Appendix A-5: Biological Environment Technical Report

Appendix A-5: Biological Environment Technical Report is a companion document to the Supplemental Final Environmental Impact Statement containing Chapter 5 (Physical and Environmental Analysis). Metropolitan Council and the United States Department of Transportation - Federal Transit Administration are committed to ensuring that information is available in appropriate alternative formats to meet the requirements of persons who have a disability. If you require an alternative version of this file, please contact FTAWebAccessibility@dot.gov.

To request special accommodations, contact Kaja Vang, Community Outreach Coordinator, by phone at 612-373-3918 or by email at Kaja.Vang@metrotransit.org.

Biological Environment Technical Report

Prepared by SEH

May 2025

Blue Line Extension Project Technical Report

This page intentionally left blank.

Executive Summary

This technical report summarizes the biological environment in the area surrounding the proposed METRO Blue Line Light Rail Extension Project (Project). The intent of this technical report is to support and augment the Supplemental Final Environmental Impact Statement being prepared for the Project. Federally listed or monitored species potentially within the study area include the Higgins eye/ pearlymussel (*Lampsilis higginsii* – endangered), monarch butterfly (*Danaus plexippus* – proposed threatened), salamander mussel (*Simpsonaias ambigua* – proposed endangered), snuffbox mussel (*Epioblasma triquetra* – endangered), whooping crane (*Grus americana* – experimental population, non-essential), winged mapleleaf (*Quadrula fragosa* – endangered), rusty patched bumble bee (*Bombus affinis* – endangered), northern long-eared bat (*Myotis septentrionalis* – endangered), and tricolored bat (*Perimyotis subflavus* – proposed endangered). Several federally listed species have the potential to be present in or affected by the Project. The northern long-eared bat (NLEB) and tricolored bat may use forested habitats potentially found in the study area and are described further in Section 2.2. The monarch butterfly could be present due to the presence of milkweed, its obligate host plant, and warrants further discussion in Section 2.2. The rusty patched bumble bee (RPBB) has critical habitat intersecting the study area and suitable habitat present, necessitating more detailed discussion in Section 2.2. For these species with potential presence or impact, USFWS coordination is occurring, and onsite habitat assessments for the NLEB and RPBB are underway. The Higgins eye snuffbox mussel, snuffbox mussel, winged mapleleaf mussel, and salamander mussel do not have habitat present in the study area and do not warrant further discussion. Similarly, the whooping crane is unlikely to be present due to the landscape and infrequent sightings and requires no further discussion.

State-listed species potentially within the study area include the water willow (*Decodon verticillatus* – state special concern), the least darter (*Etheostoma microperca* – state special concern), the peregrine falcon (*Falco peregrinus* – state special concern), the black sandshell (*Ligumia recta* – state special concern), the rock pocketbook mussel (*Arcidens confragosus* – endangered), the wartyback mussel (*Quadrula nodulata* – threatened), and the Blanding's turtle (*Emydoidea blandingii* – threatened). Minnesota state-listed species, the water willow, least darter, peregrine falcon, black sandshell, rock pocketbook, and wartyback are all noted as "Not likely present in the study area." Therefore, none of these species warrant additional discussion. However, the Blanding's turtle is "Documented in study area," indicating its known presence. This species warrants additional discussion and is described in greater detail in Section 2.2.

Habitats throughout the study area are generally highly disturbed. As a result of disturbance, a variety of noxious weed species have infested undeveloped habitats throughout the study area.

This page intentionally left blank.

