

Environmental Assessment Worksheet

Sofidel America – Duluth Facility Expansion
Duluth, Minnesota

Prepared For

Sofidel America Corporation

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Environmental Assessment Worksheet

The most recent Environmental Assessment Worksheet (EAW) form (December 2022) and guidance documents are available at the Environmental Quality Board’s website at: <https://www.eqb.state.mn.us/> The EAW form provides information about a project that may have the potential for significant environmental effects. Guidance documents provide additional detail and links to resources for completing the EAW form.

Cumulative potential effects can either be addressed under each applicable EAW Item or can be addressed collectively under EAW Item 21.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the EQB Monitor. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. Project Title: Sofidel America – Duluth Facility Expansion

2. Proposer: Sofidel America Corporation

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3. Responsible Governmental Unit (RGU): City of Duluth

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4. Reason for EAW Preparation (check one):

Required:	Discretionary:
<input checked="" type="checkbox"/> Mandatory EAW	<input type="checkbox"/> Citizens’ Petition
<input type="checkbox"/> Proposer Initiated	<input type="checkbox"/> RGU Discretion

If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):

Industrial, Commercial and Institutional Facilities (Minn. R. 4410.4300, subpart 14.B) in a first-class city, as the proposed project will exceed 400,000 square feet of new or expansion of an existing industrial facility.

5. Project Location:

County: St. Louis
City/Township: Duluth
PLS Location (1/4, 1/4, Section, Township, Range): SE ¼ Sect 07 & NE ¼ Sect 18, T49N, R14W
Watershed (81 major watershed scale): HUC 12-040102011604
GPS Coordinates: 46.734294, -92.161819
Tax Parcel Numbers: 010-2806-00030, 010-2806-00010, 010-2806-00020, 010-2806-00040

At a minimum attach each of the following to the EAW:

- a. *County map showing the general location of the project;*
- b. *U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable); and*
- c. *Site plans showing all significant project and natural features. Pre-construction Site plan and post-construction Site plan.*
- d. *List of data sources, models, and other resources (from the Item-by-Item Guidance: Climate Adaptation and Resilience or other) used for information about current Minnesota climate trends and how climate change is anticipated to affect the general location of the project during the life of the project (as detailed below in item 7. Climate Adaptation and Resilience).*

6. Project Description:

- a. *Provide the brief project summary to be published in the EQB Monitor, (approximately 50 words).*

Sofidel America Corporation's Duluth facility (Site) is intending to expand their existing facility operations to include a new process for conversion of parent tissue rolls and materials into various commercial products. Four building additions are proposed to support expanded manufacturing, packaging, warehousing, and shipping capabilities. This redevelopment project will result in approximately 588,759 square feet.

- b. *Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal, or remodeling of existing structures, and 4) timing and duration of construction activities*

The Sofidel America - Duluth facility is an existing industrial site. Currently, the Site manufactures parent rolls of tissue paper from recycled and virgin pulp materials, which is trucked to the Site. Minor Site improvements occurred during the 1980's, and currently the Site includes a 363,144-square-foot tissue mill building, a 26,320-square-foot debarking building, a 1,715-square-foot bark bin, a 600-square-foot scale building, a sub-grade hazardous waste containment facility/vault, a stormwater pond, a former log yard, rail lines, and paved and gravel-covered parking and driving areas. Landscaping and greenspace areas are located at the Site to the west and around some buildings. Keene Creek, flowing northwest to

southeast, with wooded vegetation bordering the Site along the southwestern boundary. Existing site conditions for Sofidel America – Duluth are shown on Figure 4 in Appendix B.

Construction and expansion of the Site would include a total of 588,759 square feet of addition, net 517,978 square feet of new light industrial, warehousing, and manufacturing buildings on existing industrial, and lawn and landscaping areas (Appendix B, Figures 5 and 6). The new construction includes a 297,778.6 square foot conversion building with 42,422.4 square feet of adjoining annex, lockers, and offices and one 17,743.2 square foot corridor, 76,775.1 square feet of auxiliary material storage, 5,104.8 square feet of waste disposal, 108,038.6 square feet of warehousing, 29,932.0 square feet of shipping area with one 4,839.4 square foot office space, a new 3,613.3 square foot gatehouse and new relocated truck scale, a relocated 8,003.1 square foot oil storage area, and one 1,388.6 square foot conveyor bridge linking the conversion space to the shipping and warehouse area. Other features include several stormwater filtration basins, modification to railroad crossings, installation of new gas and electrical service lines, employee and truck parking, exterior lighting, and pavement.

