

# POLICY PLANNING & ACTION

Regional Green Infrastructure Policy Framework

Executive Summary  
April 2019



# POLICY FRAMEWORK

**The Green Infrastructure Framework offers a planning and design approach to grow communities in ways that simultaneously tend to neighborhoods, jobs and nature.**

For example, we can care for every drop of water by increasing the health of the soil that it falls upon; catching it, cleaning and reusing it when it falls on hard surfaces; and making sure it doesn't carry pollutants into streams.

When developing a parcel of land, we should strive to maintain the ecological value the land currently provides, ensuring that the landscape is sequestering carbon and creating habitat, buildings and structures are not making the air hotter, and people can gather and learn about the design process that make each place unique.

**As green infrastructure becomes part of the mosaic of all local land uses, it can be designed and managed in ways that meet local needs while providing both local and broader community environmental benefits.**

When green infrastructure is an integrated part of land use, it can also have a significant and positive impact on mobility planning. Forests, streams, wetlands and prairies provide ecological benefits as well as great walking and biking environments.

Linking communities with trails and complete green streets not only increases quality of life and economic vitality, but also provides health benefits and increases equitable access to education and jobs.

**Adoption of commonly held policies provides consistent guidance across jurisdictions, sectors and practices in the region.**

As the Green Infrastructure Framework was developed, three overarching policy recommendations emerged from stakeholder discussions: updating local ordinances; updating stormwater management guidelines and engineering standards; and linking conservation and transportation planning.

Implementation of these recommendations will focus on convening and mobilizing the diverse communities of our region to use the data and tools at our fingertips and create new policy to support collaborative, resilient decision-making.

**“Greater Kansas City is a region of opportunity. Its robust economy, healthy environment and social capacity support the creativity, diversity and resilience of its people, places and communities.”**

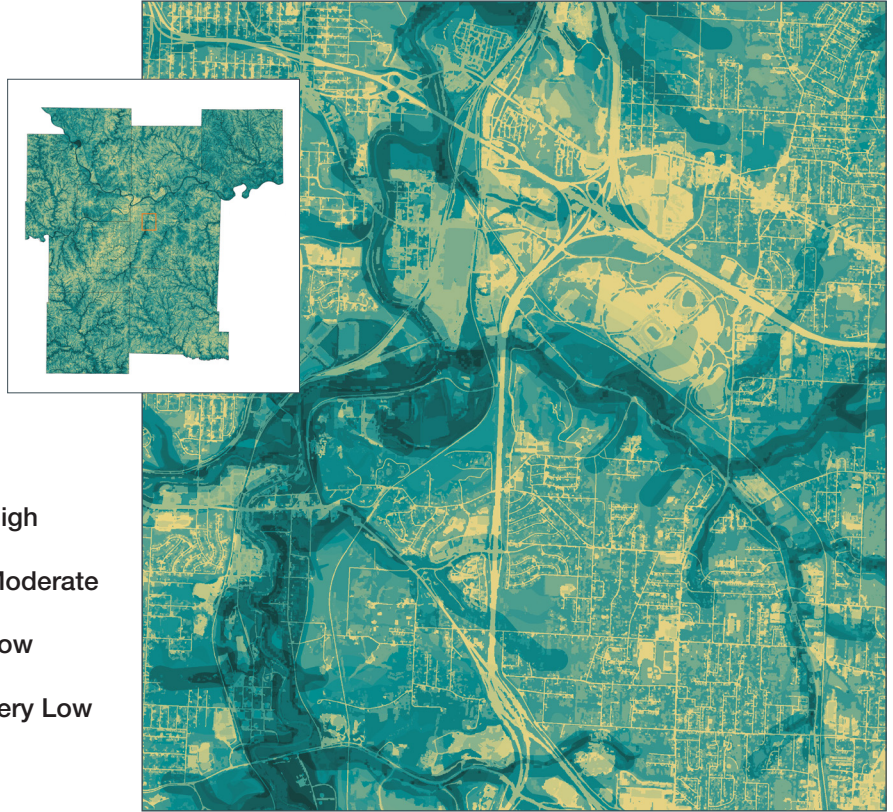
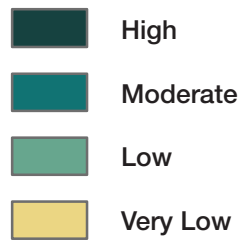
**— Regional vision adopted by the MARC Board of Directors, May 2018**

Fulfilling our regional vision requires commitment, care and a new level of cooperation among public, private and nonprofit organizations. A well-informed relationship between people and nature is necessary to grow thriving communities in the Heartland.

