



RILEY
PURGATORY
BLUFF CREEK
WATERSHED DISTRICT

Ecosystem Health Action Plan

Workshop 2

Workshop Series Synopsis

Workshop 1 (May 18th)

- Defined a healthy urban ecosystem
- Identified primary challenges to a healthy urban ecosystem

Workshop 2 (June 15th)

- What are we currently doing to achieve a healthy urban ecosystem?
- What's not being addressed?

Workshop 3 (July 20th)

- How can we address gaps in ecosystem protection/improvement?
- Where can we be most effective?

Workshop 4 (Sept. 28th)

- How will we work together?

Landcover in the District can be categorized into:

Green

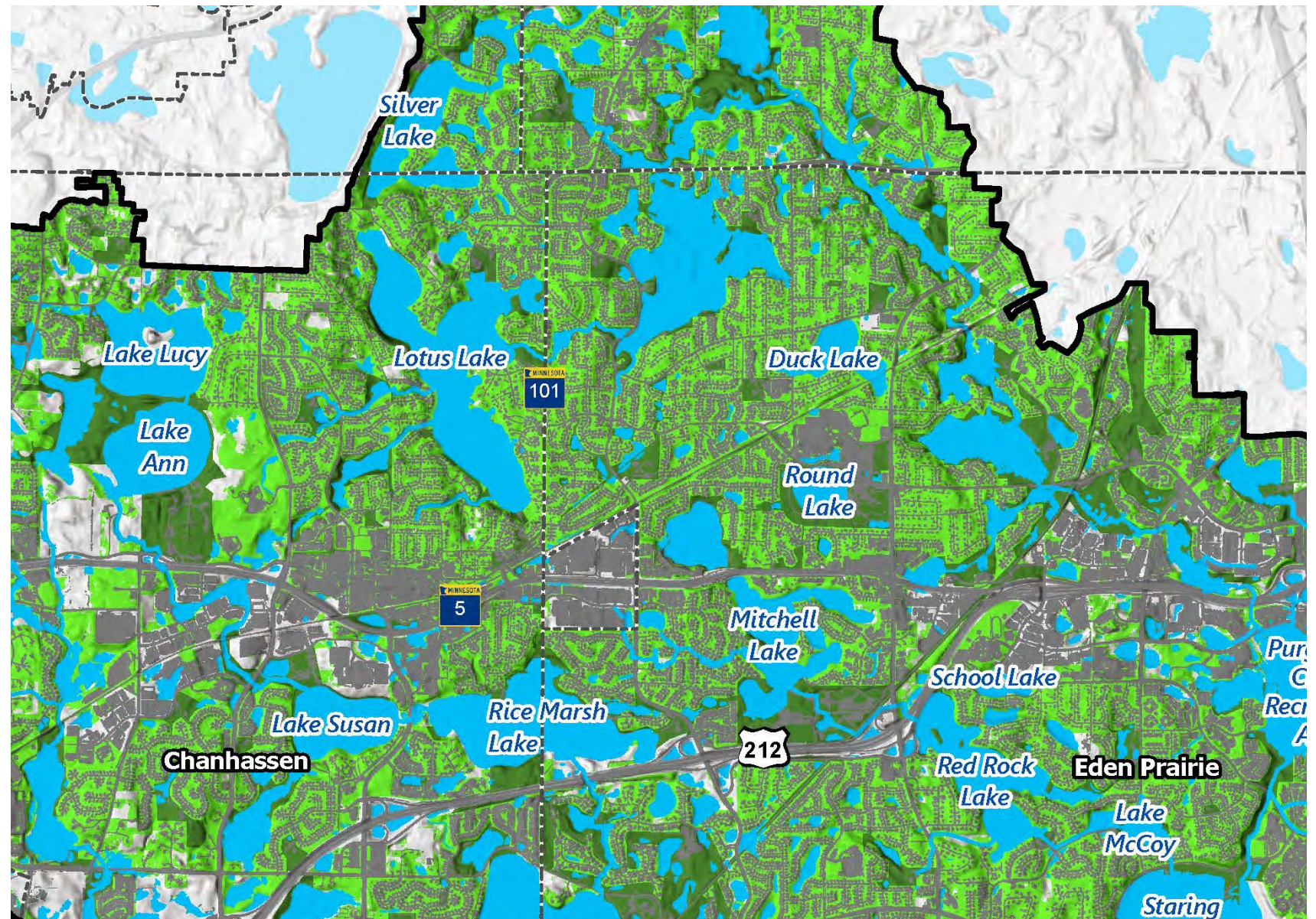
- Lawn
- Woodlands
- Old field vegetation
- Agriculture