Infrastructure needs to accommodate the proposed Site operations include a new tie into the natural gas line with subsequent new natural gas station within the boundaries of the Site. This new 575-foot natural gas line and station would replace the existing line and station for distribution to the Site. Access to the Site would remain the same after the expansion is completed; the western main entrance would be off Central Avenue and the southern entrance off Waseca Industrial Road for truck access.

1) Construction, operation methods and features that would cause physical manipulation of the environment or would produce wastes.

Current Site conditions are impervious surface with greenspace and landscaped areas. Physical manipulation would be required for Sofidel America – Duluth Facility Expansion including removal of old, unused equipment, impervious surface removal, impervious surface installation including paving and gravel laying, site grading, and installation of footings for structures. The preliminary earthwork for the Site includes removal of 256,012 cubic yards of subgrade and topsoil and fill of 72,061 cubic yards, resulting in a net loss of material of 183,951 cubic yards. Equipment used at the Site for construction would include bulldozers, scrapers, power haulage equipment, drillers, and excavators. From the construction activity, typical wastes would include construction debris and concrete waste.

2) Modifications to existing equipment or industrial processes

As described previously, Sofidel America – Duluth Facility Expansion project's purpose is to expand the current industrial process capabilities to include parent tissue converting to final products. Currently, the Site manufactures parent rolls of tissue paper from recycled and virgin pulp materials, which is trucked to the Site. Post-construction operations on the Site include the capability to produce finished product from bulk parent materials, including utilizing rolls of parent tissue to convert into commercial products for everyday consumers, shipping of final product, and warehouse storage of materials, by-product, and waste product.

3) Significant demolition, removal, or remodeling of existing structures

Demolition of unused existing equipment, private rail, wood room and sludge filter building, bark bin

building, overhead conveyor, trucking gate house, and associated foundations for buildings and concrete pavement and curb would occur in Summer 2024. These activities are exempt from environmental review (per Minnesota Rules 4410.4600 Subpart 21) and are not a connected action as the demolition activity can be justified independently of the proposed project.

4) *Timing and duration of construction activities*

The proposed project would include the following construction activities on portions of the Site from 2024 through 2026:

- Equipment removal – July to August 2024
- Conditional Use Approvals and Permits – Late Summer/Fall 2024
- Below Grade excavation – Fall 2024
- Start Earthwork, Utility rerouting – Fall 2024
- Earthwork, Construction of Buildings – 2025 to 2026

c. *Project magnitude:*

Table 6-1: Project Magnitude

Description	Number
Total Project Acreage	76.8
Linear project length	N/A
Number and type of residential units	N/A
Residential building area (in square feet)	N/A
Commercial building area (in square feet)	N/A
Industrial building area (in square feet)	Refer to Table 6-2
Institutional building area (in square feet)	N/A
Other uses – specify (in square feet)	
Structure height(s)	Refer to Table 6-3

Table 6-2: New Buildings Square Footage

Description	Area (Square Feet)
Converting	297,778.6
Technical Annex / Lockers / Office Space	42,422.7
Auxiliary Material Storage	76,775.1
Waste Storage	5,104.8
Warehouse	108,243.2
Shipping Area	29,886.4
Shipping Office	4,884.8
Gate House	3,613.3
Guard Check to Powerplant	126.0
Oil Storage (relocated, same tank size)	803.1
Conveyor Bridge	1,388.6
Corridor	17,743.2
TOTAL	588,769.8
Light industrial/Warehousing	224,894

Description	Area (Square Feet)
Manufacturing	340,202
Not light industrial/warehousing	23,674
New light industrial / warehousing / manufacturing	565,096

Table 6-3: New Building Heights

Description	Approximate Height (Feet)
Converting	47
Technical Annex / Lockers / Office Space	40
Auxiliary Material Storage	38
Waste Storage	24
Warehouse	152
Shipping Area	51
Shipping Office	17
Gate House	14
Guard Check to Powerplant	12
Oil Storage (relocated)	14
Conveyor Bridge	14
Corridor	47

- d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The proposed project would expand the facilities and renovate the existing facilities to include a conversion of parent tissue rolls into various commercial products as well as adding packaging, warehousing, shipping capabilities, and overall site improvements. The proposed project is not being carried out by a government unit.