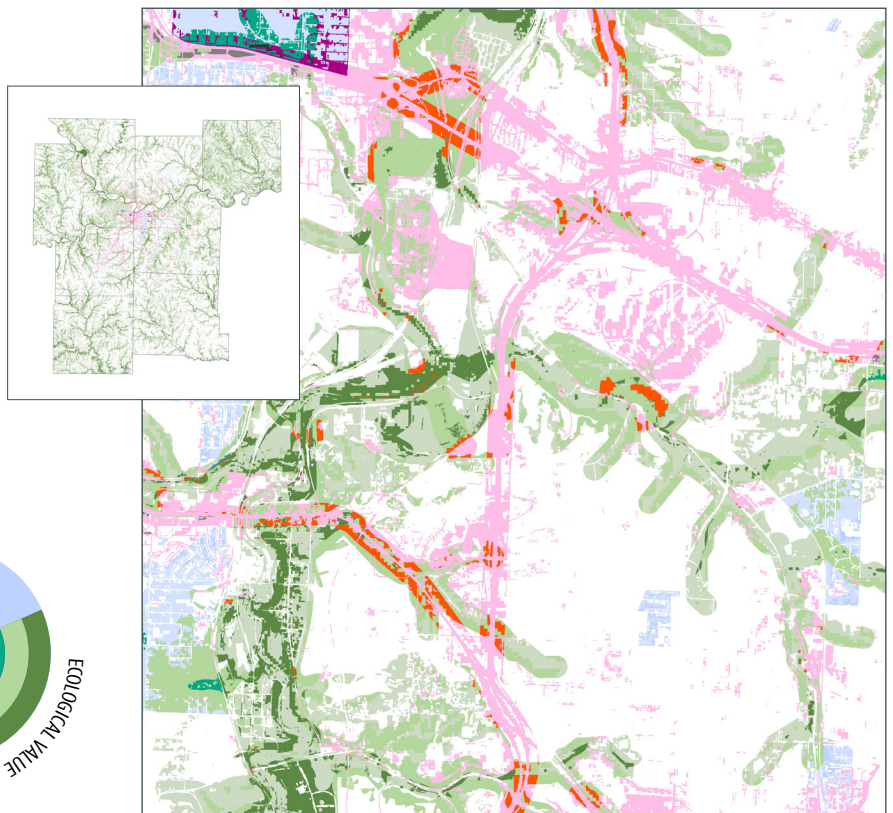
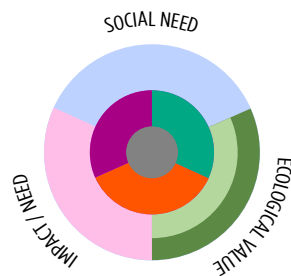
# GEOGRAPHIC ANALYSIS

Detailed maps are available to help inform an integrated approach to green infrastructure planning. Closeup views of two important maps are shown below. The full set of maps is available online at [marc.org/greeninfrastructure](http://marc.org/greeninfrastructure).

The Ecological Value map identifies areas where multiple ecological value criteria overlap — places where green infrastructure networks could be most effective for protecting and improving existing high-value resources. Darker areas have a higher number of attributes suited to conservation. Lighter areas may be better suited for restoration, mitigation or development compatibility.



Locations where ecological needs intersect with social needs are ideal places to focus attention and investment. In these places, the connection between the ecological functions of the land and the communities and people who live there are most direct. Social needs can be varied and wide-ranging, but generally include measures of community health, mobility, economic opportunity and equity. In this trivariate map each color represents a different combination of intersection.



# EXAMPLES OF GREEN INFRASTRUCTURE

Green infrastructure is not a new idea. It is an all-inclusive name for how natural environmental elements can be easily incorporated into the built environment.

The elements that make up green infrastructure are straightforward: trees, rain gardens, native landscaping, green roofs and bioretention features. These elements can be deployed in various combinations in commercial, residential and natural settings.


**STREET TREES** are integral to complete streets. Trees make streets more walkable, provide shade to save energy, and intercept and soak in rainwater.

**RAIN GARDENS** and native landscaping absorb stormwater runoff from rooftops and driveways in residential neighborhoods.

**NATIVE PLANTS** have deeper root systems that help soil absorb and retain water. Using native plants reduces the need for lawn chemicals and irrigation.

**STREAMSIDE CORRIDORS** are home to well-used trails and beautiful natural areas. Planting stream buffers with trees or native plants — and removing invasive plants like shrub honeysuckle — cleans the air and water and creates valuable wildlife habitat.





