MEMORANDUM

To: MCWD Board of Managers

From: Tiffany Schaufler

Date: June 20, 2019

Re: Minnehaha Parkway Regional Trail Master Plan Update

Purpose:

At the June 25, 2019 Board of Managers meeting staff will provide the Board an update on the Minneapolis Park and Recreation Board's Minnehaha Parkway Regional Trail (MPRT) Master Plan and review revised concept plans recently released for the master plan.

Background:

Memorandum of Understanding

At the February 23, 2017 Board of Managers meeting, the Board approved Resolution 17-017 which authorized the District to enter into a Memorandum of Understanding (MOU) with the City of Minneapolis (City) and the Minneapolis Park and Recreation Board (MPRB). The MOU outlines shared priorities and investment strategies to improve the natural and built environments within the Minnehaha Creek subwatershed in Minneapolis.

Integrated Planning of the Minnehaha Creek Subwatershed in Minneapolis

At the same time the MOU was authorized for execution, the Board of Managers authorized staff to develop and issue a request for qualifications (RFQ) in coordination with the City and the MPRB that would retain professional services to 1) advance the design and construction of FEMA funded repairs, and 2) begin implementing the goals and workflow of the MOU by integrating plans and investments for FEMA repairs, stormwater management, flood mitigation, road improvements, planned trail and recreation improvements, and regional park master planning.

The RFQ broke the work into two stages. Stage 1 was led by the District and focused on implementation of the Minnehaha Creek FEMA streambank repairs, carrying out a stormwater management study, and developing an integrated creek corridor concept plan which would serve as a foundation for the Stage 2 work. Stage 2 is being led by MPRB and includes developing a master plan for the Minnehaha Parkway Regional Trail (253 acre regional facility with 5.3 miles of parkway) and developing an associated shared capital improvement plan for short and long-term investment in the Minnehaha Creek corridor.

Minnehaha Parkway Regional Trail Master Plan

MPRB kicked off their master plan process for the MPRT on July 30, 2018 by convening their first Community Advisory Committee (CAC) meeting (see Attachment 1 for a diagram on the master planning/CAC process). The MPRT process to date has included various community engagement activities including a variety of in person events along Minnehaha Creek, public open houses, online surveys, and a Social Pinpoint website. A summary of the phase 1 community engagement can be viewed here: https://www.minneapolisparks.org/wp-content/uploads/2018/12/mprtmp_summary_phase-1_draft.pdf

At the end of October 2018 the MPRT CAC met and worked through a corridor-wide visioning exercise. That visioning exercise resulted in the creation of a vision for the master plan and identification of areas that should receive additional design focus. A summary of the MPRT CAC's visioning exercise can be viewed here: https://www.minneapolisparks.org/_asset/zj254y/mprtmp_cac3_attachments_AB.pdf

Corridor Wide Vision

A corridor wide vision has been created through input received from the MPRT CAC, and input gathered through community engagement. The current vision states that the development of the MPRT master plan should:

- Seek to restore the ecological function of the creek corridor for improved wildlife, flood resilience, and water quality
- Provide safe routes and entries to and within the corridor
- Thoughtfully incorporate recreation opportunities that complement nearby parks and provide increased interaction with the creek
- Enhance the corridor's function as a natural oasis and wildlife habitat
- Support region-wide and local users of all ages, abilities, and backgrounds
- Acknowledge the creek's history while celebrating its unifying ability through interpretation, art, and programming
- Balance the needs of the creek corridor, creek users, and nearby residents
- Promote continued agency collaboration, particularly with water management

Design Concepts

The initial park design concepts were created after considering thoughts, ideas, and opinions compiled throughout the summer and fall of 2018 from public events, online surveys that gathered hundreds of comments, and discussions with staff from MCWD, City and MPRB. MPRB posted the initial concepts on their website on January 31, 2019 and also debuted them at two community open houses. The initial design concepts were reviewed and discussed with the MPRT CAC at their fourth meeting on February 21, 2019 to solicit input from the CAC and the general public. A summary of feedback received on the draft concepts can be viewed here: https://www.minneapolisparks.org/wp-content/uploads/2019/04/mprtmp_initial_concepts_community_engagement_summary.pdf

Preferred Concepts

Since releasing the initial design concepts, MPRB took all of the feedback received on them and on May 30, 2019 released "preferred concepts". These preferred concept drawings are based on extensive community engagement and the in-depth discussions that occurred at public meetings held to review the first rounds of drawings.

As part of the preferred concept plans, a number of corridor-wide diagrams have been created to provide context for the following proposed elements, these diagrams can be viewed in Attachment 2:

- Creek restoration and BMPs
- Outfalls and pipesheds
- Creek access
- Activity Areas
- Parkway vehicular circulation

For the purpose of master planning, the corridor-wide study area for MPRT has been split into four segments (Attachment 3) as each segment has distinct site characteristics, variation in topography, existing recreational activities, trail connections, and creek access

A preferred concept has been developed for each segment. In addition to the segment concepts, four focus areas have been identified where closer design study was performed. Each concept contains ideas relating to:

- Trail and parkway realignment
- Stormwater infrastructure and potential creek re-meanders
- Natural resource management areas
- Creek access points
- Recreational amenities
- Precedent (example) images to demonstrate ideas

These preferred concepts are not final but rather are the second iteration from the design team. The CAC and project team will work over the next few month to gather and synthesize feedback, revise the concepts, and work towards creating final preferred concept plans. The current preferred concept plans can be viewed on the MPRB website by clicking on the on the "Segment" links below and are also attached to this memo (see Attachment 4):

- Segment 1: Western Minneapolis border to Lake Harriet
- Segment 2: Girard Avenue to I-35W
- Segment 3: I-35W to Cedar Avenue (Nokomis-Hiawatha Regional Park border)
- Segment 4: Nokomis-Hiawatha Regional Park to Minnehaha Regional Park

Next Steps:

At the June 25, 2019 Board meeting, staff will provide the Board update on the progress of the MRPB's Minnehaha Parkway Regional Trail master plan process, review the current preferred concept plans, and discuss next steps in the master plan process.

If there are questions in advance of the meeting, please contact Tiffany Schaufler at tschaufler@minnehahacreek.org or at 952-641-4513.

Attachments:

- Attachment 1: Planning Process/CAC Process Diagram
- Attachment 2: Minnehaha Parkway Regional Trail – Preferred Concept Framework Map
- Attachment 3: MPRT Map - Segment Framework
- Attachment 4: May 30, 2019 Preferred Concept Plans

PLANNING PROCESS

Items in bold have already occurred as of 3/13/19

CE = Community Engagement

MINNEHAHA PARKWAY REGIONAL TRAIL **MASTER PLANNING PROCESS (APPROX. 18 MONTHS TOTAL)**

APRIL 2018 — March 2019 — FALL 2019

DISCOVERY + ASSESSMENT

Collect background data

Research regional and site context

Identify issues and opportunities

CE PHASE 1

Web survey (252 responses) **+ Social Pinpoint** (327 comments)

23 Community Events (527 comments)

CAC Meetings #1-3

PAC Meeting #1

Open Houses w/ FEMA Project

CONCEPT DEVELOPMENT

Identify focus areas and develop a plan framework

Develop site designs and gather feedback (in progress)

Continue to collect background data and perform analysis

we are here

MASTER PLAN

Develop preferred site concepts and recommendations

Determine priorities and develop implementation and phasing strategy

Develop draft plan document

APPROVALS

Present draft plan document for public comment

Present draft plan to city commissions, councils for approvals

Revise for final document submission

CE PHASE 2

Web survey launched with preliminary site concepts

(2) Community Open Houses

(2) MPRB In-houses

CAC Meetings #4-7

PAC Meetings #2-3

Neighborhood meetings (in-progress)

CE PHASE 3

Web survey launched with final site concepts and required 45-day public comment period

Community Open Houses

IMPLEMENTATION PROCESS (20-30 YEARS TOTAL)

