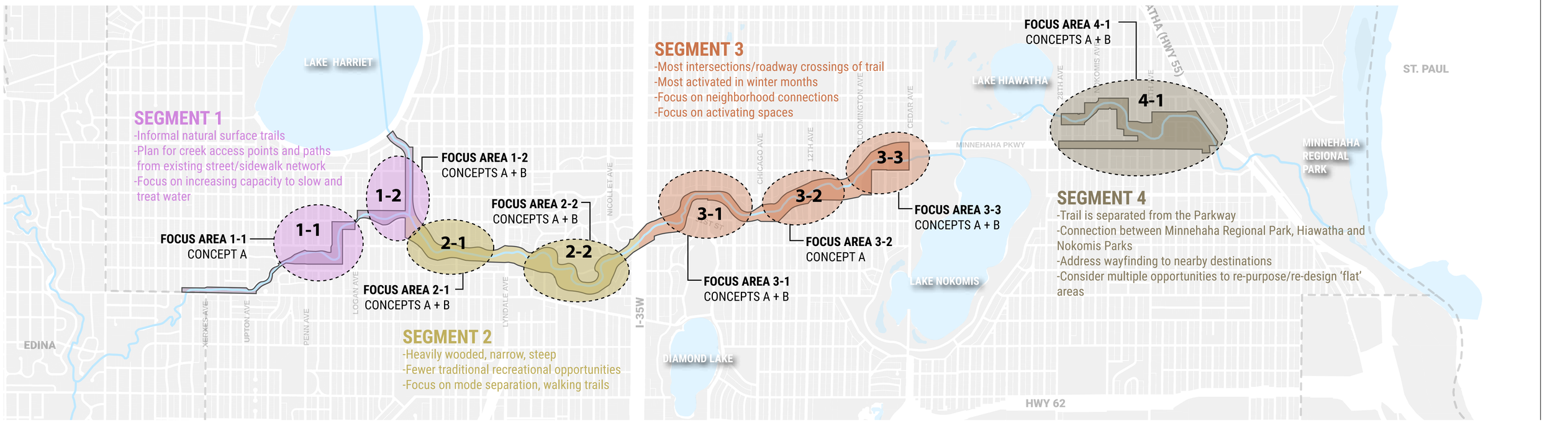
MPRT Concept Framework

Minnehaha Parkway Regional Trail has been split into **4 segments** for the purpose of master planning. Within these segments, **8 focus areas** have been identified and one or two preliminary site concepts have been developed for each. These site concepts are not final; you are invited to view the in-progress concepts and provide your feedback. Below is a key map showing the location of each segment and focus area, as well as a brief summary of existing conditions and ideas for consideration within each segment.

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

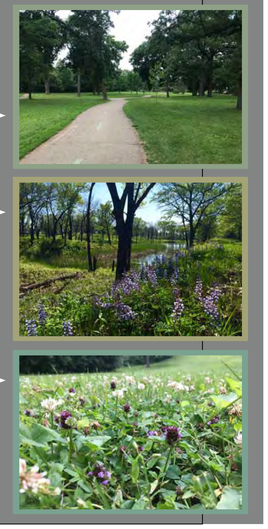


Each concept plan has a key to explain color coded areas and linetypes found on the drawings. Below is the same key with expanded explanations for each symbol:

KEY

- STUDY AREA
  Area to be studied for the MPRT Master Plan
- PROPOSED BRIDGE
  Potential locations for new vehicular, pedestrian, or bicycle bridges
- BITUMINOUS TRAIL
  Asphalt-surfaced trails, intended for either bicyclists and/or pedestrians
- CONCRETE WALK
  Sidewalks or paths with concrete surfaces, generally intended for pedestrians only
- MPRT PEDESTRIAN TRAIL
  Designated trail intended for pedestrian use within MPRT
- MPRT BIKE TRAIL
  Designated trail intended for bicycle use within MPRT
- MPRT NATURAL SURFACE TRAIL
  Designated natural surface trail (cleared or mowed) intended for pedestrian use within MPRT
- 100-YEAR FLOODPLAIN
  Area of land that is predicted to flood during a 100-year storm, which has a 1% chance of occurring in any given year
- 2' CONTOURS
  Lines on the map indicating land elevation
- MINNEHAHA CREEK (EXISTING)
  Alignment of Minnehaha Creek as it exists today
- PROPOSED CREEK RE-MEANDER / MODIFICATION
  Potential new alignment of Minnehaha Creek
- PROPOSED BMP / STORMWATER MANAGEMENT
  Areas with proposed Best Managment Practices (BMPs) for improving stormwater management along the creek
- OUTFALL (EXISTING)
  End-of-pipe locations for stormwater pipes that empty into Minnehaha Creek
- BUILDINGS (PROPOSED)
  Footprints of proposed buildings within the study area
- RECREATIONAL AREAS
  Areas with a primary function of providing recreational opportunities, such as fields, courts, etc.
- NATURAL RESOURCE MANAGEMENT AREA
  Areas that are currently managed by MPRB for natural resources. Management includes mowing, invasive species removal, tree maintenance, etc.
- NATURAL RESOURCE ENHANCEMENT
  Proposed areas to have enhanced natural resource management, often with a focus on creating an identified plant community or maintaining wildlife habitat
- POLLINATOR (FLOWERING) LAWN
  Proposed open areas to have pollinator-friendly lawns with low-growing flowering plant species that require less mowing than typical lawn areas
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
  Intended uses or users for an area within the site concept
- INTERPRETATION OPPORTUNITY
  Area to have interpretive elements to communicate historical or culturally significant areas (type, form, and specific theme to be determined)
- PUBLIC ART OPPORTUNITY
  Area to have an element of public art (type, form, and theme to be determined)

example image



NOTE:
This concept shows major re-alignment of existing roadways, some of which fall outside of the Minnehaha Parkway Regional Trail Study Area. As these concepts are developed through the master planning process, further coordination with the City of Minneapolis, residents, and other stakeholder groups will need to occur.

FOCUS AREA 3-1 CONCEPT A **BIG MOVES**

- Removal of Minnehaha Parkway north of the creek to create a pedestrian promenade with space for a creek remeander and enhanced natural resource management areas
- Enhanced picnic and gathering amenities near The Bunny to include restrooms, seating, wayfinding and interpretation
- Removal of a portion of 5th Avenue to construct a stormwater BMP

PEDESTRIAN PROMENADE
DECORATIVE PAVING WITH INTEGRATED INTERPRETIVE AND PUBLIC ART ELEMENTS

ROADWAY REMOVED
TO CONSOLIDATE TRAFFIC FLOW AND CREATE SPACE FOR CREEK REMEANDER AND ENHANCED NATURAL RESOURCE MANAGEMENT AREA

STORMWATER BMP
OUTFALL MOVED, SECTION OF 5TH AVE REMOVED

ROADWAY REMOVED
TO CONSOLIDATE TRAFFIC FLOW AND CREATE SPACE FOR CREEK REMEANDER AND ENHANCED NATURAL RESOURCE MANAGEMENT AREA

POLLINATOR PLAY LAWN
WITH CONCRETE WALK AND INTEGRATED PUBLIC ART

INTERSECTION RE-ALIGNED
FOR BETTER VISIBILITY AND CROSSWALK ALIGNMENT TO NEW OVERLOOK

PICNIC AREA WITH BUNNY
EXISTING PUBLIC ART WITH RESTROOMS, SEATING, WAYFINDING AND INTERPRETATION

OVERLOOK
PLATFORM WITH SITTING AREA OFF OF TRAIL WITH INTERPRETIVE ELEMENT RELATED TO NATURAL RESOURCES

PICNIC PLAYLAWN
WITH INTERPRETIVE ELEMENT EXPLAINING CREEK REMEANDER

PICNIC AREA

CREEK RE-MEANDER (BRAIDING):
CHANNEL ADDED TO EXISTING CREEK WITH ENHANCED NATURAL RESOURCE MANAGEMENT AREA

KEY

- STUDY AREA
- PROPOSED BRIDGE
- BITUMINOUS TRAIL
- CONCRETE WALK
- MPRT PEDESTRIAN TRAIL
- MPRT BIKE TRAIL
- MPRT NATURAL SURFACE TRAIL
- RECREATIONAL AREAS
- NATURAL RESOURCE MANAGEMENT AREA
- NATURAL RESOURCE ENHANCEMENT
- POLLINATOR (FLOWERING) LAWN
- 100-YEAR FLOODPLAIN
- 2' CONTOURS
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK REMEANDER / MODIFICATION
- PROPOSED BMP / STORMWATER MANAGEMENT
- OUTFALL (EXISTING)
- BUILDINGS (PROPOSED)
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY

50'

MINNEHAHA PARKWAY REGIONAL TRAIL
FOCUS AREA 3-1 CONCEPT A **DRAFT 1/28/19**

NOTE:
This concept shows major re-alignment of existing roadways, some of which fall outside of the Minnehaha Parkway Regional Trail Study Area. As these concepts are developed through the master planning process, further coordination with the City of Minneapolis, residents, and other stakeholder groups will need to occur.