Contents

Tables

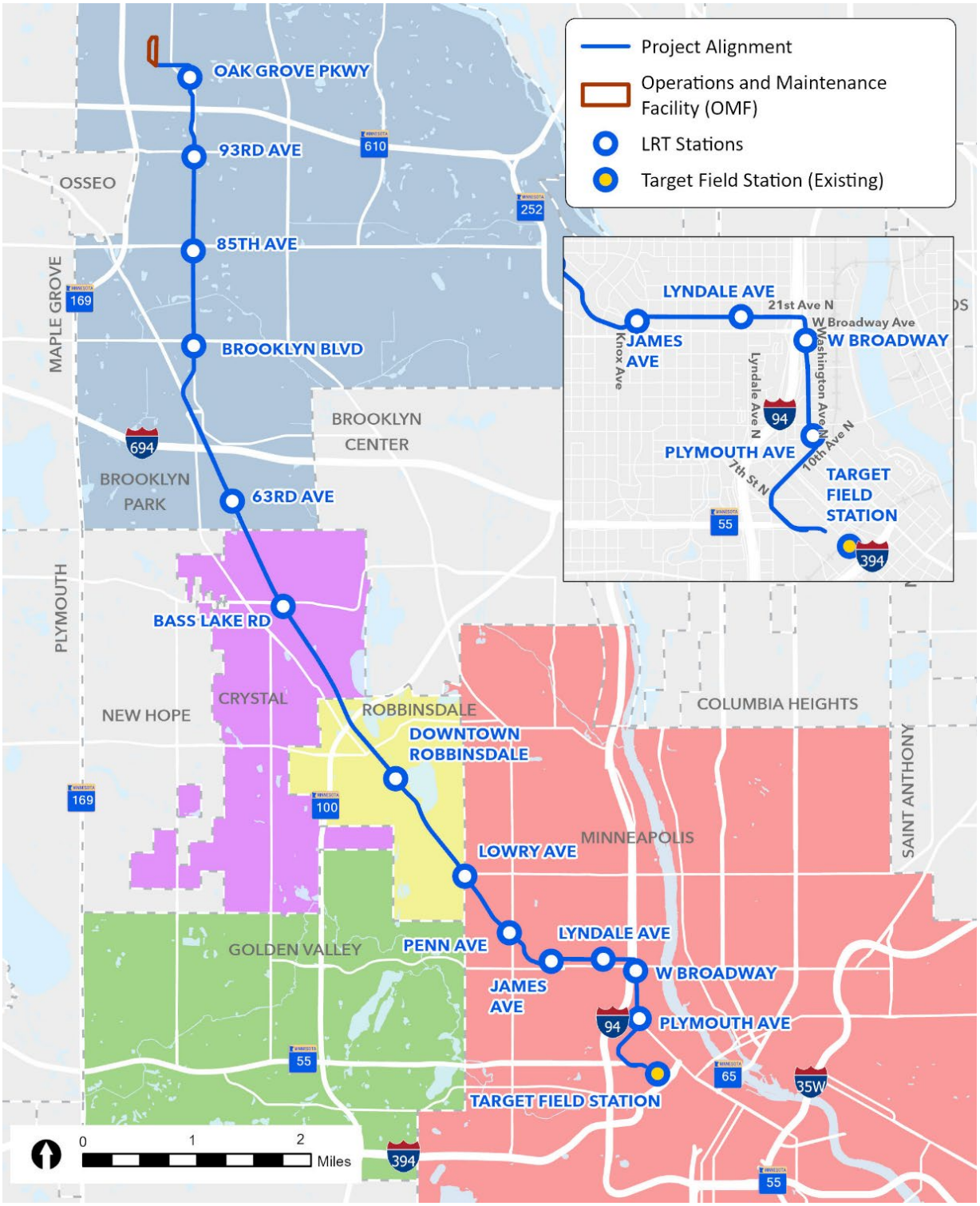
Figures

This page intentionally left blank.

1 Introduction

This technical report supplements the Supplemental Final Environmental Impact Statement associated with the proposed METRO Blue Line Light Rail Extension Project (Project) as shown in Figure 1.

Figure 1 Project Alignment



1.1 Report Purpose

This technical report summarizes the biological environment and associated impacts within the proposed METRO Blue Line Light Rail Extension Project (Project) area. The intent of this technical report is to:

- Summarize biological resources located in the area surrounding the Project Alignment (the study area)
- Discuss the potential for impacts to biological resources because of the Project and the regulatory context associated with them
- Discuss measures to avoid, minimize, and mitigate for potential impacts to biological resources within the study area

This report discusses both aquatic and terrestrial biological resources within the study area. Additional information concerning related aquatic resources in the study area is included in the Wetlands Technical Report and the Floodplains Technical Report.

1.2 Project Limits

The Project is located in Hennepin County, Minnesota, extending from Downtown Minneapolis to the northwest, serving North Minneapolis and the Cities of Robbinsdale, Crystal, and Brooklyn Park.

The approximately 13.4-mile Project Alignment primarily follows W Broadway Ave and County Road 81 to Lyndale Ave N in the City of Minneapolis. Generally, the study area is characterized as highly urbanized from Downtown Minneapolis northwest to Trunk Highway (TH) 610. This portion of the Project is located within the existing road right-of-way, and there is relatively little undisturbed and maintained/mowed or wooded habitat. The portion north of TH 610 includes areas of natural habitat, although it has also been fragmented, disturbed, and is not high quality.

2 Affected Environment and Environmental Consequences

Section 2.1 discusses biological resources that have been documented, historically or recently, within or near the study area. In this section, each notable species or feature is assessed as to whether there is some potential for impact because of the Project. Those species or features that have a negligible potential for impact because of the Project are not analyzed further, while those species or features for which impacts may potentially occur are analyzed further (Section 2.2).

2.1 Affected Environment

The Project is proposed to be constructed mainly in areas that have been previously disturbed or developed with impervious surfaces and buildings. However, the Project and associated facilities would affect aquatic and terrestrial wildlife habitat. The size and quality of these natural areas or open spaces determines the likelihood of their supporting terrestrial and aquatic wildlife.

Generally, the study area is characterized as highly urbanized with no natural habitat types present from Downtown Minneapolis northwest to TH 610. This southern portion of the Project is located within the existing road right-of-way, and there is relatively little undisturbed and maintained, mowed, or wooded habitat.

There is some vegetated open land (forest land, shrubland, and forb and grassland) north of TH 610 on the undeveloped parcels. Songbirds might nest in these disturbed but undeveloped habitats; however, given the fragmented condition of the habitat and the fact that invasive species have a competitive advantage, the population of native bird species present is likely small and unstable.

Disturbed habitats in the study area provide suitable conditions for generalist wildlife species adapted to urban conditions. Generalist mammal species include white-tailed deer, raccoons, opossums, grey squirrels, woodchuck, and chipmunks. Common generalist bird species that are well-adapted to these conditions are robins, cardinals, blue jays, crows, brown-headed cowbirds, grackles, starlings, and English sparrows. Disturbed aquatic habitat in and near the study area supports a variety of common generalist amphibian species, such as frogs and toads, and reptiles, such as turtles and snakes.