2020 — 2030 — 2040

MPRB INITIAL PROJECTS

Initial projects to be constructed with funds remaining from 1.1m fund

MPRB + CITY OF MPLS + MCWD

Develop a comprehensive CIP and prioritization framework

Identify individual and joint agency projects

Develop cooperative agreements for each project element to determine a funding plan, identify who will design, construct, and maintain each project element

ONGOING/FUTURE CE

Community engagement will be conducted on a project-by-project basis, based on the policy of the implementing agency

APRIL 2018 — March 2019 — FALL 2019

2020 — 2030 — 2040

MINNEHAHA PARKWAY REGIONAL TRAIL **COMMUNITY ENGAGEMENT**

CAC PROCESS

REVIEW CONCEPTS
BIG QUESTIONS
PREFERRED CONCEPTS
RECOMMENDATIONS
AS NEEDED

COMMUNITY ADVISORY COMMITTEE MEETINGS

1	2	3	4	5	6	7	8
Kick-off	Discovery + Assessment	Vision	Master Planning				Approvals

1 Kick-off

Project Team Responsibility:

- Scope + Schedule Confirmation
- Project Start-up
- General Visioning

CAC Responsibility:

- Familiarize with project and scope
- Develop working group process

2 Discovery + Assessment

Project Team Responsibility:

- Collect Background Data
- Summarize and Present Background Data
- Develop Corridor Mapping
- Research & Understand Regional and Site Context

CAC Responsibility:

- Review background data
- Develop questions, additional topics of exploration

3 Vision

Project Team Responsibility:

- Analyze and present feedback from community engagement
- Follow-up with further exploration topics / background data questions
- Develop process for creating a corridor-wide vision, developing guiding principles and identifying segment concept framework

CAC Responsibility:

- Continue to develop questions, explore data
- Review community engagement feedback
- Begin to develop vision, guiding principles
- Identify focus areas within the project area, identify issues/opportunities

4 5 6 7 Master Planning

Project Team Responsibility:

- Interpret and re-present vision, guiding principles, segment concept framework
- Develop concepts, framework plans
- Present, listen, revise, review, and re-present concepts and framework plans (iterative process)
- Facilitate community workshop
- Develop Draft Master Plan Document

CAC Responsibility:

- Participate in iterative process
- Provide guidance to develop preferred concepts, framework plans
- Review materials and provide recommendations, comments, feedback
- Communicate priorities
- Share project development

we are here

8 Approvals

Project Team Responsibility:

- Present Draft Master Plan to Metropolitan Council
- Review, revise, re-present Draft Master Plan to Metropolitan Council
- Adoption and Delivery of Final Master Plan
- Finalize Master Plan Document

CAC Responsibility:

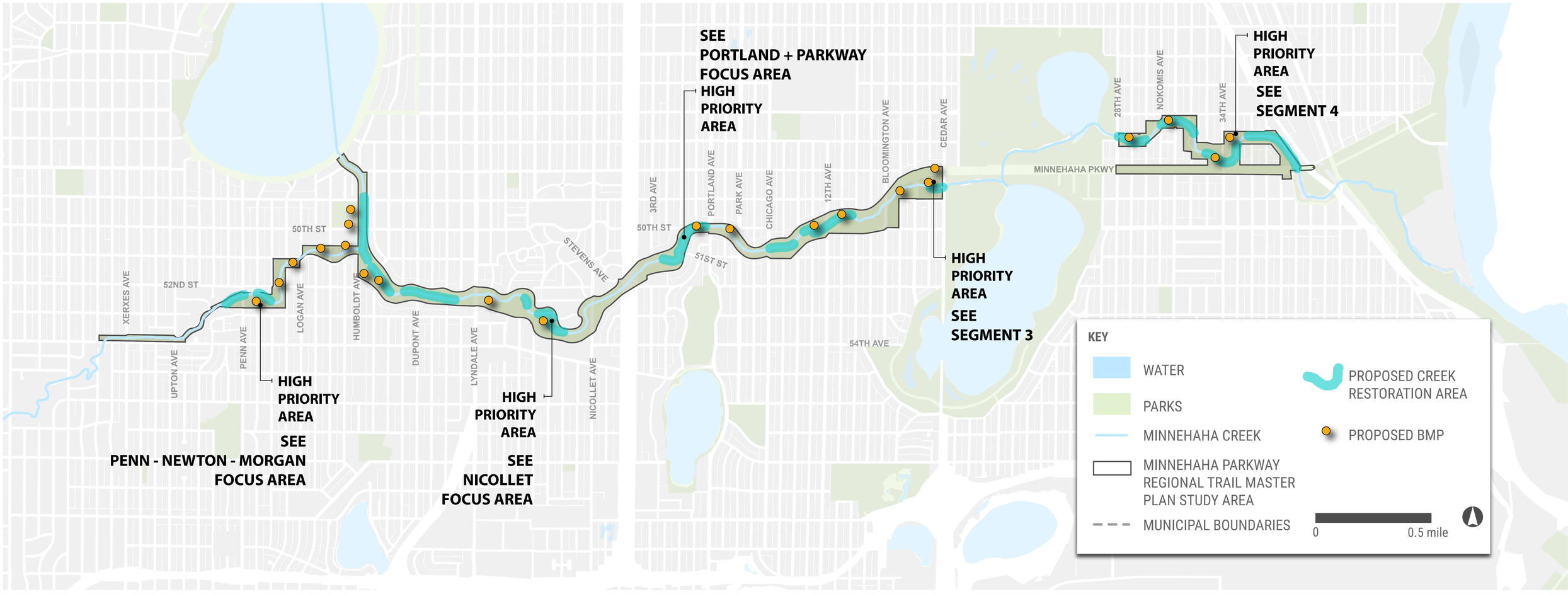
- Share project development

Minnehaha Parkway Regional Trail

Creek Restoration

Locations along Minnehaha Creek have been identified as having high opportunity for addressing stormwater volume and energy dissipation of creek flow, water quality, and flood storage. These areas are noted as 'proposed BMPs', or Best Management Practices. Best Management Practices are structural, vegetative, or managerial practices that treat, prevent, or reduce pollution in a water body. BMPs include strategies such as stormwater infrastructure, underground storage systems, pollinator or habitat-focused planting, stormwater wetlands, constructed wetlands and restored floodplain forest. Restoration and/or re-meandering of the creek is also a BMP that can stabilize habitat and slow stream velocities, which reduce erosion along streambanks. See the "Best Management Practices" board for further information about the function of BMPs.

This diagram shows areas along Minnehaha Parkway Regional Trail that have been identified as best opportunity sites for future BMPs and creek restoration areas. High Priority Areas have the potential to address the largest stormwater flows. See the "Outfalls and Pipesheds" board for further information about how stormwater is directed into Minnehaha Creek.



MINNEHAHA PARKWAY REGIONAL TRAIL
CORRIDOR-WIDE DIAGRAM: CREEK RESTORATION

DRAFT 5/30/19

Minnehaha Parkway Regional Trail

Best Management Practices

Best Management Practices (BMPs) are structural, vegetative, or managerial practices that treat, prevent, or reduce pollution in a water body.

STORMWATER BMPS

Originally, stormwater management addressed potential flooding issues only, and meant moving as much water as possible (volume) off the landscape as quickly as possible (rate). Today, stormwater management has evolved to integrate several additional factors. While still addressing potential flooding, stormwater management today means reducing volumes sent downstream by infiltrating and storing stormwater, reducing rates by filtrating and increasing storage, and integrating opportunities to address water quality, conservation, habitat and recreational considerations.

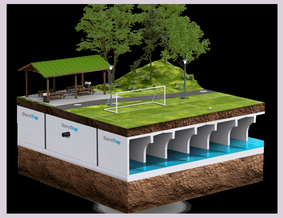
Bio-retention basins (rain gardens)

Detention basins

Multi-cell BMP

UNDERGROUND STORAGE SYSTEMS

Underground storage systems directly contribute to addressing stormwater volume and rate issues by capturing and storing stormwater collected from surrounding impervious areas. Underground storage systems are an effective alternative to surface ponds in areas where space is at a premium, i.e., in urban and park areas. With the stormwater facility below ground, the space above the facility can be used in a normal manner, such as park land.