Gray

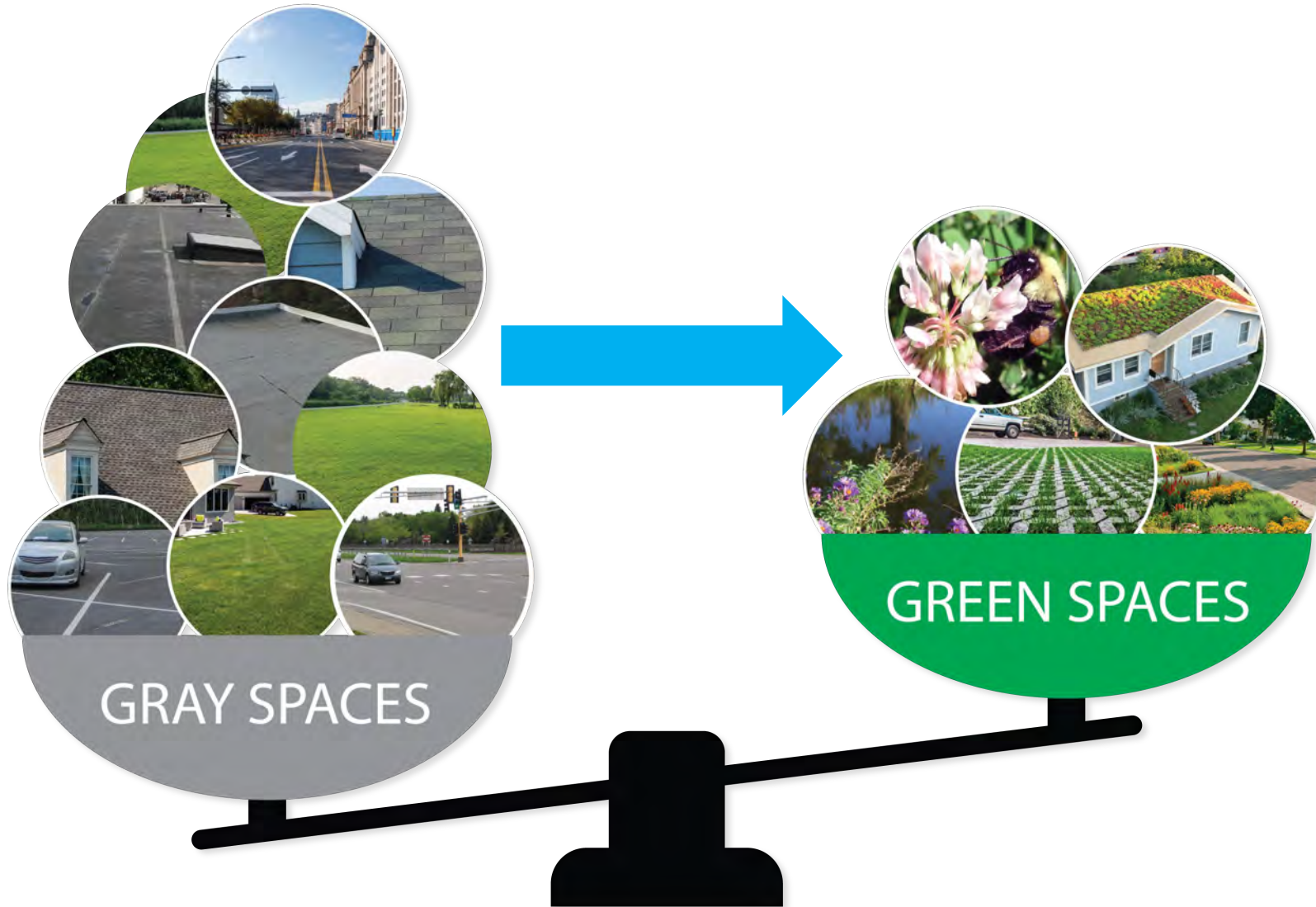
- Streets, highways
- Parking lots, driveways
- Buildings, homes

Blue

- Streams
- Lakes
- Wetlands



Goal: Expand the green and cover/shrink the gray to protect the blue.



How do we meet this goal?

Cover/shrink the gray

- Implementing low impact development
- Implementing conservation design practices
- Building walkable communities
- Transitioning to green roofs
- Reducing impervious surfaces
 - Smaller parking lots
 - Narrow streets
 - Taller, not wider buildings

Expand the green

- Preserving existing open space
- Transforming lawns to prairies
- Restoring degraded natural areas



Tools at our disposal

Are there others?

Policy and Regulation

- Development regulations
- Landscape ordinances
- Runoff treatment requirements and permits

Planning

- City Comprehensive Plans
- Watershed District Ten Year Plan
- State agencies
- Federal agencies

Publicly Funded Projects

- City facilities, streets, and park projects
- Watershed District stormwater management

Education and Outreach

- Classes and trainings
- Grants
- Cost share

Workshop One Results

What is a healthy urban ecosystem?

A Healthy Urban Ecosystem

includes a balance of natural and developed spaces.

Biologically diverse, layered, and connected aquatic, terrestrial, and subterranean habitats and wildlife.

Resilient to climate change including intense storm events and warming average temperatures.