The Project is located within the Eastern Broadleaf Forest Province, MN & NE Iowa Morainal Section, and the Big Woods and Anoka Sand Plain Subsection as defined by the Minnesota Department of Natural Resources (DNR) Ecological Classification System *Field Guide to the Native Plant Communities of Minnesota: The Laurentian Mixed Forest Province* (DNR 2003). The land cover classifications are defined according to the DNR Ecological Classification System to the Class level to provide a general characterization of dominant plant community and land in non-urbanized areas.

2.1.1 Federally Listed Species (Endangered Species Act)

2.1.1.1 Regulatory Context

Rare species are regulated at the federal level by the United States Fish and Wildlife Service (USFWS) under the Endangered Species Act and several related laws. The Endangered Species Act classifies species as Endangered, Threatened, or as Watchlist; “Endangered” meaning a species is in danger of extinction throughout all or a significant portion of its range, “Threatened” meaning a species is likely to become endangered within the foreseeable future, and “Watchlist” meaning species that are rigorously monitored prior to listing or after de-listing.

Potential impacts to federally listed species require coordination with USFWS in a process known as Section 7 Endangered Species Act consultation. The result of the Section 7 Endangered Species Act consultation is a determination of:

- ***No Effect.*** No impacts, positive or negative, on the subject species.
- ***May Affect, Not Likely to Adversely Affect.*** Any potential impacts are either beneficial, insignificant, or discountable.
- ***May Affect, Likely to Adversely Affect.*** Any potential impacts would be negative and beyond an insignificant or discountable level.

2.1.1.2 Potential Documented Species

Northern Long-Eared Bat (Myotis septentrionalis – federally endangered). The northern long-eared bat (NLEB) has a biogeographical range that includes all counties in Minnesota. The NLEB was listed as federally endangered in November 2022. The NLEB typically winters in large groups within caves (hibernacula) and migrates to forested areas for the spring, summer, and early fall. Known hibernacula are not present within the study area; however, several are known along the Mississippi River in the vicinity of the Twin Cities (USFWS 2015). Known hibernacula would not be impacted because of the Project. Pregnant female NLEB congregate in maternity colonies, often under the bark or in cavities of maternity roost trees. A review of Natural Heritage Information System data did not identify any element occurrences of NLEB in Hennepin County (DNR February 2024). Typical summer foraging

habitat (non-maternity colonies) for the NLEB consists of larger forested area and forest remnants. Summer habitat may consist of any of approximately 35 tree species of a size 3 inches diameter at breast height or larger.

Summer habitat (forest remnants) for the NLEB is present in the northern most portion of the study area. Some tree clearing and grubbing would be required for the Project; therefore, impacts to this species is analyzed further in Section 2.2.

Tricolored Bat (Perimyotis subflavus – federally proposed endangered). During the winter, tricolored bats are found in caves and mines, although in the southern United States, where caves are sparse, tricolored bats are often found roosting in road-associated culverts. During the spring, summer, and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves. Summer habitat (forest remnants) for the tricolored bat is present in the northernmost portion of the study area and the southern part of the project area, where it is known to inhabit culverts/tunnels in Downtown Minneapolis and surrounding area. Some tree clearing and grubbing would be required for the Project; therefore, impacts to this species is analyzed further in Section 2.2.

Higgins Eye (Lampsilis higginsii – federally endangered). The Higgins eye is a freshwater mussel of larger rivers where it is usually found in areas with deep water and moderate currents. Although rare, the Higgins eye's range includes the upper Mississippi River. No habitat is present in the study area, so the Higgins eye mussel is not likely present in the study area, and therefore the Project would not impact this species. Therefore, this species of freshwater mussel is not analyzed further.

Snuffbox Mussel (Epioblasma triquetra – federally endangered). This species is typically found living in gravel substrates, in shallow (< 1 m), swiftly flowing water. No habitat is present in the study area, so the Snuffbox mussel is not likely present in the study area. Therefore, the Project would not impact this species of freshwater mussel, and the species is not analyzed further.

Winged Mapleleaf (Quadrula fragosa – federally endangered). The Winged Mapleleaf is a native freshwater mussel species of fast-flowing riffles in medium-sized rivers. No habitat is present in the study area, so the winged mapleleaf is not likely present in the study area. Therefore, the Project would not impact this species of freshwater mussel, and the species is not analyzed further.

Salamander mussel (Simpsonaias ambigua – proposed endangered). In Minnesota, the salamander mussel was historically documented in the Mississippi River and is currently limited to the lower St. Croix River, where it remains rare. Because the Project does not intersect or impact either of these rivers, the Project would not impact this species of freshwater mussel, and the species is not analyzed further.

Rusty Patched Bumble Bee (Bombus affinis – federally endangered). This species may be present within the study area. It requires consistent forage throughout the entire growing season, beginning with spring ephemerals in April and continuing through the summer and fall to support brood development and overwintering. Rusty patched bumble bees are generalist foragers, and they utilize a wide range of both native and non-native plant species, including crops. They have been observed in diverse habitats, such as forests, wetlands, grasslands, roadsides, agricultural fields, and residential areas. Given this habitat flexibility and the potential for suitable forage and nesting conditions in the study area, the rusty patched bumble bee is analyzed further in Section 2.2.

Monarch Butterfly (Danaus plexippus – federally candidate species). Open meadow habitat in the study area contains milkweeds where monarchs could lay their eggs. The monarch is a candidate species and not yet listed or proposed for listing. Consultation with USFWS under section 7 of the Endangered Species Act is not required for candidate species, like the monarch butterfly.

