

Bringing Nature Back to the City



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Missouri Department of Conservation



Bringing Nature Back to the City

- ✖ Agency Role in Urban Biodiversity
- ✖ Importance of Partnerships
- ✖ Lessons Learned





Bringing Nature Back to the City

Missouri Department of Conservation

Agency Role



Wood Duck – Forest Park

Mission:

To protect and manage the forest, fish, and wildlife resources of the state and to facilitate and provide opportunities for all citizens to use, enjoy and learn about these resources.



BGCI 2015 Education Congress

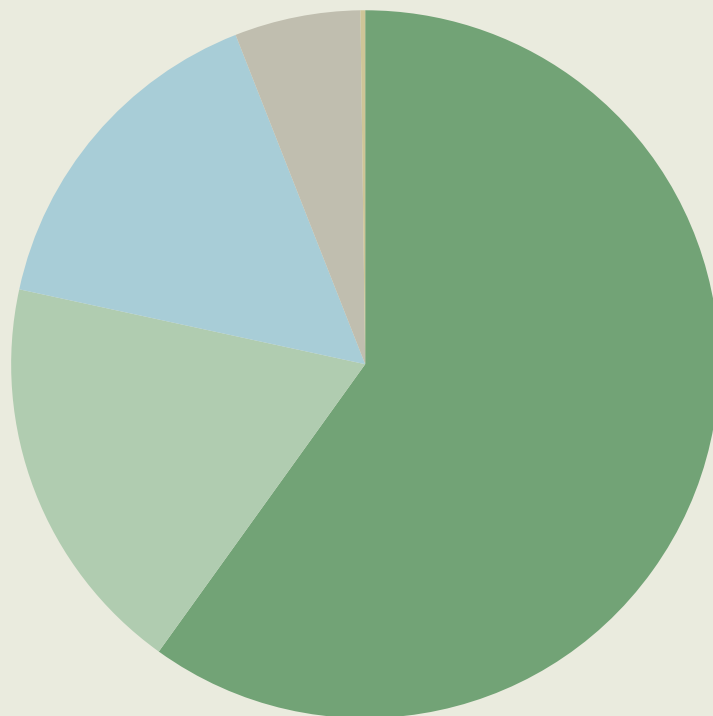


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Missouri Department of Conservation

Agency Role

FY14 Receipts \$181,538,651



- Sales Tax
\$107,076,440
- Permit Sales
\$33,044,656
- Federal Reimbursements
\$27,945,766
- Sales and Rentals
\$10,028,532





Bringing Nature Back to the City

Agency Role

Goal 1. Healthy forests, fish and wildlife. Ensure healthy and sustainable forest, fish, and wildlife resources throughout the state.

- Managing natural communities for biodiversity and resilience. Conserve and enhance healthy natural communities that support a variety of plants and animals.
- Community conservation. Encourage community conservation efforts and open-space initiatives that provide quality habitats for people, forests, fish, and wildlife.



Mink – Forest Park



Bringing Nature Back to the City

Projects & Programs



Bioretention — Maryland Avenue



Prescribed Burn — Forest Park

Agency Role

Funding & Technical Support

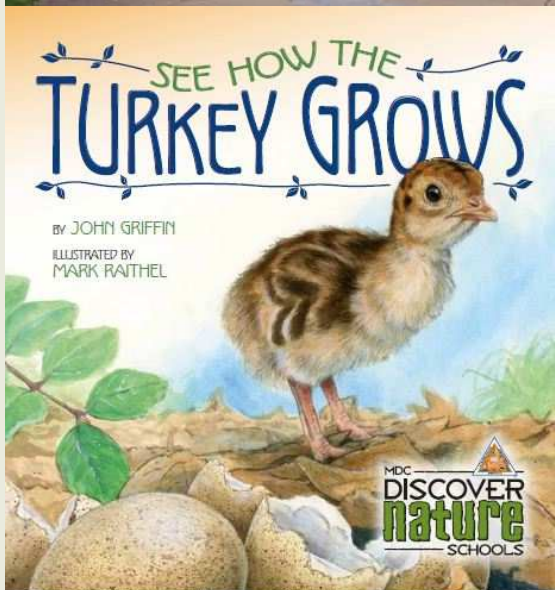
- Community Conservation Grant
- Back to Nature Grant
- TRIM Grants
- Cost Share Program
- Community Assistance Program
- Technical Assistance
 - Urban Foresters
 - Urban Wildlife Biologists
 - Private Land Conservationists
 - Community Conservation Planners