- e. Are future stages of this development including development on any other property planned or likely to happen? Yes No
If yes, briefly describe future stages, relationship to present project, timeline, and plans forenvironmental review.

Future building expansion or redevelopment of existing buildings may occur along the eastern side of the facility in the future. There is no proposed timeline for this expansion, however the expansion would be driven by manufacturing growth and market demands. These expansions would not likely occur within the next 10 years.

- f. Is this project a subsequent stage of an earlier project? Yes No
If yes, briefly describe the past development, timeline, and any past environmental review.

Prior to Sofidel taking ownership in 2023, the facility served as a paper mill. The paper mill utilized a different industrial process (raw wood) for manufacturing of other paper based final products in the 1980s. The proposed facility expansion is not a part of a subsequent stage of an earlier project within the past three years.

7. Climate Adaptation and Resilience:

- a. *Describe the climate trends in the general location of the project (see guidance: Climate Adaptation and Resilience) and how climate change is anticipated to affect that location during the life of the project.*

The climatic conditions of the Site were evaluated using several online Minnesota climate resources such as the Minnesota Climate Explorer, U.S. Climate Resilience Toolkit, and CREAT Climate Scenario Projection Map. All these resources were queried using the smallest area possible for the Site including watershed, city limits, or county.

Current Climate Trends

Over the time period of 1895 to 2021, the daily minimum temperature raised an average of 0.36°F per decade with the daily maximum temperature increasing 0.21°F per decade (refer to Figures 20 and 21, Appendix F). On average, the daily temperature for the time period was 37.11°F, increasing 0.29°F per decade (refer to Figure 16, Appendix F). (MN Department of Natural Resources, n.d.).

In studying the temperature for the time period, a focus on precipitation is also included. Over the referenced time period, Minnesota averages 26.62 inches of precipitation per year with an increase of 0.23 inches per decade (refer to Figure 15, Appendix F) (MN Department of Natural Resources, n.d.).

Although precipitation has increased since 1895, the risk of flooding has not increased. Annual days that exceed the 99 percentile of precipitation is between 4-6 days (U.S. Global Change Research Program, n.d.).

Graphs showing these trends and increases through the decades are included in Appendix F.

Future Climate Trends

The projected climate profile provided by the Minnesota Climate Explorer (MN Department of Natural Resources, n.d.) shows a wide variability of different climate models for temperature and precipitation from different time frames until 2099. The model mean was used to evaluate the Site to get the best overall prediction.

According to the Minnesota Climate explorer the daily average temperature is predicted to continue to increase to an average of 42.28°F by 2059 and to between 44.31°F and 48.18°F by 2099, depending on the emissions scenario adopted in the current to 2059 timeframe (refer to Figure 17, Appendix F). (MN Department of Natural Resources, n.d.)

Annual precipitation is projected to increase with mean precipitation rising to 29.09 inches by 2059 and to between 32.18 inches to 33.80 inches by 2099, depending on the emissions scenario adopted in the current to 2059 timeframe (refer to Figure 18, Appendix F) (MN Department of Natural Resources, n.d.).

Storm intensity, drought, and flood risk are additional factors that are predicted to increase during the life of the project. The 100-year storm intensity will increase by 1.7% - 11.2% by 2035 and by 3.4% - 21.8% by 2060 according to the Environmental Protection Agency's (EPA) CREAT Climate Change Scenarios Projection Map (U.S. Environmental Protection Agency, 2016). Annual days that exceed 99th

percentile of precipitation will slightly increase to 4-7 days by 2064 and from 5-8 days by 2099 according to the U.S. Climate Resilience Toolkit (U.S. Global Change Research Program, n.d.). Although storm intensity and precipitation are predicted to increase, the precipitation is expected to come in less days with days per year with precipitation decreasing from the current days of 182 (modeled history 1976-2005) to 181 days by 2064 and 179 days by 2099 (U.S. Global Change Research Program, n.d.).