Whooping Crane (Grus americana – experimental population, non-essential). This species typically uses large, shallow wetlands and marshes for roosting, as well as open habitats such as prairies or agricultural fields for foraging, particularly during migration. While wetlands and marshes are present within the study area, they are highly disturbed and situated in an urban setting, which significantly reduces their suitability as habitat for this species. In Minnesota, observations of whooping cranes are rare and incidental, with no established breeding population. Given the low likelihood of occurrence and the experimental, non-essential designation of the species, consultation with USFWS under Section 7 of the Endangered Species Act is not required.

Table 1 summarizes federally listed species analyzed in this technical report (Information for Planning and Consultation 2023).

Table 1 Federally Listed Species

Common Name	Scientific Name	Status	Notes
Northern long-eared bat	*Myotis septentrionalis*	Endangered	Forested areas throughout Minnesota could be used for summer roosting habitat.
Tricolored bat	*Perimyotis subflavus*	Proposed Endangered	During the spring, summer, and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves of live or recently dead deciduous hardwood trees.
Higgins eye	*Lampsilis higginsii*	Endangered	Habitat is not present in study area.
Snuffbox mussel	*Epioblasma triquetra*	Endangered	Habitat is not present in study area.
Winged mapleleaf	*Quadrula fragosa*	Endangered	Habitat is not present in study area.
Salamander mussel	*Simpsonaias ambigua*	Proposed Endangered	Habitat is not present in study area.
Monarch butterfly	*Danaus plexippus*	Candidate	During the breeding season, monarchs lay their eggs on their obligate milkweed host plant. Milkweeds are present within the study area.
Rusty patched bumble bee	*Bombus affinis*	Endangered	Critical habitat mapped and identified by the USWFS intersects with the study area. Open meadow and wooded areas are present within the study area, suitable for overwintering habitat.
Whooping crane	*Grus americana*	Experimental Population, Non-Essential	Species unlikely to be present in the study area due to rare and incidental observances and highly urban landscape of study area.

2.1.2 Migratory Bird Treaty Act

2.1.2.1 Regulatory Context

The Migratory Bird Treaty Act (MBTA) was enacted in 1918 as a means of protecting migratory bird populations from over-harvesting. USFWS oversees and enforces the MBTA. The Project would need a depredation permit from the USFWS prior to destruction of active nests of species covered under the MBTA. A depredation permit is not needed for destruction of nests that are not active. The DNR also has permit authority over the destruction of active bird nests.

2.1.2.2 Potential Documented Species

Many migratory bird species are covered under the MBTA. These species may pass through or nest in or near the study area as part of their seasonal migrations.

Table 2 Migratory Birds

Common Name	Scientific Name	Breeding Season
American Golden-plover	*Pluvialis dominica*	Breeds elsewhere
Bald Eagle	*Haliaeetus leucocephalus*	December 1 to August 31
Black Tern	*Chlidonias niger*	May 15 to August 20
Black-billed Cuckoo	*Coccyzus erythropthalmus*	May 15 to October 10
Bobolink	*Dolichonyx oryzivorus*	May 20 to July 31
Canada Warbler	*Cardellina canadensis*	May 20 to August 10
Chimney Swift	*Chaetura pelagica*	March 15 to August 25
Eastern Whip-poor-will	*Antrostomus vociferus*	May 1 to August 20
Golden Eagle	*Aquila chrysaetos*	Breeds elsewhere
Golden-winged Warbler	*Vermivora chrysoptera*	May 1 to July 20
Lesser Yellowlegs	*Tringa flavipes*	Breeds elsewhere
Long-eared Owl	*Asio otus*	March 1 to July 15
Red-headed Woodpecker	*Melanerpes erythrocephalus*	May 10 to September 10
Rusty Blackbird	*Euphagus carolinus*	Breeds elsewhere
Short-billed Dowitcher	*Limnodromus griseus*	Breeds elsewhere
Western Grebe	*Aechmophorus occidentalis*	June 1 to August 31
Wood Thrush	*Hylocichla mustelina*	May 10 to August 31

2.1.3 Bald and Golden Eagle Protection Act

2.1.3.1 Regulatory Context

The Bald and Golden Eagle Protection Act enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald or golden eagles, including their parts (including feathers), nests, or eggs.

Regulations for permitting take of bald eagles or golden eagles provide information about eagle permits for “the taking, possession, and transportation within the United States of bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) and their parts, nests, and eggs for scientific, educational, and depredation control purposes; for the religious purposes of American Indian tribes; and to protect other interests in a particular locality.”

2.1.3.2 Potential Documented Species

Some forested habitats adjacent to aquatic resources could be suitable for bald eagle nesting in and near the Project. During the field investigation in the fall of 2022, no nests were observed within the immediate vicinity of the Project area.

Bald eagle nest locations change over time, and there is the potential for bald eagles to nest in and near the Project area. Bald eagles are particularly vulnerable during the nesting season from late January to late July. The non-nesting season is from August to mid-January.

The Project would monitor nest locations in preparation for Project construction. If new bald eagle nests are observed in close proximity (660 feet) to the construction limits of the Project during the final design and construction phases, USFWS will be consulted to determine appropriate actions or restrictions that may apply.