Green infrastructure concepts are already embedded in many adopted local and regional plans and policies. The Green Infrastructure Framework provides a roadmap for integrated processes and new approaches to protect, preserve and restore natural areas, while meeting social and economic needs at the same time.

**GREEN ROOFS** on commercial buildings save energy, absorb water and reduce urban heat islands.

**BIORETENTION FEATURES** strategically located in parking lots reduce ecological impacts of runoff by collecting, storing and filtering stormwater.

**COMPLETE STREETS** accommodate all users, including pedestrians, cyclists and transit riders. Adding green infrastructure improves the streetscape, facilitates alternative transportation and enhances environmental quality.

**PARKS** are great places for recreation and social gatherings. Transforming mowed areas with strategically located native landscaping creates habitat for monarch butterflies, reduces mowing costs, absorbs rainwater, and reconnects residents with our natural history.

**Green infrastructure should not be viewed as an amenity, but rather as an important part of how and where we grow, with intrinsic value and importance.**



# PRIORITY POLICY RECOMMENDATIONS

## I. UPDATED LOCAL ORDINANCES

**Develop a suite of ordinances related to trees, weeds, landscaping, invasive species and other relevant planning/zoning regulations, using an inclusive stakeholder process. Ideally, this process would be piloted in one or more local communities that are interested in adopting appropriate revisions.**



MARC will work with local governments and area stakeholders to draft ordinances that eliminate barriers to green infrastructure, or conversely, incentivize its application. Key policy issues to address include:

- ◆ **Trees and urban forestry:** tree protection standards, tree replacement requirements, roles and responsibilities of different city departments in protecting, planting, maintaining and monitoring the urban forest; incentives or practices to protect and enhance the tree canopy.
- ◆ **Weeds and landscaping:** modifications to plant height requirements and weed definitions to encourage native landscaping without sacrificing other community health and safety goals.
- ◆ **Invasive species:** regulations to govern or restrict the use of invasive species that substantially impair the quality and health of natural ecosystems, including Bradford pear trees and bush honeysuckle.
- ◆ **Green infrastructure-focused planning and zoning:** modifications to zoning and subdivision regulations that may impede ecologically sensitive site design; and guidelines to facilitate multi-benefit projects and supplement engineering and design standards and specifications.

## II. STORMWATER ENGINEERING STANDARDS AND PLANNING GUIDELINES

**Update existing standards and planning guidelines, rooted in the approach articulated within the Green Infrastructure Framework. Implement a multidisciplinary, cross-sector stakeholder process to fund, scope, develop and adopt amended engineering standards and planning guidelines.**



Revisit design standards for stormwater management adopted in 2003 as part of APWA Section 5600 and the MARC/APWA Manual of Best Management Practices for Stormwater Quality. Substantial changes in technology, best management practices and integrated planning/design approaches have taken place since the manual was published. Key policy issues to address include:

- ◆ **Stormwater management requirements** for redevelopment projects.
- ◆ **Stormwater management practices** to advance complementary community goals related to transportation, housing, parks, public health, food security, ecosystem vitality and social equity.
- ◆ **Stormwater management standards** to ensure proper maintenance of green infrastructure and prepare the region to be more climate resilient.
- ◆ **Stormwater management standards** embedded in emerging goals of “one water” or integrated watershed management.

# PRIORITY POLICY RECOMMENDATIONS

## III. LINKING CONSERVATION AND TRANSPORTATION

**Fully integrate green infrastructure conservation and restoration goals into the long-range metropolitan transportation plan, policies, programs, performance measures and project evaluation criteria.**



The integration of green infrastructure into transportation policy, programs, projects and practices creates an opportunity to address mobility and environmental quality at the same time. Building on previous successes, opportunities exist to:

- ◆ Include green infrastructure-focused projects on the project list for the long-range transportation plan.
- ◆ Strengthen evaluation criteria in the project selection process to provide incentives for inclusion of green infrastructure in transportation facilities.
- ◆ Allocate additional funds in the Planning Sustainable Places program to support projects focused at the nexus of green infrastructure, transportation and land use.
- ◆ Link water quality approaches with transportation planning and design by developing stormwater quality requirements for transportation facility design, along with an in-lieu fee system for projects unable to implement water quality protection measures within their project area.

