

CHANGES IN THE WORKS

DES MOINES WATER WORKS PARK MASTER PLAN



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INTRODUCTION AND PROCESS



INTRODUCTION AND PROCESS

WHY THIS MASTER PLAN?

Water—its abundance, its absence, and its quality—is a significant issue today across all scales: global, national, regional, and local. In just the last decade, Water Works Park has seen numerous flood events, one of the most significant droughts in US history, and unprecedented technical challenges to providing clean water due to record high nitrate pollution in both the Des Moines and Raccoon Rivers. As the place where Des Moines’ drinking water is harvested, Water Works Park provides a unique opportunity to illuminate these issues and influence the mindset of the region’s next generation of stewards.

INTRODUCTION

Water Works launched a master plan in 2013 to create a long lasting vision for the future of this important 1,500-acre urban park. Almost twice the size of Central Park, Water Works Park affords the Des Moines region a powerful opportunity to continue the metro’s “renaissance” and build on the exceptional popularity of the neighboring Gray’s Lake—commonly known as the area’s “crown jewel” of city parks. The mission of the park master plan transcends any of its single uses – recreation, operation, conservation – in isolation. By combining these functions with an educational mission, the master plan for Water Works Park seeks to transform, through the experience of the landscape, the way we, as a culture and society, think about water. The guiding principles of the master plan are the following.

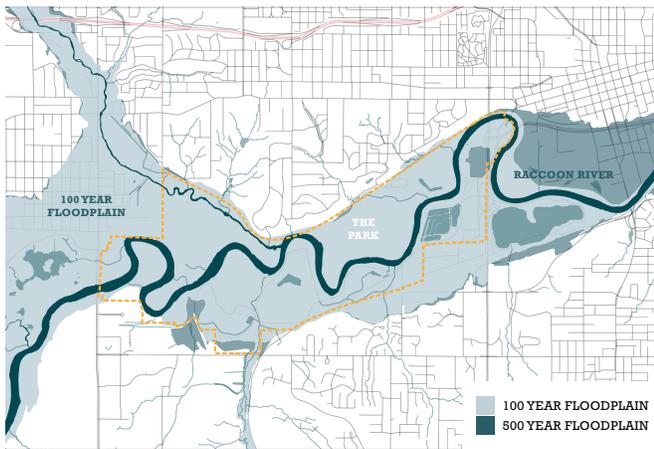
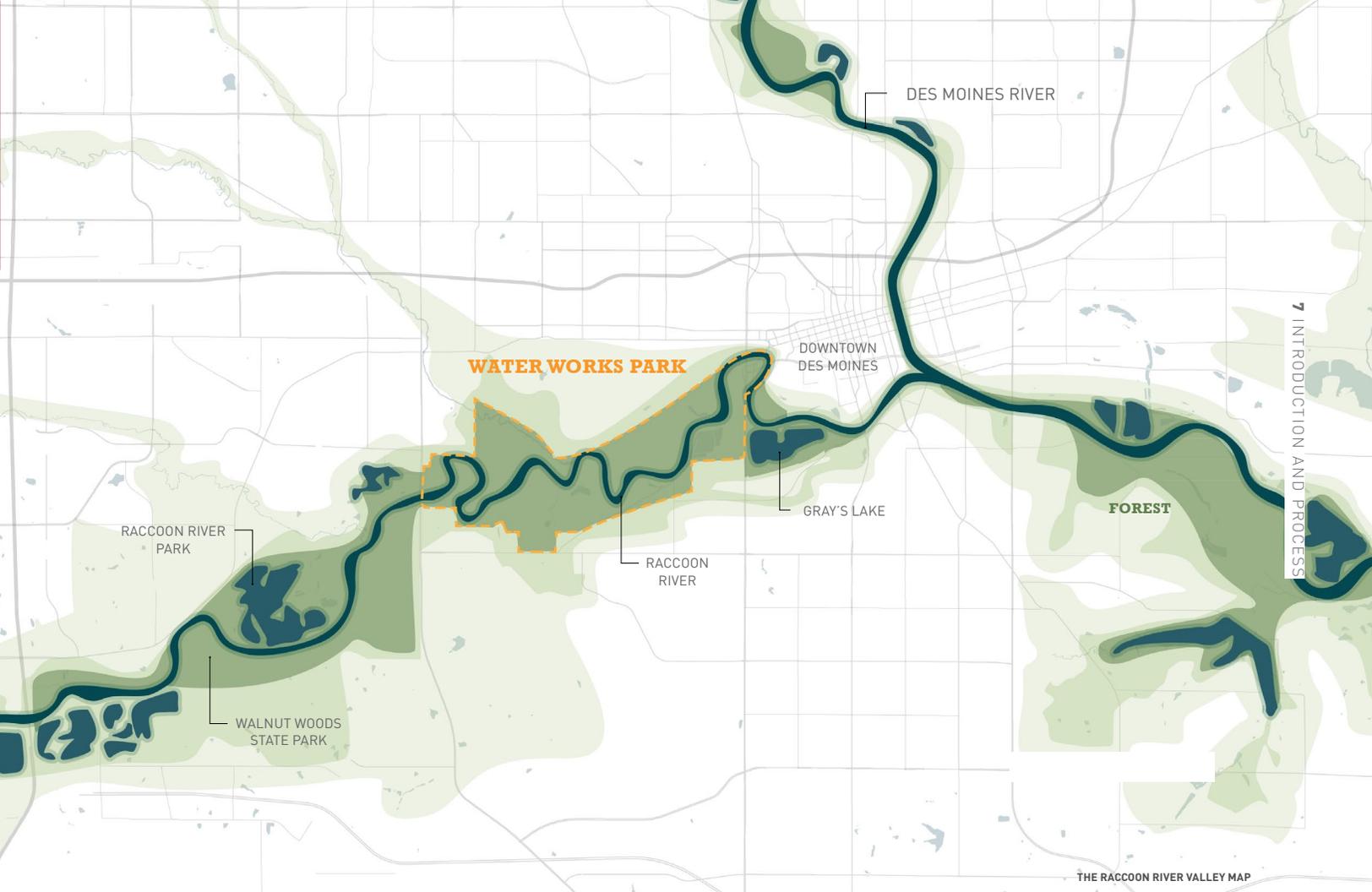
- Respect and reveal the power of water in the Des Moines region
- Celebrate a place of outdoor adventure within the city limits
- Capitalize on every educational and learning opportunity within the park with a focus on water
- Create spaces for community gathering and civic events in the active zones
- Respect and restore the wild parts of the park
- Strengthen connections to existing trail networks and neighboring parks
- Safeguard and enhance the water resource

This document summarizes the process, recommendations and potential paths to implementation for a master plan to achieve this vision and guide decisions for the park’s future.

PLANNING IN CONTEXT

At the confluence of the Raccoon and Des Moines Rivers, the downhill end of a ten-thousand square mile watershed and a fast emerging greenway system, Water Works Park offers critical habitat for many species of the Raccoon River Valley. The vision for the park celebrates the ecological value of this great landscape, and provides opportunities to explore this community resource. The founders of Water Works Park set the landscape aside to protect Greater Des Moines’ primary drinking water supply, and its function as a utility must serve as the foundation for all planning. Still, this master plan has evolved to the ambitious vision you see on these pages due to the leadership of Des Moines Water Works—recognizing the park’s potential to enhance the ability of all in Central Iowa to embrace an outdoor culture; promote public health, learning, and adventure; connect to our natural resources in meaningful ways; make a critical difference in improving water quality for the region; and set the Des Moines Metro apart from any other city of its size and scale in the Midwest.

The timing for this plan couldn’t be better. It follows on the heels of the Capital Crossroads Initiatives launched by the Greater Des Moines Partnership, the Healthiest State Initiative, and the region’s governmental municipalities supportive response to that effort—The Tomorrow Plan, the metro’s first sustainable development plan. That plan specifies the need to develop a natural resources network throughout the metro as the basis for habitat protection, stormwater management and flood mitigation, public health promotion, outdoor recreation, and water quality improvement. The plan calls for the development of greenways, primarily in association with the Des Moines and Raccoon Rivers, and points directly to the Water Works Park project as the linchpin for that greenway development.



As illustrated in the above diagram, almost the entire 1,500 acres of Water Works Park lies within the 100 year floodplain. This lowland condition makes Water Works Park highly susceptible to flooding. All master plan recommendations outlined in this report consider the reality of flooding.



Des Moines and the Midwest corn belt are connected to a much larger water system that reaches all the way to the Gulf of Mexico. Runoff within the corn belt region—carrying high levels of nitrates—directly impacts the water quality of the Gulf. Scientists link the 9,000 square miles of the the Dead Zone to agriculture practices in the Midwest region.

CREATING THE MASTER PLAN

The master plan grew out of the 2011 Water Works Parkitecture design competition organized by Water Works and Iowa State University to solicit ideas about the future of the park. The goals of that competition included “look[ing] at the park and river not only as a public open space, but...also knit[ting] together the ecological function of water and fluvial systems with the metropolitan community and contribut[ing] to the social, economic, and environmental success of the urban park.” The two-phase competition led to the selection of the Sasaki / RDG / AES team in early 2012.

PROCESS OVERVIEW

Following the competition selection, the design team worked closely with leadership of Water Works over the next eighteen months to formulate a master planning process. This period included various stakeholder presentations throughout the Greater Des Moines region to gauge interest and gather support for the more formal process to come. Also during this time, the team created two distinct committees to help oversee the process—a Steering Committee and a Technical Committee [see page 47 for committee lists].

The Steering Committee members represents a diverse array of regional leaders who share an interest in Des Moines’ natural and cultural heritage, each of whom expressed interest in being advocates for the future of Water Works Park. The Technical Committee are experts from a variety of relevant agencies and organizations who provided needed technical oversight to ensure the master plan’s feasibility.

There were four major milestones during the master planning:

- July 2013: the master plan formally began with a kick-off meeting and site tour with the Steering Committee and Technical Committee at Water Works.
- September 2013: the design team launched a major public meeting and event in the park with nearly 400 attendees. Master planning concepts allowed for public evaluation.
- November 2013: the design team presented a draft master plan including a summary of the feedback from the September event, park-wide system diagrams, and concept plans for a series of potential interventions.
- January 2014: the team presented the recommended master plan to the committees, the Water Works Board, and held a community event at the Des Moines Art Center.