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Projects & Programs

Agency Role



Outreach & Education

Discover Nature Schools

- K-12 instructional units
- Teacher training
- Equipment and field trip funding
- 70,000 students statewide

Nature Center & Conservation Areas

- Over 900,000 visitors annually

Missouri Conservationist & Xplor Magazines

- Over 1,000,000 readers





Bringing Nature Back to the City

Partnerships

Urban Vitality and Ecology Initiative Tie

- ✕ Goal 1: Healthy forests, fish and wildlife.
 - + Managing natural communities for biodiversity and resilience.
 - + Community conservation.
- ✕ Goal 4: Citizen involvement/education.
 - + Citizen awareness/understanding of conservation.
 - + Natural resource stewardship ethic.
 - + Citizen support/participation.
- ✕ Goal 5: Engage partners.
 - + Partner funding and technical support.
 - + Empower partners to implement actions.



“Help landowners meet their land management objectives in ways that enhance fish, forest, and wildlife conservation.”





Bringing Nature Back to the City

Partnerships

Urban Vitality and Ecology Initiative

An initiative to connect people to urban natural resources in ways that maximize economic impact and social benefits.

Major Components:

- + Natural Resource Inventory and Atlas
- + Strategic Action Plan
- + Pilot Projects
- + Milkweeds for Monarchs

Expected Outcomes:

- + Urban residents know and understand the Department
- + Habitat is established and restored in the City
- + Urban residents connect to nature in their everyday lives

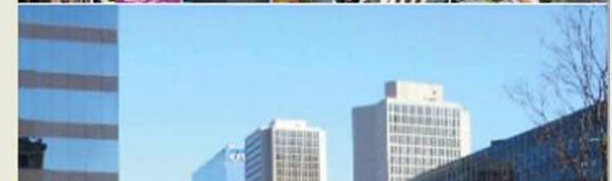




Bringing Nature Back to the City

Lessons Learned

Seek Common Ground



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Objective H: Encourage Creative, Smart, and Sustainable Uses for Under-Utilized Land and Buildings

St. Louis faces many challenges in maintaining the appearance of its urban landscape and managing vacant parcels. The City has over 10,000 parcels that have come into public ownership involuntarily through tax foreclosure. Many of these are brownfields sites that are challenged by years of costly environmental contamination. However, the City has a functional land banking system in the Land Reutilization Authority (LRA), support from state and federal agencies, several community land trusts, and an increasingly active set of private and nonprofit community development entities dedicated to the improvement and redevelopment of the City's property. With this extensive network already in place, the City has the potential to effect sweeping improvements to its urban landscape, that turn the City's many vacant parcels from a liability into one of its greatest assets. The City has an opportunity to study and enact bold policies that return underutilized parcels into active use, develop innovative and sustainable new uses, and provide communities with opportunities to provide input on the City's vacant land resources.

STRATEGY 1

Develop a Citywide strategic plan for maintaining and developing vacant land and property

Identify ideal and acceptable uses for the City's vacant land resources. Determine areas to concentrate development of business, housing, and natural resources. Designate areas for long and short-term urban agriculture uses, and community development. Facilitate land assembly and consolidation that encourages development.



Timeline: Long-term

Potential Partners: Nonprofits, Private Developers, Higher Education

Strategy Type: Legislative, Policy, Planning

STRATEGY 2

Actively market and publicize the available properties and buildings that LRA owns

Expedite the return of City owned vacant land to productive use by marketing both ideal and all potential land uses for each LRA property according to the strategic plan for vacant land resources. Develop a database available to the public of all vacant land, status of environmental remediation, and desired ultimate use. Actively market properties as viable and profitable investments, some of which may be bolstered by future public investments and infrastructure improvements.



