



Minneapolis
Park & Recreation Board



ECOLOGICAL SYSTEM PLAN

JANUARY 2019





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“Look forward for a century, to the time when the city has a population of a million, and think what will be their wants. They will have wealth enough to purchase all that money can buy, but all their wealth cannot purchase a lost opportunity, or restore natural features of grandeur and beauty, which would then possess priceless value, and which you can preserve for them if you will but say the word and save them from the destruction which certainly awaits them if you fail to utter it.”

– H.W. Cleveland, *Suggestions for a System of Parks and Parkways for the City of Minneapolis, 1883*

Acknowledgments

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CHAPTER 1

INTRODUCTION

Minneapolis Park and Recreation Board
Ecological System Plan



Introduction to the Minneapolis Park and Recreation Board

MPRB'S PARK SYSTEM DESCRIPTION

The Minneapolis Park and Recreation Board (MPRB) manages a complex and vibrant park system spanning over 6,800 acres of land and water. This system consists of both large regional parks, which are intended for more nature-based play, and neighborhood parks, which include more man-made recreational amenities. In total, this system is composed of 160 neighborhood parks, 19 regional park and trail facilities, 49 recreation centers, 102 miles of biking and walking paths, 12 formal gardens, and 7 golf courses in the middle of a dynamic metropolitan area with one of the country's largest and most ecologically diverse river systems running through it.

MPRB'S VISION

Managing this system and balancing the often competing demands between humans and nature is an immense responsibility; thus MPRB has articulated a vision that is based on delivering:

- ▶ Vision Theme 1 Urban forests, natural areas, and waters that endure and captivate
- ▶ Vision Theme 2 Recreation that inspires personal growth, healthy lifestyles, and a sense of community
- ▶ Vision Theme 3 Dynamic parks that shape city character and meet diverse community needs
- ▶ Vision Theme 4 A safe place to play, celebrate, contemplate, and recreate



MPRB STRUCTURE

Each service delivery group within MPRB, including Planning, Environmental Stewardship, and Recreation, has a particular responsibility with regard to achieving better environmental quality in the parks.

- ▶ **Planning** works with the community to develop and implement visions for the physical assets within the parks. In doing so, this group considers the accessibility of the parks as well as achieving a balance between built and natural space.
- ▶ **Environmental Stewardship** manages and maintains the built and natural spaces, which means the majority of equipment used for their care is purchased by this department.
- ▶ **Recreation** oversees recreational programming in the parks, including athletics, aquatics, ice arenas, golf, youth development, and programming in recreation centers. This programming requires energy to power lights, buildings, and other facilities as well as water to service recreational needs.

MPRB PLANNING

MPRB's Strategic Planning Department produces different kinds of plans to help Minneapolis parks realize community visions. Service Area Master Plans are completed to address community priorities for neighborhood parks within the five service areas of the park system. Regional park master plans address the long term needs of nature-based regional parks. Activity plans take a subject matter dive into particular activities (such as skateboarding and urban agriculture) and how they can best be supported throughout the park system. Because environmental concerns are becoming increasingly more apparent throughout the system, now it is time for a new type of plan that presents a more environmentally sound way of managing the impacts of the city and recreational demands of its residents within park spaces: an ecological system plan.

MPRB'S Ecological System Plan

To successfully achieve the goals set forth in its vision, MPRB has recognized the need to partner with other agencies and organizations to achieve long term sustainability with its planning efforts. In partnership with the Mississippi Watershed Management Organization, MPRB has developed this Ecological System Plan to:

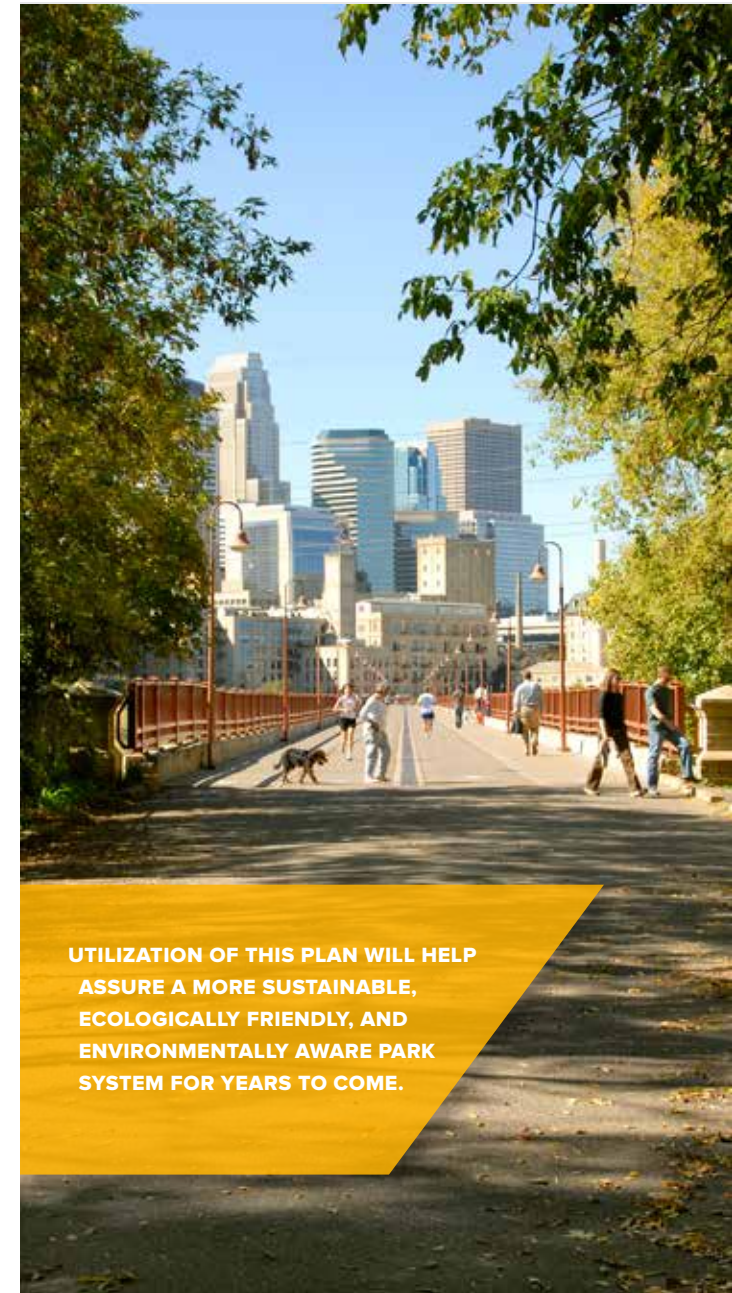


Figure 1. Ecological System Plan.

The first of its kind, the Ecological System Plan provides a framework for how environmental considerations can be addressed in ongoing planning efforts at MPRB as well as how and where the organization can look to partner with other local, regional, and statewide planning organizations to achieve shared environmental goals. As such, this plan ties in with natural areas management planning as well as park and service area master planning currently underway within MPRB, in addition to environmental planning efforts throughout the Twin Cities metropolitan area.

This plan addresses how MPRB approaches the quality, improvement, and continued protection of water, air, land and life within the Minneapolis park system by:

- ▶ Assessing existing conditions in parks
- ▶ Evaluating current site management and material selection practices
- ▶ Determining best management practices
- ▶ Identifying mitigation strategies and areas with highest mitigation potential
- ▶ Developing recommendations and policy goals for future planning/operations efforts at MPRB and with strategic partners



UTILIZATION OF THIS PLAN WILL HELP ASSURE A MORE SUSTAINABLE, ECOLOGICALLY FRIENDLY, AND ENVIRONMENTALLY AWARE PARK SYSTEM FOR YEARS TO COME.

LENSES FOR THE ECOLOGICAL SYSTEM PLAN

In response to recurring environmental concerns frequently raised by park stakeholders, MPRB convened an Ecological System Plan Community Advisory Committee who identified the following areas of especially pressing environmental concern:

- ▶ Air quality issues
- ▶ Urban heat island effect
- ▶ Carbon sequestration
- ▶ Sustainable energy generation
- ▶ Stormwater runoff
- ▶ Biodiversity and habitat quality
- ▶ Habitat connectivity

Each of these concerns is connected in a complex web to the plan's broader themes of water, air, land, and life. These environmental impacts stem from human activities. Park operations also have an impact on the concerns identified by this plan's Community Advisory Committee. This plan strives to untangle the web and consider

ECOLOGICAL SYSTEM PLAN LENSES

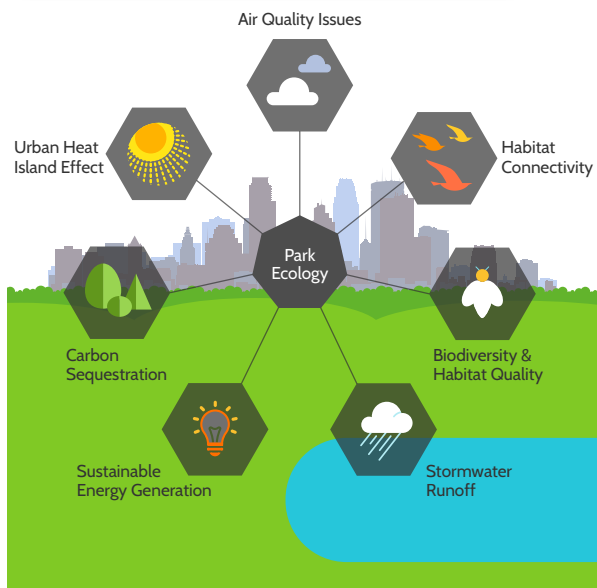


Figure 2. Ecological System Plan Lenses

ECOLOGICAL SYSTEM PLAN APPROACH



Figure 3. Ecological System Plan Approach

what can be done both on the individual park and system level to address environmental challenges that exist well beyond park boundary lines. As such, goals and strategies will be presented to address how these particular areas of concern within the park system relate back to the broader plan themes.