PUBLIC ENGAGEMENT OUTCOMES

Unless focused on a particular master plan issue, most groups spoke to similar basic expectations for Water Works Park moving forward. The respondents speak of the importance of welcoming newcomers to the park, maintaining its “wild” features, carefully crafting important links to Gray’s Lake, developing meaningful community attractions, and providing critical, effective education messages on water quality and the impacts of flooding. Some of the major themes that emerged from community discussions are as follows:

- **Create a clear, open, and welcoming entrance to Water Works Park.**
- **Leverage opportunities for great amenities in the park, like the proposed iconic “Circuit” element.**
- **Provide refreshments and quality food options at key park nodes.**
- **Create an iconic link between Water Works Park and Gray’s Lake.**
- **Keep the “wild-like” wild.**
- **Celebrate cycling and connect to existing local and regional trails.**
- **Access the river and provide additional water amenities.**
- **Go big—and small—with events.**
- **Heed flooding and make all park improvements flood resilient.**
- **Educate the public about watersheds, water quality, flood mitigation, and the Water Works utility.**
- **Lead the way to park improvements with the aerial adventure course.**



THE GALLERY WALK

9 INTRODUCTION AND PROCESS



BIKING IN THE WILD PARTS OF WATER WORKS PARK



PADDLING ALONG THE RACCOON RIVER



EXPLORING THE HORSE BACK RIDING TRAIL SYSTEM



CELEBRATING THE BEAUTY OF THE NATIVE LANDSCAPES

SITE ANALYSIS AND DESIGN



FEEDBACK!
LET US KNOW WHAT YOU
THINK OF THE OPTIONS





SITE TOUR WITH THE STEERING COMMITTEE, JULY 2013



COMMUNITY EVENT IN THE PARK, SEPTEMBER 2013

SITE ANALYSIS AND DESIGN

EVALUATING THE OPTIONS

Building off the project's kick-off meeting with the project's Steering and Technical Committees, the design team devised three priority topics for Master Plan investigation: Connectivity, Learning through Recreation, and Civic Life in the Park. Within each of these topics, the design team presented relevant analysis, potential best practices, and design case studies to dig deeper into particularly important issues.

CONNECTIVITY

Throughout the master planning process, connectivity emerged as a key issue and design driver. Connectivity is a term used in urban design and planning to describe the number and capacity of connections in a circulation network. Within this theme, the design team presented an analysis of existing park circulation systems, best practices from other great parks, and two series of design alternatives for public evaluation. The first design alternative related to the park's road system and its relationship to other park features. The second looked at ways of improving connections between Gray's Lake and Water Works.

Case Study 1: The Park Road. While the park road network today allows access to many parts of the park, it can create conflicts with bicycles and pedestrians. Further, with the introduction of the Circuit—a water trail that roughly follows the park road—new challenges of vertical circulation and separation require consideration of these two systems together.

The design team presented three options to evaluate potentials—from the least change and investment to the most. These options were: **Bettering the Road, Park and Walk**, and **Two Loops**.

The Bettering the Road scheme maintains the existing road geometries, but like Gray's Lake today, this scheme improves the road cross-section to provide dedicated vehicular, pedestrian and bicycle spaces. The Circuit in this scheme is shorter and non-continuous. The road has one major Circuit crossing located at the existing park bridge.

The Park and Walk scheme adjusts George Flagg Parkway only at the pinch-point (East of the bridge, where river, road and trail nearly converge). The existing bridge is replaced and rebuilt as a signature park icon and serves as a pedestrian bridge only, except for Water Works service vehicles. The bridge extends over The Circuit and creates a new gateway and parking opportunity on George Flagg Parkway. This scheme has no vehicular crossing of the Circuit, and the gallery walk becomes a multi-modal trail with no vehicular conflicts.

The Two Loops scheme proposes relocating George Flagg Parkway to expand the connected park space and make more room for a continuous Circuit. A series of new iconic gateways are located along George Flagg Parkway, providing entrance into a two-way park drive. This change also allows operations and park traffic to be separated and enables minimal vehicular Circuit crossings.

Respondents tended to prefer road changes—with the highest number of positive comments for the Park and Walk and Two Loops options. Though change of road geometries resonated concerns, road adjustments included increasing the quality of the experiences (i.e. better entrances, signage and surfaces) and maintaining vehicular connections to key experiences in the park.

Case Study 2: Gray's Lake Connections. Creating an iconic link between Water Works Park and Gray's Lake—below, above or at Fleur Drive—proved to be an important area for study. The public consistently expresses interest in a seamless connection between Water Works Park and Gray's Lake for pedestrians. The design team presented three options for evaluation: **Below Grade Solution**, **Above Grade Solution**, and **At Grade Solution**.

The Below Grade Solution welcomes Gray's Lake users to Water Works Park by way of a skylit, artful passageway leading to a dynamic, flood-resilient garden space encircling a destination amphitheater.

The Above Grade Solution explored an elevated green corridor with its own distinct viewpoint of the urban landscape and a relatively seamless experience when moving from park to park.

The At Grade Solution suggested a series of enhancements to improve both the function and aesthetic appeal of this at-grade crossing. Stormwater management, native landscaping, and improved alignment for safety create a greater sense of ease when moving between these two outstanding parks.

At-grade crossing improvements alone have not resonated with the public. For many respondents, it appears knowing more about costs and fully understanding the viability of each option matters to their preference. This being said, the connectivity subcommittee expressed a preference with the under-pass option as a first phase connection between Water Works Parks and Gray's Lake.

LEARNING THROUGH RECREATION

A primary goal of this master plan and its recommendations for improvements to the park is to promote a greater sense of stewardship and understanding of water through an educational and interpretive experience of the landscape.

The master plan seeks to enhance and expand opportunities for engagement with and understanding of the park's natural and operational systems. This was described as "Learning through Recreation" and included many forms of programming potentials—expanded bicycle trails, an adventure course in the woods, educational playgrounds and, most importantly, a proposed new water trail.

Case Study 3: The Circuit. The design team proposed combining the ecosystem benefits of water cleansing with recreational and educational opportunities by connecting the operational ponds into a continuous, safe water trail—dubbed "The Circuit".

Three options were presented in September: **The Short Circuit**, **The Long and Connected Circuit** and **The Braided Circuit**.

The Short Circuit scheme maintains the existing road alignments, creating a short and segmented Circuit. The major proposed change connects the two existing basins with a recreational Circuit canal parallel to the Raccoon River and George Flagg Parkway.

The Long and Connected scheme unites a series of existing ponds with a single channel to create one continuous recreational and utilitarian Circuit. The course varies from narrow channel to open pond, providing diverse paddling experience and better habitat for fisherman. From a water quality perspective, this option provides high value to Water Works by increasing water surface area and generating more clean drinking water.

The Braided Circuit scheme provides the most amount of choice for the community by creating a variety of water channels for paddle boarding and other water activities. From a water quality perspective, this option provides high value to Water Works by increasing water surface area and providing more clean drinking water.

Respondents were clear, as illustrated in the community response board on right side, page 17, they have a strong

preference for the braided circuit. The braided circuit affords more opportunities to accommodate various skill levels and create ever-changing experiences and thereby, improved learning.

CIVIC LIFE IN THE PARK

Urban parks are increasingly the settings for the lives of a wide range of users. These spaces are the places to play, eat, rest, contemplate, learn and perhaps most importantly, feel the greatest sense of connectedness with our neighbors. Beyond the basic necessities of safety, user comfort, and visual delight, urban parks provide a wide range of program – from the daily uses of exercise, connection and relaxation to the occasional large-scale event.

The theme of "Civic Life in the Park" explored the existing and potential uses at Water Works Park, with a particular focus on the event lawn. Within this theme, the design team presented an analysis of existing events, best practices from other event landscapes, and design alternatives for public evaluation.

Case Study 4: The Event Lawn. The design team presented three Event Lawn alternatives for feedback during the September project meetings. Each option—**the Meadow**, **Two Spaces**, and **The Moat**—increased in complexity and potential investment.

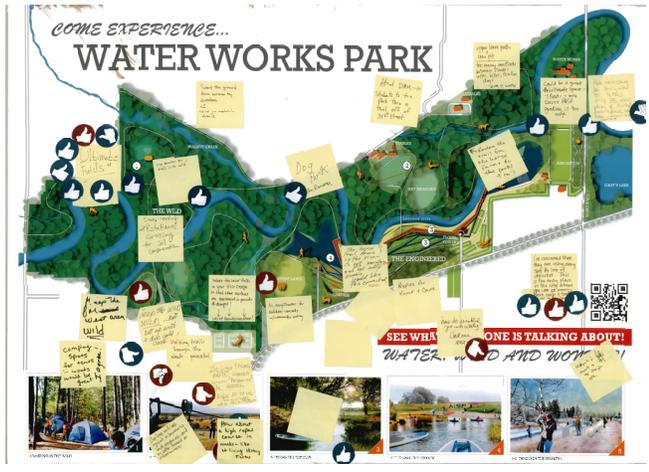
The Meadow scheme maintains a mixed-use event space in the center of the current field. The event space is defined by an ecologically vibrant meadow and outer ring of canopy trees. The stage in this option is temporary, brought in and installed when needed for events. Parking is strategically placed along the road.

The Two Spaces scheme has a fixed stage in the middle of two mown fields, providing a flexible and dynamic space for the Des Moines community. The two mown fields—one large and one small—provide space for different size events. A public path leads from the parking to a new boat launch and dock. Parking is placed within the canopy trees.

The Moat scheme provides a large central field with a fixed stage, separated from the parking and road by a treatment wetland that 1) acts as a security buffer by limiting event lawn access to three specific points and 2) helps clean water before it enters into the Circuit. The stage is cantilevered over Basin 17 providing a great backdrop for concerts and easy access to The Circuit.