Underground storage systems

POLLINATOR LAWN (HABITATS)

Pollinators are animals that move pollen from the male part of a plant's flower to the female part of the same or another plant, resulting in fertilization. This movement of pollen is necessary for the production of fruits, seeds, and young plants with root systems that stabilize soil and prevent erosion, buffer waterways, store carbon and provide habitat. Bees, butterflies, beetles, moths, bats and birds comprise many of the important species of pollinators. The native plants that comprise pollinator gardens enhance the aesthetics of a park, improving recreational opportunities.

pollinator habitats

CREEK RE-MEANDER

The meandering, or curving of a stream is an important factor in the stream's physical (erosion and sediment deposition) and ecological dynamics (habitat). Re-meandering a stream can increase sinuosity (the degree of meandering), which effectively reduces the slope of the stream. A reduction in slope can result in a slowing of streamflow velocities, effectively reducing bank and streambed erosion. Additional natural features can be brought in to enhance stability and habitat, including root wads, rock veins, cedar tree revetments, and others.

Creek re-meander examples

STORMWATER WETLAND

Stormwater wetlands are constructed stormwater management practices that are considered an end-of-pipe best management practice to address water quantity and water quality issues. The storage capacity provided by stormwater wetlands can help reduce downstream stormwater volumes as well as peak runoff rates. Stormwater wetlands offer high pollutant removal efficiencies for pollutants and particulates, including nitrogen, phosphorus, oil and grease – with relatively low maintenance costs.

Stormwater wetland

RESTORED FLOODPLAIN FOREST

Floodplains are an integral part of healthy rivers and streams. They store and slow floodwaters, improve water quality, safeguard people and property, provide vital habitat, recharge groundwater, and provide unique opportunities for recreation. Organic matter from forested floodplains provide sources of energy for aquatic organisms. Shade from streamside vegetation moderates temperatures. Riparian vegetation reduces overland water flow and sediment transport. Nutrient uptake by floodplain vegetation decreases inputs of nutrients into the system.

Mature (left) and newly restored (right) floodplain forest

RESTORED WETLAND

Wetlands protect and improve water quality, provide fish and wildlife habitat, store floodwaters and attenuate downstream flooding, help maintain surface water flow during dry periods, and enhance recreational opportunities. Restoring wetlands that have been either removed or degraded to the extent that these services are diminished or altogether eliminated results in the reinstatement of these services.

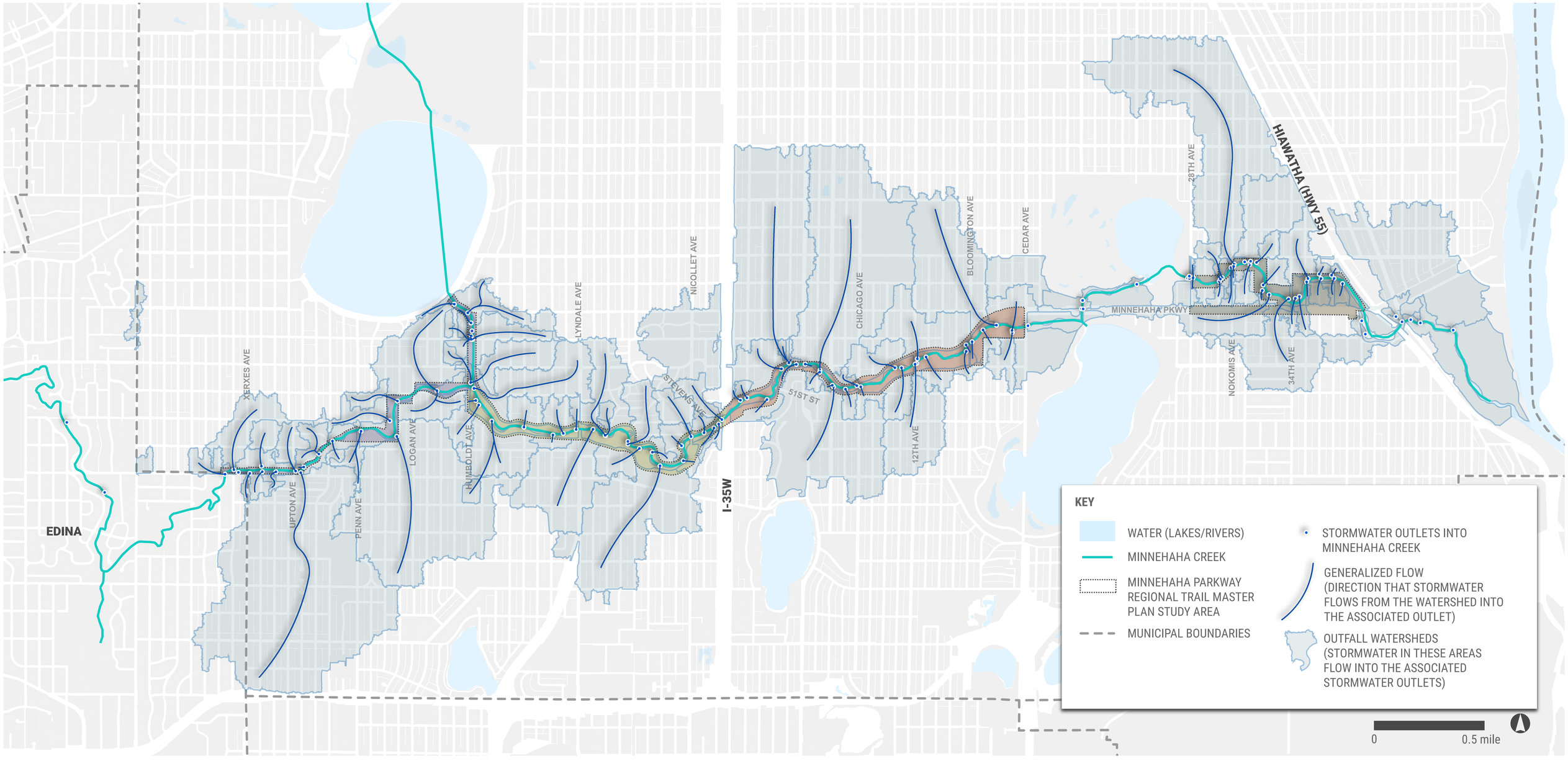
Restored wetland

Minnehaha Parkway Regional Trail

Outfalls and Pipesheds

Outfalls are locations where stormwater runoff flows into Minnehaha Creek. The map below shows the drainage area for each outfall to Minnehaha Creek. These drainage areas are called pipesheds. Some pipesheds serve a larger area than others, creating higher volume and velocity of stormwater as it enters Minnehaha Creek at the outfall.

By implementing BMPs and remeandering or restoring the Creek in strategic locations, we can make Minnehaha creek corridor more resilient to flooding. Flooding is projected to occur more frequently and severely in the coming decades. BMPs, remeandering, and creek restoration can also help to store water, infiltrate water into the ground, and clean stormwater to improve water quality.



