



Miesville Ravine Park Reserve

Long-Range Plan

Dakota County, Minnesota

Public Review Draft | September 2023



EXECUTIVE SUMMARY

PROJECT OVERVIEW

Miesville Ravine Park Reserve’s remote setting and expansive natural resources are key to its charm, but distance from the Twin Cities population core, access to limited parts of the park, and few facilities that support recreation make exploring this park more difficult than other Dakota County Parks. The plan’s three-part approach seeks to develop and manage the park in a way that maintains the park reserve’s high quality landscapes, while improving the visitor experience.

APPROACH

Continue to stabilize and preserve the park reserve’s natural and cultural resources through invasive species control, habitat restoration, respectful siting of features, sustainable construction practices, strategic acquisitions, and stewardship outreach with neighboring landowners.

1. Provide thoughtfully integrated, accessible amenities that welcome a broader range of users into the park reserve, including those who may not feel equipped to explore Miesville Ravine currently.
2. Embrace Miesville Ravine’s remote setting within the Dakota County park system as a landing pad where visitors are given what they need to get comfortable exploring remote natural landscapes.



Figure ES1 Regional Context



GENERAL INFORMATION

Park Reserve Size: 1,850 acres

- Dakota County Owned Land: 1,519 acres
- Inholdings (privately owned land within official park reserve boundary): 331 acres

Natural Features:

- Cannon River
- Trout Brook
- Bluff Prairies

Park Reserve Access:

- North Parking Lot along Orlando Trail
- South Parking Lot along Orlando Trail
- Public Water Access along the Cannon River

Recreation:

- Percentage of the park reserve's land area developed for recreational use: 2.1%

The Miesville Ravine Park Reserve Natural Resources Management Plan was developed concurrently with this plan and provides detail on the park reserve's natural resources.



Cannon picnic shelter

EXISTING CONDITIONS

At 1,850 acres, Miesville Ravine Park Reserve showcases many different landscapes that support a variety of biodiversity. Habitats range from oak forests to remnant prairies, dry rocky savannas to floodplain wetlands, small seeps to reaches of navigable river and a trout stream that attract visitors from around the region. The park reserve's steep and sensitive ravine landscape has limited development, leaving much of the park reserve relatively free from disturbance. Significant restoration efforts have taken place over the years to restore vast expanses of tallgrass prairie.

The park reserve offers rustic access to the beauty of Trout Brook, the Cannon River, and the striking landscapes through which they flow. Trout Brook and its seeps, springs, and tributaries have cut steep ravines from the park reserve's upland tall grass prairie terrace, making it difficult to access. Two miles of natural surface trail loops wind through lowlands along waterways. Development is currently limited to the southern third of Miesville Ravine Park Reserve, with most amenities south of Orlando Trail. Only a small gravel parking lot and about a mile of trails (including a short boardwalk) exist north of Orlando Trail. A utility right-of-way cuts through the park reserve at the confluence of Trout Brook and the Cannon River. Upstream from the confluence is river access from an eroding stream bank. A small picnic area with tables and two shelters, restroom, and a fire ring is nearby.

EXISTING PROGRAMMING

Miesville Ravine Park Reserve has limited organized educational programs and activities. Occasional county-led walks through the park reserve help to introduce new visitors, but no regular programming is currently offered.

CULTURAL LANDSCAPE

Dakota people hunted game in the Trout Brook area into the 1860s. When the first Euro-Americans came to the area surrounding Miesville Ravine Park Reserve in the mid-1800s, they found it as inviting as the Native American peoples. As these new settlers began to plow the land and harvest the trees, they changed the landscape surrounding the valley. Mound groups along the Cannon River and its tributaries and historic farmstead remnants provide evidence of the park reserve's rich cultural history.

NATURAL RESOURCES

Miesville Ravine Park Reserve is on the northwestern edge of the Driftless Area. Trout Brook flows through the central ravine to the Cannon River. Dozens of steep tributary ravines dissect the park reserve and drain toward Trout Brook, the Cannon River, and several intermittent tributaries. The park reserve is at the 'bottom' of the watershed, receiving all of the water and pollutants from the watershed.

The unique surface, bedrock, and groundwater geology influences the existing natural and water resources. Glacial deposits combine with a long history of erosion to create a rugged topography of bluffs and ravines with variable soil types. The underlying carbonate bedrock is karst-prone and characterized by springs and groundwater discharge. Groundwater provides conditions that support trout in Trout Brook. Karst features also transport rapid surface-to-groundwater pollutants.

Modern vegetation exhibits some remnants of the historical vegetation. Twelve land cover types vary in condition from near excellent ecological integrity to alterations to the point they no longer resemble native plant communities. The county has restored many formerly cultivated areas to native plant community. Today, the County and partners manage natural resource projects both in the park reserve and on private lands in the surrounding watershed.