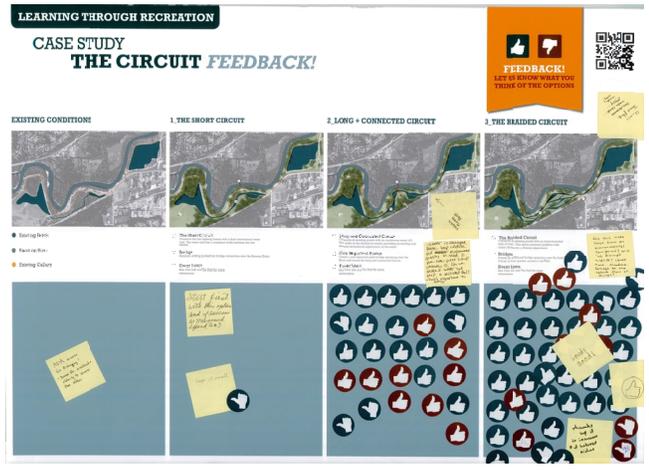
The respondents were interested in combining the Two Spaces and The Moat scheme for the preferred option in the master plan. The Two Spaces scheme allowed for flexibility and different scaled events, while the the Moat scheme offered an educational opportunity as well as a "secure perimeter".

COMMUNITY RESPONSE TO DESIGN IDEAS



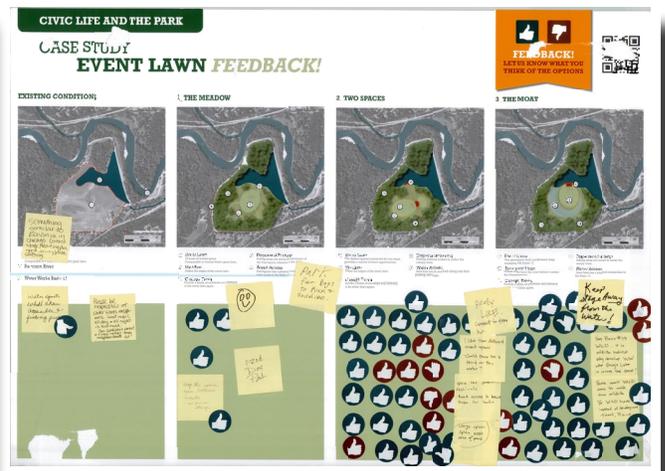
17 SITE ANALYSIS AND DESIGN

OVERALL COMPETITION PLAN



THE CIRCUIT

THE ROAD ALIGNMENT



CONNECTIONS TO GRAY'S LAKE

THE EVENT LAWN

THE MASTER PLAN: PARK SYSTEMS

MASTER PLAN: PARK SYSTEMS

PARK SYSTEM RECOMMENDATIONS

This chapter summarizes recommendations related to park systems and creates a framework for everyday decision-making regarding the distribution of emerging program opportunities, the management of the park's diverse ecosystems, the use of plant materials, and the refinement of the park's circulation systems.





THE CIRCUIT

THE EAST ACTIVITY NODE

LEGEND

- 1 The Circuit
- 2 Retention Pond Wetland
- 3 Event Lawn + Performance
- 4 Adventure Park
- 5 The East Activity Node
- 6 Arie Den Boer Arboretum
- 7 Utility Facilities
- 8 Proposed Trail Hub
- 9 Gray's Lake
- 10 Road Circulation Adjustment



PARK SYSTEM: PROGRAM

The master plan recommends creating a series of active uses zones on the south side of the Raccoon River and preserving the majority of the park to the north.

The program system, though largely unintentional, utilizes the river as a natural barrier to active use and enables the preservation and protection of the park's most valuable and contiguous habitat. For this reason, it should serve as a framework for decision-making about the expansion of existing uses or the introduction of new program elements within the park boundaries.

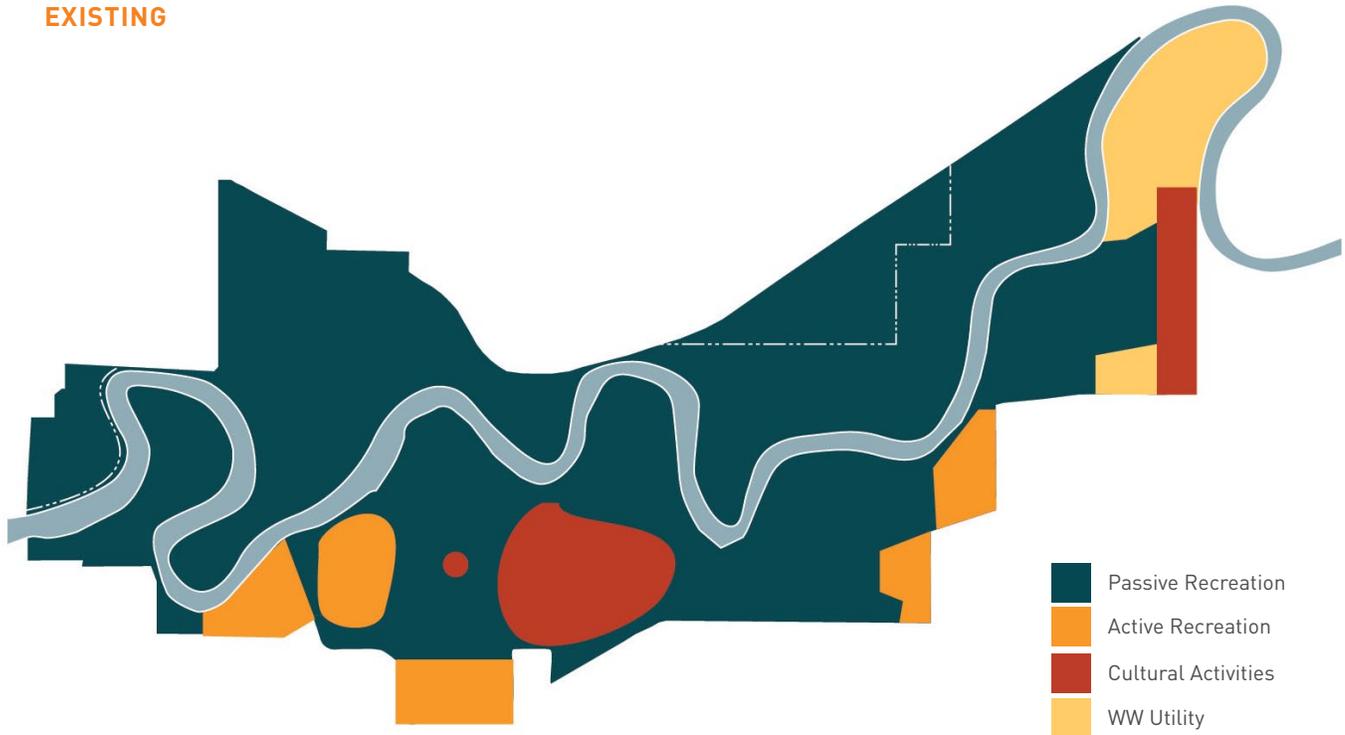
The types of activities that occur in the **North West Park** and **North East Park**—illustrated in shades of green in the proposed program diagram—should be activities that can reasonably co-exist with species that are less tolerant of human activity. Because of the lack of vehicular access, uses should be highly flood-tolerant, minimal in terms of infrastructure need and low-maintenance. Examples of appropriate programming include fixed passive activities, such as (hiking, riding, biking, and bird watching),

The types of activities that occur in the **East Activity Node** and the **West Activity Node**—illustrated in red and orange in the proposed program diagram—should be publicly accessible and designed to foster human use and enjoyment. In contrast

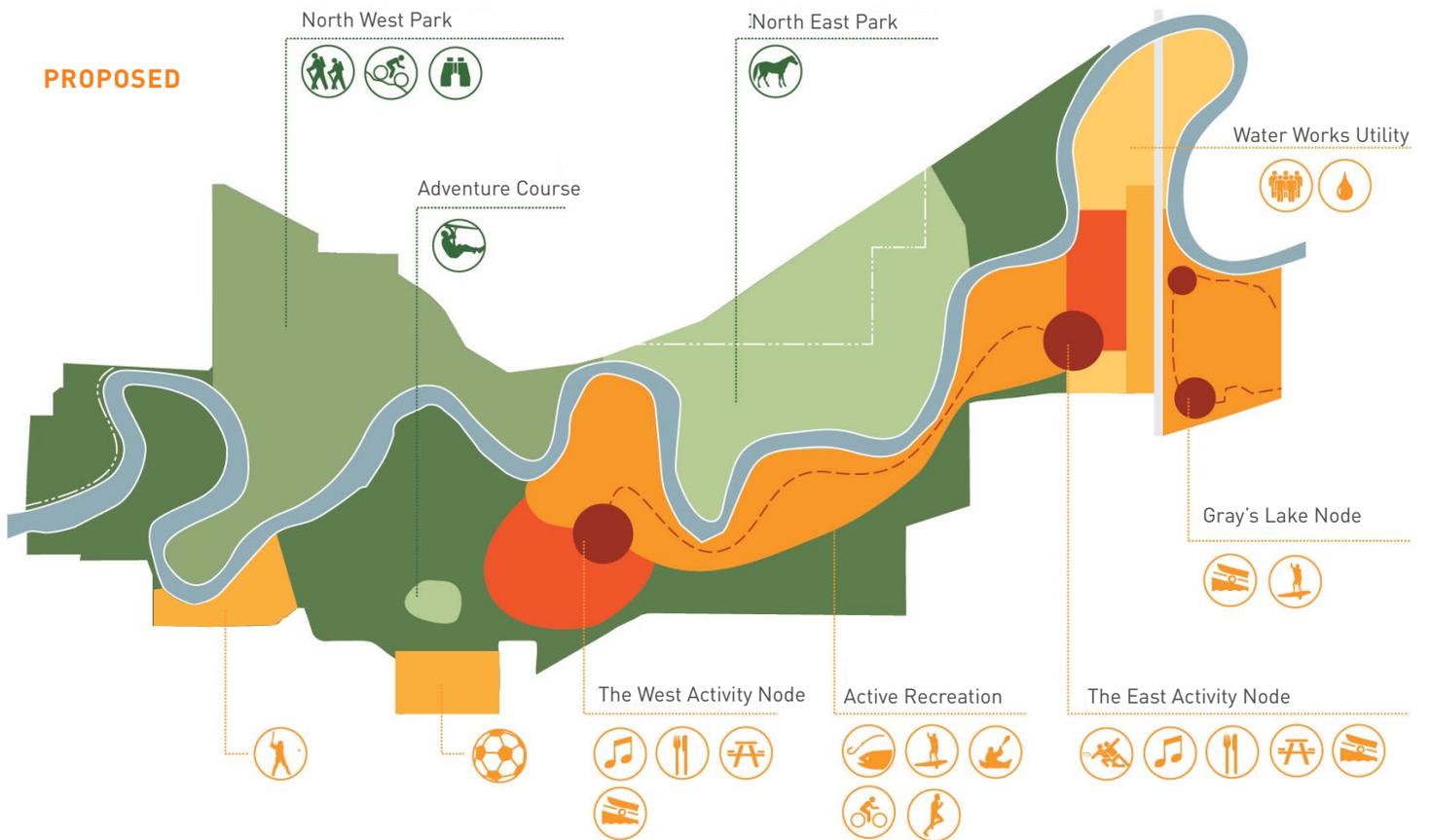
to their less accessible counterpoint spaces, the active spaces can be more highly-programmed, strongly connected to the city streets, and inspired by the engineered forms and hidden infrastructure of the working water landscape. The active landscape is described here as the space from the Arboretum to the east, along the Circuit, to the Event Lawn.