Functional ecosystem services such as water cycling, nutrient cycling, and food webs.

Native wildflowers, grasses, shrubs, and trees are incorporated into the built environment.

Integrates people into the natural environment through trails, parks, and natural spaces for leisure, recreation, and travel.

Ecologically knowledgeable population of residents, business owners, and property managers.

Lawns are minimized and alternative lawns such as bee lawns and meadow lawns are more common than turfgrass.

Developed spaces incorporate green infrastructure to mimic natural ecosystem functions.



What we learned from Workshop One

White Board Category	Votes	Broad Category
Lack of big picture mind set	18	Human/societal dimension
Development pressure (profit driven)	15	Regs
Climate change	12	Ecology
Lack of funding & staff	12	Budget
Policy & conflicting ordinances	12	Regs
Lack of public awareness/disgruntled attitude	11	Human/societal dimension
Habitat fragmentation	8	Planning
Lack of long-term maintenance (\$)	7	Budget
Altered hydrology	5	Regs/Ecology
Identifying decision makers? How to get them to prioritize ecosystems? Conflicting leadership priorities.	4	Bias
Lack of education, information, communication, and knowledge	3	Human/societal dimension
Natural areas management	3	Planning/\$
Difficult politics - at all levels	2	Bias
Unknown issues yet to occur	2	Planning
Siloing within and outside of agencies	2	Planning/Bias
Chemical footprint; lawn & deicing	1	Ecology
Generational priorities and expectations	1	Bias

Habitat fragmentation	8	Planning
Lack of long term maintenance (\$)	7	Budget
Altered hydrology	5	Regs/Ecology
Identifying decision makers? How to get them to prioritize ecosystems? Conflicting leadership priorities.	4	Bias
Lack of education, information, communication, and knowledge	3	Human/societal dimension
Natural areas management	3	Planning/\$
Difficult politics - at all levels	2	Bias
Unknown issues yet to occur	2	Planning
Siloing within and outside of agencies	2	Planning/Bias
Chemical footprint; lawn & deicing	1	Ecology
Generational priorities and expectations	1	Bias
Lack of contractor availability	1	Budget
Lack of flexibility - need adaptive	1	Planning
Lack of green infrastructure	1	Planning/Regs
Late stage capitalism	1	Budget
Regional impacts	1	Planning
Heavy clay without topsoil	0	Ecology
Invasive species	0	Ecology
Kick the can	0	Planning
Poor soils	0	Ecology

Whiteboard Category	Votes	Broad Category	Total Votes/Category
Policy & conflicting ordinances	12	Policy	
Development pressure (profit driven)	15	Policy	
Altered hydrology	5	Policy	
Siloing within and outside of agencies	2	Policy	
Identifying decision makers? How to get them to prioritize ecosystems? Conflicting leadership priorities.	4	Policy	38
Generational priorities and expectations	1	Human/societal dimension	
Difficult politics - at all levels	2	Human/societal dimension	
Lack of education, information, communication, and knowledge	3	Human/societal dimension	
Lack of public awareness/disgruntled attitude	11	Human/societal dimension	
Lack of big picture mind set	18	Human/societal dimension	35
Lack of contractor availability	1	Budget	
Late stage capitalism	1	Budget	
Lack of long term maintenance (\$)	7	Budget	
Lack of funding & staff	12	Budget	21
Kick the can	0	Planning	
Lack of flexibility - need to be adaptive	1	Planning	
Regional impacts	1	Planning	
Unknown issues yet to occur	2	Planning	
Habitat fragmentation	8	Planning	
Natural areas management	3	Planning/\$	
Lack of green infrastructure	1	Planning/Regs	16
Heavy clay without topsoil	0	Ecology	
Invasive species	0	Ecology	
Poor soils	0	Ecology	
Chemical footprint; lawn & deicing	1	Ecology	
Climate change	12	Ecology	13

What are the barriers to a healthy urban ecosystem?

Summary of Barriers

Development

- Pressure to develop remaining open land to maximize profit and tax revenue
- Conflicting development priorities
- Housing demand
- Lack of enforcement to protect natural areas

Regulations/Policies

- Ineffective or lack of protective regulations
- Oppositional ordinances
- Competing regulations and policies
- Inconsistent approaches across boundaries

Habitat/Ecosystem Concerns

- Climate change – increased rainfall intensity, warmer average temps
- Altered hydrology
- Fragmented habitats
- Terrestrial and aquatic invasive species

Resource Availability

- Lack of funding, staff, & contractors to manage or maintain natural spaces and green infrastructure
- Lack of information or research

Society/Knowledge

- Apathy toward healthy ecosystems
- Lack of awareness, knowledge, understanding
- Differing generational priorities & values
- Social norms & resistance to change
- Societal divisiveness & trust in science

Government Organization

- Resistance to change within organization
- Competing priorities within organization
- Lack of coordination & cooperation within and between organizations
- Lack of leadership/decisionmaker support
- Lack or unwillingness for long-term planning