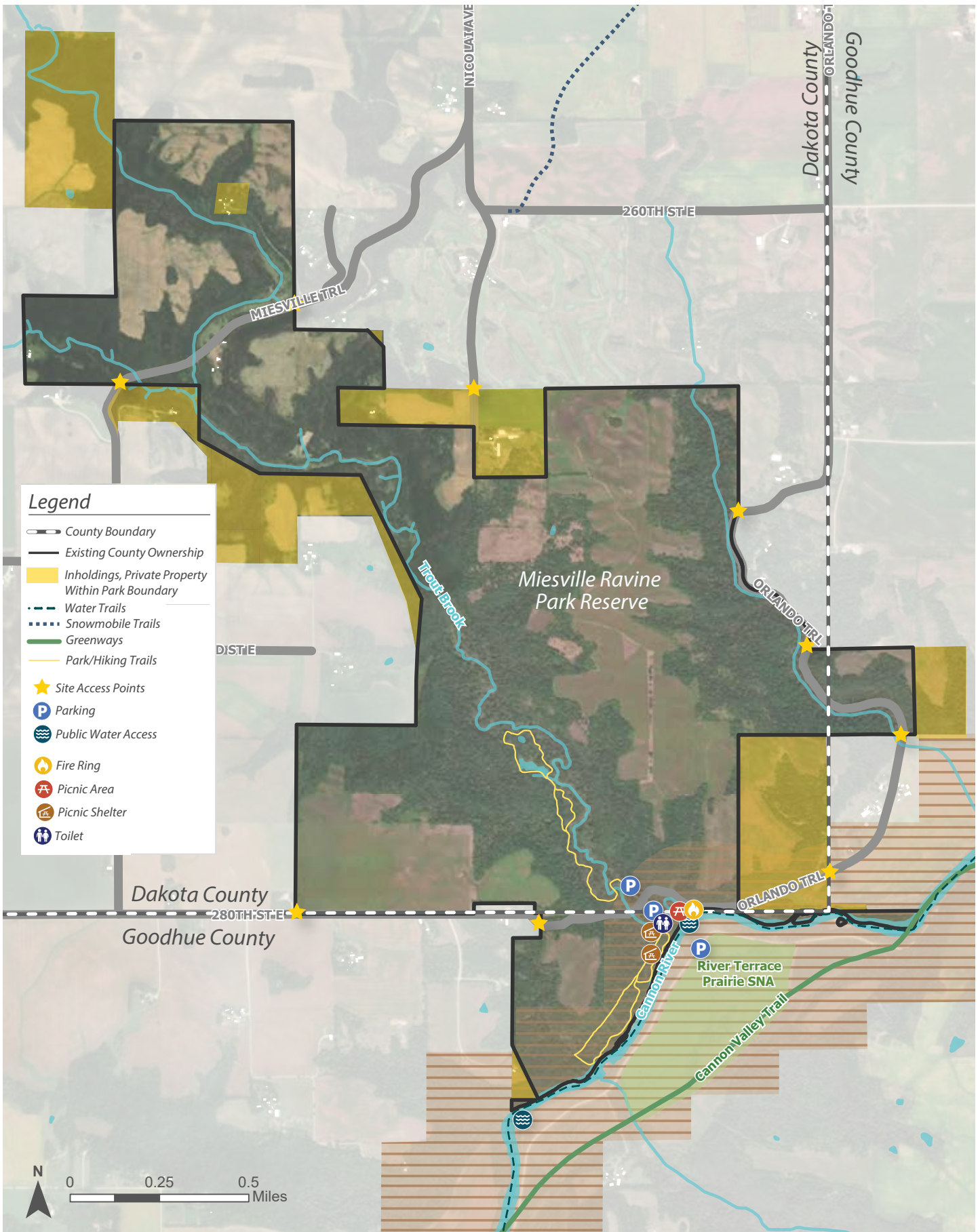


Figure ES2 Existing Conditions

VISION & GUIDING PRINCIPLES

The vision statement and guiding principles establish the foundation for this plan. The vision statement succinctly expresses the long-range plan intent while the guiding principles identify broad directives for development and management. Together they have guided what is proposed within this plan and will continue to guide decision making related to park development and management through the life of this document.

VISION STATEMENT

Protecting Habitats and Connecting People to the Wonders of the Natural World

Miesville Ravine Park Reserve is a healthy and diverse ecosystem whose habitats are protected by strategic preservation and restoration, where native flora and fauna can flourish. Access to and through the park reserve is sensitively expanded in order to improve visitors' experience of this unique landscape, while preserving its character. Visiting Miesville Ravine Park Reserve expands people's comfort with and connection to the natural world, provides them a window into the past, and empowers them to be stewards into the future.