Timeline: Short-term

Potential Partners: Land Banks/Land Trusts, Private Developers

Strategy Type: Policy, Planning

e.g. "Create a long range City wildlife plan to expand and connect key wildlife areas."

e.g. "Develop a Citywide strategic plan for maintaining and developing vacant land . . . Determine areas to concentrate business, housing and natural resources."

OBJECTIVE E

Promote Urban Conservation and Revitalization of the City's Unique Biodiversity and Natural Resources

STRATEGY 1

Create a long range City wildlife plan to expand and connect key wildlife areas

Build upon the importance of the Mississippi River. Enhance the City's developing greenway system. Connect City parks and natural habitats with linear wildlife corridors, and restore and create additional wildlife habitat areas.

Cross Benefits:



Timeline: Long-term

Potential Partners: Regional Partners, Nonprofits, Foundations

Strategy Type: Policy, Planning, Partnerships



"People should think things out fresh and not just accept conventional terms and the conventional way of doing things."
- R. Buckminster Fuller

City of St. Louis Sustainability Plan

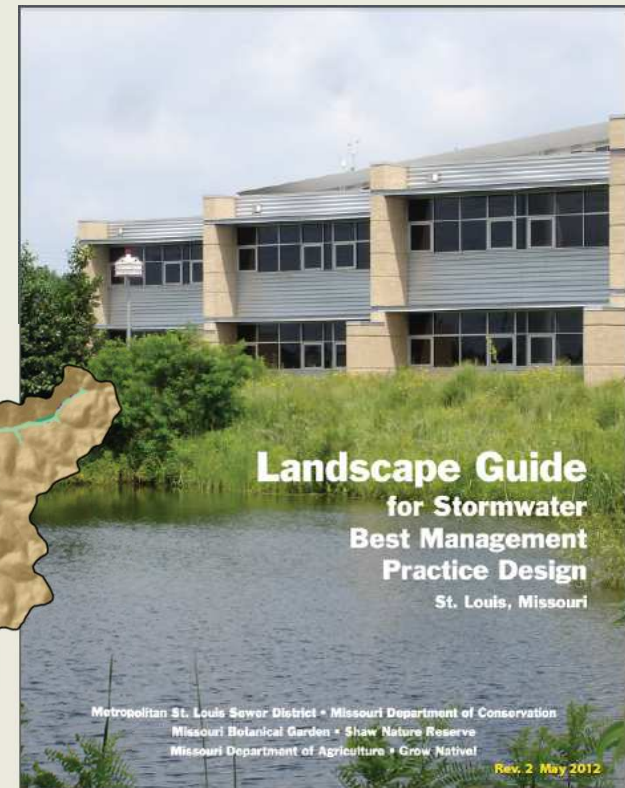
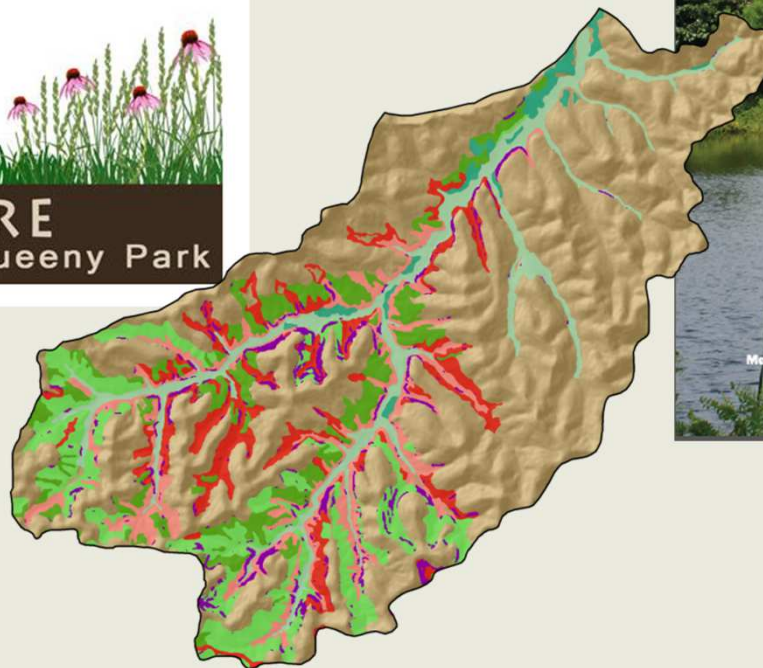


