



APPENDIX

PHASE 1 GREEN INFRASTRUCTURE FRAMEWORK

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POLICY ANALYSIS

The policy recommendations in this document were developed in a three part process:

First, Biohabitats conducted a precedent review of policies from across the nation relevant to enabling or encouraging the implementation of green infrastructure. The applicability of each policy to various contexts within the region was discussed between Biohabitats and BNIM and evaluated based on the policy's impact and relevance in terms of the intersecting environmental, social, and political contexts.

Next a brief inventory of existing policies within the region was conducted to gain an understanding of the current policy context. This inventory was analyzed to identify regional trends and patterns as well as the potential for new policies or to adapt existing policies to new strategies. The precedent policies were subjected to an additional round of evaluation based on this analysis.

Finally, recommendations for each transect and priority area were formulated using the analysis from the first two steps as a guide.

Preliminary Policy Precedent Inventory

The following table was developed to inventory the preliminary research to identify national precedent policies and ordinances. Highlighted policies indicated policies which recieved significant debate. Highlights are not used to imply which policies are recommended by this team.

MARC Green Infrastructure Plan
Policy Worksheet
11/29/2016

Category	Policy Tool	Notes	Existing Tools
Plan	Comprehensive Plans	Aggregates various planning lenses (transportation, parks, etc.) into a single plan at the municipality level. They need to incorporate the regional GI plan.	Thematic and Comprehensive Plans
Zoning	Zoning Ordinance	Review and update zoning ordinance on a periodic basis to conform with GI Plan, manage type and intensity of landuse in sensitive areas, encourage GI Plan implementation, and remove implementation barriers.	Many communities use zoning to manage the intensity of land uses in clearly environmentally sensitive areas, such as including conservation districts and mixed use districts. Some communities have incorporated urban agriculture and alternative energy into their zoning and development codes
Zoning	Subdivision and Site Plan Regulation	Review and update subdivision and site plan regulations on a periodic basis to conform with GI Plan, manage type and intensity of landuse in sensitive areas, encourage GI Plan implementation, and remove implementation barriers.	Requirements that subdivisions be designed to minimize damage to the natural environment
Zoning	Form Based Codes	Create form-based standards and regulating plans for street networks, parks, community buildings, relationships of buildings and parking to streets, and provisions for multi-modal transportation. Code to support GI Plan.	At least one form based code exists for a particular district in Overland Park
Zoning	Cluster Subdivision	Cluster buildings on smaller lots leaving the remainder for recreation, ecosystem conservation, and restoration. Preserve rural and suburban land resources while maintaining or increasing development value.	Cluster development provisions are present in development codes
Zoning	Rezoning Proffers	Use proffers for Special Use Permits to conform with GI Plan while also likely increasing property values through recreation amenities, ecosystem conservation, and restoration. Stronger tool in urban and suburban areas.	
Design and Density	Urban Growth Boundaries	Designate areas planned for immediate and long-term utility service and coordinate development approval and utility extensions. Intent is to concentrate development where supportive of the GI plan and reduce utility and road infrastructure costs. A policy designation through a comprehensive plan and not a zoning designation per se.	
Design and Density	Plan Review Incentives	Provide fast track plan reviews, reduced application fees, etc. for development plans that conform with the GI plan.	A Green Build Permit Program currently exists whereby permit fees are reduced for meeting green building standards.
Design and Density	Density Incentives	Incentivize ecosystem conservation and restoration through allowance of increased density in less ecologically sensitive areas.	
Design and Density	Community Design Concepts: Traditional Neighborhood Development (TND) and New Urbanism	Create TND districts that allow or require walkable streets, bikelanes, SWM BMPs...	At least one TND zoning district exists in Olathe. Additionally, many communities have either added or are considering mixed use districts where appropriate
Design and Density	Community Design Concepts: Transit Oriented Development (TOD)		Kansas City, Mo has embraced TOD as a project philosophy with the Downtwon Streetcar development and the use of Federal BRT funds to spurr TOD on Prospect
Design and Density	Adequate Public Facilities Ordinance	Public facilities and infrastructure must be sufficient to support new proposed development. What if this also included parks and equitable access to parks?	Many communities require parkland and open space dedication at the time of development
Land Management & Conservation Program	Transferable Development Rights (TDR)	Some or all of parcel development rights from a sending district to a receiving district. Purchase of Development Rights open markets.	
Land Management & Conservation Program	Use Value Assessment and Taxation	Discounts in property tax assessments to promote and preserve...	
Land Management & Conservation Program	Conservation Easements	Legal agreement between landowner and land trust of government agency.	
Land Management & Conservation Program	Parkland Acquisition	With focus on ecological value, human health & equity.	
Land Management & Conservation Program	Nutrient Trading	With nutrient water pollution limits, landowners can sell surplus nutrient reductions to landowners that can't meet their targets. Low cost nutrient reduction sources can sell to high cost nutrient reduction sources.	
Land Management & Conservation Program	Agriculture and Forest Districts	Voluntary preservation of agriculture or forest with incentives and protections.	
Land Management & Conservation Program	Historic Districts	Can include cultural landscape preservation.	
Design and Construction	Design Review Boards	Often based on historic preservation. Typically more effective in urban areas.	