Importantly, through this master planning process, a new understanding of the active landscape emerged—the **East Activity Node**, the **West Activity Node**, and the **Circuit**. Building off the energy and population of Gray's Lake, the eastern activity area, including the Arboretum, the Great Lawn and the East Ponds, is seen as a highly active node with lots of fixed or permanent program. Learning from the influx of events, the West Activity Node, including the Event Lawn and Basin 17, is seen as a place for plenty of temporary program and amenities. The Circuit is the connective thread between these two important nodes.

EXISTING



PROPOSED





PARK SYSTEM: ECOLOGICAL MANAGEMENT ZONES

The master plan recommends creating a new management strategy for Water Works Park—three distinct ecological management zones.

Today, Water Works Park staff have, generally, two park management zones: 1) Active Management: the one they maintain frequently (the active landscape) and 2) Minimal Management: the one they maintain very infrequently (the passive landscape). Though responsive to existing use patterns, this maintenance regime creates a sharp contrast between the cared for and not cared for, minimizing the potentials for greater water quality, habitat and biodiversity.

The master plan recommends the creation of a new management strategy for the park—three distinct ecological management zones, each with its own management plan.

WILDLIFE SANCTUARY ZONE

The Wildlife Sanctuary at the western edge of the park is the most preserved area of Water Works Park. The master plan recommends no human program in this zone. The landscape is largely composed of floodplain forest and has great connectivity to large adjacent patches of open space. The area should be treated as a wildlife sanctuary.

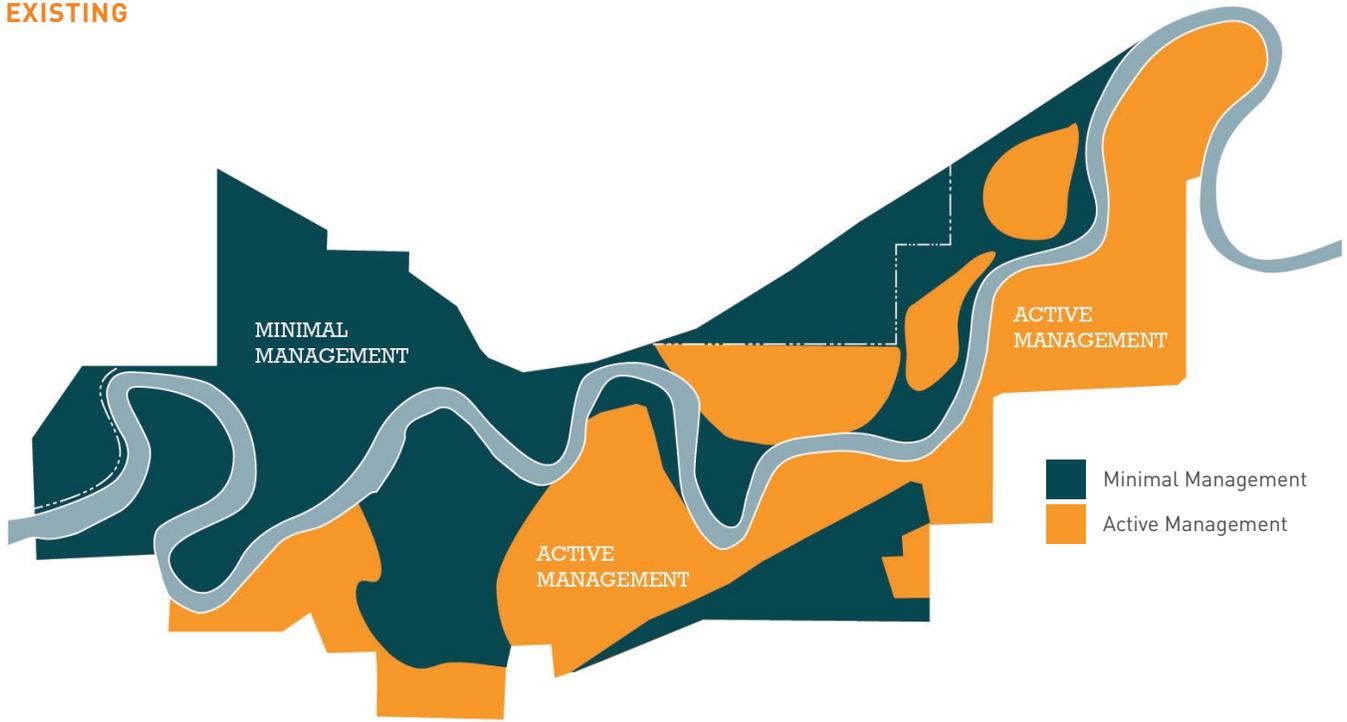
NATURE RESERVE ZONE

The proposed Nature Reserve is mostly along the northernmost border of the park, with a small patch southwest of the Event Lawn. This landscape is diverse, including floodplain forest, rare patches of upland forest, the site's only savannah landscape, and some prairie. The Nature Reserve contains some existing human use, such as the equestrian trails to the north and the mountain biking trails in the northwest. The master plan recommends maintaining the existing low maintenance programs in the zone, but not adding any additional human activities.

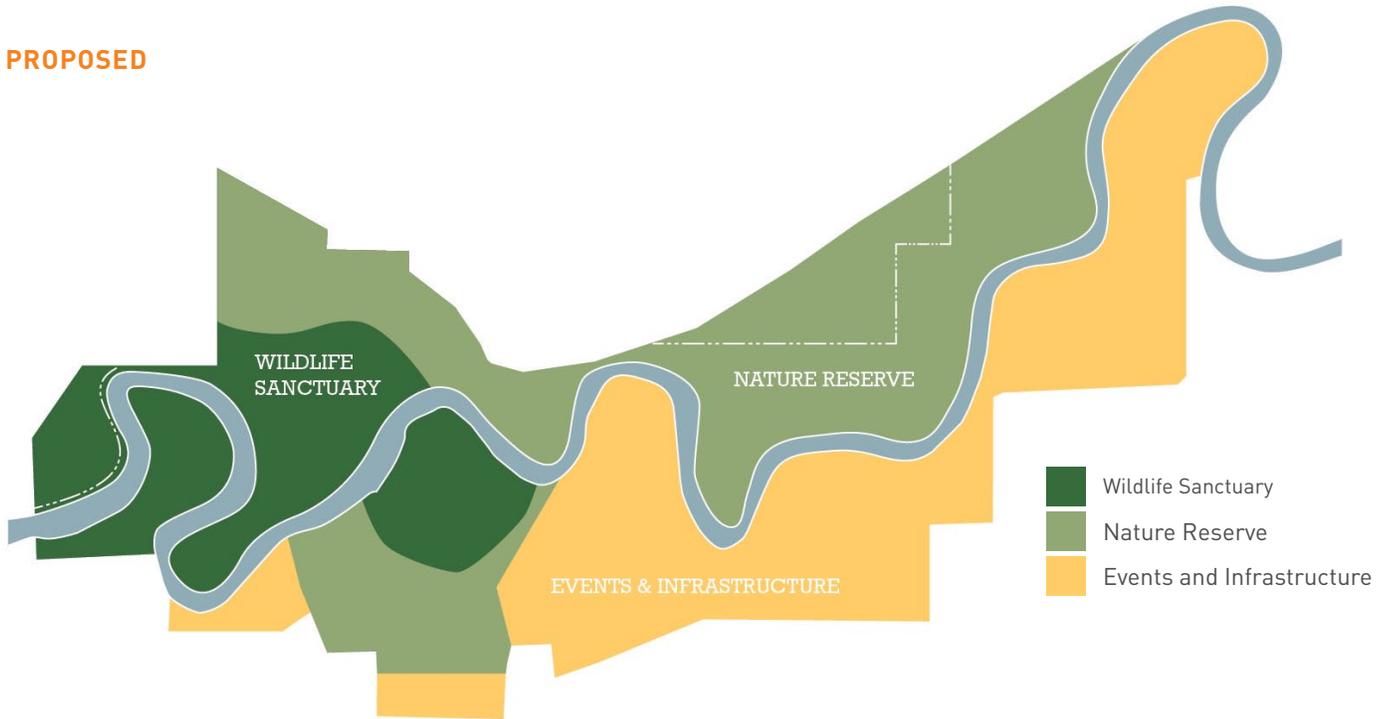
EVENTS AND INFRASTRUCTURE ZONE

The proposed Events and Infrastructure Zone is mostly along the southern and eastern borders of the park. This zone should contain active human programs and uses, as well as the majority of the vehicular access. The master plan recommends additional active programs to be sited in the Events and Infrastructure Zone.

EXISTING



PROPOSED





PARK SYSTEM: PLANT COMMUNITIES

The master plan recommends developing target plant communities for Water Works Park to improve species diversity and rich ecological habitat.