Bringing Nature Back to the City

Lessons Learned

Seek Common Ground

Queeney Park



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Partnerships

Articulate and Illustrate a Vision

St. Louis as new American city: dense, walkable and attractive neighborhoods interwoven with ecologically vibrant open spaces



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Partnerships

Articulate and Illustrate a Vision

Imagine a St. Louis where . . . restored streams connect people to natural systems, manage stormwater and safely convey stormwater away from residences.





Bringing Nature Back to the City

Lessons Learned

Seek Balance



Milkweeds for Monarchs

About the Initiative

The City of St. Louis is launching an initiative to connect people and urban habitats and 2) help people monarchs in neighborhood will advance a priority in the Agenda: to foster an enhanced urban natural resources. Access and anxiety, nourish the learning opportunities. STL aligns with the City's Sustainability Goals. Creating monarch gardens is a community's sense of place between neighbors.

Mayor Sly has committed to gardens, and is challenging additional 200 monarch gardens our 250th birthday year.

In partnership with community City has created a **STL Monarch Mix** in establishing your monarch garden carefully selected to provide for the butterflies and your plants were chosen to flower at season, offering seasonal color and nectar sources.

For updated information on the initiative and to receive your garden, please visit stlouis-mo.gov/sustainability

Planting Your Monarch Garden

Supplies

To create a garden, you will need the following:

- Approximately 1 square meter area that is best suited for attracting, hosting and feeding monarchs, with good access to sunlight. One square meter is roughly 3 ft x 3 ft. If you prefer a rectangular layout, it will be roughly 2 ft x 5 ft.
- 1 pot or container of each plant species suggested in the **STL Monarch Mix**.
- Garden trowel or shovel
- Mulch (optional, but recommended)

Instructions

- Divide the area to be planted into nine squares, placing each plant about 12" from its neighbor. A rectangular layout is suggested to the right.
- In the middle of each square, dig a hole roughly 6 inches deep and wide enough to fit the plant plug. A good rule of thumb is to dig a hole slightly larger than the container the plant plug came in.
- Gently break up the roots of each plant plug and place plants in the holes. Fill in lightly with soil.
- Cover the entire monarch garden with a light layer of mulch.
- Water your garden immediately, and then water daily.
- After a couple weeks, water every couple of days. Because these plants are native, once they are established they should only need occasional watering.
- Share a photo of your monarch garden at stlouis-mo.gov/sustainability/ so we can track and map the initiative's progress.

Reminders

- Do not use pesticides or chemical fertilizers on or near your monarch garden.
- These flowers are likely to bloom at different times, and they may take a year or two to get established.