Overall, according to the Minnesota Climate Vulnerability Assessment, by 2099, it is projected with high confidence that winters temperatures will increase along with rainfall and heat waves (Minnesota Department of Health, 2014).

Graphs showing these trends are included in Appendix F.

- b. *For each Resource Category in the table below: Describe how the project’s proposed activities and how the project’s design will interact with those climate trends. Describe proposed adaptations to address the project effects identified.*

Table 7-1: Climate Trends

Resource Category	Climate Considerations	Project Information	Adaptations
Project Design	<p>Project design including architecture and material choices that may impact the effects of increase precipitation.</p> <p>Undeveloped land conversion to impervious surface is expected, however land use change is minimal and therefore greenhouse gas emissions are not quantified.</p>	<p>Climate change risks and vulnerabilities identified include:</p> <ul style="list-style-type: none"> - Increased greenhouse gas emissions. - Increase of temperature. - Increased stormwater runoff volume and intensity from increased precipitation events. 	<p>Minnesota state building code will define future materials used in construction, which may include the owner’s choice of sustainably produced products and energy efficient systems available at the time of design.</p> <p>The increased impervious surfaces will be offset by permanent stormwater management with storage capacity and rate control based on future precipitation levels.</p>

Resource Category	Climate Considerations	Project Information	Adaptations
Land Use	<p>Project will convert lawns and previously developed land to manufacturing and warehouse buildings, roads, and parking lots.</p> <p>Increase precipitation and intensity may impact the flooding potential for large storm events.</p> <p>The land use change may generate greenhouse gas emissions. Because the land use change is minimal, greenhouse gas emissions are not quantified.</p> <p>Minimal land use change is associated with the Site, therefore the project is not expected to increase an urban heat island effect in the area.</p>	<p>Climate change risks and vulnerabilities identified include:</p> <ul style="list-style-type: none"> - Vegetation loss leading to decreased greenhouse gas mitigation. - Increased stormwater runoff volume and intensity from increased precipitation events. 	<p>Finished building floor elevations will be located above the 100-year floodplain elevation or dry floodproofed. Properly sized stormwater management features are included within the Conceptual Site Plan to prevent flooding.</p>
Water Resources	Address in item 12	Address in item 12	Address in item 12
Contamination/ Hazardous Materials/Wastes	The Site will have buildings for storage of oil and hazardous materials.	<p>Climate change risks and vulnerabilities identified include:</p> <ul style="list-style-type: none"> - Increased storm intensity and increased precipitation. 	Hazardous materials will be stored in properly constructed buildings with stormwater protection.
Fish, wildlife, plant communities, and sensitive ecological resources (rare features)	Addressed in item 14.	Addressed in item 14.	Addressed in item 14.

8. Cover types:

Estimate the acreage of the site with each of the following cover types before and after development:

Table 8-1: Land Cover Types (Existing and Proposed)

Cover Types	Before (acreage)	After (acreage)
Wetlands and shallow lakes (<2 meters deep)	2.54	1.96
Deep lakes (>2 meters deep)	0	0
Wooded/forest	0	0
Rivers/streams	0	0
Brush/Grassland	6.01	0
Cropland	0	0
Livestock rangeland/pastureland	0	0
Lawn/landscaping	28.46	TBD up to 24.16*
Green infrastructure TOTAL (from table below*)	0	0
Impervious surface	38.45	47.00
Stormwater Ponds	1.32	>0.58*
Other (describe)	0	0
TOTAL	76.78	76.78

**Variable depending on final stormwater management basin designs (size and location TBD). Refer to Section 12.b.ii for more details.*

Table 8-2: Green Infrastructure

Green Infrastructure*	Before (acreage)	After (acreage)
Constructed infiltration systems (infiltration basins/infiltration trenches/ rainwater gardens/bioretention areas without underdrains/swales with impermeable check dams)	0	0
Constructed tree trenches and tree boxes	0	0
Constructed wetlands	0	0
Constructed green roofs	0	0
Constructed permeable pavements	0	0
Other (describe)	0	0
TOTAL*	0	0

Table 8-3: Tree Cover

Trees	Percent	Number
Percent tree canopy removed or number of mature trees removed during development	0	114

Trees	Percent	Number
Number of new trees planted	0	TBD*

**To Be Determined based on final plans and conformance to City of Duluth Tree Preservation requirements (Section 50-25)*