MINNEHAHA PARKWAY REGIONAL TRAIL
OUTFALLS AND PIPESHEDS

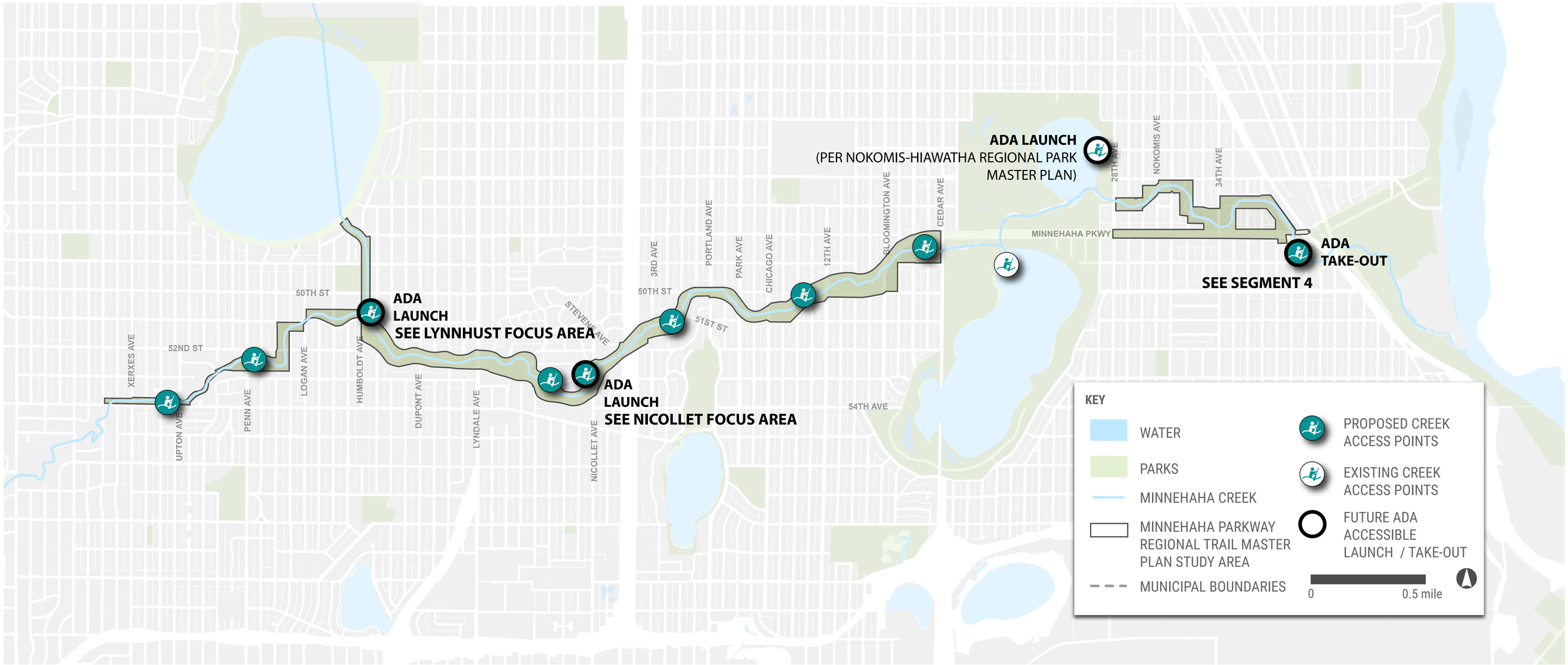
DRAFT 5/30/19

Minnehaha Parkway Regional Trail

Creek Access

Today, access to Minnehaha Creek within the Minnahah Parkway Regional Trail study area is limited to the launch at 51st Street, south of Lynnhurst Recreation Center. There are existing launches at Lake Hiawatha and Lake Nokomis, as well as a take-out at 39th Avenue before Minnehaha Falls.

This diagram shows areas along Minnehaha Parkway Regional Trail that have been identified for future creek access points, with the intention of creating more places to safely access the Creek for kayaking, canoeing, fishing, and accessing the water. A number of future launches will be ADA accessible, in coordination with the Nokomis-Hiawatha Regional Park Master Plan (2015).



MINNEHAHA PARKWAY REGIONAL TRAIL
CORRIDOR-WIDE DIAGRAM: ACCESS TO MINNEHAHA CREEK

DRAFT 5/30/19

Minnehaha Parkway Regional Trail

Activity Areas

Today, Minnehaha Parkway Regional Trail is best known for passive, recreational trails with scattered open lawn areas for informal use. Along the way, there are a number of places where the trail intersects with Activity Nodes, which are concentrated with more active recreational uses, such as tennis courts or sledding hills.

The preferred concepts for Minnehaha Parkway Regional Trail maintain most of the park for passive recreation, with additional areas for picnicking, observing wildlife, and accessing the Creek. At the interface with Lynnhurst Park (a neighborhood park), there is an Activity Node identified for existing and future athletic field and court use. The area under the Nicollet Avenue Bridge has been identified as a future Activity Node, with future adventure play area for all ages and public art. At Bloomington Avenue south of the creek, future single-track bike trails will serve as an Activity Node, to compliment future areas at Hiawatha and Nokomis Regional Parks.

Active Recreation

includes organized sports, playground activities, and extensive facilities or development that impact a site.

Proposed Active Recreation:

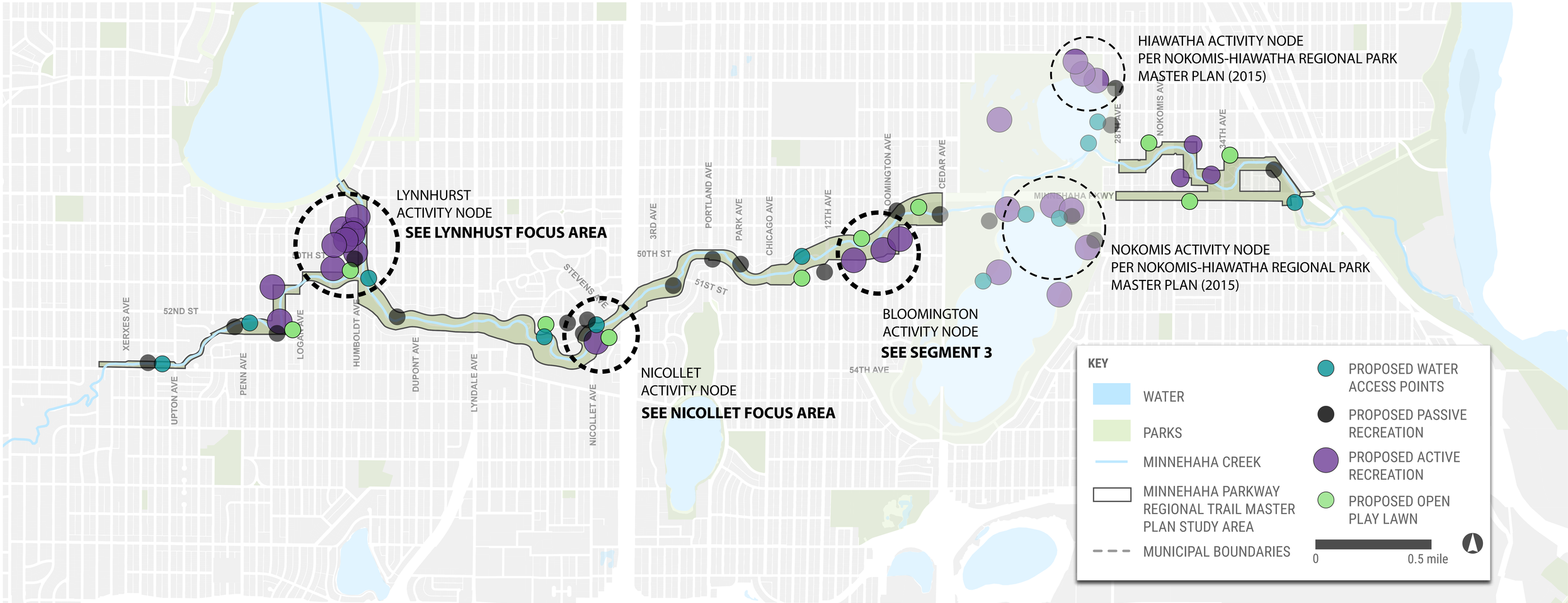
Sledding
Ice Skating
Tennis / Pickleball
Informal Ball Fields
Adventure or Nature Play
Bike Park or Bike Trail

Passive Recreation

includes activities such as biking, walking, or observing nature that require a minimum of formal facilities or development within a site.