STL Monarch Mix of Plants

Plant those taller species in the rear



Asclepias verticillata
Blossoms: June-July, White



Asclepias syriaca
Blossoms: June-Aug, Light Pink




Asclepias speciosa
Blossoms: June-Aug, Pale Purple



Asclepias tuberosa
Blossoms: June-Aug, Pale Pink



Asclepias incarnata
Blossoms: June-Aug, Pale Pink



Asclepias speciosa
Blossoms: June-Aug, Pale Purple



Asclepias tuberosa
Blossoms: June-Aug, Light Pink



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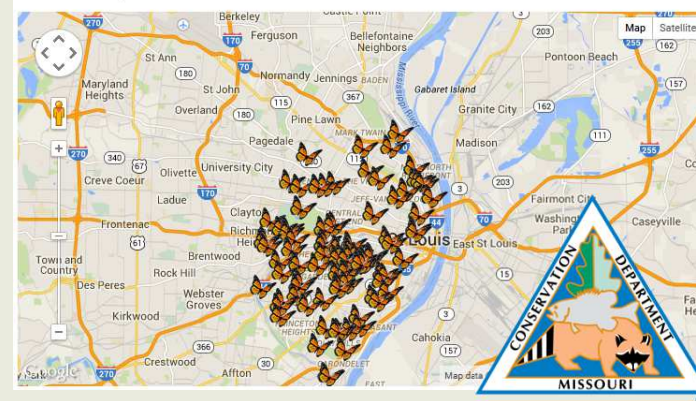
* Some plants can grow to be very large, so they should either be placed in the back of the garden or in a location where they can be managed.

Photos courtesy of Missouri Botanical Garden and Monarch Watch

Scale	Small	←	→	Large
Timeline	Short	←	→	Long
Complexity	Low	←	→	High
Impact	Ephemeral	↔		Permanent
Risk	Low	←	→	High