GUIDING PRINCIPLES

1. Complement the rustic setting and provide a strong sense of arrival with entry improvements.
2. Strike a harmonious balance between landscape preservation and human use.
3. Celebrate the park reserve's rugged setting while making it more inclusive.
4. Protect Miesville Ravine Park Reserve's vulnerable and imperiled habitats.
5. Embrace the park reserve's proximity to the Cannon River.
6. Enhance Miesville Ravine's connection to the broader Cannon River valley.
7. Highlight the park reserve's expansive upland terrace prairie.
8. Recognize those who have stewarded this landscape for generations.
9. Keep the park reserve picturesque.

LONG-TERM CONCEPT

The long-term concept for Miesville Ravine Park Reserve sets a vision for improvements. Park reserve development should be done in collaboration with Tribal Historic Preservation Officers in order to ensure that amenities and trails are sited appropriately, development occurs respectfully, and disturbance to any sensitive cultural areas in the landscape is avoided.

FUTURE IMPROVEMENTS

IMPROVED CIRCULATION AND ACCESSIBILITY

Miesville Ravine Park Reserve's expansive prairies, towering bluffs, and flowing waters make it both a beautiful place to visit and a difficult place to navigate. Visitors have found the park reserve's lack of clear wayfinding, inaccessible trails, and limited trail loops frustrating. The long-term plan for Miesville Ravine Park Reserve, "Figure ES3 Miesville Ravine Park Reserve Long-Term Concept", focuses on sensitively expanding the trail system to better accommodate visitors with a range of abilities, provide access to more of the park reserve's vast landscape, and establish a direct connection to the Cannon Valley Trail that will make Miesville Ravine Park Reserve an easy-to-reach destination for visitors exploring the Cannon River Valley.

TRAILHEADS AND COMFORT AMENITIES

The long-term plan proposes four trailheads that offer convenient starting points to explore different areas of the park reserve. Each will offer parking, wayfinding, and screened portable restrooms.

