

# Springfield – Greene County, Mo Integrated Plan for the Environment

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*A Citizen-Focused Approach*

## Introduction

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The citizens and leadership of the Springfield-Greene County region understand the importance of environmental stewardship and are widely recognized as a model community in this regard. Quality environmental resources are especially important to the Ozarks since much of our economic development, tourism, and overall quality of life is directly tied into the quality of our air and water.

*We cannot afford to ignore our Natural Environment. It provides us with a large portion of our economy, the food we eat, the water we drink, and the air we breathe. History is littered with glittering civilizations that ignored their environment and perished. Our region will prosper if we preserve our natural assets for ourselves and our children.*

*Field Guide 2030 – A Strategic Plan to Springfield’s Future*

Like many others across the nation, our community is addressing the challenge of increasingly stringent environmental regulations from every front. From stormwater and wastewater to air quality and drinking water, as regulations continue to evolve, our community is required to devote more money and resources to comply. The concern is that, if communities such as ours are pushed too hard to address mandates for which our community sees little value, we could see a backlash which might swing the pendulum in the other direction and we’ll relinquish the gains that we’ve made over the last several decades.

This is a huge issue for communities who are struggling to meet these regulations with limited resources. The Environmental Protection Agency realizes this and in June of 2012, released its “Integrated Municipal Stormwater and Wastewater Planning Approach Framework” which emphasized a commitment to work with states and communities to implement an integrated planning approach to address environmental objectives.

In response to this opportunity, leaders from the City of Springfield, Greene County and City Utilities developed a local approach to integrated planning titled “A Citizen Focused Approach.” This holistic approach proposes to use local knowledge to examine our environmental resources related to wastewater and stormwater as well as solid waste, drinking water, and air quality. The planning approach has received written endorsement from both the Missouri Department of Natural Resources and EPA Region 7. The Springfield – Greene County community is working hard to implement an Integrated Plan that will ensure our vital natural resources are protected in a manner that is affordable to our community.

*“There are certain leaders in our state that you always know you can count on to be on the front end of environmental protection, and Springfield is always at the top of that list.”* – Sara Parker Pauley | Director: Missouri Dept of Natural Resources

*“Springfield has set the mark for communities in the Heartland. They are pointing the way forward to think holistically about all our resources: people, water, land, and soil”* – Karl Brooks | EPA Regional Administrator | Region 7

## Why do we need an integrated plan?

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Throughout the history of our society, we've made some good and bad choices that have impacted our environmental resources. Public sanitation and solid waste disposal have had an enormous positive impact on public health. However, some of our earlier waste disposal methods caused some significant degradation of the environment. As population densities increased and environmental issues became more prevalent, action was needed. In the early to mid 1970s, several pieces of federal legislation, including the Clean Water Act, Clean Air Act, and the Resource Conservation and Recovery Act (RCRA) were signed into law. Since that time, a great deal of progress has been made toward the restoration and ongoing protection of our natural resources. However, we believe that the time has come to take a step back and reevaluate how our community addresses these regulations.

### The Problem:

The regulatory activities of the last four decades have produced some enormous improvements in our environmental resources, but the path we've taken has resulted in a siloed approach within the regulatory agencies as well as the individual communities. We know that many of our wastewater, stormwater, solid waste, and air quality issues are interrelated, but they are often addressed through different regulatory departments and under different pieces of legislation.

On the other hand, the money and resources needed to fund each of these regulatory initiatives comes from the same source. Whether in the form of utility bills, taxes, or fees; it is the citizens of our community that pay the cost of compliance and as more funding is needed to meet ever-increasing regulations, there is a very real chance that our community will find itself struggling to comply. Without looking at the big picture, there is also a risk that we will have devoted significant resources to certain regulatory drivers only to find that we were not addressing the most pressing environmental issues.

### The Solution:

We shouldn't fund environmental regulations on a "first come-first served" basis. Our Integrated Plan will take a holistic look at each of our environmental needs and prioritize our investments based on *the most effective solutions...to address the most pressing problems...that matter most to our community*. By looking at the big picture of environmental compliance, we can provide the greatest environmental benefit in a manner that is affordable to our citizens.