Design and Construction	Site Sensitive and Low Impact Development		
Design and Construction	Stormwater Management Permits		At least one jurisdiction requires Stormwater management Permits
Design and Construction	Erosion and Sediment Control Permits		
Design and Construction	Buildings Permits		
Design and Construction	Green Building and Site Sustainability Rating System Min. Requirements	Require or incentivize the use of LEED and Sustainable Sites Rating Systems	Some communities have incentives for green building construction and improvements, including cost of construction rebates and property tax abatement
Design and Construction/ Program	GI Construction Training and Certification Program	With disadvantaged business and community focus.	
Design and Construction	Procurement preference for GI Certification and disadvantaged businesses		Certified Green Partners
Design and Construction	Floodplain Regulations		Flood Zone Overlay Districts restrict or prohibit development within flood zones
Design and Construction	Wetland Regulations		
Design and Construction	Water Protection and Stream Buffer Ordinance	Require 100' stream buffers, with development restrictions and plant preservation/ restoration requirements.	
Design and Construction	Road Design Standards	Review state and local road design standards on a periodic basis to conform with GI Plan, encourage GI Plan implementation, and remove implementation barriers.	Complete Streets Streetscape Design; Parks and Boulevards Design Standards
Design and Construction	Tree Canopy Ordinance	Require preservation and new planting to achieve tree canopy and heat island reduction goals.	
Design and Construction	Tree Preservation Ordinance & Standards		Developers must submit a tree conservation plan before removing existing vegetation
Design and Construction	Landscaping Ordinance & Standards		Landscaping ordinances and standards including tree minimums
Design and Construction	Invasive Species Ordinance		
Design and Construction	Remove Weed Ordinance barriers to native plantings		
Design and Construction	Fees for stormwater coming off of a parcel.	Fee structured proportional to the amount of impervious area.	
Design and Construction	Stormwater Retention Credit (SRC) market	Landowner who treats SW in excess of regulatory requirements can sell stormwater retention credits.	
Design and Construction	Stormwater GI aggregator	An aggregator finances installation of SWM GI on properties of multiple landowners. Aggregator sells the SW retention credits as profit. Can incentive through low interest loans.	
Program	Municipal Facility Best Practices Construction Program		City construction must comply with LEED minimums; All county construction projects greater than 5,000 square feet must comply with LEED minimums

REGIONAL PLANNING DOCUMENTS REFERENCED

- Assessing Urban Forest Effects and Values: The Greater Kansas City Region, USDA Forest Service
https://www.nrs.fs.fed.us/pubs/rb/rb_nrs75.pdf
- Mid-America Regional Council MetroGreen Action Plan
<http://marc.org/Environment/MetroGreen-Parks/The-Plan/Action-Plan>
- Mid-America Regional Council Solar Ready Kansas City and Solar Ready II
http://www.marc.org/Environment/Energy/pdf/Solar_Ready_White_Paper.aspx
- Mid-America Regional Council Transportation Outlook 2040
<http://www.to2040.org/plandocs.aspx>
- Mid-America Regional Council Clean Air Action Plan
http://marc.org/Environment/Air-Quality/pdf/clean_air_action_plan
- Missouri Guide to Green Infrastructure
<https://dnr.mo.gov/env/wpp/stormwater/docs/gi-cover.pdf>

MUNICIPAL AND PROJECT PLANS REFERENCED

- Blueprint for Liberty: Future Land Use Plan, 1999
<http://libertymissouri.gov/DocumentCenter/View/2182>
- City of Blue Springs 2014 Comprehensive Plan
<http://www.bluespringsgov.com/455/Comprehensive-Plan>
- Gardner, KS 2014 Comprehensive Plan
<http://www.gardnerkansas.gov/development/economic-development/gardner-comprehensive-plan>
- Johnson County, KS Rural Comprehensive Plan Update
<http://www.jocogov.org/dept/planning-and-codes/pln/rural-comprehensive-plan>
- Kearney, MO 2004 Comprehensive Plan
http://www.ci.kearney.mo.us/pdf/6-15-04_Final_Adopted_Plan.pdf
- Kansas City, MO 2008 Climate Protection Plan
<https://data.kcmo.org/dataset/Climate-Protection-Plan-2008/ygpc-u9wi/data>
- Kansas City, MO 2010 Greater Downtown Area Plan
<https://data.kcmo.org/Area-Plans/Greater-Downtown-Area-Plan/e9ss-ttb9/data>
- Liberty, MO Downtown Master Plan, 2005
<http://libertymissouri.gov/DocumentCenter/Home/View/1219>
- Raytown Central Business District Streetscape Master Plan, 2013
https://raytownmo.gov/office3.com/vertical/Sites/%7B3A1DBD03-39C2-43FA-8CC9-95B16E6438CB%7D/uploads/Final_Downtown_Raytown_Street_Scape_Master_Plan_2-27-13.pdf
- Municipal Farm Sustainable Reuse Plan
<https://data.kcmo.org/Government/Sustainable-Reuse-Plan-The-Municipal-Farm/szja-m9p8>
- Big Bull Creek Master Plan
http://jcprd.com/pages/pdfs/big-bull-creek/2016-04-11_BBC-MP_Final-Report_web.pdf
- Rosedale Master Plan
<http://www.rosedalemasterplan.com/#draft-plan>

DEVELOPMENT CODES REFERENCED

Municipal and development codes for the following jurisdictions were referenced

- Belton, MO
- Blue Springs, MO
- Harrisonville, MO
- Independence, MO
- Kansas City, MO
- Kearney, MO
- Lenexa, KS
- Liberty, MO
- Merriam, KS
- North Kansas City, MO
- Olathe, KS
- Overland Park, KS
- Peculiar, MO
- Prairie Village, KS
- Raymore, MO
- Shawnee, KS
- Weatherby Lake, MO
- Clay County, MO
- Jackson County, MO
- Johnson County, KS
- Miami County, KS
- Unified Government of Wyandotte County and Kansas City, KS