Milkweeds for Monarchs Map

2014 Goal: **250**; Current: **101**

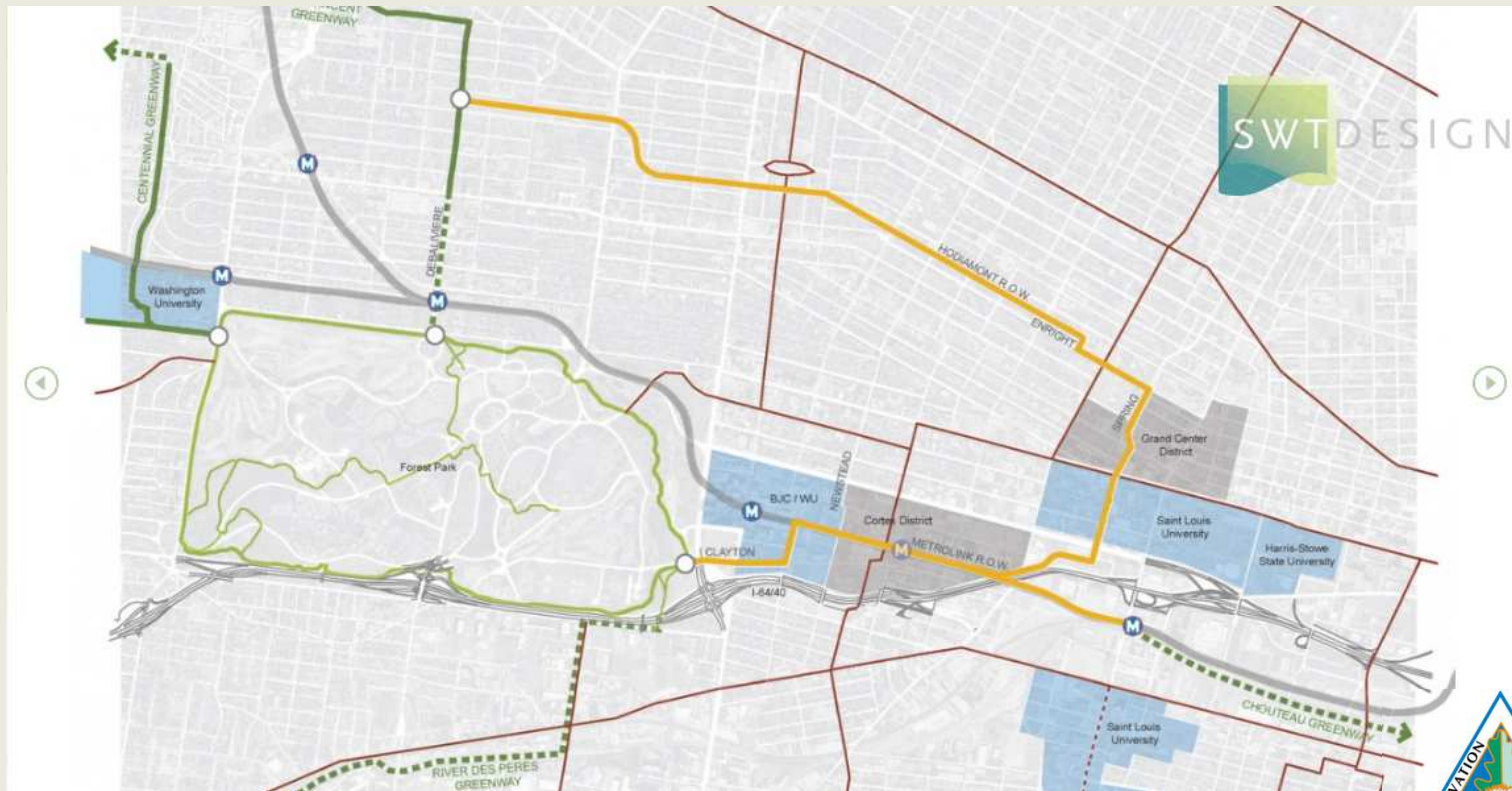




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Lessons Learned

Seek Balance



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Lessons Learned

Seek Balance

Scale	Small	←————→	Large
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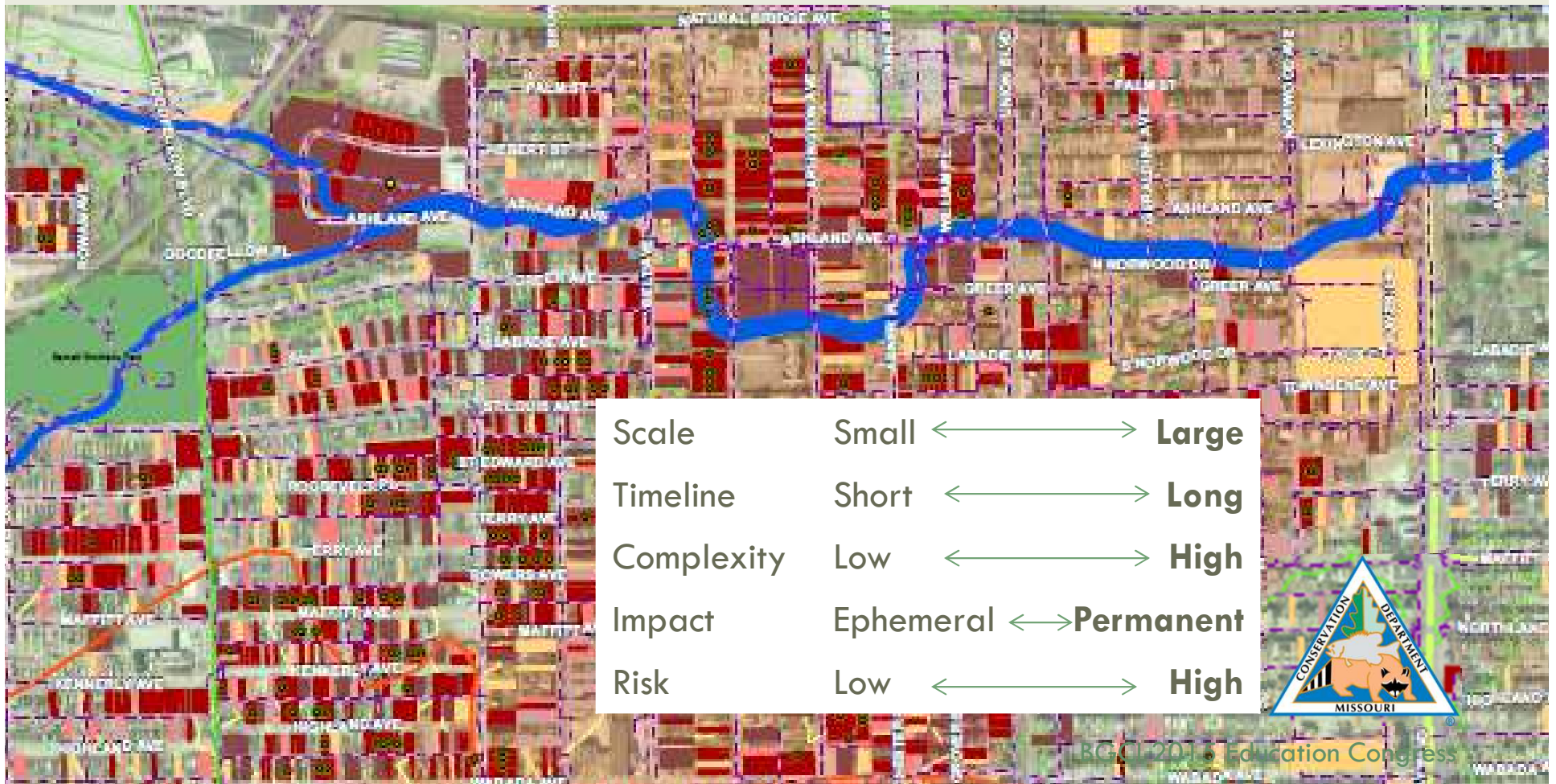