Using information from pre-European settlement vegetation, existing plant communities, and proposed park uses, the design team developed target plant communities for Des Moines Water Works Park. Restoring and managing the proposed plant communities will improve vegetation structure and animal habitat quality, while increasing species diversity and the plant community's resilience to disturbance and environmental change. Additionally, there are many positive outcomes to creating high-quality plant communities, including:

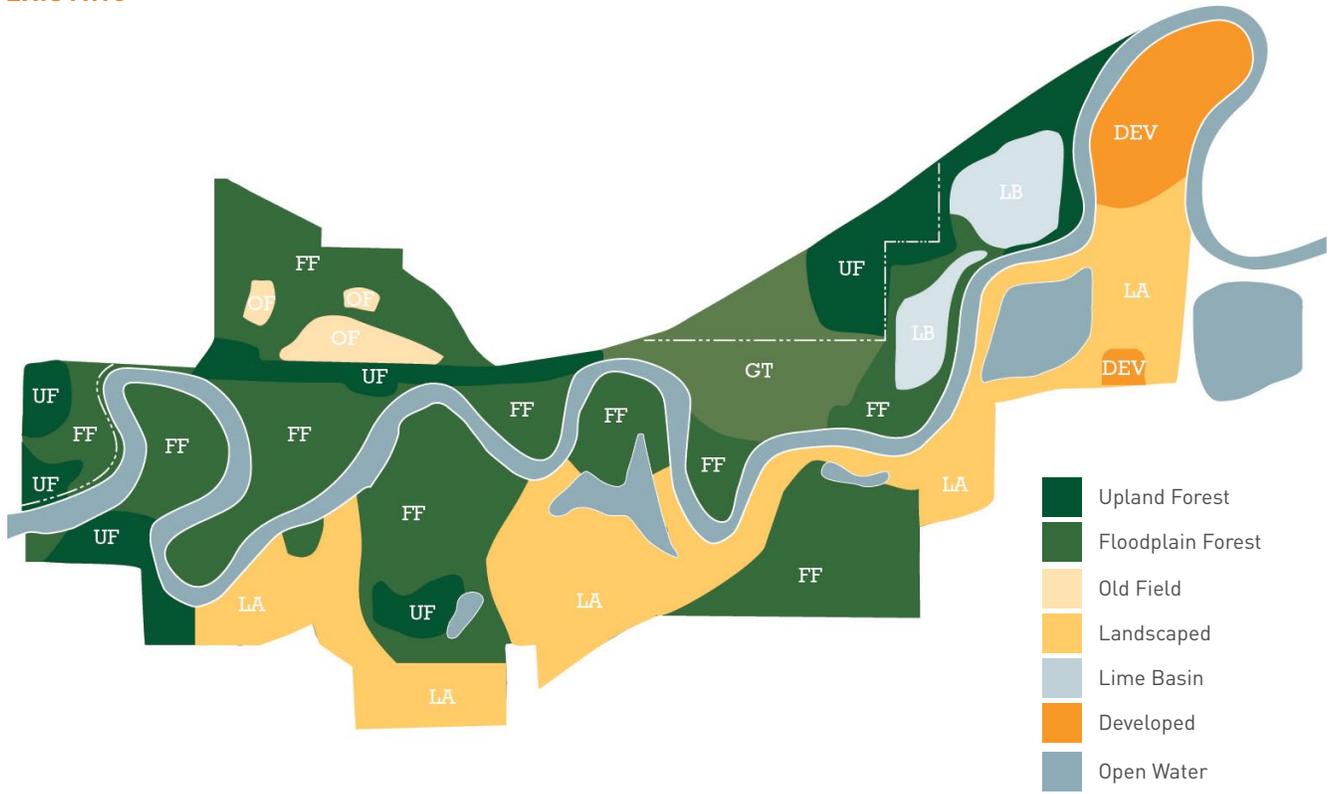
- Visually-pleasing vegetation and environment
- Resistance to and more rapid recovery from damage due to disturbance and environmental change
- Lower maintenance costs over the long term
- Greater variety of plants and animals
- The creation and maintenance of large continuous patches of habitat at lower cost than turf areas.

Plant species and maintenance recommendations for the following plant communities have been outlined for Water Works Park in the accompanied master plan technical report.

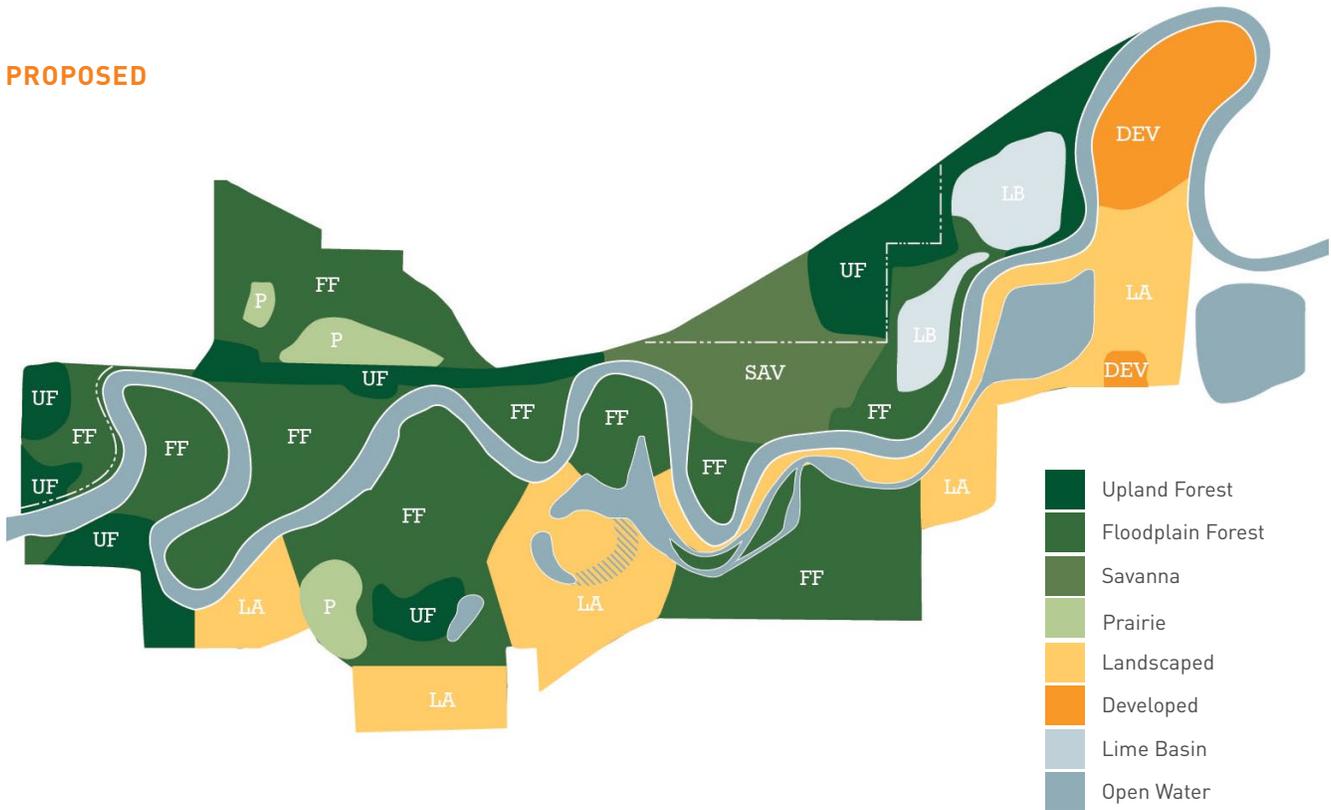
- Upland Forest
- Floodplain Forest
- Savanna
- Prairie
- Wetland
- Open Water
- Landscaped Area
- Developed
- Lime Basin

In addition, the technical report includes recommendations for planting regimes, including suitable native species and also species to avoid (i.e. invasives).

EXISTING



PROPOSED





CIRCULATION NETWORKS IN THE PARK

PARK SYSTEM: CIRCULATION

The master plan seeks to create a connected circulation network enabling easy connections between the park and neighboring areas, better connections with existing trail networks, clear park entrance and wayfinding systems, and an accessible path system.

Changes to the existing circulation system are designed to meet a series of master plan systemic goals.

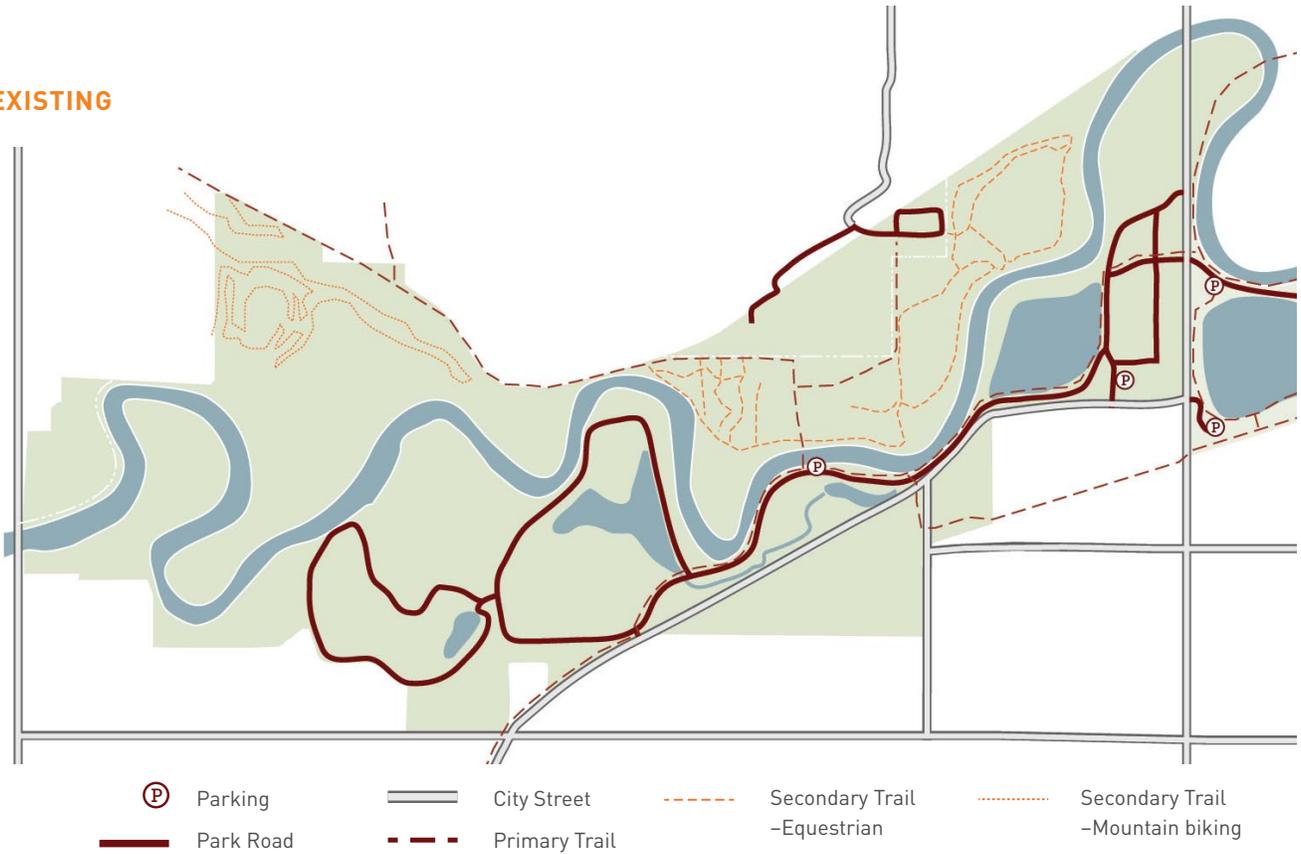
Park Entrances. Key circulation improvements will help make Water Works Park more visible and welcoming, such as park gateways and wayfinding. Park Entrances should be improved with vehicular-scaled signage, specific gateway names, and other beautification projects. Changes to the roadway system enable a series of new iconic gateways to be located along George Flagg Parkway. These could be significant new identity moments and points of arrival. Throughout the park, a contemporary and uniform system of signage and wayfinding should be planned, designed, and implemented.