FOCUS AREA 3-1 CONCEPT B **BIG MOVES**

- Removal of Minnehaha Parkway south of the creek to create a pedestrian promenade with space for a creek remeander and enhanced natural resource management areas
- Enhanced picnic and gathering amenities near The Bunny to include restrooms, seating, wayfinding and interpretation, as well as a shared street (woonerf) to host food trucks and events
- Historical bridge crossing at 50th Street to be converted into an overlook with interpretive elements

OVERLOOK
CONVERTED FROM EXISTING BRIDGE (NATIONAL HISTORIC REGISTER ELIGIBLE) WITH INTERPRETIVE ELEMENTS RELATED TO THE HISTORY OF THE BRIDGE AND SEATING

STORMWATER BMP
WITH NEW OUTFALL

CREEK RE-MEANDER
CREEK CHANNEL SHIFTED SOUTH

NEW VEHICULAR BRIDGE
WITH PEDESTRIAN PATH

PARKWAY VEHICLE TRAFFIC
CONSOLIDATED TO NORTH ROADWAY

ROADWAY REMOVED
TO CONSOLIDATE TRAFFIC FLOW AND CREATE SPACE FOR CREEK REMEANDER AND ENHANCED NATURAL RESOURCE MANAGEMENT AREA

PLAY LAWN
WITH FLOOD STORAGE

NEW PEDESTRIAN AND BICYCLE BRIDGE

INTERSECTION RE-ALIGNED
FOR BETTER VISIBILITY AND CROSSWALK ALIGNMENT

INTERSECTIONS RE-ALIGNED
FOR BETTER VISIBILITY AND CROSSWALK ALIGNMENT

NEW VEHICULAR BRIDGE CROSSING
WITH PEDESTRIAN PATH

PEDESTRIAN / BICYCLE PROMENADE
DECORATIVE PAVING WITH INTEGRATED INTERPRETIVE ELEMENTS

SIGNAL ADDED
PAIR WITH EXISTING VEHICULAR SIGNAL NORTH ON MINNEHAHA

ROADWAY REMOVED
TO CONSOLIDATE TRAFFIC FLOW AND CREATE SPACE FOR CREEK REMEANDER AND ENHANCED NATURAL RESOURCE MANAGEMENT AREA

PICNIC AREA WITH BUNNY
EXISTING PUBLIC ART WITH RESTROOMS, SEATING, WAYFINDING AND INTERPRETATION

ROADWAY WITH DECORATIVE PAVING
LIMITED VEHICLE ACCESS FOR FOOD TRUCKS, EMERGENCY VEHICLES

CREEK RE-MEANDER (BRAIDING):
CHANNEL ADDED TO EXISTING CREEK WITH ENHANCED NATURAL RESOURCE MANAGEMENT AREA

KEY

- STUDY AREA
- PROPOSED BRIDGE
- BITUMINOUS TRAIL
- CONCRETE WALK
- MPRT PEDESTRIAN TRAIL
- MPRT BIKE TRAIL
- MPRT NATURAL SURFACE TRAIL
- 100-YEAR FLOODPLAIN
- 2' CONTOURS
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK REMEANDER / MODIFICATION
- PROPOSED BMP / STORMWATER MANAGEMENT
- OUTFALL (EXISTING)
- BUILDINGS (PROPOSED)
- RECREATIONAL AREAS
- NATURAL RESOURCE MANAGEMENT AREA
- NATURAL RESOURCE ENHANCEMENT
- POLLINATOR (FLOWERING) LAWN
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY

50'