## ADDITIONAL STRATEGIES

Participants in green infrastructure workshops and planning sessions framed the three priority strategies described above within a larger context, identifying substantial opportunities for additional strategies such as:

- ◆ **Regional collaboration and leadership** — Formalize a collaborative, cross-sector regional forum to address connected policy, planning and funding needs. This forum could provide regional leadership and facilitate higher levels of coordination among area conservation agencies and organizations.
- ◆ **Data and tools** — Continue to invest in tools and data like the Natural Resources Inventory, performance metrics and indicators, and geospatial analysis, which are critical for the region to identify and address integrated ecosystem, human health and social equity values and needs.
- ◆ **Communication and education** — Because many barriers to green infrastructure implementation are related to uneven public and professional understanding and support, a comprehensive communications strategy is needed, along with strategic professional development with a focus on green infrastructure maintenance, and certification programs for construction and maintenance standards.
- ◆ **Integrated planning** — Regional and local plans should reflect the importance of green infrastructure conservation and restoration, including green infrastructure elements in each topic area and explicitly identifying how green infrastructure may help address related goals and objectives. Interjurisdictional cooperation on integrated watershed management, or “one water” plans, offers another substantial opportunity to address water quality and quantity goals along with other community goals.
- ◆ **Project implementation** — Advance more integrated, multi-benefit projects across multiple realms, including land use, watersheds, transportation and parks, all of which are key areas of momentum, potential funding and public influence. Develop common ordinances for land use and zoning, as well as standards for public streetscapes and landscapes. Coordinate nonprofit education and advocacy programs with projects on public land and waterways to provide visibility and access to projects, creating wider educational benefit and recreation opportunities.

# THE PROCESS

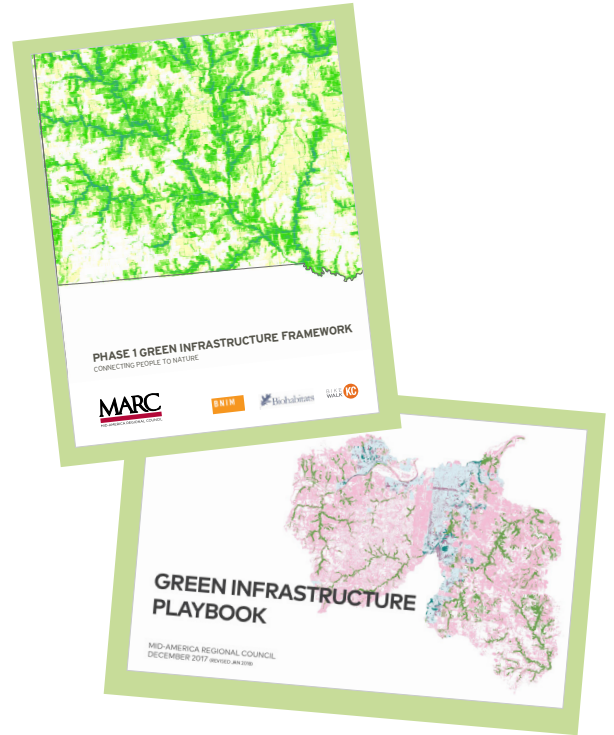
In early 2017, with assistance from BNIM, MARC published “Phase I Green Infrastructure Framework.” This report illustrates the presence and health of our natural systems, as well as the layered opportunities for protection, connection and enhancement of our communities. The study began with a review of existing data and plans, and engaged a diverse group of stakeholders to develop goals and priorities.

The Phase I report includes an atlas of maps and an initial playbook that outlines action steps at the site level in several priority areas. A separate playbook, published later in 2017, uses two community-scale examples — the Rock Island Corridor and the Shawnee Mission School District — to demonstrate replicable approaches for implementing green infrastructure to achieve ecological and socio-economic benefits. Both documents are available online:

[marc.org/greeninfrastructure](http://marc.org/greeninfrastructure)

In 2018, the focus shifted to development of a regional green infrastructure policy framework. This process included guidance from the Green Infrastructure Advisory Committee and two regional stakeholder workshops, with facilitated small group discussions. After reviewing existing policies and strategies, participants identified and prioritized a new set of recommendations and determined appropriate measures of accountability and success.

MARC also engaged Design Ranch to help develop a brand identity and “pride of place” campaign to inspire residents, businesses and municipalities to view green infrastructure as a viable way of addressing social and economical challenges. The “Here We Grow” brand is intended to encompass all green infrastructure activities at the regional level and is available for local governments and nonprofit organizations to use for their own green infrastructure projects.



## JOIN THE CONSERVATION

protect ♦ preserve ♦ restore



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