9. Permits and approvals required:

List all known local, state, and federal permits, approvals, certifications, and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing, and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

Table 9-1: Permits & Approvals

Unit of Government	Type of Application	Status
Federal		
Environmental Protection Agency (EPA)	Spill Prevention Control and Countermeasure Plan	To be completed, if required*
U.S. Army Corps of Engineers (USACE)	Clean Water Act Section 404 Permit	To be applied for and obtained if needed
	Clean Water Act Section 404 – Approved Jurisdictional Determination	Obtained (July 30, 2024)
State		
Minnesota Pollution Control Agency (MPCA)	NPDES/SDS Construction Stormwater General Permit (NPDES CSW)	To be applied for and obtained
	NPDES/SDS Industrial Stormwater General Permit (NPDES ISW)	Obtained, to be modified Post-Construction
	Minor Amendment to Part 70 Air Emissions Permit	To be applied for and obtained.
	Aboveground Storage Tank Registration	To be applied for and obtained
	Hazardous Waste Quantity Generator Licensing	To be modified
	Deconstruction, Renovation, or Demolition Notification Form	To be completed
MN Department of Natural Resources (DNR)	Water Appropriations Permit – Temporary Construction Dewatering	To be applied for and obtained if needed
MN Department of Labor and Industry	Electrical Permit	To be applied for and obtained
Minnesota Department of Health	Water Main Extension Permit	To be applied for and obtained if required
Minnesota Department of Public Safety	Fire Sprinkler Permit	To be applied for and obtained
Minnesota Department of Labor and Industry	Plumbing Inspection Permit	To be applied for and obtained

Unit of Government	Type of Application	Status
Local		
City of Duluth	Shoreland Permit	To be applied for and obtained
	Shoreland Variance (Fence and Grading Encroachment)	To be applied for and obtained
	Special Use Permit for Fill in a Flood Fringe	To be applied for and obtained if needed
	Wetland Conservation Act – Wetland Boundary & Type	Obtained (July 13, 2024)
	Wetland Conservation Act – No-Loss	Obtained (July 13, 2024)
	Wetland Conservation Act – Wetland Replacement Plan	To be applied for and obtained
	Wrecking (Demolition) Permit	To be applied for and obtained
	Site Variance Permit (Building Height)	Conditionally approved
	Fence Permit	To be applied for and obtained
	Sign Permit	To be applied for and obtained
	Fill (Grading) Permit	To be applied for and obtained
	Excavation and Utility Connection Permit	To be applied for and obtained
	Erosion and Sediment Control Permit	To be applied for and obtained
	MS4 Stormwater Discharge	To be applied for and obtained
	Water and Sewer Main Extension Permits	To be applied for and obtained
	Utility Service Cut-Off/Abandonments Permit	To be applied for and obtained
	Blasting Permit/Blasting Plan	To be applied for and obtained if needed
	Fire Sprinkler and Alarm Permits	To be applied for and obtained
	Operational Permit	To be reissued
	ADA Compliance for New Parking Lot	To be applied for and obtained
Building Permit for New Structure(s)	To be applied for and obtained	
Western Lake Superior Sanitary District	Industrial Wastewater Discharge Permit	To be modified

**The current Sofidel America–Duluth Facility has a compliant SPCC Plan meeting the requirements of the Code of Federal Regulations 40 C.F.R. part 112: Oil Pollution Prevention. The SPCC plan would be adhered to during construction-related activities as well as updated when necessary.*

Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos.10-20, or the RGU can address all cumulative potential effects in response to EAW Item No.22. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 21.

10. Land use:

a. Describe:

- i. *Existing land use of the site as well as areas adjacent to and near the site, including parks and open space, cemeteries, trails, prime or unique farmlands.*

The Site is currently a paper mill facility and zoned as Industrial – General (Appendix B, Figure 4) (City of Duluth, 2024). The Site is currently a paper mill facility since the 1980's. Prior to its current land use, the eastern portion of the Site consisted of a variety of different land uses since the 1890's including a foundry, match production, and a canning facility. Since the 1890's, the western portion of the Site consisted of residential and retail/commercial structures. In the 1980's, further development occurred on Site including auto body facilities and a filling station. On the central portion of the Site was a transformer station from 1908 until at least 1963.