2.1.4 State-Listed Species and Other Element Occurrences

2.1.4.1 Regulatory Context

Minnesota's Endangered Species Statute (Minnesota Statute [Minn. Stat.] 84.0895) requires the DNR to adopt rules designating species meeting the statutory definitions of endangered, threatened, or species of special concern. The resulting List of Endangered, Threatened, and Special Concern Species is codified as Minnesota Rules ch. 6134. The Endangered Species Statute also authorizes the DNR to adopt rules that regulate treatment of species designated as endangered and threatened. These regulations are codified as Minnesota Rules 6212.1800 to 6212.2300.

Review of State of Minnesota requirements related to threatened and endangered species was completed in accordance with Minnesota's Endangered Species Statute (Minn. Stat. 84.0895) and associated rules (Minnesota Rules 6212.1800 to 6122.2300 and ch. 6134). The Minnesota Natural Heritage Information System database was queried to determine what rare, threatened, or endangered plant or animal species or other significant natural features are known to occur within 1 mile of the Project Alignment.

2.1.4.2 Potential Documented Species

The following species have been historically documented within an approximately 1-mile buffer of the Project.

Water Willow (Decodon verticillatus – state special concern). The water willow, a herbaceous plant, is not likely present in the study area due to lack of habitat; therefore, the Project would not impact this species, and the species is not analyzed further.

Least Darter (Etheostoma microperca – state special concern). The least darter, a small fish, is not likely present in the study area due to lack of habitat; therefore, the Project would not impact this species, and the species is not analyzed further.

Peregrine Falcon (Falco peregrinus – state special concern). The peregrine falcon, a bird, is not likely present in the study area, so it is not analyzed further in this section but impacts to this species are covered in Section 2.2.2 along with other birds in the MBTA.

Black Sandshell (Ligumia recta – state special concern). The black sandshell, a freshwater mussel, is not likely present in the study area due to lack of habitat; therefore, the Project would not impact this species, and the species is not analyzed further.

Rock Pocketbook (Arcidens confragosus – endangered). The rock pocketbook, a freshwater mussel, is not likely present in the study area because the habitat is not present; therefore, the Project would not impact this species, and the species is not analyzed further.

Wartyback (Quadrula nodulata – threatened). The wartyback, a freshwater mussel, is not likely present in the study area because the habitat is not present; therefore, the Project would not impact this species, and the species is not analyzed further.

Blanding's Turtle (Emydoidea blandingii – state threatened). Blanding's turtle could be present in the study area. Therefore, this species is analyzed further in Section 2.2.3.

Table 3 summarizes status and documented observations of species listed as State Endangered, State Threatened, or State Special Concern (DNR 2023).

Table 3 State-Listed Species

Common Name	Scientific Name	Status	Notes
Water Willow	*Decodon verticillatus*	State Special Concern	Not likely present in the study area
Least Darter	*Etheostoma microperca*	State Special Concern	Not likely present in the study area
Peregrine Falcon	*Falco peregrinus*	State Special Concern	Not likely present in the study area
Black Sandshell	*Ligumia recta*	State Special Concern	Not likely present in the study area
Rock Pocketbook	*Arcidens confragosus*	Endangered	Not likely present in the study area
Wartyback	*Quadrula nodulata*	Threatened	Not likely present in the study area
Blanding's Turtle	*Emydoidea blandingii*	Threatened	Documented in study area

2.1.4.3 Documented Other Element Occurrences

No rare features have documented in the study area.

2.1.5 Noxious Weeds

The Minnesota and Federal Noxious and Prohibited Weed List (DNR updated 2020) was reviewed to determine the status of invasive species encountered during field visits in the fall of 2022 within the study area. The urbanized and highly disturbed nature of much of the study area provides abundant suitable habitat for infestations of noxious and invasive plant species. Table 4 summarizes common noxious plant species, their status, and general locations observed during fieldwork.

Table 4 State-Listed Noxious Weed Species Observed Within the Study Area

Plant Species	Noxious Status*	Notes
Garlic mustard (*Alliaria petiolata*)**	Restricted Noxious Weed	Ubiquitous in forested plant communities throughout the study area
Canada thistle (*Cirsium arvense*)	Prohibited-control noxious weed	Common throughout the study area
Wild parsnip (*Pastinaca sativa*) **	Prohibited-control noxious weed	Common on disturbed embankments throughout the study area
Japanese knotweed (*Polygonum cuspidatum*) **	Prohibited-control noxious weed	Observed in highly disturbed forest
European buckthorn (*Rhamnus cathartica*) **	Restricted Noxious Weed	Ubiquitous in the herbaceous, shrub, and tree strata of forested areas throughout the study area
Poison ivy (*Toxicodendron radicans*)	Specially Regulated Plant	Common in vegetated areas throughout the study area

Notes: The "restricted noxious weeds" category includes noxious weeds and their propagating parts that may not be imported, sold, or transported in the state, except as allowed by permit under section 18.82 available online at https://www.revisor.mn.gov/statutes/cite/18.82.

** Denotes invasive species in Minnesota.

The "prohibited-control noxious weeds" category includes noxious weeds that must be controlled on all lands within the state. The "specially regulated plants" category includes noxious weeds that may be native species or nonnative species that have demonstrated economic value but also have the potential to cause harm in noncontrolled environments.

2.1.6 Regionally Significant Ecological Areas Within the Study Area

The Minnesota Land Cover Classification System (MLCCS 2008) was utilized to identify mapped Regionally Significant Ecological Areas and Regional Ecological Corridors. This is an analysis of regionally significant Terrestrial and Wetland Ecological Areas in the seven-county metropolitan area. Individual forest, grassland, and wetland models were integrated to identify and rank the Terrestrial and Wetland Ecological Areas. The scores are determined by examining important ecological attributes of the ecological patches including size, shape, cover type diversity, and adjacent land use.

