

Natural Environment

Citizens and visitors to Springfield-Greene County recognize the *economic, human health, and recreational benefits of a healthy natural environment.*

Community support for efforts to protect air, water, and land resources continues to be positive. *Environmental and financial stresses*, however, have emerged due to increased population, maintaining aging infrastructure, and meeting strict environmental regulations. *These factors pose challenges to community leaders* as Springfield-Greene County works to maintain its leadership role in protecting the livability of the Ozarks region.



Wilson's Creek below the City's Southwest Wastewater Treatment Plant.

BLUE RIBBONS

Government Leadership/Community Support

City and county leaders continue to rely heavily on citizen input to aid their decision-making processes. Citizen Task Forces studied and provided recommendations on topics such as green building, stormwater management, wastewater management, and the overall affordability of current and future needs related to infrastructure maintenance, environmental quality, and environmental compliance.

Innovative Thinking and Collaboration

Springfield-Greene County has earned a reputation for having very successful collaboration among government, private, and not-for-profit organizations, as well as innovative thinking that balances efficient and effective practices with a commitment to environmental protection. Recognizing the value and necessity of strong local regulatory authority, we continue to work closely with and support the Missouri Department of Natural Resources (MDNR). Discussions are underway among Springfield, Greene County, City Utilities (CU), MDNR, and U.S. Environmental Protection Agency (EPA) leaders regarding a

trail-blazing, integrated approach to our community's environmental compliance responsibilities.

Water Quality

As noted in the 2009 Community Focus report, water quality and collaborative regional efforts to protect it continue to be recognized as a blue ribbon in our community. As a result of long-standing and successful partnerships and cooperation, Springfield-Greene County continues to receive significant grant support. One example is the \$1 million, plus a local match of \$650,000, Springfield-Greene County Urban Watershed Stewardship Project (Big Urbie) grant awarded in May 2011, an MDNR Section 319 Non-point Source Implementation Grant.

Air Quality Awareness and Response

Led by the Ozarks Clean Air Alliance (OCAA), local community leaders, media, and City staff worked to raise awareness of air quality concerns, identify area pollution sources, and promote activities and practices that reduce ground-level ozone and particulate matter. This ongoing regional effort was first recognized in the 2009 Community Focus report with Springfield becoming one of the first communities to participate in the EPA Ozone Advance Program.

Air emissions from electrical power

generation continued a downward trend in 2011–2012. Regulated emission from two local CU power plants decreased by 32 percent, compared to 2010 levels, contributing to an overall 81 percent reduction from the 1990 rates. A large measure of the 2011–2012 reductions stemmed from deployment of the new John Twitty Energy Center Unit 2 as a primary source of CU power. Unit 2, the most fuel-efficient generator in the CU fleet, is equipped with enhanced air-cleaning equipment.

Wastewater (Sewage) Funding

Funding for Springfield's sewage treatment program was identified as a red flag in the 2011 Community Focus report. A Citizens Wastewater Improvements Task Force studied the amount needed to maintain the system, comply with increasing environmental regulations, funding opportunities, and revenue increase options. Following its recommendations, a general residential fee increase, along with revisions of industrial user fees, went into effect in 2011, allowing Springfield to restore operating reserves to recommended levels, eliminate operating shortfalls, and address an Early Action Plan to meet new environmental regulations.

Solid Waste Funding

Recognized as a blue ribbon in the 2011 Community Focus report, funding for Springfield's Integrated Solid Waste Management System (Household Chemical Collection Center, Yard-waste Recycling Center, Recycling Centers, Market Development/Business Assistance, Public Education, and the Springfield Sanitary Landfill) continues under the 2008 agreement with local haulers.

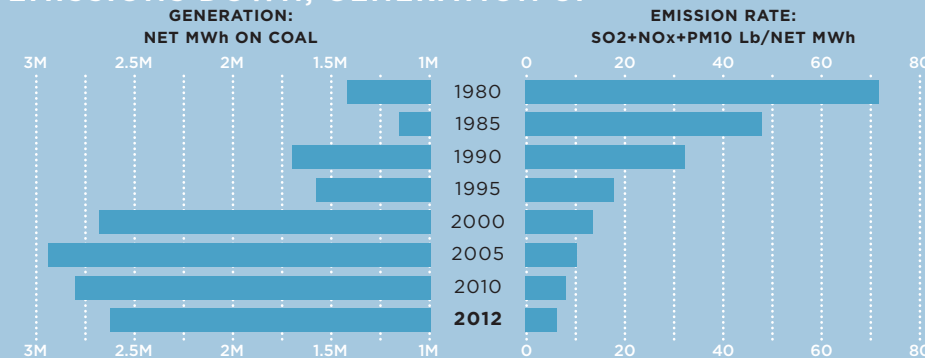
The Link/Trails

Bicycling, walking trails, and greenways continue to be a community priority providing non-fossil fuel alternative transportation, health/recreational benefits, and the preservation of open and green space while lessening the negative impact of automobiles on our air quality (see Transportation section).