Proposed Passive Recreation:

Picnicking
Creek Access
Open Play Lawns
Art
Trails (biking and walking)
Observation Decks



MINNEHAHA PARKWAY REGIONAL TRAIL
CORRIDOR-WIDE DIAGRAM: ACTIVITY AREAS

DRAFT 5/30/19

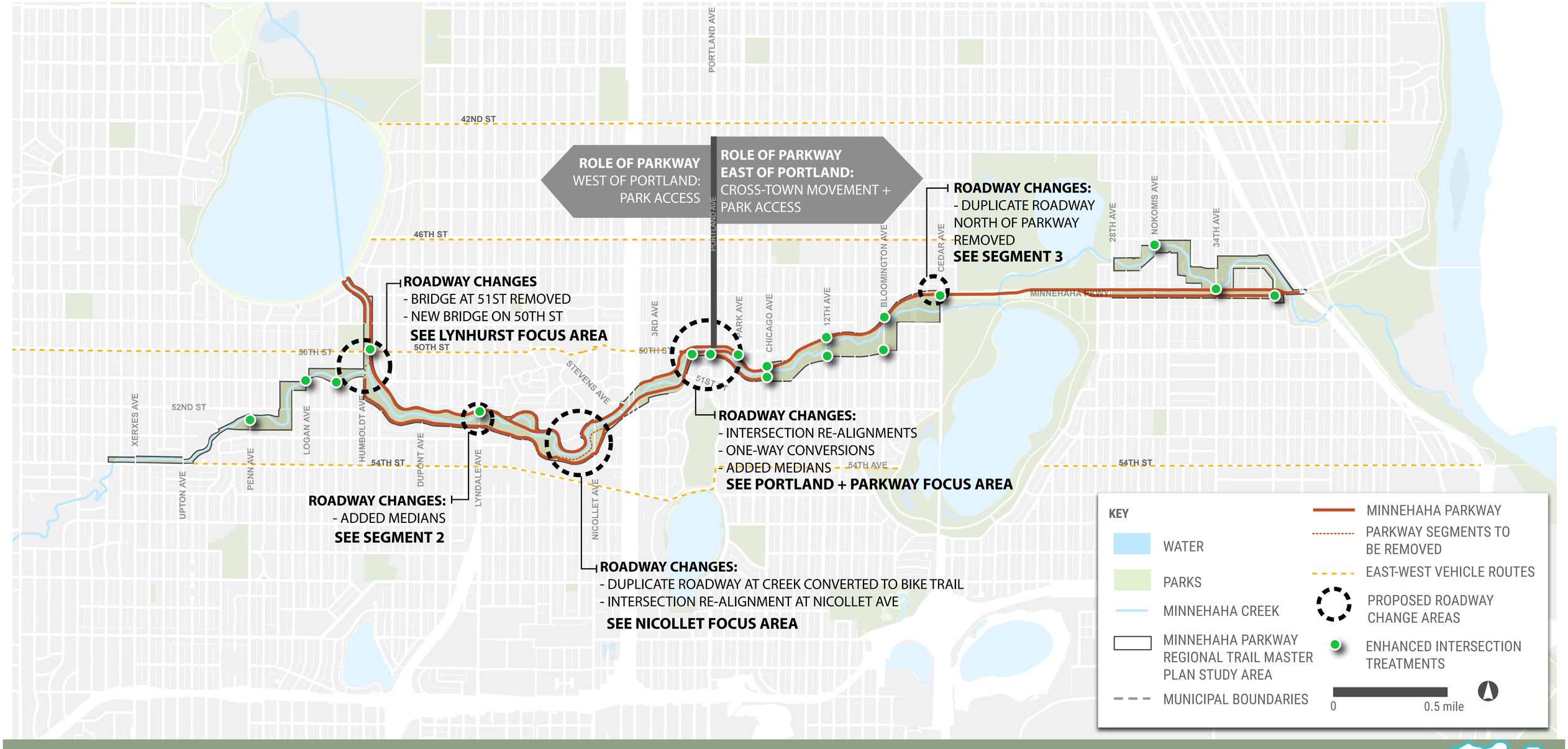
Minnehaha Parkway Regional Trail

Parkway Vehicular Circulation

The Parkway Road plays different roles within the context of vehicle circulation throughout South Minneapolis. The preferred concepts emphasize priority for pedestrian and bicycle use throughout the parkway. Where the trail intersects with roadways, enhanced intersection treatments are proposed, which include high visibility crosswalk markings, curb extensions and larger landing areas for bicyclists and pedestrians, and raised intersections to increase visibility. In order to improve circulation for all modes, reduce pavement, calm traffic, and create more space for creek restoration, there are a number of areas that have been identified for future roadway changes.

These changes involve removing segments of the current parkway, converting roadway segments to trails, re-alignment of intersections, constructing raised medians, and converting two-way traffic to one-way traffic in specific areas.

In general, the approach to vehicle circulation along the parkway acknowledges that east of Portland Avenue, the parkway functions to provide cross-town movement and access to Minnehaha Parkway Regional Trail. West of Portland Avenue, the role of the parkway is limited to providing access to Minnehaha Parkway Regional Trail.



MINNEHAHA PARKWAY REGIONAL TRAIL
CORRIDOR-WIDE DIAGRAM: PARKWAY VEHICULAR CIRCULATION

DRAFT 5/30/19

Minnehaha Parkway Regional Trail
Preferred Concept Framework

For the purposes of master planning, the corridor-wide study area for Minnehaha Parkway Regional Trail has been split into 4 segments. These segments have distinct site characteristics, with variation in topography, existing recreational activities, trail connections and creek access. Throughout the corridor, a number of focus areas have been identified where closer design study was performed.

Preferred concepts have been developed at the segment scale and focus area scale. These preferred concepts were developed after gathering community feedback on preliminary site concepts that were launched in January and February of 2019.

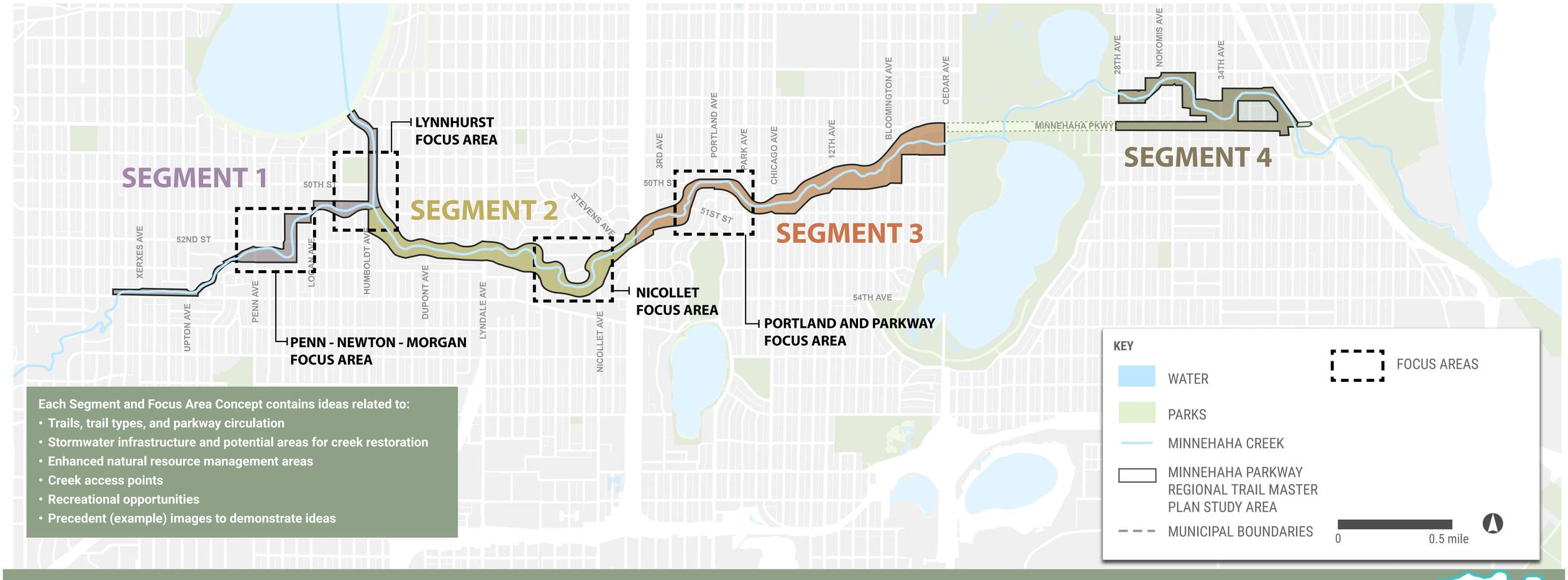
A number of corridor-wide diagrams have been created to provide context for the following proposed elements: Creek Restoration + BMPs, Outfalls and Pipesheds, Creek Access, Activity Areas, and Parkway Vehicular Circulation

Corridor Wide Vision

The corridor wide vision has been created through input received from the Community Advisory Committee (CAC), and input gathered through community engagement.