MINNEHAHA PARKWAY REGIONAL TRAIL
FOCUS AREA 3-1 CONCEPT B **DRAFT 1/25/19**

KEY

- STUDY AREA
- PROPOSED BRIDGE
- BITUMINOUS TRAIL
- CONCRETE WALK
- MPRT PEDESTRIAN TRAIL
- MPRT BIKE TRAIL
- MPRT NATURAL SURFACE TRAIL
- RECREATIONAL AREAS
- NATURAL RESOURCE MANAGEMENT AREA
- NATURAL RESOURCE ENHANCEMENT
- POLLINATOR (FLOWERING) LAWN
- 100-YEAR FLOODPLAIN
- 2' CONTOURS
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK REMEANDER / MODIFICATION
- PROPOSED BMP / STORMWATER MANAGEMENT
- OUTFALL (EXISTING)
- BUILDINGS (PROPOSED)
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY

FOCUS AREA 3-2 **BIG MOVES**

- New pedestrian bridge crossing at 10th Avenue
- Speed table installed at 12th Avenue to slow traffic and increase visibility of bicyclists and pedestrians
- Stairway from 12th Avenue bridge to pathways and overlooks alongside a multi-cell treatment train BMP
- Removal of pedestrian trail section west of 14th Avenue to allow for creek re-meander, BMPs and enhanced natural resource management areas
- Overlook with interpretive elements along the pedestrian path and pollinator play lawn west of 12th Avenue

SPEED TABLE:
RAISED INTERSECTION WITH HIGH VISIBILITY CROSSWALKS TO SERVE AS TRAFFIC CALMING

NEW PEDESTRIAN BRIDGE
INTERPRETIVE ELEMENT AT THE PEDESTRIAN AND BICYCLE TRAIL CROSSING AND HIGH VISIBILITY CROSSWALK CONNECTING TO NEIGHBORHOOD

PEDESTRIAN TRAIL RE-ROUTED
TO SOUTH SIDE OF CREEK WITH NEW PEDESTRIAN BRIDGE

STORMWATER BMP
OUTLET MOVED

STORMWATER BMP
OUTLETS MOVED

NEW PEDESTRIAN BRIDGE
INTERPRETIVE ELEMENT AT THE PEDESTRIAN AND BICYCLE TRAIL CROSSING AND HIGH VISIBILITY CROSSWALK CONNECTING TO NEIGHBORHOOD

CREEK RE-MEANDER (BRAIDING):
CHANNEL ADDED TO EXISTING CREEK WITH ENHANCED NATURAL RESOURCE MANAGEMENT AREA

NEW STAIRWAY
CONNECTING TO TRAIL AND 12TH AVENUE BRIDGE

STORMWATER BMP
MULTI-CELL BMP (CASCADING POOLS) AND WITH TRAIL OVERLOOKS ALONG THE PERIMETER WITH INTERPRETIVE ELEMENTS INTEGRATED

POLLINATOR PLAY LAWN

OVERLOOK
ACCESSED FROM PEDESTRIAN TRAIL WITH INTERPRETIVE ELEMENTS

BMP: STORMWATER
OUTLET MOVED

50'

MINNEHAHA PARKWAY REGIONAL TRAIL

FOCUS AREA 3-2 CONCEPT A **DRAFT 1/28/19**

KEY

- STUDY AREA
- PROPOSED BRIDGE
- BITUMINOUS TRAIL
- CONCRETE WALK
- MPRT PEDESTRIAN TRAIL
- MPRT BIKE TRAIL
- MPRT NATURAL SURFACE TRAIL
- RECREATIONAL AREAS
- NATURAL RESOURCE MANAGEMENT AREA
- NATURAL RESOURCE ENHANCEMENT
- POLLINATOR (FLOWERING) LAWN
- 100-YEAR FLOODPLAIN
- 2' CONTOURS
- MINNEHAHA CREEK (EXISTING)
- PROPOSED CREEK REMEANDER / MODIFICATION
- PROPOSED BMP / STORMWATER MANAGEMENT
- OUTFALL (EXISTING)
- BUILDINGS (PROPOSED)
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY

Boardwalk around stormwater wetland can offer views of ephemeral art

BMPs: UNDERGROUND STORAGE IN BOULEVARD IF NEEDED

OVERLOOK WITH INTERPRETATION

TUBING ACCESS

NICE RIDE STATION

INTERPRETIVE NODE

REMOVE EXISTING TRAIL

CREEK REMEANDER

STORMWATER WETLAND

EPHEMERAL ART

REMOVE EXISTING TRAIL

BOARDWALK

BOARDWALK

NEW BRIDGE

SLEDDING HILL

STORMWATER WETLAND

NATURALIZED PRAIRIE ON SLEDDING HILL, MOWED IN AUTUMN

WETLAND BMP FED BY SURFACE RUNOFF VIA CURB CUTS

MEANDER PATH TO HAVE AN ACCESSIBLE 5% SLOPE

STORMWATER BMP

BIKE SKILLS COURSE (SUSTAINABLE TRAILS) WINDING DOWN SLOPE NORTH OF THE TENNIS COURTS

MINNEHAHA

CEDAR

LONGFELLOW

BLOOMINGTON

16TH

17TH

18TH

49TH

FOCUS AREA 3-3 CONCEPT A
BIG MOVES

- A Bike Skills Course is built using sustainable trail techniques on the hillside east of Bloomington
- The sledding hill is managed as prairie in the summer
- The Creek is remeandered twice to improve flood storage capacity
- Trails are rerouted to higher ground or converted to boardwalks
- A new Cedar Avenue bridge allows for bike and pedestrian traffic to travel beneath
- Stormwater wetlands west of Cedar improve flood storage and showcase ephemeral art
- Traditional lawn spaces along the Parkway are converted to pollinator lawn or underground storage BMPs

MINNEHAHA PARKWAY REGIONAL TRAIL
FOCUS AREA 3-3 CONCEPT A **DRAFT 1/28/19**

KEY

- STUDY AREA
- PROPOSED BRIDGE
- BITUMINOUS TRAIL
- CONCRETE WALK
- MPRT PEDESTRIAN TRAIL
- MPRT BIKE TRAIL
- MPRT NATURAL SURFACE TRAIL
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- BUILDINGS (PROPOSED)
- RECREATIONAL ACTIVITIES (COLORS AND ICONS VARY)
- INTERPRETATION OPPORTUNITY
- PUBLIC ART OPPORTUNITY

NATURE PLAY AREA
-NATURE PLAY WITH LOOSE PARTS
-INTERPRETATION ABOUT CREEK REMEANDERS AND HISTORY
-NEW PICNIC SHELTER WITH RESTROOMS

PADDLE ACCESS

PICNIC/PLAY LAWN

Art installations visible from new boardwalk

STORMWATER BMP
MINNEHAHA
BOARDWALK
WET MEADOW
PAVILION
STORMWATER BMP
FISHING ACCESS
NEW BRIDGE
OVERLOOK
WET MEADOW
SLEDDING HILL
OVERLOOK/ GATHERING AREA
MEANDER PATH TO HAVE AN ACCESSIBLE 5% SLOPE
STORMWATER BMP
STORMWATER BMP
STORMWATER BMP
OUTFALL
BLOOMINGTON
CEDAR
HIAWATHA
16TH
17TH
18TH
49TH

FOCUS AREA 3-3 CONCEPT B **BIG MOVES**

- A nature play area, paddle access, picnic shelter, and restrooms anchor the north side of the Creek near 17th
- Traditional turf areas along the creek are converted to pollinator lawn
- The Creek is re-meandered once to improve flood storage capacity
- The bike trail is rerouted to higher ground. Pedestrian trails (paved, natural surface, and boardwalk) are available on both sides of the Creek
- A new Cedar Avenue bridge allows for bike and pedestrian traffic to travel beneath
- Wet Meadows and BMPs along the Creek improve water quality, provide habitat, and offer diverse settings to trail users
- A new fishing access point is created east of Cedar