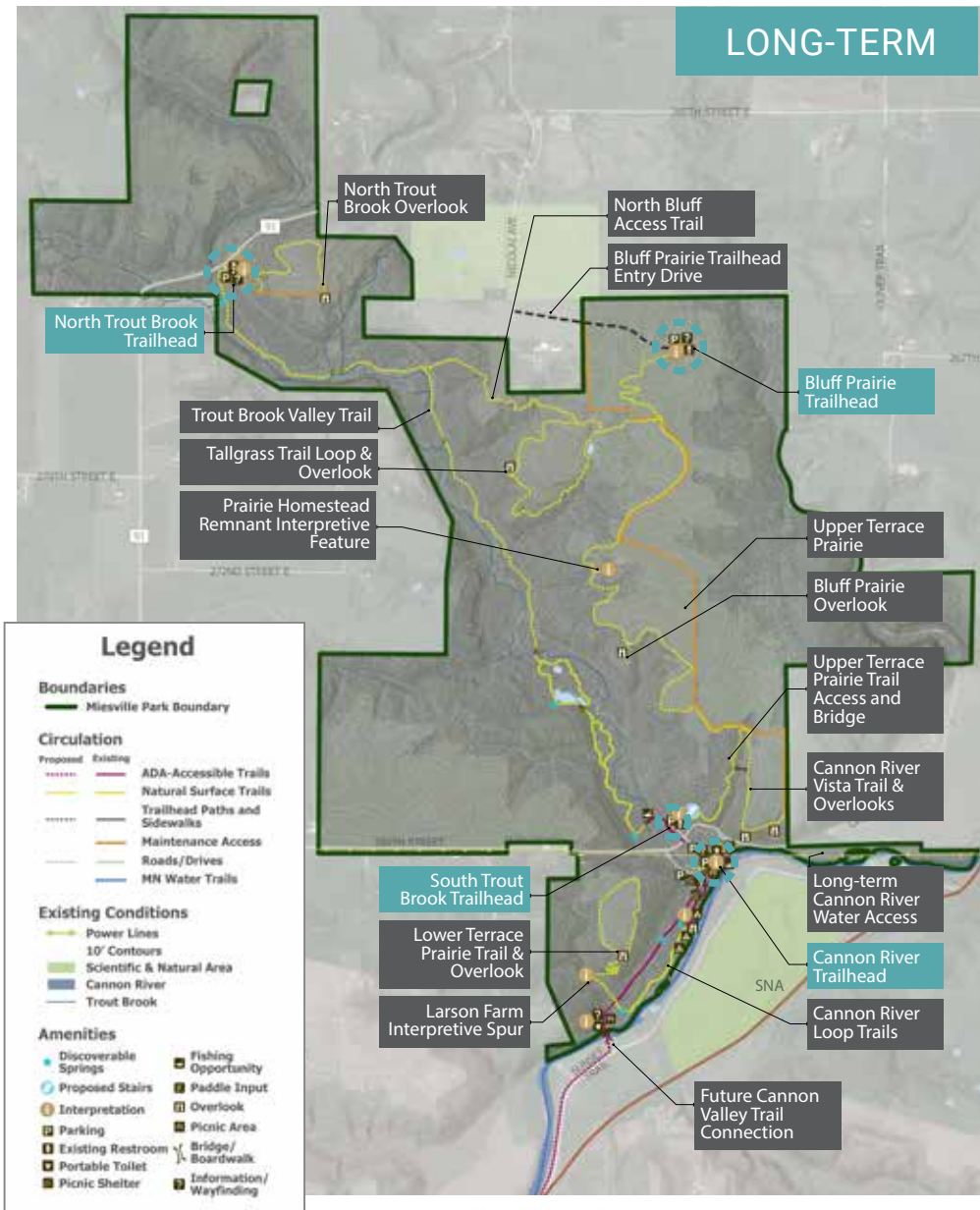


Figure ES3 Miesville Ravine Park Reserve Long-term Concept

IMPROVED OPPORTUNITIES FOR RECREATION

The long-term concept strives to find a balance between preserving the park reserve’s natural features and designating access points for visitors to interact with and enjoy all that Miesville Ravine Park Reserve has to offer with dedicated fishing areas, water touch points, overlooks, picnic areas, rustic campsites, interpretive features, and more.

- **Four trailheads to include:**
 - Wayfinding
 - Gravel parking lots
 - Screened portable restrooms
 - Picnic amenities
 - Drinking water
- **Enhanced Circulation:**
 - 9.5 miles of natural surface trails
 - Wayfinding
 - Boardwalks
 - Overlooks/vistas
 - Future Cannon Valley Trail connection
- **Enhanced ADA accessibility:**
 - ADA-accessible trail along the Cannon River
 - Accessible parking
 - Accessible watercraft launch, footbridges, overlooks, and fishing
- **New recreation opportunities:**
 - Rustic campsites along the Cannon River water trail
 - Picnic area within a restored savanna
 - Fishing platforms
 - Watercraft launch

INTERPRETATION:

- Themed trails
- Trout Brook access
- Overlooks/vistas
- Discoverable springs
- Educational panels
- Integrated interpretive elements

NATURAL RESOURCES:

- Three phases of habitat restoration
- Two phases of Trout Brook restoration

10-YEAR PLAN SUMMARY

- **Expanded natural surface trails**
 - Trout Brook Valley Trail, including boardwalk where necessary, and 2 bridge crossings
- **Cannon River Trailhead Improvements:**
 - New entry drive, turnaround, & parking
 - Picnic area improvements
 - ADA-accessible shore fishing
 - ADA-Accessible watercraft launch
 - Screened portable restrooms
 - Drinking water
 - ADA-accessible trail loop and overlook
- **Larson Farm interpretive Spur**
- **Lower Terrace Prairie Trail Loop and Overlook**
- **North Trout Brook Trailhead & Overlook:**
 - Gravel parking lot
 - Screened portable restrooms
 - Wayfinding
 - Overlook
- **South Trout Brook Trailhead Improvements:**
 - Screened portable restrooms
 - Wayfinding
 - Fishing platform
 - Accessible footbridge replacement
- **Enhanced wayfinding**

INTERPRETATION:

- Themed trails
- North Trout Brook Overlook
- Discoverable springs
- Interactive educational panels
- Integrated interpretive elements
- Trout Brook touch point

NATURAL RESOURCES:

- Phase I and II of habitat restoration
- First phase of Trout Brook restoration

10-YEAR CONCEPT

The 10-Year plan focuses on expanding upon what exists today, improving accessibility, clarifying circulation, adding complimentary amenities, and helping visitors experience more of all the incredible things Miesville Ravine Park Reserve has to offer.

The addition of the North Trout Brook Trailhead establishes access to the northern portion of the park. Enhancements made to the park reserve along the Cannon River will create an inviting and inclusive recreational experience for guests, while an expanded trail network will enable visitors to explore a greater diversity of the park reserve's habitats.