Trails Systems. Trail improvements can help elevate the park's stature as a significant mobility hub in the city and also connect to existing regional trails. Four multi-use paved trails nearly converge at Water Works Park. The master plan proposes routing the Great Western Trail to the north/east from its southern entry point, linking it to the improved trail head at the revamped bridge location.

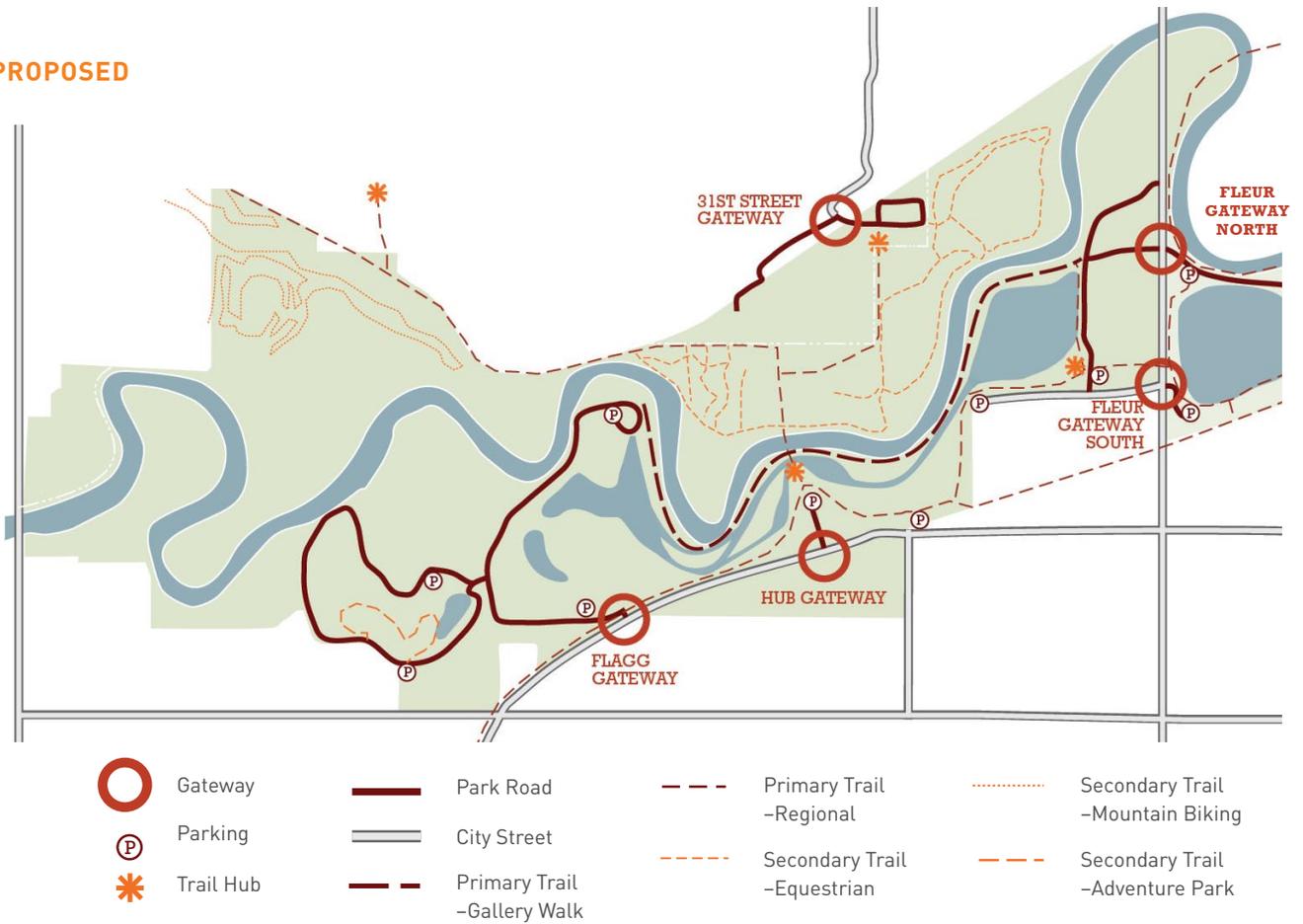
Roadway Systems. Roadway improvements can provide continuity of the park's future feature, the Circuit, and help to make circulating through Water Works more safe and enjoyable. The master plan proposes minimizing road redundancy and providing room for the braided circuit by shifting George Flagg Parkway in the southeast quadrant of the park to connect directly to Bell Avenue to the east. This change also separates operations and park traffic and enables minimal vehicular Circuit crossings.

Path Systems. Improvements to the overall circulation system will improve park accessibility, while also allowing areas in the northwest sections of the park to remain wild. In partnership with birders and equestrians, the master plan proposes providing some limited additional trails and/or improved nature trail routes, developed in a similar manner.

EXISTING



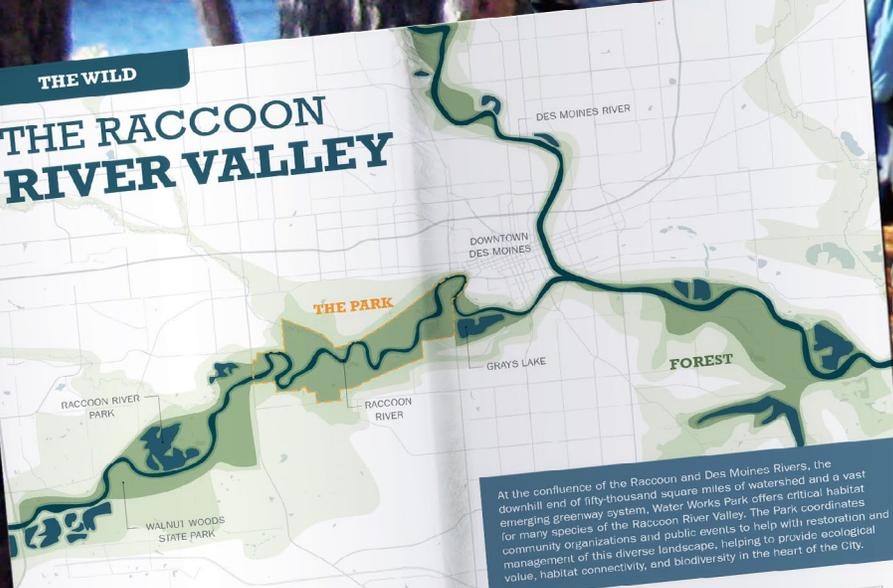
PROPOSED



THE MASTER PLAN: IMPLEMENTATION

THE WILD

THE RACCOON RIVER VALLEY



At the confluence of the Raccoon and Des Moines Rivers, the downhill end of fifty-thousand square miles of watershed and a vast emerging greenway system, Water Works Park offers critical habitat for many species of the Raccoon River Valley. The Park coordinates with community organizations and public events to help with restoration and management of this diverse landscape, helping to provide ecological value, habitat connectivity, and biodiversity in the heart of the City.