### If we only had ONE DOLLAR to spend,

what is the most effective solution we could implement...



...to address the most pressing problem(s)?

...that matter most to our community?

...and would be affordable to our citizens?

## How did we get here?

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In June of 2012, EPA released its “Integrated Municipal Stormwater and Wastewater Planning Approach Framework” which emphasized a commitment to work with states and communities to implement an integrated planning approach to address environmental objectives. The intention of this process is presented well on EPA’s website:

*“An integrated planning process has the potential to identify a prioritized critical path to achieving the water quality objectives of the CWA by identifying efficiencies in implementing competing requirements that arise from separate wastewater and stormwater projects, including capital investments and operation and maintenance requirements. This approach can also lead to more sustainable and comprehensive solutions, such as green infrastructure, that improves water quality as well as supports other quality of life attributes that enhance the vitality of communities. The CWA and implementing regulations, policy and guidance provide the necessary flexibility to implement an integrated planning process. ...it is intended to be an option provided to help municipalities meet their CWA obligations by optimizing the benefits of their infrastructure improvement investments through the appropriate sequencing of work.”*

According to this framework, integrated plans should include the following six elements:

- Element 1:* A description of the water quality, human health and regulatory issues to be addressed.
- Element 2:* A description of existing wastewater and stormwater systems under consideration and summary information describing the systems’ current performance.
- Element 3:* A process which opens and maintains channels of communication with relevant community stakeholders in order to give full consideration of the views of others in the planning process and during implementation of the plan.
- Element 4:* A process for identifying, evaluating, and selecting alternatives and proposing implementation schedules.
- Element 5:* A process for evaluating the performance of projects identified in a plan.
- Element 6:* An adaptive management process for making improvements to the plan.

In response to this opportunity, leaders from the City of Springfield, Greene County and City Utilities developed a local approach to integrated planning titled “A Citizen Focused Approach”. At the heart of this proposal are six guiding principles:

- Affordability – Ensure that the plan is affordable to the community’s citizens.
- Effectiveness – Ensure that the plan addresses environmental issues in a manner whereby citizens receive the “biggest bang for their buck.” Recognize that every community is unique, and ensure each community gets an opportunity to address the environmental needs that are greatest in their community.

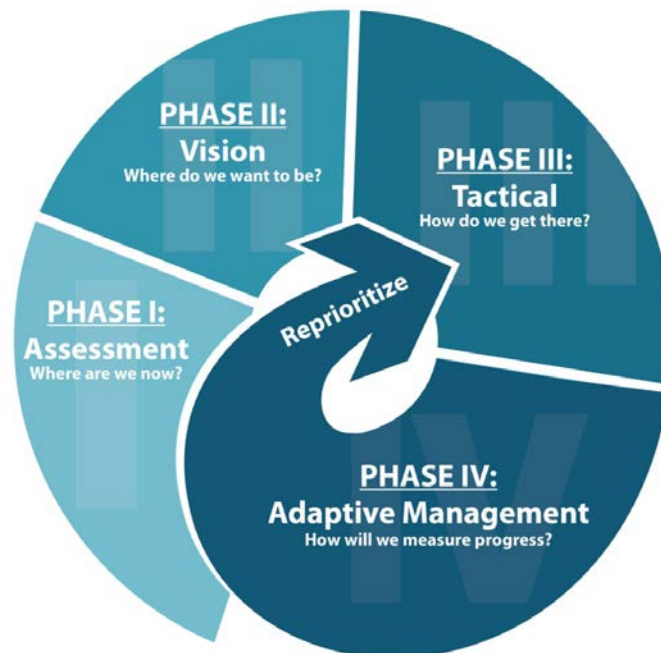
- Fairness – Ensure that the plan results in all communities being treated equally and fairly.
- Attainability – Ensure that the plan outlines actions that can reasonably be accomplished within the “community affordability” limit.
- Measurability – Ensure that the plan includes performance measures that track progress over time and indicate which projects are “best practices” that can/should be adopted or adapted by other communities, if applicable.
- Adaptability – Learning must be a part of the process moving forward. For the plan to be effective, we must be able to adjust and improve our plan based upon our experiences and results.