The MLCSS identified 64.34 acres of regionally significant ecological areas, located at the far northern part (north of TH 610) of the Project Alignment and a single smaller area adjacent to Shingle Creek, south of North Hennepin Community College. The ecological models were run on the most current MLCCS data available (Spring 2008). Data collected during the 2022 field visits was used to verify and update the sites identified by the MLCCS (Table 5). The MLCCS identified 53.43 acres of Regionally Significant Ecological Areas, located north of TH 610 in the City of Brooklyn Park (Figure 2) and a smaller area farther south adjacent to Shingle Creek (Figure 3).

Table 5 Regionally Significant Ecological Areas in the Study Area

Notable Habitat Type	Total Size (acres)	Score
Terrestrial	**64.34**	
	0.39	1 (Low)
	31.97	2 (Medium)
	31.98	3 (High)
Aquatic	**1.42**	
	0.83	1 (Low)
	0.45	2 (Medium)
	0.13	3 (High)

Sources: MLCCS (2008) and field data from Council (2022).

Figure 2 Detail of Regionally Significant Ecological Areas near the Oak Grove Pkwy Station Area

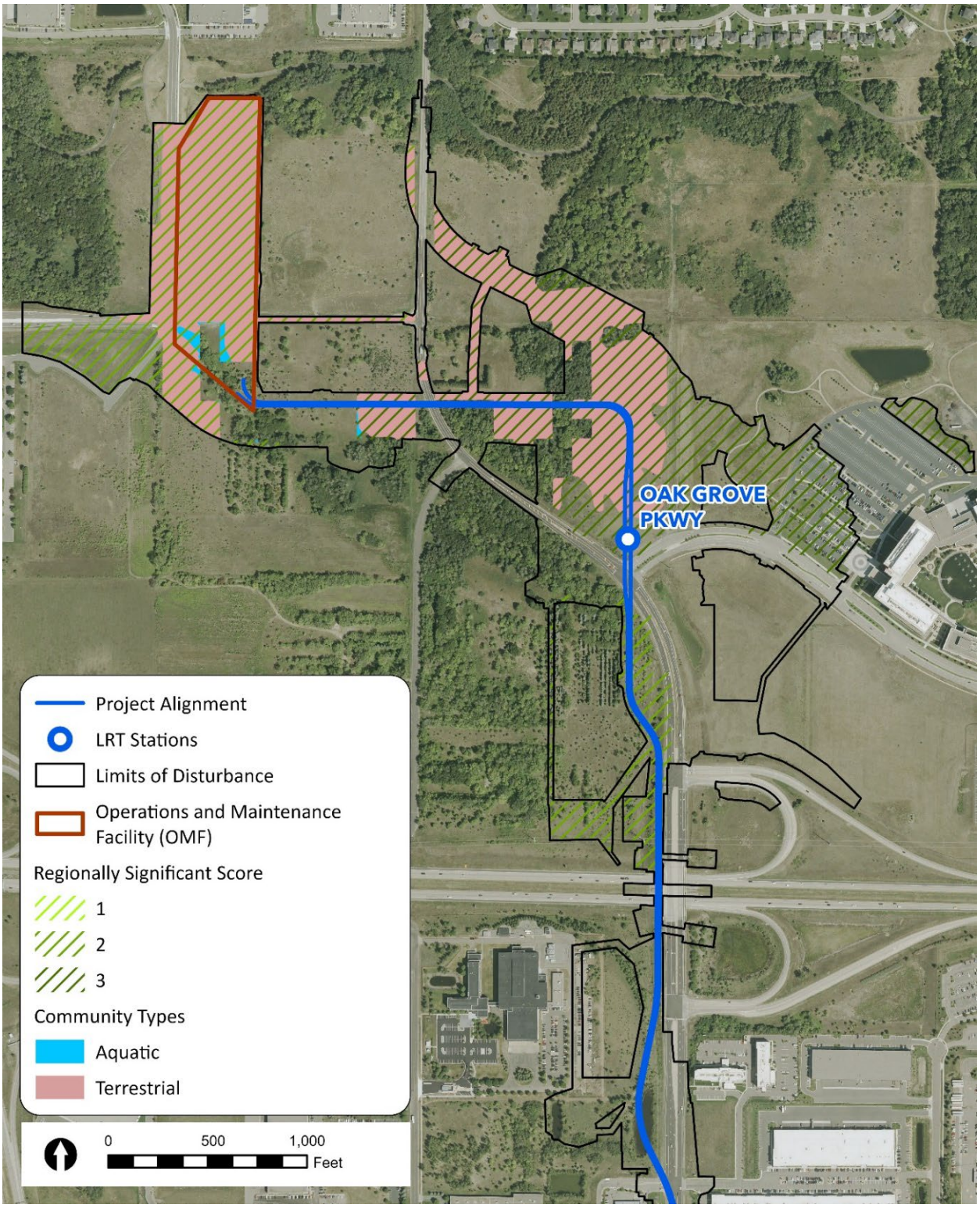


Figure 3 Detail of Regionally Significant Ecological Areas near the Brooklyn Blvd Station Area

2.2 Environmental Consequences

2.2.1 Federally Listed Species

Species that are federally listed or on the federal "Watchlist" that could potentially be affected by the Project include the NLEB (federally threatened), tricolored bat (proposed endangered), and monarch butterfly (candidate species).