Since at least 1991, the surrounding and adjacent areas have remained consistent with current land uses including industrial and urban residential. Parkland within the residential land use area is noted to the west and south of the Site. Commercial land use is noted to the north of the Site.

The areas to the south and east are zoned as Industrial – General and Industrial – Waterfront. Areas to the west are zoned as Residential – Urban and Residential – Traditional with South Central Avenue dividing the Site to these areas. Along the northern boundary, Interstate 35 splits the Site from mixed use – commercial, residential – planned, and mixed-use business park zoned areas.

The Cross City Trail follows Keene Creek along the western, northern, and southwestern boundaries to the Site. Area directly west of Central Avenue is residential and open green space (Irving Park). No unique or prime farmlands or cemeteries are within the vicinity of the Site (Figure 11, Appendix C). The nearest residential zoned parcel is across Central Avenue from the Site boundaries and approximately 500-foot west of current and future operations.

A map depicting the City of Duluth Zoning Code is located in Appendix B (Figure 7). The current land use as a paper mill is compliant with the zone district and reflects the historical, industrial use of the Site. The surrounding area are generally compliant with the applicable zone districts.

- ii. *Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.*

City of Duluth Imagine Duluth 2035 – June 25, 2018

Imagine Duluth 2035 is a land use plan focusing on the challenges and barriers Duluth and its surrounding metropolitan area face as well as future planning considerations. It takes the previous comprehensive land use plans and strategic plans and builds towards future planning and goals (City of Duluth, 2018). It deepens a commitment to protect the quiet places that make Duluth unique and emphasizes and focuses more residential, commercial, and craft industrial activities in

core investment areas (City of Duluth, 2018).

Imagine Duluth 2035 includes the adopted future land use for the city, including the Site and its surroundings. The future land use of the Site is indicated as Industrial – General with the surrounding area as open space, general mixed use, traditional neighborhood, and urban residential (City of Duluth, 2018). The map as indicated in the plan, does not change the current land use.

The economic development section of this plan adopts policies established to foster the growth of existing employers and strategically recruit new employers to Duluth, to build on economic strength and competitive advantage (City of Duluth, 2018). The City of Duluth focused this plan to foster development momentum and to seek investment into various sectors and to revitalize areas of underutilization to provide employment. The paper and packaging industry is identified in this section of the plan. The plan states through its economic diversification section that the industry provides above the 75-percentile specialization with a density of employment per square mile ranging from 1,000 to 4,000 employees (City of Duluth, 2018). Throughout this section, this indicates a strong connection between the industrial and economic ties for the paper and packaging industry throughout the community and the support it gives.

City of Duluth Consolidated Plan – September 30, 2021

The consolidated plan is a five-year planning document laying out the goals for the City of Duluth's community development program (City of Duluth, 2021). This plan was written to meet the requirements of the Community Development Block Grant, HOME Investment Partnerships, and the Emergency Solutions Grant (ESG) formula programs (City of Duluth, 2021). A relevant theme of this plan is to "build employment skills and opportunities".

The plan supports the City's housing and development objectives, including economic development priorities. Focuses of the plan include increasing living wage jobs with associated goals to increase incomes, create living wage jobs, and provide staff administration (City of Duluth, 2021). This project would increase jobs within the Duluth area from 60 to 240 associated with this Site, creating more livable wage positions, drawing economic incentive for community development and city housing.

Duluth-Superior Port Land Use Plan – December 2016

The Duluth-Superior Port Land Use Plan (December 2016) identifies the land in which the Sofidel America – Duluth Facility utilizes as a part of the study and zoned as Industrial – General (I-G). This plan identifies areas around the Port that have development, redevelopment, or expansion potential (Duluth-Superior Metropolitan Interstate Council, 2016). The plan identifies part of the Sofidel America – Duluth facility as an "Area of Opportunity" for future development or redevelopment opportunities.

St. Louis County Comprehensive Land Use Plan – January 22, 2019

The St. Louis County Comprehensive Land Use Plan establishes a long-term vision for managing land use where the county maintains zoning jurisdiction (Saint Louis County Planning and Community Development Department, 2019). The plan's overall intent is to support county goals and objectives for growth, development, and conservation, and to provide for the well-being of the county's residents. This plan is organized in to six sections:

- Natural Environment

- Economic Development
- Recreation & Tourism
- Transportation
- Public Safety
- Land Use

The Plan provides a blueprint for managing growth, development, conservation, and other land use objectives in St. Louis County. From the economic development section, for the County, it is noted that from 2007-2017 there was a reduction of 1,302 manufacturing jobs with a 1% increase in wages (Saint Louis County Planning and Community Development Department, 2019).