The development of the master plan should:

- Seek to restore the ecological function of the creek corridor for improved wildlife, flood resilience, and water quality
- Provide safe routes and entries to and within the corridor
- Thoughtfully incorporate recreation opportunities that complement nearby parks and provide increased interaction with the creek
- Enhance the corridor's function as a natural oasis and wildlife habitat
- Support region-wide and local users of all ages, abilities, and backgrounds
- Acknowledge the creek's history while celebrating its unifying ability through interpretation, art, and programming
- Balance the needs of the creek corridor, creek users, and nearby residents
- Promote continued agency collaboration, particularly with water management



Each Segment and Focus Area Concept contains ideas related to:

- **Trails, trail types, and parkway circulation**
- **Stormwater infrastructure and potential areas for creek restoration**
- **Enhanced natural resource management areas**
- **Creek access points**
- **Recreational opportunities**
- **Precedent (example) images to demonstrate ideas**

KEY

- EXISTING MPRT PED TRAIL
- PROPOSED MPRT PED TRAIL
- EXISTING MPRT BIKE TRAIL
- PROPOSED MPRT BIKE TRAIL
- PROPOSED NATURAL SURFACE TRAIL
- RECREATION AREAS
- ENHANCED NATURAL RESOURCE MANAGEMENT
- POLLINATOR (FLOWERING) LAWN
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- ENHANCED INTERSECTION TREATMENTS FOR AT-GRADE BIKE/PED CROSSINGS
- STUDY AREA
- 2' CONTOURS
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK RESTORATION
- PROPOSED BMP
- BUILDINGS
- EXISTING 100-YEAR FLOODPLAIN *
- PROJECTED 100-YEAR FLOODPLAIN **
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY

LAKE HARRIET

WESTERN CREEK DISTRICT
ENHANCED WAYFINDING AT KEY INTERSECTIONS TO MINNEHAHA PARKWAY REGIONAL TRAIL AND MINNEHAHA CREEK

SEE LYNNHURST FOCUS AREA

LYNNHURST PARK

BURROUGHS ELEMENTARY

STORMWATER BMP

SEE PENN - NEWTON - MORGAN FOCUS AREA

WESTERN CREEK DISTRICT

SEGMENT 2

NEW PED BRIDGE

PICNIC AREA AND CREEK ACCESS

NEW BIKE / PED BRIDGE

MINNEHAPOLIS

EDINA

WESTERN CREEK DISTRICT

50TH
51ST
52ND
54TH
MORGAN
JAMES
LOGAN
NEWTON
PENN
FOREST DALE
UPTON
RUSSELL
QUEEN
ZENITH
YORK
WASHBURN
VINCENT
HUMBOLDT

*The 100-year floodplain has a predicted 1% chance of a flood event in any given year.
**Based on changing climate patterns, storm events will continue to be more intense in nature. This will result in a different floodplain pattern throughout the corridor. The projected floodplain depicts a model of a future 100-year floodplain in approximately 30 years.

200'

MINNEHAHA PARKWAY REGIONAL TRAIL

SEGMENT 1 PREFERRED CONCEPT

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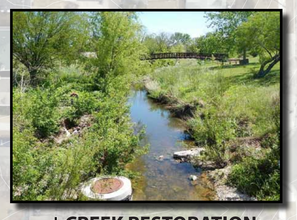
106GROUP interfluve WENCK HKGi Minneapolis City of Lakes MINNEHAHA CREEK WATERSHED DISTRICT Minneapolis Park & Recreation Board

KEY

- STUDY AREA
- BITUMINOUS TRAIL
- CONCRETE WALK
- EXISTING MPRT PED TRAIL
- PROPOSED MPRT PED TRAIL
- EXISTING MPRT BIKE TRAIL
- PROPOSED MPRT BIKE TRAIL
- PROPOSED NATURAL SURFACE TRAIL
- RECREATION AREAS
- ENHANCED NATURAL RESOURCE MANAGEMENT
- POLLINATOR (FLOWERING) LAWN
- 100-YEAR FLOODPLAIN
- 2' CONTOURS
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK RESTORATION
- PROPOSED BMP
- OUTFALL (EXISTING)
- OUTFALL WITH ENHANCED STORMWATER MANAGEMENT
- BUILDINGS
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY



CREEK RESTORATION:
BRAIDED CHANNEL WITH RESTORED FLOODPLAIN FOREST

CREEK ACCESS
ACCESSED FROM NATURAL SURFACE TRAIL

STORMWATER BMP
DAYLIGHTED STORMWATER TREATMENT TRAIN, DESIGNED AROUND EXISTING TREES

CREEK AND FLOODPLAIN FOREST
RESTORATION

EXISTING SLEDDING HILL
TO REMAIN; SEEDED WITH POLLINATOR LAWN

NATURAL SURFACE TRAIL
MAINTAINED PATH

HIGH VISIBILITY CROSSWALK BRIDGE
WITH BICYCLE ACCESS RAMP RETROFIT

FLOODPLAIN STORAGE

NEW PED / BIKE BRIDGE
WITH MULTI-USE PAVED TRAIL

STORMWATER BMP
REPLACE EXISTING CONCRETE SPILLWAY WITH MULTI-CELL BMP (CASCADING POOLS) AND INTERPRETIVE ELEMENT

EXISTING TENNIS COURTS
RESURFACED

WATERSIDE PICNIC AREA
POLLINATOR PLAY LAWN WITH PICNIC TABLES, A NEW PICNIC SHELTER AND PUBLIC ART

INTERPRETIVE OVERLOOKS
WITH STARIWAY CONNECTIONS TO NATURAL SURFACE TRAILS AND HIGH VISIBILITY CROSSWALK MARKINGS

NATURAL SURFACE TRAILS
MAINTAINED PATH

BOARDWALK CONNECTION
TO EXISTING PEDESTRIAN BRIDGE

QUEEN · OLIVER · PENN · NEWTON · MORGAN · LOGAN · 51ST · 52ND · 53RD · 50'

MINNEHAHA PARKWAY REGIONAL TRAIL

PENN - NEWTON - MORGAN FOCUS AREA PREFERRED CONCEPT

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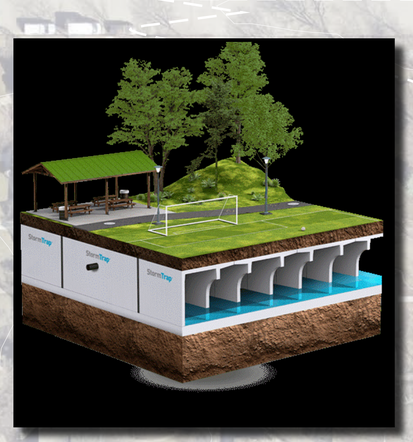
106GROUP · Interfluve · WENCK · HK 3T · Minneapolis City of Lakes · Minnehaha Creek Watershed District · Minneapolis Park & Recreation Board

****This concept was developed in collaboration with Southwest Service Area Master Plan Project**



BMP: UNDERGROUND STORAGE
MULTI-USE DIAMONDS (2) AND MULTI-USE FIELDS (1-4) WITH HOCKEY RINK (SEASONAL) AND UNDERGROUND STORMWATER STORAGE BELOW

PLAY AREA

OPEN PLAY WITH FLOODABLE SKATING RINK
SEEDED WITH POLLINATOR LAWN

BMP: FLOOD STORAGE
MULTI-USE DIAMOND (1) AND MULTI-USE FIELDS (1-2) WITH FLOOD STORAGE AS NEEDED

CREEK RESTORATION
WITH FLOOD STORAGE AND POLLINATOR LAWN

ON-STREET BIKE LANE
(EXISTING)