ECOLOGICAL SYSTEM PLAN THEMES: WATER, AIR, LAND, AND LIFE

While most MPRB plans are categorized according to their geography and management (service area, neighborhood parks, regional parks, regional trails, natural areas), this plan offers a different point of view based on ecological considerations spanning the park system. Thus, this plan has been organized according to themes that encapsulate the biodiversity, environmental sensitivity, and collaborative need for management within the parks: water, air, land, and life.

The purpose behind looking at these themes on a broad scale relates back to the MPRB vision of addressing

the need to better understand dynamic and deepening environmental impacts to the park system as the city continues to grow and change around it. Water, air, land, and life are fundamentally interconnected, both in nature and in the discussion of how park spaces are managed.

GOALS AND STRATEGIES FOR EACH THEME

The chapters that follow present environmental conditions in the parks, current mitigation measures, and finally, goals and strategies for each theme to help guide the work MPRB undertakes in its Planning, Environmental Stewardship, and Recreation divisions. Goals are the benchmarks MPRB can use to ask "have we achieved this?" and strategies offer a means of progressively achieving the goals that are identified. Many of MPRB's plans are structured in this way to help advance implementation of the plan. The Ecological System Plan is no different in this respect. While it does not immediately identify exact budget numbers for implementation, it calls out the need for other plans and operational changes, offers staffing ideas, presents pos-

sible community partnerships, and lays out more detailed recommendations based on the environmental concerns that exist, what is currently being done to address them, and what it will take both in the short and longer term to achieve the goals set forth in the plan. In order to help establish policy direction for future prioritization of projects, maps are also included to assist in current and future conditions analysis.

PLAN OUTCOMES

As global climate change continues to intensify, so do the ecological changes happening as a result. In view of these changes, the work that MPRB does through planning and implementation to protect water, air, land, and life in the parks will help to sustain park resources for generations to come. Another important outcome for MPRB's work, not only in daily operations, but in long range planning, is to adequately address the equity and environmental justice concerns that are at the forefront of the park system's sustainability and service conversations with all park users.

Through the Ecological System Plan, MPRB shares the methods behind its operations and maintenance practices and engages the community in a discussion about where policy, procedure, or organizational goals might be pursued differently or in partnership with other organizations and agencies in the interest of achieving better environmental results. While intended to address city-wide environmental concerns, this plan has been written to reflect a strong awareness of areas within the city that have been historically disadvantaged due to unfair racial policy, environmentally compromising land use, and concentration of poverty. As a result, these areas have historically experienced inequitable investment in public amenities, elevated cases of lung and heart disease, and higher crime rates. While MPRB is not able to directly impact all of this historic cause and effect, it is important to consider what can be done on an organizational basis to act as a change agent, working for the creation of greener, healthier and safer community spaces.

Finally, this plan serves as an invitation to the community within Minneapolis to consider how changes in personal behavior can have a significant impact in the ecological functions and environmental quality across the city, which will ultimately help to inform the quality of individual visitor experiences in the parks. The most important and impactful partnership MPRB can develop is with park users, as their visions, goals, and behaviors inform the future of the parks.

COMMUNITY ENGAGEMENT TO GUIDE PLAN OUTCOMES

Because park users help to inform park conditions, an essential component in the development of this plan has been community engagement. Each plan theme is impactful of parks in its own right, but also has the potential to be mitigated in some way by individual behavior changes. Consequently, community awareness and response to the notion of improved and increased ecological function is arguably as important as MPRB's own best management practices.

To ensure the fullest possible engagement, it was not assumed that individuals reached through this process possessed the same level of understanding regarding system ecology or the key causes and effects of environmental impacts. Therefore, the engagement process rolled out in two phases: the first focused on raising awareness that this planning effort was underway and the areas of environmental concern that had been identified by the Community Advisory Committee; the second oriented toward collecting feedback regarding environmental management strategies that could be adopted or changed within the park system. The feedback collected during this engagement process helped to drive project outcomes, clarifying which environmental topics are of the greatest concern to the community, how the community would like MPRB to address each of the topics, and where, in the parks, the community feels MPRB should deploy specific mitigation measures, environmental management strategies, and seek partnership opportunities

to address critical problems whose scopes far exceed park boundaries.

PLANNING AHEAD

While the Ecological System Plan's development precedes MPRB's Comprehensive Plan update scheduled for 2020, it will set the tone both for this update as well as any service area master planning and Capital Improvement Program (CIP) projects that follow. MPRB has prepared a five year Capital Improvement Program built on both park and people-based equity metrics, which is updated each year to reflect how park rankings adjust to changing community and environmental dynamics as well as annual capital expenditures.

With the goals, strategies, and recommendations articulated in this plan, MPRB will be better equipped to evaluate both its own planning process and maintenance operations with ecological considerations at top of mind. We believe that utilization of this plan will help assure a more sustainable, ecologically friendly, and environmentally aware park system for years to come.