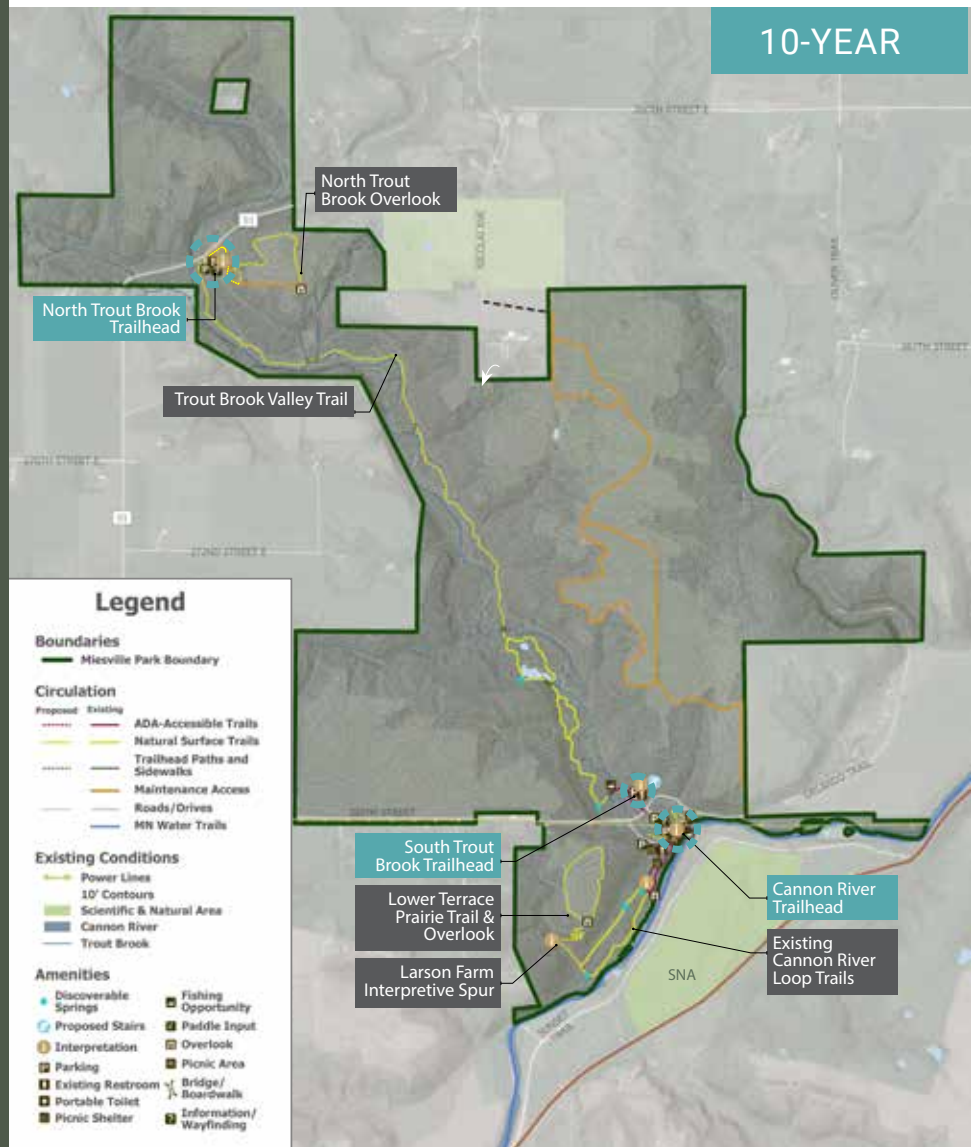


Figure ES4 Miesville Ravine Park Reserve 10-year Concept

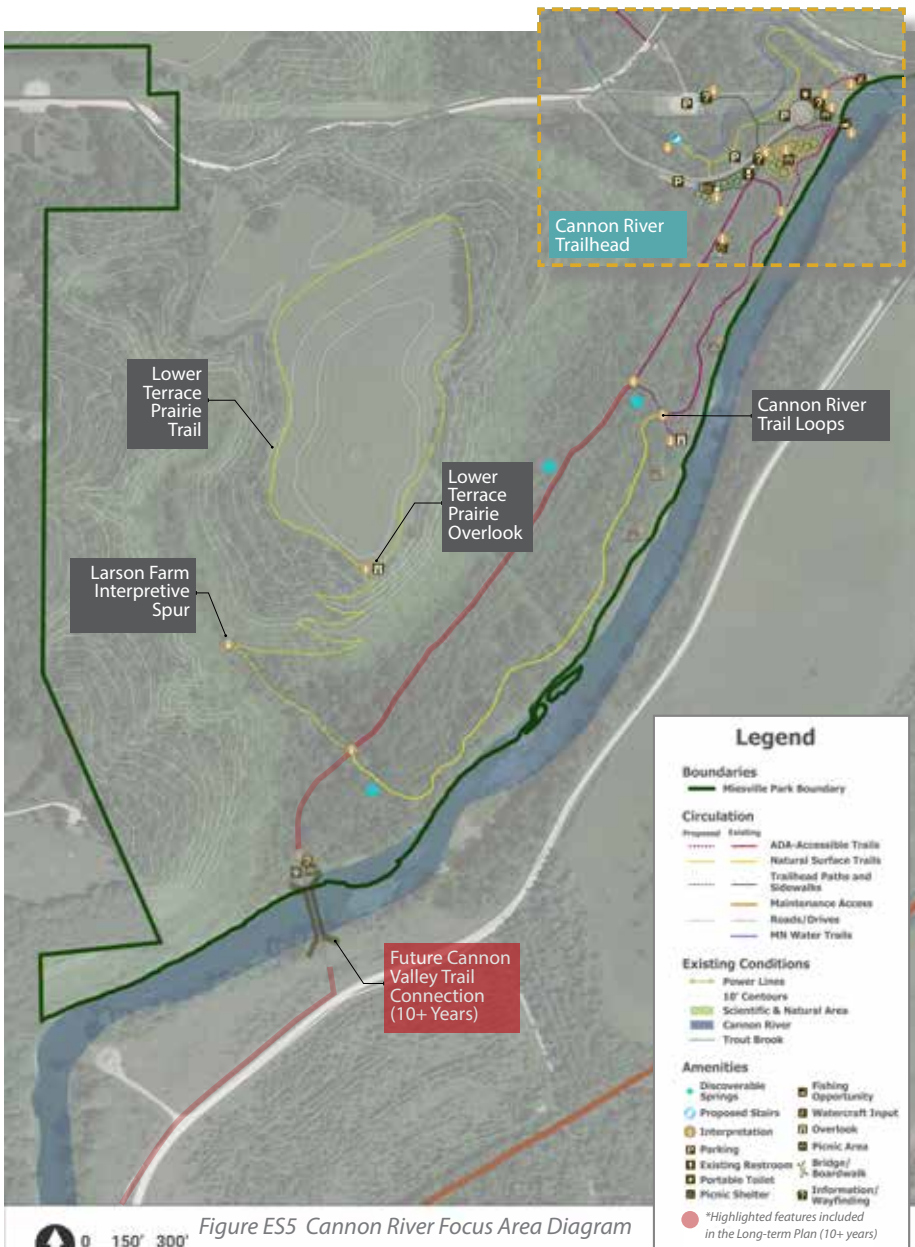


Figure ES5 Cannon River Focus Area Diagram

CANNON RIVER AREA

RECREATION:

- New entry drive with parking
- Screened portable restrooms
- Drinking water
- Restored savanna picnic area with additional charcoal grills
- Group gathering areas/fire pits
- Bus turnaround
- ADA-accessible watercraft launch
- ADA-accessible shore fishing
- Trout Brook water touch point
- Enhanced visitor circulation
- Accessible trail loop and overlook
- Wayfinding
- Larson Farm interpretive spur
- Lower terrace prairie trail loop and overlook

INTERPRETATION:

- Trail Themes
- Overlook
- Trailhead panels about Dakota identity, and “welcome” element at future Cannon Valley Trail connection
- Integrated elements (site furnishings) that speak to differing world views (Dakota/Western)
- Interpretive element related to the site’s railroad history
- Larson Farm interpretive spur

NATURAL RESOURCES:

- Phase I and II of habitat restoration
- Trout Brook restoration Phase 1

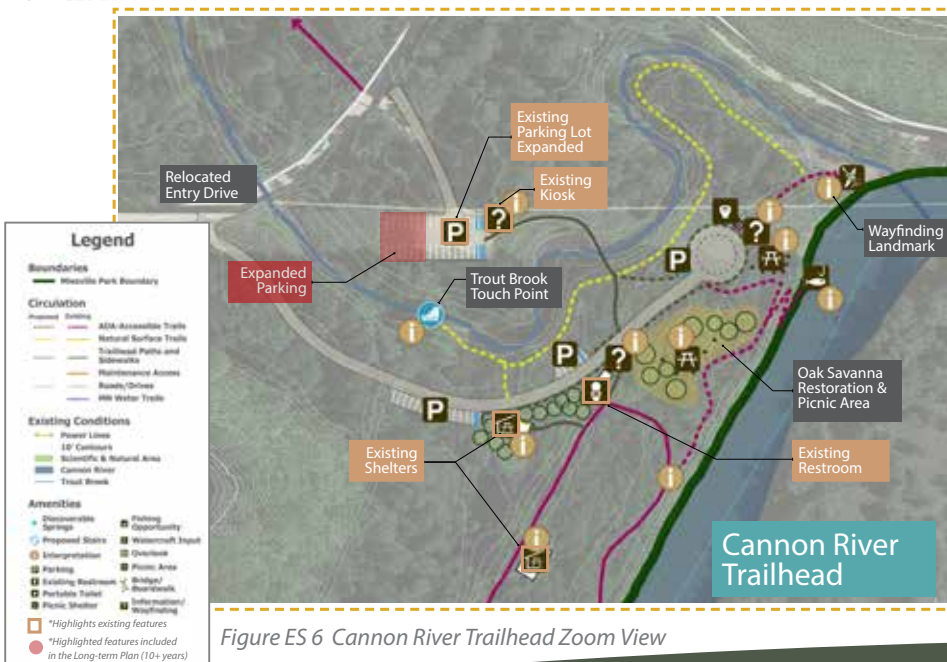


Figure ES6 Cannon River Trailhead Zoom View



Hiking trails

STEWARDSHIP

NATURAL RESOURCES

The long term vision is to restore and Manage Natural Resources in the entire park with restoration of an additional 300 acres over the next 10 years, taking the percentage of the park habitat that is restored from 40 percent today to 60 percent. General natural resource management goals include:

- Restore and manage plant communities at a landscape scale to provide a mosaic of appropriate communities with soft edges/transitions and explore the reintroduction of grazing methods.
- Increase native plant diversity and abundance within communities by restoring ecosystem structure and processes, establishing native groundcover, and diligently revegetating depauperate sites.
- Minimize invasive species presence and abundance through prevention of establishment, by prioritizing sensitive habitats, by identifying populations that are likely to spread (e.g., upstream), and by identifying feasible target areas.
- Provide habitat for rare species and SGCN known or likely to occur in the park reserve by restoring and managing the native plant communities that provide their critical habitat.
- Enhance landscape connectivity through native plant community restoration.
- Restore natural hydrology and habitat to the Trout Brook channel and floodplain and tributaries, via landscape-level management practices and partnerships.
- Restrict recreation to low-impact activities to preserve sensitive natural resources and highlight the natural heritage of the park reserve to the public.
- Nurture collaboration and outreach to address landscape-level issues by working with public and private stakeholders to accomplish shared or overlapping goals.
- Practice adaptive management to learn from and apply lessons of management outcomes while exploring alternative means of meeting objectives based on current state of knowledge.
- Integrate climate change adaptation into management actions by managing for diversity, monitoring site-specific and regional responses to climate change, and practicing adaptive management.

CULTURAL LANDSCAPE STEWARDSHIP

Traditional Cultural Properties and culturally sensitive areas throughout the park reserve necessitate ongoing coordination with Indigenous communities. Stewardship recommendations include managing vegetation based on the park's Natural Resources Management Plan, working with Tribal Historical Preservation Officers (THPOs) to establish consultation protocols, and working with representatives of associated Indigenous tribes and nations, the Minnesota Office of the State Archaeologist (OSA), and the Minnesota Indian Affairs Council (MIAC) to determine additional understanding.



FROM FIELDS TO PRAIRIE

Since 2005, hundreds of acres of former agricultural fields atop the bluff have been restored to prairie.