PEDESTRIAN BRIDGE
(EXISTING)

NEW BIKE BRIDGE

PLAY AREA

DAYLIGHTED TRIBUTARY

NEW PEDESTRIAN BRIDGE

ENVIRONMENTALLY-FOCUSED COMMUNITY CENTER
POTENTIALLY WITH GYMNASIUM AND CREEKSIDE PATIO AND PUBLIC ART

NEW RAISED BRIDGE
RAISED TO ALLOW TRAILS AND DAYLIGHTED STREAM TO PASS UNDERNEATH

CREEKSIDE NATURE PLAY AREA

TREE FORT
-OPEN AIR SHELTER
-BOAT STORAGE
-INTERPRETATION / ART

RESTROOM ENCLOSURE

ADA LAUNCH
ACCESSIBLE PADDLE LAUNCH WITH FISHING PIER

NEW PED/BIKE BRIDGE

NEW PEDESTRIAN BRIDGE

VEHICLE BRIDGE REMOVED

NEW BIKE AND PED TRAIL
TO MORGAN AVE.

CREEK RESTORATION

BMP: FLOOD STORAGE

BMP: UNDERGROUND STORAGE

PLAY AREA

OPEN PLAY WITH FLOODABLE SKATING RINK

ON-STREET BIKE LANE

PEDESTRIAN BRIDGE

NEW BIKE BRIDGE

DAYLIGHTED TRIBUTARY

NEW PEDESTRIAN BRIDGE

ENVIRONMENTALLY-FOCUSED COMMUNITY CENTER

NEW RAISED BRIDGE

CREEKSIDE NATURE PLAY AREA

TREE FORT

RESTROOM ENCLOSURE

ADA LAUNCH

NEW PED/BIKE BRIDGE

BMP STORAGE LINE
BMP STORAGE LINE
BMP STORAGE LINE
BMP STORAGE LINE
BMP STORAGE LINE
PARKING
PARKING
BURROUGHS ELEMENTARY SCHOOL
EXISTING BALLFIELD
49TH ST
50TH ST
51ST
51ST
MINNEHAHA PKWY
MINNEHAHA PKWY
MINNEHAHA PARKWAY
GIRARD
JAMES AVE
DAYLIGHTED TRIBUTARY
ONEWAY
IRVING
MINNEHAHA PKWY
0
50'

KEY

- STUDY AREA
- BITUMINOUS TRAIL
- CONCRETE WALK
- 100-YEAR FLOODPLAIN
- 2' CONTOURS
- EXISTING MPRT PED TRAIL
- PROPOSED MPRT PED TRAIL
- EXISTING MPRT BIKE TRAIL
- PROPOSED MPRT BIKE TRAIL
- PROPOSED NATURAL SURFACE TRAIL
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK RESTORATION
- PROPOSED BMP
- OUTFALL (EXISTING)
- OUTFALL WITH ENHANCED STORMWATER MANAGEMENT
- BUILDINGS
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY
- RECREATION AREAS
- ENHANCED NATURAL RESOURCE MANAGEMENT
- POLLINATOR (FLOWERING) LAWN

MINNEHAHA PARKWAY REGIONAL TRAIL

LYNNHURST FOCUS AREA PREFERRED CONCEPT **DRAFT 5/30/19**

106GROUP · interfluve · WENCK · HK3i · Minneapolis City of Lakes · MINNEHAHA CREEK WATERSHED DISTRICT · Minneapolis Park & Recreation Board

KEY

- EXISTING MPRT PED TRAIL
- PROPOSED MPRT PED TRAIL
- EXISTING MPRT BIKE TRAIL
- PROPOSED MPRT BIKE TRAIL
- PROPOSED NATURAL SURFACE TRAIL
- RECREATION AREAS
- ENHANCED NATURAL RESOURCE MANAGEMENT
- POLLINATOR (FLOWERING) LAWN
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY
- STUDY AREA
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK RESTORATION
- PROPOSED BMP
- BUILDINGS
- EXISTING 100-YEAR FLOODPLAIN *
- PROJECTED 100-YEAR FLOODPLAIN **
- ENHANCED INTERSECTION TREATMENTS FOR AT-GRADE BIKE/PED CROSSINGS

NICOLLET HOLLOW ACTIVITY AREA
- Picnicking + Restroom Enclosure
- Drinking Fountain
- Bridge Repairs
- Interactive Lighting
- Adventure Play (bouldering, swings, etc.)
- Public Art
- Creek Overlook with Interpretation
- Creek Access
- Bike parking and bike share station
- Additional parking

NEW PEDESTRIAN & BICYCLE BRIDGE

CREEK RESTORATION

CREEK RESTORATION

BRAIDED CHANNEL RESTORATION

WIDENING OF PATHS FOR MULTI-USE TRAILS UNDER LYNDALE BRIDGE AND UP TO PARKWAY INTERSECTION

SEE LYNNHURST FOCUS AREA

SEE NICOLLET FOCUS AREA

SEGMENT 1

SEGMENT 3

CONSTRUCTED WETLAND BMP WITH (RAISED PATH)

PICNIC TABLES

EXISTING BMP

*The 100-year floodplain has a predicted 1% chance of a flood event in any given year.
**Based on changing climate patterns, storm events will continue to be more intense in nature. This will result in a different floodplain pattern throughout the corridor. The projected floodplain depicts a model of a future 100-year floodplain in approximately 30 years.

200'

MINNEHAHA PARKWAY REGIONAL TRAIL

SEGMENT 2 PREFERRED CONCEPT

DRAFT 5/30/19

106GROUP interfluve WENCK HKGi Minneapolis City of Lakes MINNEHAHA CREEK WATERSHED DISTRICT Minneapolis Park & Recreation Board

KEY

- STUDY AREA
- BITUMINOUS TRAIL
- CONCRETE WALK
- EXISTING MPRT PED TRAIL
- PROPOSED MPRT PED TRAIL
- EXISTING MPRT BIKE TRAIL
- PROPOSED MPRT BIKE TRAIL
- PROPOSED NATURAL SURFACE TRAIL
- RECREATION AREAS
- ENHANCED NATURAL RESOURCE MANAGEMENT
- POLLINATOR (FLOWERING) LAWN
- 100-YEAR FLOODPLAIN
- 2' CONTOURS
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK RESTORATION
- PROPOSED BMP
- OUTFALL (EXISTING)
- OUTFALL WITH ENHANCED STORMWATER MANAGEMENT
- BUILDINGS
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY

52ND

CREEK RESTORATION

GRAND ROUNDS INTERPRETATION

CLARIFIED BIKE/PED TRAILS
- BICYCLISTS AND PEDESTRIANS SEPARATED
- BIKE SHARE STATION

MINNEHAHA

CREEK ACCESS

POLLINATOR PICNIC AREA
- GRILLS AND PICNIC TABLES

PRATT

STORMWATER WETLAND

INTERPRETIVE OVERLOOK
EVOLUTION OF THE CREEK + STORMWATER MANAGMENT / FLOOD MITIGATION THEMES

FLOOD STORAGE WETLAND

STORMWATER WETLAND

PLEASANT

CONSTRUCTED WETLANDS

REALIGNED MINNEHAHA PARKWAY

REMOVE EXISTING TRAIL

CLOSE SECONDARY PARKWAY ROAD TO VEHICULAR TRAFFIC

POLLINATOR LAWN

MINNEHAHA

INTERPRETATION: NATURAL RESOURCES / PLANT ID

NICOLLET HOLLOW ACTIVITY AREA
- Picnicking + Restroom Enclosure
- Adventure Play (bouldering, swings, etc.)
- Drinking Fountain
- Bridge Repairs
- Interactive Lighting
- Public Art
- Creek Overlook with Interpretation
- Creek Access
- Bike parking and bike share station
- Additional parking

ADA PADDLE ACCESS

MINNEHAHA

BELMONT

PARKING

NEW PARKING FOR ACTIVITY AREA (ACCESS FROM PARKWAY)

