open space system and the bikeways network.
- Partner with private property owners to initiate "Best Management Practices" and creek maintenance funding programs to engage the public in sustainable watershed projects.
- Provide opportunities to engage volunteers in river cleanups and creek maintenance events.

Ensure quality of the public water supply, thorough wastewater treatment, and stormwater best management practices.

- Continue to supply clean, healthy drinking water to citizens complying with all Safe Drinking Water Act Standards.
- Treat wastewater to comply with established Clean Water Act standards.
- Utilize preventative measures to keep costs down and reduce sewer overflows.
- Continue to develop and manage plans to reduce the discharge of pollutants carried by storm water into our local waterways to comply with the National Pollutant Discharge Elimination System (NPDES) permit.

Reduce the use of lawn chemicals and fertilizers.

- Reduce the use of chemicals applied by City departments where practical.
- Promote education regarding alternatives to residential lawn chemicals and fertilizers.

Promote and provide sustainable resource management for all materials going into the Iowa City Landfill.

- Expand organics collection in the community for processing into compost.
- Work to reduce hazardous waste in the community by encouraging environmentally benign alternatives.
- Continue hazardous waste collection at the Iowa City Landfill and Recycling Center.
- Expand recycling opportunities to all residents, businesses, and community institutions.

Continue to track, measure, and reduce energy consumption and greenhouse gas emissions.

- Monitor and update municipal energy use, costs, and emissions.
- Identify and seek opportunities to reduce costs and energy use (including paper, water, etc.) in municipal operations.
- Monitor community-wide greenhouse gas emissions.
- Provide public education to residents, businesses, and industry to promote water and energy efficiency, recycling, and other resource conservation efforts.
- Identify and seek opportunities to create incentives for the private sector (including residential and commercial sectors) to increase energy efficiency and emission reductions through funding and building code mechanisms.



Photo of a residential rain garden. Photo courtesy Backyard Abundance.

The City Engineering Department has developed a Best Management Practice (BMP) Program that provides financial assistance for property owners to install systems that address stormwater quality. The program is intended to help cover the costs of materials such as plantings, soil, rock, pavement, as well as the costs of installation.

The goals of the program are to improve the quality of stormwater runoff and reduce the amount of pollution entering the City's storm sewer system and waterways. Projects range from rain gardens and bio-retention cells to rain barrels and pervious pavement. The program has a limited amount of funds and the reimbursement is based on the available funding at that time.

Raise awareness and expand opportunities for waste reduction, energy efficiency, stormwater management and other environmental issues.

- Continue public events that encourage sustainable and environment-friendly practices, such as rain barrel and compost bin sales, pharmaceutical pick-ups, and household hazardous waste collections.
- Strengthen relationships with and among environmental and neighborhood groups to partner in the development of educational programing and to expand participation in conservation efforts.