Before and after landscape images

IMPLEMENTATION

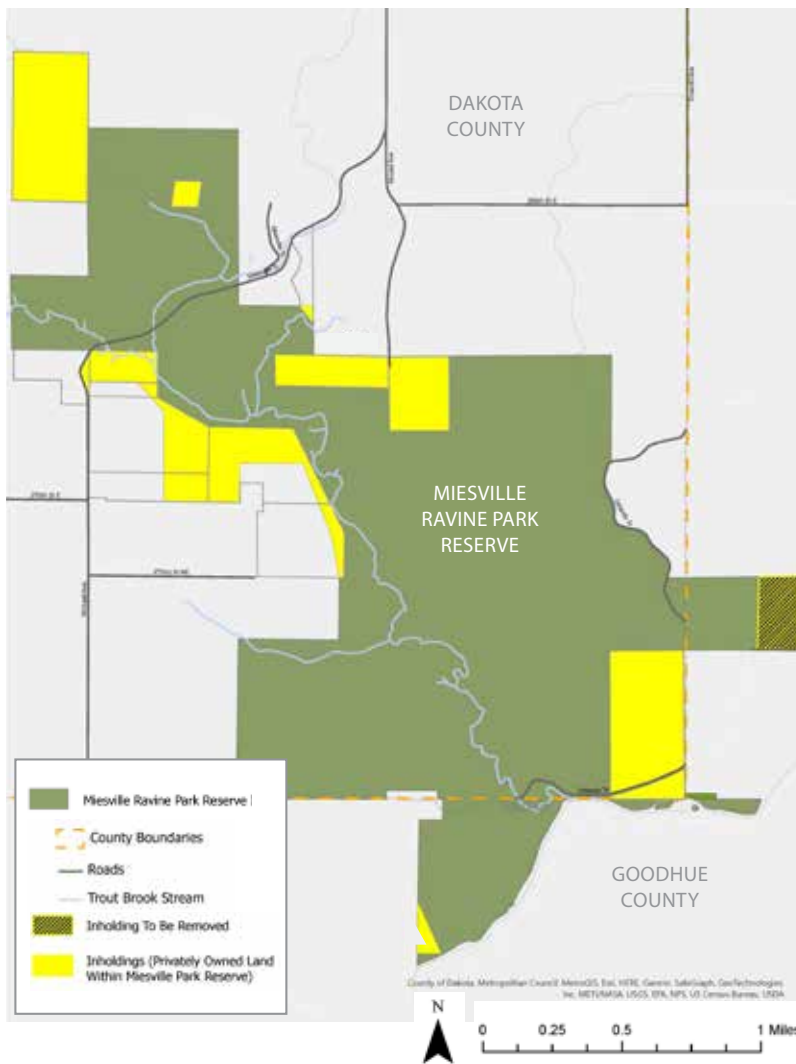
CAPITAL PROJECT COST ESTIMATES

Recreation and natural resource improvements are prioritized into five-year, 10-year, and long-term phases, based on connection to the vision and principles, community support, cost, and estimated operational costs. Estimates are planning level, prepared in 2023 dollars, and will be refined as projects advance to construction.

PHASE	COST
5-year plan	\$1,609,000
10-Year plan	\$2,118,000
Running total of 5 and 10-year plans	\$3,727,000
Long-term plan	\$11,375,000

BOUNDARY

Acquisition of inholding properties and enhanced stewardship of lands outside the park reserve boundary are priorities of this plan. Surrounding lands in agricultural use make acquisition and stewardship much more feasible during the 15-year life of this long-range plan than a time in the future when Miesville Ravine will inevitably be surrounded by much higher value and potentially more environmentally degrading development patterns. There is one existing inholding that is identified for removal from the park reserve boundary because this area is separated from most of the park by Orlando Trail and has minimal recreational value.



SUMMARY OF PARK BOUNDARY CHANGES

Existing inholdings	331 acres
Removals	19 acres
Net	309 acres

Table 3.1 Summary of Park Boundary Changes

Figure ES 7 Miesville Ravine Park Reserve Boundary



Trout Brook



Floodplain



Existing Cannon River tubing drop-off site (informal)

Steward partnership lands are outside the park boundary and within the Trout Brook Watershed and springsheds and have a significant impact on the quality of the natural resources within the park reserve. The plan suggests close coordination with owners of these lands to enhance conservation and stewardship practices to lessen negative environmental and visual impacts on the park reserve.

Stewardship will be accomplished through programs such as the Dakota County Soil and Water Conservation District’s (SWCD) technical assistance and financial incentives, Dakota County Land Conservation program, and the Dakota County Agricultural Chemical Reduction Effort (ACRE). These programs offer a range of voluntary stewardship incentives.

INTERPRETATION IMPLEMENTATION AND CULTURAL LANDSCAPE

The interpretive plan section provides recommendations for enhancing the visitor experience and achieving goals for interpretation at Miesville Ravine Park Reserve. In order to bridge the gap between the interpretive framework presented in this plan and interpretive features informing design, it is recommended that a full interpretive plan be completed for the park reserve prior to implementing improvements. It is envisioned that interpretation of the area and history of the park reserve, natural resources, and cultural context inform the design of all future improvements.

VISITOR SERVICES

Visitor Services manages outdoor education, interpretation, facility and equipment rentals, events and food, customer service and permitting, and volunteerism. The 2017 Dakota County Park Visitor Services Plan guides provision of services throughout the park system. The visitor services vision for Miesville Ravine Park Reserve is minimalist, focused on experiencing nature, with introduction of mobile and self-guided education. This long-range plan includes facility recommendations that support visitor services at Miesville Ravine Park Reserve.

OPERATIONAL ANALYSIS

Following implementation of the five-year plan, operational costs at Miesville Ravine Park Reserve are estimated to increase from a 2022 baseline of \$288,700 to \$374,600. This represents a total estimated increase of \$85,900 (30%). The additional FTE requirements total an estimated 0.96-1.82 FTE. The largest increase is in the functional area of Natural Resources (\$46,600).

Following implementation of the ten-year plan, operational costs are estimated to total \$498,700, and increase \$124,100 (33%) over the five-year plan requirement. The additional FTE requirements total an estimated 1.39-2.36 FTE. The largest increase is in the functional area Natural Resources (\$48,000).