Furthermore, this approach proposes to develop local solutions using local expertise and community values to determine how we can best improve our environment while still making the solution affordable to our citizens. What makes the Springfield-Greene County approach unique is that it proposes to include, not only stormwater and wastewater, as the USEPA guidance suggests, **but also includes resources related to solid waste, drinking water, and air quality.**

## How Will We Implement this Plan?

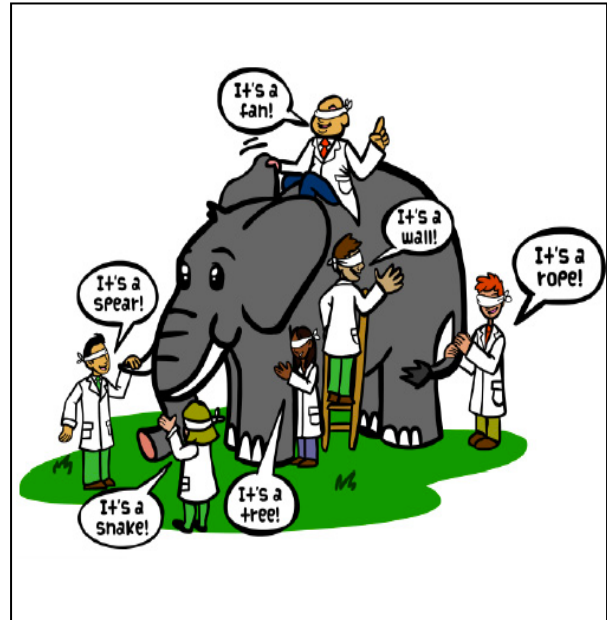
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Implementation of our Integrated Plan includes a four-phased approach:



## PHASE I:

This is the Assessment Phase and answers the question “Where are we now?” During this phase, local stakeholder groups have been gathering data to assess the current status of our environmental resources. We realize that we cannot measure success without first establishing a baseline from which to measure. One component of this phase involves creating a large, comprehensive GIS database that includes everything from stream sampling data and wastewater infrastructure to land use and geology. By taking a look at the Big Picture of our environmental resources, the regulators, as well as our citizens and stakeholder groups can see how environmental issues are relate to one another in an effort to solve problems.



## PHASE II:

The second phase of our approach is our Vision Phase and answers the question “Where do we want to be?” As a community, we have achieved success when:

- *Community resources are directed towards managing environmental issues using the most effective solutions to address the most significant problems in a way that is affordable to our citizens.*

### *In addition:*

- We are in compliance with Federal and State regulations while addressing the specific needs of our community.
- We have the ability to address water, air, and solid waste issues holistically allowing both our community and the regulators to operate more efficiently.
- We have a community culture that understands and supports the goal of high-quality environmental resources and supports these efforts through stakeholder involvement. Our community has a high level of trust that resources are being used to address environmental issues efficiently and effectively.
- Our community has a clear understanding of how funding and other resources will be used to improve environmental quality.
- Our community realizes a competitive advantage toward growth and economic development and an increase in quality of life as a consequence of this plan.

## PHASE III:

Phase III is our Tactical Phase and answers the question “How will we get there?” During this phase, technical committees and stakeholder groups will prioritize our community’s environmental needs based on four key elements:

- 1) Identify and prioritize the most significant **Sources of Pollution**: Using a Multiple-Criteria Decision Analysis (MCDA) toolset developed specifically for the Integrated Plan, we are able to take a structured look at how different pollutants impact the natural environment and the relative significance of each source.
- 2) Identify and prioritize the most **Effective Solutions**: Using the Sustainable Return on Investment (SROI) approach developed by HDR, Inc., our planning team is able to evaluate the environmental, economic, and social costs and benefits for many of the solutions considered by our community. By finding the “triple bottom line”, we can ensure that the most effective solutions are being targeted toward the most serious problems.
- 3) Capture our **Community’s Priorities**: Here in the Ozarks, our quality of life and economic development are tied directly with the quality of our natural resources. We realize the importance of protecting these resources and the ways in which our community is unique. A citizen based Environmental Priorities Task Force has been assembled and with input from this group, our Integrated Plan will work to define the issues that our community is focused on. By proactively addressing the issues that our citizens find important, rather than simply reacting to the latest regulation, we will build trust and support for our programs.
- 4) Assess our community’s **Financial Capability**: Our community applauds the efforts that EPA has made in working with the US Council of Mayors, American Water Works Association, Water Environment Federation, and others in finding new ways to assess community affordability. Our community will work to evaluate financial capability and take a candid look at how community resources should be allocated toward environmental stewardship.



The essence of our Integrated Plan lies at the nexus of these four key elements. It's here that we ask the question: "If we only had one dollar to spend, what is the most effective solution we could implement....to address the most pressing problem....that matters most to our community....and would be affordable to our citizens?"

#### **PHASE IV:**

The fourth phase of our approach is the Adaptive Management phase. We realize that a true Integrated Plan will never be complete. As we achieve success and learn more, the target will continue to move. In this phase, we will continue to refine our analysis, check the effectiveness of our solutions, and constantly reprioritize.

### **The Road Ahead:**

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While the value of our Integrated Plan is apparent, how it will interact with the regulations is still unknown. However, it appears there are several flexibilities within the existing regulatory framework that may provide opportunities for collaboration:

#### **Compliance Schedules**

Integrated Planning doesn't eliminate the obligation to comply with regulations. We still have to meet permit requirements for such things as wastewater treatment plant discharges, air emission standards, and stormwater design requirements. However, Integrated Planning should provide us with the flexibility to address new and existing



regulations in the appropriate sequence so that we can provide the largest overall benefit to the environment without overburdening our citizens with cost or leaving the best solutions unfunded. One such opportunity for flexibility within the regulatory framework can be found in compliance schedules, or the timeframe granted by regulation to comply with the requirements of a specific permit or regulation. By adjusting compliance schedules to address the most important things first and the least important things last, the community can spread the cost of compliance over a longer period of time for certain investments, making the overall investment in the environment more affordable. Integrated Planning will allow us to target where we want to focus our environmental investments and has the potential to change the way we address pollution and protect our environmental resources. Integrated Planning also allows us to focus on issues that are the highest priority for our community rather than on areas where regulatory enforcement is most likely or where funding is readily available.

### **Multi-Benefit Solutions**

Finding solutions that address multiple environmental issues will allow our citizens to address several regulatory objectives at a reduced cost. For example: Green infrastructure techniques can address stormwater permit requirements while providing aesthetic and air quality benefits for the community. Our Integrated Plan will investigate these multi-benefit solutions so that our citizens can get the “biggest bang for their buck” while meeting regulatory requirements.

### **Creating Efficiencies**

All of our environmental resources are intricately connected. What is in the air and on the land end up in our streams, lakes, and ground water. Although these resources are regulated under different laws, their protection often goes hand in hand. The goal of integrated planning is to address the protection of these resources together, building efficiency in the process. This may require coordination between different permits and regulatory agencies at both the state and local level to ensure that redundant and unnecessary requirements are eliminated and efficiencies are recognized.

### **Alternative Funding**

Much of the funding that currently goes toward environmental initiatives is collected through a utility or other service-based structure. As a result, utility ratepayers are primarily responsible for funding environmental compliance related to the activities of that utility. However, environmental impacts can be caused by activities that have no specific funding mechanism. By examining the relative impacts of different pollutant sources, our community may find opportunities to effectively address pollution sources through alternative funding sources and at a significant savings to the overall community.

## **In Conclusion:**

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The Springfield-Greene County region is standing at the crossroads of a unique and unprecedented opportunity. Our goal is to be the first community in the nation to develop a comprehensive plan to address environmental regulations at a lower cost to the community while achieving a larger environmental benefit than would otherwise be possible.