2.2.1.1 Measures to Avoid and Minimize Impacts

Northern Long-Eared Bat (Myotis septentrionalis). Potential impacts to the NLEB can be minimized by avoiding tree clearing and grubbing. For forested areas that cannot be avoided, tree clearing would be restricted between April 15 and October 15 as prescribed in the Range-wide Northern Long-eared Bat determination key. The Project team is working closely with USFWS to assure that potential impacts to the NLEB are minimized to the extent practicable.

2.2.1.2 Unavoidable Impacts

Northern Long-Eared Bat. Based on its analysis of proposed tree clearing in the study area and the Range-wide Northern Long-eared Bat determination key, USFWS has concurred with the Federal Transit Administration's determination that the Project merits a determination of "May Affect" with respect to the NLEB. The USFWS has commented on the Project and requested a habitat assessment be completed to finalize the determination.

Rusty Patched Bumble Bee. Based on its analysis of proposed tree clearing in the study area and the rusty patched bumble bee determination key, USFWS has concurred with the Federal Transit Administration's determination that the Project merits a determination of "May Affect" with respect to the rusty patched bumble bee. The USFWS has commented on the Project and requested a habitat assessment be completed to finalize the determination.

Bald Eagle. With ongoing nest reconnaissance and adherence to acceptable permit provisions and seasonal work windows (outside the nesting season from mid to late May through early to late September), the proposed action is not likely to negatively impact the bald eagle.

2.2.2 Migratory Bird Treaty Act

2.2.2.1 Measures to Avoid and Minimize Impacts

Generally, USFWS and the DNR require seasonal work windows to comply with the MBTA and the DNR General Permit 2004 – 0001 provisions. The following measures are acceptable to USFWS and the DNR:

- Bridge work may be performed (started and finished) outside the nesting season (i.e., before May 15 or after September 1). No permit would be required for this activity.
- Bridge work may begin after May 15, and nest completion can be prevented by removing the nests (at least three times per week) as they are being built or using barriers to prevent nest establishment from occurring. The success of this measure depends on the number of nests on a bridge and the ability to restrict access. If the bridge contains only a few nests, the birds should be easily deterred from nesting. Removal of unfinished nests is acceptable to USFWS, which considers this to be non-lethal harassment. No permits would be required for this activity.

Bridges and structures were examined during the summer of 2024 for the presence of barn and cliff swallows and nests. One empty nest was observed on the West Broadway Bridge over Hwy 100. No swallows were present. The Project plans to conduct removal of existing nests or exclude new nest

establishment during a seasonal period when they are inactive. During construction of the Project, nest building would be prevented on the underside of bridge structures by removing nests as they are built, if needed. If a nest is destroyed during the active season, a depredation permit from the USFWS will be required.

2.2.2.2 Unavoidable Impacts

With the implementation of acceptable measures to minimize (Section 2.2.2.1), there would be no impacts resulting from the Project to species covered under the MBTA.

2.2.3 Bald and Golden Eagle Protection Act

2.2.3.1 Measures to Avoid and Minimize Impacts

With ongoing nest reconnaissance and adherence to acceptable permit provisions and seasonal work windows, the proposed action is not likely to negatively impact the bald eagle.

The Project will comply with the Bald and Golden Eagle Protection Act (16 United States Code § 668-668d, 54 Stat. 250), which prohibits taking, possession, or commerce of these species. Specifications within the construction contracts will state that if an eagle nest is observed during construction, contractors will follow the standards included in the National Bald Eagle Management Guidelines (USFWS 2007).

2.2.3.2 Unavoidable Impacts

While unlikely, if unavoidable impacts to eagles occur during construction, the USFWS may authorize the "take" of eagles where the take is compatible with the preservation of bald and golden eagles, and the take is associated with, but not the purpose, of an activity and cannot be practicably avoided. This type of take is considered "incidental take." The regulation authorizing incidental eagle take permits for bald and golden eagles can be found in 50 Code of Federal Regulations § 22.80.

Compensatory mitigation may be required to offset eagle take authorized under an incidental eagle take permit. If mitigation is needed to offset bald eagle take, the standard ratio for mitigation is 1:1.

2.2.4 State-Listed Species and Other Element Occurrences

2.2.4.1 Measures to Avoid and Minimize Impacts

Blanding's Turtle (Emydoidea blandingii). The DNR has issued guidelines on measures to minimize potential impacts to Blanding's turtle. These measures include provisions such as installation and removal of silt fences and educational materials to use at the construction site to inform the contractor and workers what to look for and how to handle occurrences.

This Project has the potential to impact this rare turtle through direct fatalities and habitat disturbance/destruction due to excavation, fill, and other construction activities associated with the Project unless recommended avoidance measures are implemented. Minnesota's Endangered Species Statute (Minn. Stat. 84.0895) and associated rules (Minnesota Rules 6212.1800 to 6212.2300 and ch. 6134) prohibit the take of threatened or endangered species without a permit. As such, the following avoidance measures are required:

- Whenever practicable, new culverts will be 36 inches or greater in diameter, at least twice as wide as the normal width of open water and have an elliptical or flat bottom.