Bringing Nature Back to the City

Initiative History

Seek Balance





Bringing Nature Back to the City

Lessons Learned

Share the Credit and the Limelight

The RainScape Rebates program is funded by Metropolitan St. Louis Sewer District, Mabel Dorn Reeder Foundation, Great Rivers Greenway, Missouri Department of Conservation, participating municipalities, and US EPA Region 7 through the Missouri Department of Natural Resources (subgrant number G11-NPS-15), under Section 319 of the Clean Water Act.



Why Now?

The City of St. Louis, like many of its peer "lenses cities," holds



and strategically pursue high-quality nature reserves for urban watching, hiking and quiet contemplation.

The Urban Vitality & Ecology Initiative

Seizing the opportunity to better connect people to urban nature will require a bold, long-term vision for the future of the City of St. Louis. The partners engaged with the Urban Vitality & Ecology Initiative will collaboratively develop, and ultimately implement, this vision.

This initiative will:

1. Advance a process that **engages our diverse community**, promotes equity and aligns with stakeholder priorities;
2. Create a long-term **Urban Vitality & Ecology Strategic Action Plan** that creates the basis for well-informed policy modifications and community-based decisions, strategically prioritizes both redevelopment and key natural resource opportunities, and identifies actionable items for implementation; and
3. Develop and maintain an **Urban Natural Resources and Biodiversity Inventory** that reflects natural assets and opportunities in the City of St. Louis.



FY15 Activities

To build a foundation for a bold, long-term vision for a more ecologically vibrant and vital St. Louis, the City and its partners will:

Implement Strategic Pilot Projects that test the processes required for successful project planning, implementation and evaluation;

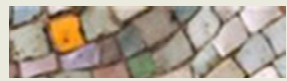
Create an Urban Biodiversity Atlas that raises awareness of the rich biodiversity assets and potential in the City of St. Louis;

Build Capacity for Long-Term Planning through data analysis, the creation of an inventory of biodiversity assets and opportunities, partnership and relationship development, fundraising and the pursuit of tools to support long-range goals.

The Urban Vitality & Ecology Initiative reflects priorities in the City of St. Louis Sustainability Plan and Mayor Sly's Sustainability Action Agenda. For more information, visit the City's website at stlouissustainability.org, or contact Catherine Warner, City of St. Louis Sustainability Director, at warncat@stlouissustainability.org.

¹ 99% is the additional possible increase in the City of St. Louis' urban tree canopy as determined by Forest ForLeaf of Missouri, St. Louis, MO Urban Tree Canopy (UTC) Assessment, 2010.
² CDC's National Center for Chronic Disease Prevention and Health Promotion, Division of Adolescent and School Health, Childhood Obesity: 20 Oct. 2008: <http://www.cdc.gov/healthyouth/obesity>
³ Ernst, Julia (editor) and Martha Monroe, "The effects of environment-based education on students' critical thinking skills and disposition toward critical thinking," 10.4 Environmental Education Research, Nov., 2004.
⁴ Corbett, Jean: How Do Community Gardens Impact Social Conditions.