CRITTERS OF THE RACCOON RIVER



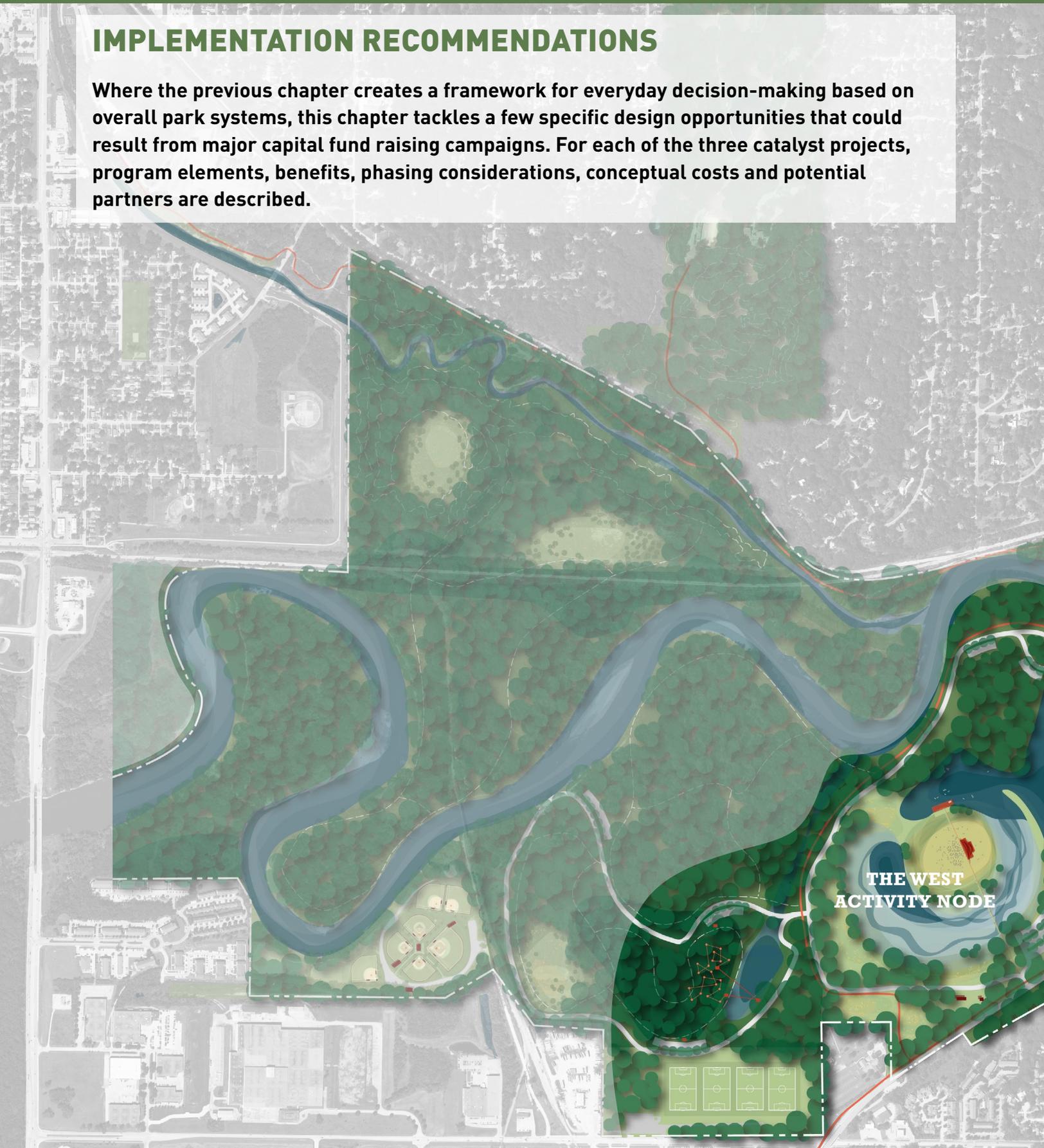
Raccoon River Valley.



MASTER PLAN: IMPLEMENTATION

IMPLEMENTATION RECOMMENDATIONS

Where the previous chapter creates a framework for everyday decision-making based on overall park systems, this chapter tackles a few specific design opportunities that could result from major capital fund raising campaigns. For each of the three catalyst projects, program elements, benefits, phasing considerations, conceptual costs and potential partners are described.



THE WEST
ACTIVITY NODE



RACCOON RIVER

FLEUR DRIVE

35 NAME OF SECTION

THE EAST
ACTIVITY NODE

GRAY'S LAKE

THE CIRCUIT

7

THE EAST ACTIVITY NODE

The master plan proposes an enhanced public activity node at the eastern end of Water Works Park. Program in this area will attract the community and provide complementary uses to the existing offerings at nearby Gray's Lake. New connections will provide strong and direct access between these two parks. Activities will include a great lawn for a variety of active and passive recreational uses, multiple children's play zones, seating, concessions, equipment rental, and access to the proposed Circuit landscape for fun recreational water activities.

PHASING CONSIDERATIONS

- Permitting associated with grading, wetland impacts, and interaction with the levee and roadways
- Potential to dovetail and leverage funding with upcoming Water Works East Pond improvements as a "match"

CONCEPTUAL COST RANGE

East Activity Node Base Park Improvements: \$9-10 million

Additional Special Features

- Concession Building: \$2-2.2 million
- Overpass or Underpass: \$2.6-2.9 million
- Educational Playgrounds: \$900,000-1million
- Levee Amphitheater: \$500,000-600,000

POTENTIAL PARTNERS

- City of Des Moines
- City Parks Department
- Recreation and Athletic Leagues
- Conservation/Education Partners
- Central Iowa Trails
- Metropolitan Planning Organization
- Polk County Conservation Board
- Convention and Visitors Bureau
- Raccoon River Watershed Agencies

- Greenbelt Committee
- Central Iowa Paddlers Iowa Department of Transportation
- Iowa Department of Natural Resources
- Iowa Department of Tourism
- US Army Corps of Engineers
- National Endowment for the Arts
- US Fish and Wildlife Service
- Des Moines Water Works
- Private Sector (naming rights)





1 Mixed-use Field

4 Arie Den Boer Arboretum

7 The Beach

10 Park Gateway

2 Amphitheater Seating

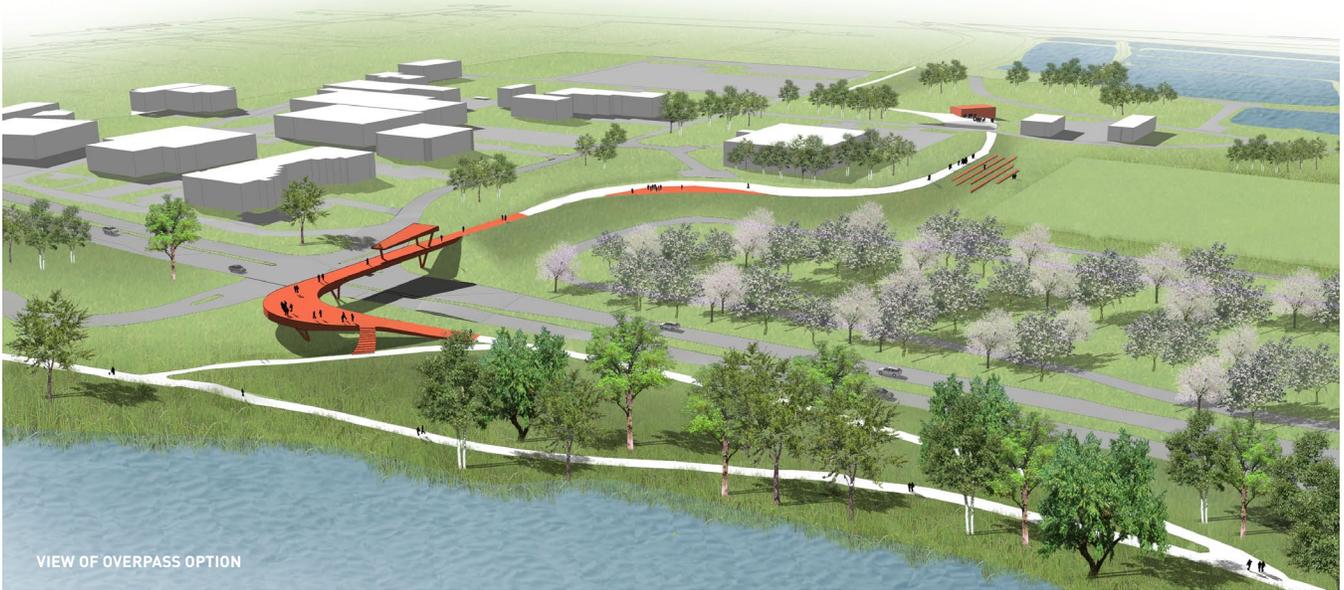
5 Pavilion and Welcome Plaza

8 Paddle Boarding Pond

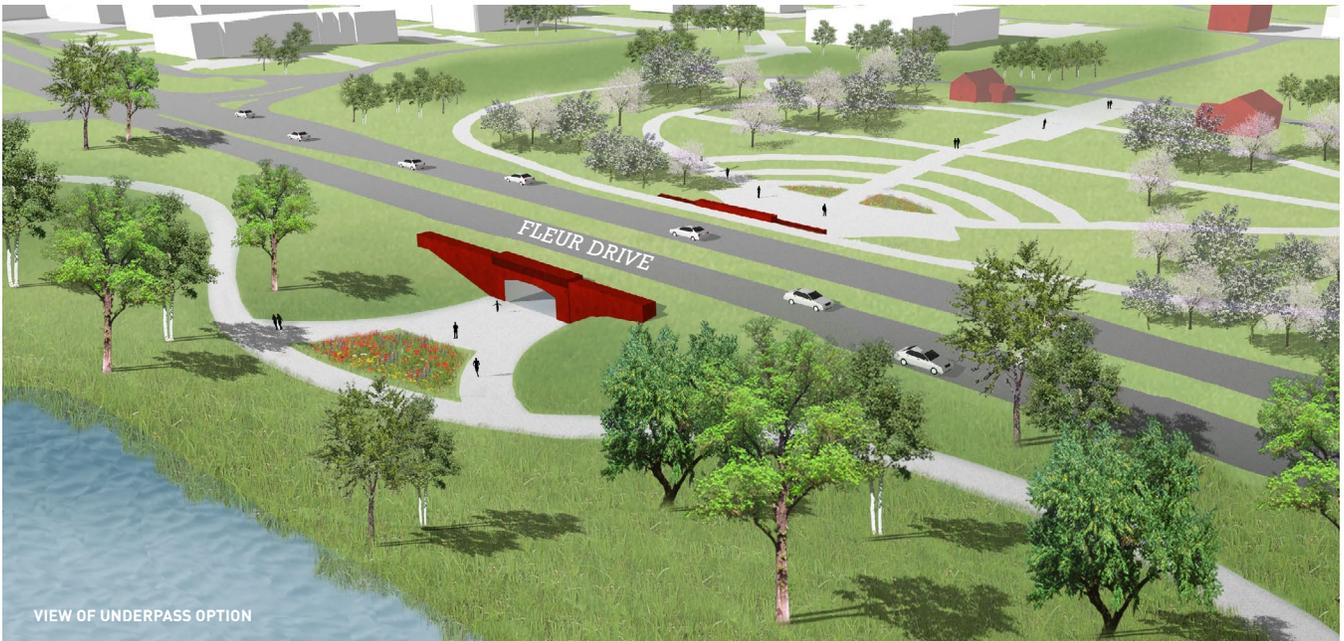
3 Children's Play Zone

6 The Pier

9 Parking



VIEW OF OVERPASS OPTION



VIEW OF UNDERPASS OPTION

CONNECTIONS TO GRAY'S LAKE

Fleur Drive provides one of the most frequented and significant north-south transportation corridors in the Metro area. With the popularity of Gray's Lake, pedestrian activity along and in the vicinity of Fleur Drive continues to grow along with interest in additional pedestrian/trail facilities and/or connections. Currently, the most direct pedestrian access between Gray's Lake and Water Works Park occurs at Fleur Drive. Other access points for walkers and bikers can be found along trails. The public consistently expresses interest in a seamless connection between Water Works Park and Gray's Lake for pedestrians.