- Aquatic impacts should be avoided during hibernation season, between October 15 and April 15, if the area is suitable for hibernation. This includes dredging, filling, deepening or conversion of wetlands to stormwater retention basins.
- The use of erosion control blankets shall be limited to “bio-netting” or “natural-netting” types, and specifically not products containing plastic mesh netting or other plastic components.
- The use of hydro-mulch products that may contain small synthetic (plastic) fibers to aid in their matrix strength should be limited or avoided.
- Undeveloped areas where there would be construction, especially aquatic areas, should be thoroughly checked for turtles before the use of heavy equipment or any ground disturbance.
    - The Blanding's turtle flyer must be given to all contractors working in the area.
    - Contractors should monitor for turtles during construction and report any sightings to the DNR Nongame Specialist.
    - If turtles are in imminent danger, they must be moved by hand out of harm's way; otherwise, they are to be left undisturbed.

Rattlebox (Crotolario sagittalis). This state-listed plant, listed as a species of special concern, has been documented near the northern end of the proposed Project. Recommended actions to minimize disturbance include, but are not limited to, the following:

- If possible, conduct the work (any ground disturbance in or near a wetland) under frozen ground conditions.
- Use effective erosion prevention and sediment control measures.
- Inspect and clean all equipment prior to bringing it to the site to prevent the introduction and spread of invasive species.
- Revegetate disturbed soil with native species suitable to the local habitat as soon after construction as possible.
- Use only weed-free mulches, topsoil, and seed mixes. Of particular concern are birdsfoot trefoil (*Lotus corniculatus*) and crown vetch (*Coronilla varia*), two invasive species that are sold commercially and are problematic in prairies and disturbed open areas.

Lark Sparrow (Chondestes grammacus). This state-listed bird species of special concern has been documented in the vicinity of the northern terminus of the Project. They build their nests on the ground, in a shrub, or in a small tree. Recommended actions to minimize disturbance include, but are not limited to, the following:

- If feasible, avoid initial disturbance (i.e., the initiation of any construction activities impacting these areas) to grassland areas and tree/shrub removal in Township 119 North, Range 21 West, Sections 7 and 8 from May 15 through August 15 to avoid disturbance of nesting birds.

***Pugnose Shiners (Notropis anogenus)* and Least Darters (*Etheostoma microperca*).** Both are state-listed fish species that have been documented in Eagle Lake and may occur in Shingle Creek. Both species are intolerant of environmental degradation, especially turbidity and siltation. Recommended actions to minimize disturbance include, but are not limited to, the following:

- Effective erosion and sediment control practices should be implemented and maintained during construction and should be incorporated into any stormwater management plan.

2.2.4.2 Unavoidable Impacts

Blanding's Turtle. The Blanding's turtle may be present within the study area. With adherence to the DNR guidelines concerning minimization of impacts to Blanding's turtle, we conclude that potential impacts to this species would likely be negligible. If avoidance isn't possible, a permit for the incidental take of endangered species may be required.

Other Element Occurrences. The proposed Project would not impact any rare plant communities or animal aggregation areas (i.e., colonial waterbird nesting areas) that have been inventoried by the DNR.

2.2.5 Noxious Weeds

Given the urban and highly disturbed nature of the study area, noxious weeds are ubiquitous. Some measures, such as spot spraying with appropriate herbicides, can be taken to control invasive species within construction areas and staging areas. A vegetation management plan will be developed to include measures like these to control noxious weeds along the Project. However, permanent eradication of invasive or noxious weeds within the study area will not be feasible.

2.2.6 Regionally Significant Ecological Areas Within the Study Area

2.2.6.1 Measures to Avoid and Minimize Impacts

Complete avoidance of impacts to Regionally Significant Ecological Areas within the study area is not feasible due to the proximity to the rail line and the stations. Potential measures to reduce these impacts could include:

- Replacement and preservation of tree habitat
- Restoration of prairie habitats
- Implementation of stormwater best management practices such as infiltration, retention, and detention facilities

2.2.6.2 Unavoidable Impacts

Unavoidable impacts to aquatic habitat could be mitigated by purchasing suitable wetland credits from an established wetland mitigation bank. Unavoidable impacts to notable terrestrial habitat could be mitigated by restoring vegetation around the Project and other notable habitats to be determined during design efforts. Where effective and feasible, suitable wildlife crossings would be accommodated within proposed culverts to allow wildlife species to cross underneath tracks.

2.2.6.3 Mitigation for Unavoidable Impacts

Mitigation for unavoidable impacts to aquatic habitat will be accomplished through a combination of on-site wetland mitigation and/or the purchase of suitable wetland credits from an established wetland mitigation bank.

Mitigation for unavoidable impacts to notable terrestrial habitat will be accomplished through some tree plantings in and around the Target North Campus and a few selected areas throughout the study area.

Where effective and feasible, suitable wildlife crossings will be accommodated within proposed culverts to allow some wildlife species to cross from one side of the Project.

3 References

DNR. 2014. The Minnesota and Federal Noxious and Prohibited Weed List (May 15, 2014).

DNR. 2015. http://files.dnr.state.mn.us/natural_resources/animals/reptiles_amphibians/turtles/blandings_turtle/factsheet.pdf.

DNR. 2023. Natural Heritage Information System.

DNR. 2024. Natural Heritage Information System. (February 2024).

USFWS. 2015a. See http://www.fws.gov/midwest/endangered/mammals/nleb/.

USFWS. 2015b. See http://www.fws.gov/midwest/eagle/conservation/recreation.html.

USFWS. 2015c. Interim Section 4(d) Guidelines; Northern Long-Eared Bat.