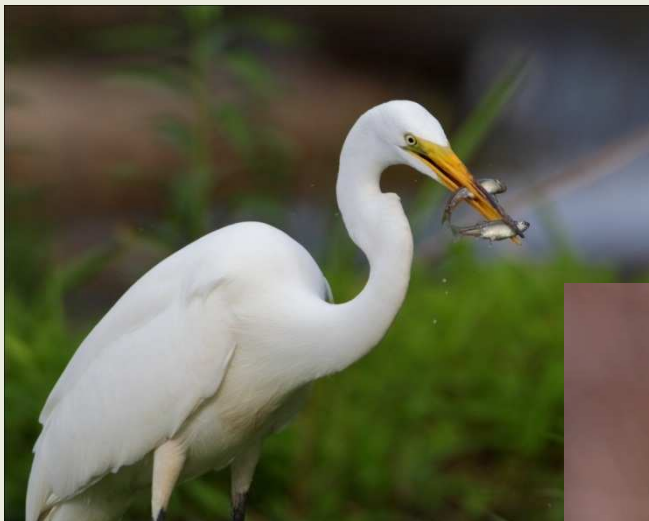




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“Mysterious and little known organisms live within walking distance of where you sit. Splendor awaits in minute proportions.”

E. O. Wilson, Harvard University

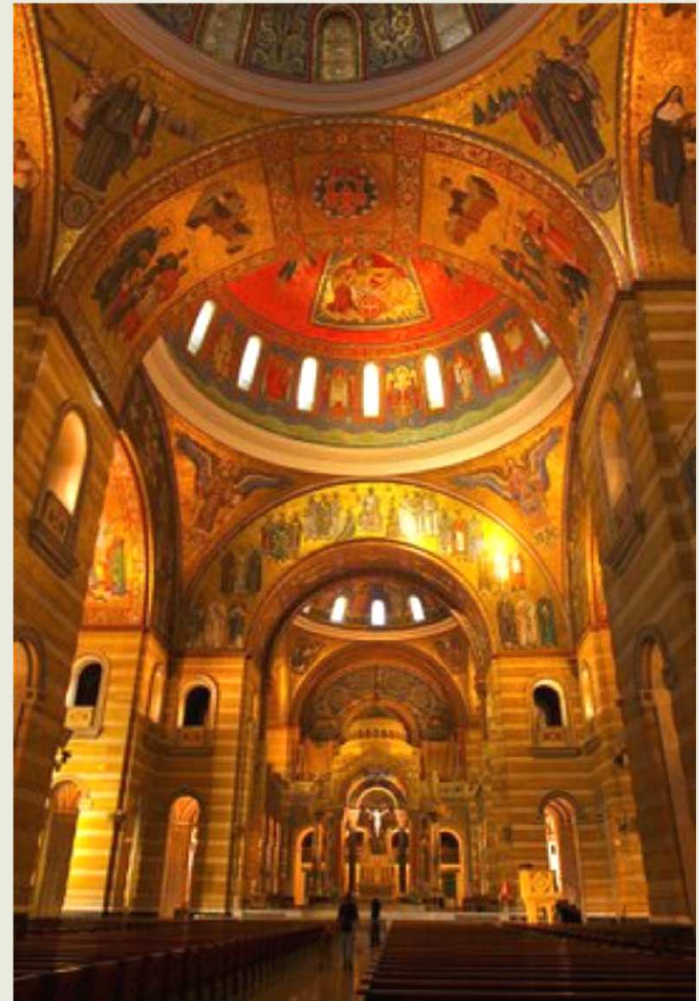


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A muse: Cathedral Basilica St. Louis

- ✕ 1912 mosaic installation began
- ✕ 7,000 colors
- ✕ 41.5 million glass pieces
- ✕ 78 years in production
- ✕ 83,000 square feet . . .

one day and one project at a time.



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