ADVENTURE PLAY

NICOLLET

REALIGNED INTERSECTION
- CURB EXTENSION + MEDIANS
- NEW OVERLOOK WITH STAIRWAY ACCESS

54TH

50'

MINNEHAHA PARKWAY REGIONAL TRAIL

NICOLLET FOCUS AREA PREFERRED CONCEPT

DRAFT 5/30/19

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BIKE TUNNEL

STORMWATER BMP
(ROADWAY REMOVED)

OPEN POLLINATOR LAWN

POTENTIAL INTERSECTION TREATMENTS:
RAISED INTERSECTION, PEDESTRIAN ISLAND, ROADWAY RE-ALIGNMENT

STORMWATER BMP
WITH CREEK RESTORATION AREA

STORMWATER BMP
WITH CREEK RESTORATION AREA

CREEK ACCESS WITH NEW PEDESTRIAN BRIDGE CROSSING

EXISTING SLEDDING HILLS
TO REMAIN

STORMWATER BMP
WITH RESTORED WETLAND

NATURAL SURFACE TRAIL
OVERLOOK WITH VIEW OF WETLAND

EXISTING TENNIS COURTS
TO REMAIN

NEW STAIR CONNECTION

SINGLE-TRACK BIKE TRAILS
TWO AREAS WITH VARIATION IN SKILL LEVEL / TOPOGRAPHY

CREEK RESTORATION

PORTLAND + PARKWAY FOCUS AREA

SEGMENT 2

47TH
48TH
49TH
50TH
51ST
52ND
54TH
4TH
5TH
2ND
3RD
10TH
11TH
12TH
13TH
14TH
15TH
16TH
17TH
18TH
CHICAGO
ELLIOT
COLUMBUS
PORTLAND
OAKLAND
PARK
CEDAR
BLOOMINGTON
MINNEHAHA
PARKWAY
TARRYMORE
35W

200'

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KEY

- EXISTING MPRT PED TRAIL
- PROPOSED MPRT PED TRAIL
- EXISTING MPRT BIKE TRAIL
- PROPOSED MPRT BIKE TRAIL
- PROPOSED NATURAL SURFACE TRAIL
- RECREATION AREAS
- ENHANCED NATURAL RESOURCE MANAGEMENT
- POLLINATOR (FLOWERING) LAWN
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY
- STUDY AREA
- 2' CONTOURS
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK RESTORATION
- PROPOSED BMP
- BUILDINGS
- EXISTING 100-YEAR FLOODPLAIN *
- PROJECTED 100-YEAR FLOODPLAIN **
- ENHANCED INTERSECTION TREATMENTS FOR AT-GRADE BIKE/PED CROSSINGS

MINNEHAHA PARKWAY REGIONAL TRAIL

SEGMENT 3 PREFERRED CONCEPT

DRAFT 5/30/19

106GROUP · interflure · WENCK · HKGi · Minneapolis City of Lakes · Minnehaha Creek Watershed District · Minneapolis Park & Recreation Board

KEY

- STUDY AREA
- BUILDINGS
- BITUMINOUS TRAIL
- CONCRETE WALK
- EXISTING MPRT PED TRAIL
- PROPOSED MPRT PED TRAIL
- EXISTING MPRT BIKE TRAIL
- PROPOSED MPRT BIKE TRAIL
- PROPOSED NATURAL SURFACE TRAIL
- RECREATION AREAS
- ENHANCED NATURAL RESOURCE MANAGEMENT
- POLLINATOR (FLOWERING) LAWN
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY
- 100-YEAR FLOODPLAIN
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK RESTORATION
- 2' CONTOURS
- PROPOSED BMP
- OUTFALL (EXISTING)
- OUTFALL WITH ENHANCED STORMWATER MANAGEMENT

INTERSECTION RE-ALIGNED

ENERGY DISSIPATION AT STORMWATER OUTLET

TRAFFIC CALMING: MEDIAN, CURB EXTENSIONS, ONE-WAY CONVERSION (WESTBOUND) TO 50TH STREET

TRAFFIC CALMING: MEDIAN, CURB EXTENSIONS, ONE-WAY (EASTBOUND) CONVERSION TO PARK AVE

STORMWATER BMP: FLOOD STORAGE

INTERSECTIONS RE-ALIGNED

BANK STABILIZATION

INTERSECTION RE-ALIGNED: ONE-WAY AND STOP SIGN NORTHBOUND WITH MEDIAN

RE-CONSTRUCTED BRIDGE: TO ACCOMMODATE CREEK REMEANDER

TRAIL MOVED TO ACCOMMODATE CREEK RESTORATION

CREEK RESTORATION: TO DISSIPATE ENERGY BEFORE 5TH AVE. OUTFALL

CREEKSIDE OVERLOOK

UPGRADES AT THE BUNNY:
- BIKE RACKS
- SEATING
- DRINKING FOUNTAIN
- PICNIC TABLE
- PERMEABLE PAVERS
-INTERPRETATION

CREEK RESTORATION: BRAIDED CHANNEL WITH RESTORED FLOODPLAIN FOREST

TRAFFIC CALMING: MEDIAN, CURB EXTENSIONS, ONE-WAY CONVERSION (EASTBOUND) TO PARK AVE

CLINTON · 4TH · 5TH · PORTLAND · OAKLAND · PARK · COLUMBUS · 50TH · MINNEHAHA PKWY · 51ST · TARRYMORE · LUVERNE · BIKE LANE · ONE WAY · 50'

MINNEHAHA PARKWAY REGIONAL TRAIL

PORTLAND + PARKWAY FOCUS AREA PREFERRED CONCEPT

DRAFT 5/30/19

106GROUP · interfluve · WENCK · HKGi · Minneapolis City of Lakes · Minnehaha Creek Watershed District · Minneapolis Park & Recreation Board

KEY

- EXISTING MPRT PED TRAIL
- PROPOSED MPRT PED TRAIL
- EXISTING MPRT BIKE TRAIL
- PROPOSED MPRT BIKE TRAIL
- PROPOSED NATURAL SURFACE TRAIL
- RECREATION AREAS
- ENHANCED NATURAL RESOURCE MANAGEMENT
- POLLINATOR (FLOWERING) LAWN
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- PROPOSED BMP
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- EXISTING 100-YEAR FLOODPLAIN *
- PROJECTED 100-YEAR FLOODPLAIN **
- ENHANCED INTERSECTION TREATMENTS FOR AT-GRADE BIKE/PED CROSSINGS

TENNIS COURT CONVERSION TO BIKE SKILLS PARK

CREEK RESTORATION WITH CONSTRUCTED WETLAND

EXPANDED BMP AND CREEK RESTORATION

EXISTING BMP

UNDERGROUND FLOOD STORAGE

REPLACED BRIDGE

MPRT GATEWAY SIGN + KIOSK

ADA LAUNCH

TRAIL UNDERPASS PER CITY OF MINNEAPOLIS

STORMWATER BMP

EXISTING SLEDDING HILL TO REMAIN

BOARDWALK + OVERLOOK

NEW SIDEWALK CONNECTION + WAYFINDING

CREEK RESTORATION WITH CONSTRUCTED WETLAND

STORYWALK WITH NATURAL SURFACE TRAIL, DEMONSTRATION NATIVE PLANTINGS, AND PUBLIC ART

ADA TAKE-OUT

LAKE HIAWATHA

LAKE NOKOMIS

MINNEHAHA FALLS REGIONAL PARK

CROSBY

HIAWATHA

MINNE

46TH 31ST 30TH 28TH 27TH 47TH 32ND 33RD 34TH 35TH 36TH 37TH 38TH 39TH 29TH NOKOMIS

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200'

MINNEHAHA PARKWAY REGIONAL TRAIL

SEGMENT 4 PREFERRED CONCEPT

DRAFT 5/30/19

106GROUP interflow WENCK HKGi Minneapolis City of Lakes MINNEHAHA CREEK WATERSHED DISTRICT Minneapolis Park & Recreation Board