Environmental Resource Center

In February 2011, the City began transforming

CITY UTILITIES' POWER PLANT AIR EMISSIONS DOWN, GENERATION UP



Source: City Utilities of Springfield

an existing 1930s-era building into the community's new Environmental Resource Center. The Center brings together staff, activities, and Springfield's new Department of Environmental Services. It also hosts Air Quality, Water Quality, Environmental Compliance, Solid Waste Management, Education, and Sustainability staff, as well as Ozark Greenways. Fully equipped meeting/conference facilities and a resource library round out the services provided in the LEED-certified Gold building.

Tree Canopy Policy

The urban forest in Springfield has had a tough few years, including ice storms, tornados, drought, floods, pests, and diseases that target individual species, in addition to ongoing threats from development and natural aging. Replacement has not kept pace with loss. Identified as a concern in the 2007 Community Focus report, a significant step was taken to address this matter when the Parks and Public Works departments implemented an internal tree canopy policy in 2010. This policy calls for the measurement of canopy on a project site before and after construction, requiring canopy lost on the project to be replaced at two times the rate, either on the project site or in a future project, with project funds being reserved to restore the canopy. In addition, CU is committed to have the same or more tree canopy in its service area in 2029 as it had in 2009. Every five years a tree canopy measurement is taken to keep the effort on track.



"Springfield has set the mark for communities in the Heartland. You are pointing the way forward to think holistically about all our resources: people, water, land, and soil."

—Dr. Karl Brooks,
Administrator, U.S. Environmental
Protection Agency Region 7

RED FLAGS

Fiscal Impact

Aided by findings of The Affordability Task Force, concerns have emerged regarding the future costs for businesses and individual homeowners to address the perfect storm of increased environmental regulations for stormwater, wastewater, drinking water, solid waste management, and air quality. In addition, fiscal challenges are likely to arise in regards to the maintenance, replacement, and expansion of existing, aging infrastructure to meet future demands. As a result, this is likely the largest fiscal issue facing our community during the next decade, estimated at nearly \$1.6 billion. Impacts to household income could be significant. As reported by the Task Force, by 2030, households in the \$10,000–\$25,000 annual



The City's new Department of Environmental Services, housed at the Environmental Resource Center, was dedicated in October 2012.

income range could be faced with 9.20–10.83 percent of their annual income going toward environmental infrastructure/regulatory compliance costs with costs to households in the \$25,000–\$40,000 range possibly from 4.29–5.50 percent. For comparison, Springfield's current median income is \$34,583 and Greene County's median income is \$41,059.

Financial Support for Volunteer Organizations

As a result of tight local government budgets, very active and long-valued not-for-profit organizations, such as the Watershed Committee of the Ozarks, Ozark Greenways, and James River Basin Partnership, have suffered from reduced financial support. Restoring this support was recognized as the number two recommendation by the planning committee that developed the Natural Environment chapter of the new Field Guide 2030 Community Strategic Plan.

Uncertainty of Future Regulation

The summer of 2012 was one of the warmest on record, resulting in several days of high ground-level ozone levels and 10 exceedances of the federal air quality standard for ozone. As a result, the Springfield ozone design value, a rating calculated using a three-year average, increased to just below the federal standard. As more information points to adverse human health as a result of high ozone levels, this standard is expected to become more strict as early as 2014. The EPA also has reviewed and tightened the national standard for particulate matter, and Springfield is very close to the limits for this pollutant as well.

Noted in the 2009 Community Focus report, significant changes to federal air-quality regulations are anticipated but unknown. If Springfield fails to comply with air-quality standards, significant effort and expense may be required to address the issues of nonattainment of the standards, including the possibility for stricter regulations on

local businesses and restrictions on the types of new businesses that can locate in Springfield.

Erosion of Local Agriculture Industry

The loss of agricultural land, typically to development, removes an important tool in water quality protection, reduces habitat to support diverse wildlife populations, and decreases the amount of open and green spaces.

Stormwater Management Funding

The lack of an adequate, long-term source of funding to address aging stormwater infrastructure, improve community flood protection, and maintain compliance with Springfield and Greene County Municipal Separate Storm Sewer System (MS4) permits for water quality protection, has been classified as a red flag since the 2005 Community Focus report. Recommendations from the Citizens Stormwater Management Task Force, which convened in October 2012, may include the possibility of funding through a future ballot issue. Because the Parks/Stormwater Tax was allowed to sunset in 2012, Springfield-Greene County has no funding source dedicated to meeting the community's future stormwater needs.

Water Quantity

Water quantity issues were first recognized as a concern in the 2009 Community Focus report. As a result of the deep drought and subsequent low water levels in our drinking water reservoirs, CU exercised a water restriction plan for the first time in 2012.

Regional discussion and planning continue as a 2010 report by the U.S. Geological Survey, in cooperation with the MDNR and Greene County, provided a comprehensive groundwater study of Greene County and surrounding communities. Findings of this study reveal levels of groundwater have declined from those measured in 2006.