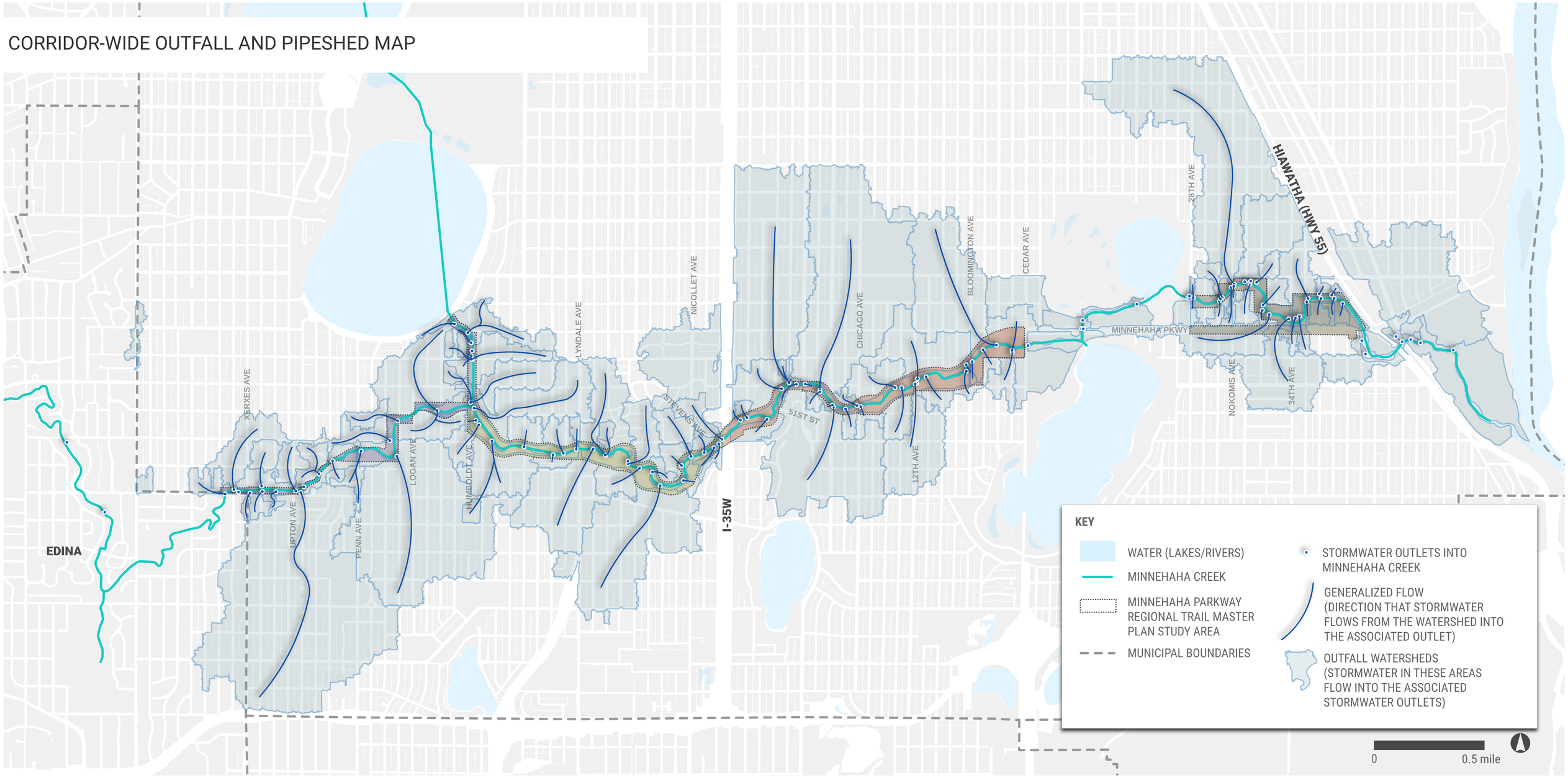
MINNEHAHA PARKWAY REGIONAL TRAIL

FOCUS AREA 3-3 CONCEPT B **DRAFT 1/28/19**

OUTFALLS AND PIPESHEDS: WHY DO THEY MATTER?

Outfalls are locations where runoff enters the Creek. The map below shows the area that each outfall drains.

CORRIDOR-WIDE OUTFALL AND PIPESHED MAP



By implementing BMPs and remeandering the creek in strategic locations, we can make the corridor more resilient to flooding (which is projected to happen more frequently and severely over the coming decades), and better store, infiltrate, and clean stormwater to improve water quality.

BEST MANAGEMENT PRACTICES (BMPs): WHAT ARE THEY?

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.

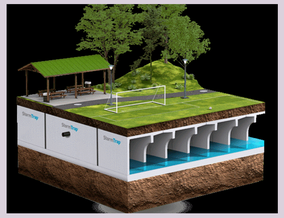
BIORETENTION BASINS (RAINGARDENS)

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 PLAY 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