The design team evaluated two potential alternatives to provide access from Water Works Park to Gray's Lake—an overpass called “The Oxbow” and an underpass called “The Portal”. The Oxbow scheme explored an elevated green corridor with its own distinct viewpoint of the urban landscape and a relatively seamless experience when moving from park to park. The Portal sought to welcome Gray's Lake users to Water Works Park by way of a skylit, artful below grade passageway leading to a dynamic, flood-resilient garden space encircling a destination amphitheater.

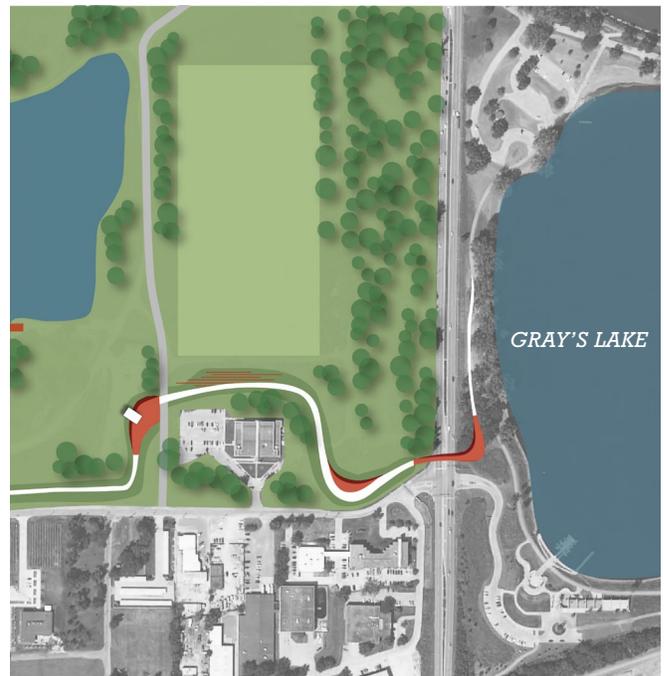
These options were vetted with a number of stakeholders and various agencies, including considerations regarding aesthetics, experience, durability, feasibility, and cost. Both were found to have merits and challenges, although the connectivity subcommittee expressed a preference with the below-grade crossing option and would prefer this option be the first phase implementation of connections between the two parks.

Moving forward, the design recommends a future East Activity Node Concept Design, including a technical survey, an engaged discussion with governing jurisdictional entities, and further public outreach.

UNDERPASS



OVERPASS



THE WEST ACTIVITY NODE

The master plan proposes a more robust event framework at the western end of Water Works Park. Program in this area will take advantage of the site's scale and flexibility and could largely be temporary in nature. New connections will provide strong and direct access between the Circuit's West End and the Raccoon River. Roadway systems will allow for access to all West Activity Node destinations, but will be removed in key locations to allow for Circuit continuity. Parking will be structured and allow for overflow. The elements of the node include an improved event lawn, a new adventure play course, a celebratory new wetland system, and strategic circulation improvements.

PHASING CONSIDERATIONS

- Permitting associated with grading, wetland impacts, and interaction with the levee and roadways
- Potential for a quick win with Adventure Play third-party vendor

CONCEPTUAL COST RANGE

West Activity Node Base Park Improvements: \$8-9 million

Additional Special Features

- Fixed Stage: \$1-1.5 million
- Circuit Dock: \$1-1.5 million

POTENTIAL PARTNERS

- City of Des Moines
- City Parks Department
- Recreation and Athletic Leagues
- Conservation/Education Partners
- Art/Theater Partners
- Convention and Visitors Bureau
- Iowa Department of Tourism





1 Retention/Filtration Pond

3 Event Stage

5 Parking

7 Trail Extension

9 Improved Road Circulation

2 Event Lawn

4 Basin 17

6 Overflow Parking

8 Adventure Park

THE CIRCUIT

Along with increasing the production of clean drinking water, the Circuit creates a new, dynamic recreational amenity for the citizens of the region. The Circuit is divided into four different experiential zones: the Treatment Train, the Braided Forest, The Raceway and the East Ponds. The East Ponds and the Treatment Train improvements were discussed previously in the East and West Activity Nodes, respectively. Each of these landscapes provides a unique experience for the users. Additionally, as the water moves through the Circuit, pollutants are cleaned and removed from the water.

PHASING CONSIDERATIONS

- Required partnership and consensus with city and regional transportation agencies for roadway relocations and improvements
- Permitting associated with grading, wetland impacts, and interaction with the levee and roadways
- Potential to collaborate with the city on the bridge improvements, slated for replacement within the next five years

CONCEPTUAL COST RANGE

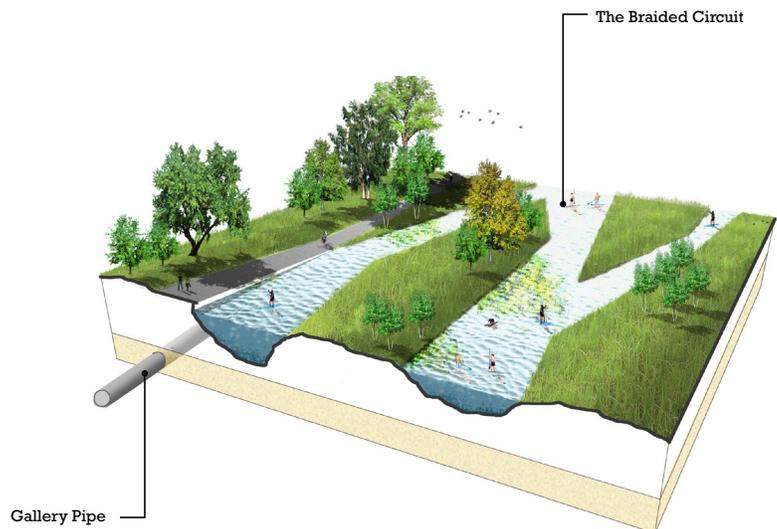
Circuit Improvements: \$5-6 million

Additional Special Features

- New Bridge: \$3.2-3.6 million

POTENTIAL PARTNERS

- Conservation/Education Partners
- Central Iowa Trails
- Metropolitan Planning Organization
- Polk County Conservation Board
- Convention and Visitors Bureau
- Raccoon River Watershed Agencies
- Greenbelt Committee
- Central Iowa Paddlers Iowa Department of Transportation
- Iowa Department of Natural Resources
- Iowa Department of Tourism
- Des Moines Water Works
- Private Sector (naming rights)



RACCOON RIVER

TREATMENT WETLAND

BRAIDED FOREST

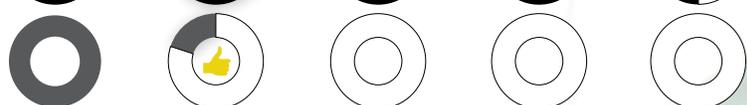
RACEWAY CANAL

THE EAST POND

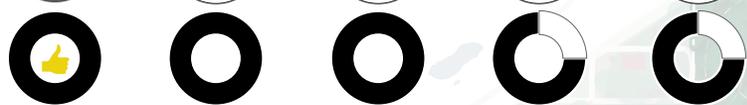
NITROGEN



SEDIMENT



PHOSPHORUS



E. COLI



= WATER QUALITY IS GOOD FOR RECREATIONAL USE!

43 MASTER PLAN: IMPLEMENTATION

THE GALLERY WALK

we like seeing the **working treatment train** and learning about water



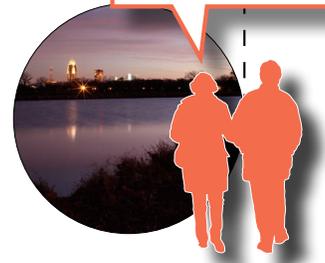
we love paddling through **the braided forest** and learning about the critters of the wild



my favorite part of the circuit is racing along **the raceway canal**



I like walking by **the east pond** at water works and connecting to Gray's Lake



WATER WORKS FOUNDATION

Implementation of the recommendations of a master plan of this nature requires a dedicated and thoughtful organization of leadership.

An eye toward long-term sustainability includes understanding and ensuring that improvements to Water Works Park are consistent with the mission of park ownership, but also that the park can be operated and maintained over time. Throughout the master planning process, the discussion of park maintenance and operations were central. To address this key aspect of implementation, the Steering Committee spearheaded a discussion about potential organizational management opportunities moving forward.

Within this discussion, Board of Trustees Chairman, Graham Gillette, stated “the Des Moines Water Works must meet its vital mission of producing clean, affordable water. No matter how excited we may be about the recreational, educational, and other uses of the park, as board members we felt it would be inappropriate to divert utility customers’ money and resources to park revitalization.”

To this end, Des Moines Water Works is working to create a not-for-profit foundation to manage development of Water Works Park. Water Works will still own the land, but transformation of the park to a destination spot will be led by the foundation. The new foundation will be led by Steering Committee members and other key emerging professionals within the greater Des Moines community.

The master plan report and executive summary are designed to provide the newly formed foundation recommendations to help guide future park decisions. Emphasis should be given to the continued engagement of the Steering Committee and Technical Committee on foundation development and park consideration.

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Gray's Lake Foundation

Young Professionals Group

Birding Group

Equestrian Group

Mountain Biker Group

Trails Group

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