St. Louis River Watershed Comprehensive Watershed Management Plan – 2023-2032

The goal of the St. Louis River Watershed Comprehensive Watershed Management Plan (also known as St. Louis River One Watershed One Plan) is to prioritize projects that will protect the watershed's valuable resources and target projects to help solve water quality problems (Steering Committee, 2023). This plan utilizes guidelines established by the Minnesota Board of Water and Soil Resources. The plan outlines the following:

- Aligns water planning along watershed boundaries, and enhances existing county water plans
- Uses existing authorities and funding mechanisms
- Is based on the most current information and data available from state agencies
- Charts a course of actions for the next 10 years
- Monitors and tracks progress for achieving measurable goals
- Provides opportunity for bi-annual funding through a non-competitive process regulated by legislature control
- Provides opportunity for biannual funding grant allocations (Steering Committee, 2023)

- iii. *Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.*

The Site is zoned as Industrial – General within the City of Duluth (Appendix B, Figure 4). Current and future zoning for the Site would not require rezoning and will conform with current land uses.

The surrounding area to the south and east is zoned as Industrial – General (I-G) and Industrial – Waterfront (I-W). Areas to the west are zoned as Residential – Urban (R-2) and Residential – Traditional (R-1) with South Central Avenue dividing the Site to these areas. Along the northern boundary Interstate 35 splits the Site from Mixed Use Commercial (MU-C), Mixed Use Business Park (MU-B), Residential Planned (R-P), and Mid-Rise Community Shopping and Mid-Rise Community Mix (F-3 and F-4) zoned areas.

The Site is located within a floodplain (FEMA Flood Zone AE) and City of Duluth Shoreland Overlay District (300-foot zone from Keene Creek and St. Louis Bay) and is not within a mapped wild or scenic river, critical area, or agricultural preserve (refer to Figure 14 in Appendix C and Section 12 for more information).

City of Duluth Shoreland Overlay District

Within the 300-foot zone, the Site is proposing to include impervious surface (road) and part of the auxiliary material storage building (Appendix E “Conceptual Site Plans”). The building and roads comply

with associated setbacks. A variance to locate a fence within the structure setback would be pursued.

FEMA Flood Zone AE

On October 28, 2022 the Federal Emergency Management Agency (FEMA) published a preliminary flood insurance study for St. Louis County, MN which included mapped flood hazard areas within the Site. The proposed mill expansion overlaps the flood fringe identified in the preliminary Flood Insurance Rate Map (FIRM) (Figure 14, Appendix C). As such, cut/fill activities will occur within the flood fringe to complete installation of the proposed Converting Building/Auxiliary Storage, access roads, and stormwater drainage features (Appendix E). No work for the Site is proposed in the floodway.

The FIRM identifies a base flood elevation (Zone AE) for Keene Creek at elevation 614.10-feet overlapping the southwest corner of the proposed Converting Building/Auxiliary Storage facility. Therefore, the regulatory flood protection elevation for this portion of the facility is elevation 616.10-feet.

The converting building/auxiliary storage facility is anticipated to be finished to match the existing facility floor elevation of the operating floor at elevation 614.00-feet. The Site proposes to dry floodproof the converting building/auxiliary storage facility to above elevation 616.10-feet.

Site grading within the flood fringe will be stabilized according to appropriate permit requirements, both City of Duluth and State of Minnesota (discussed in Section 12). Paving for vehicular access and vegetated drainage features will direct stormwater runoff to permanent stormwater treatment basins before discharging to Keene Creek. The proposed elevations increase the available flow area for flood water to pass through the property towards established discharge locations compared to existing conditions.

Site grading will cut 20,140 cubic yards and fill 17,067 cubic yards within the floodplain, resulting in a decrease of 3,073 cubic yards of material within the flood fringe. In addition, to elevate the building area within the flood fringe, it is anticipated that the Site would need an additional 10,293 cubic yards of fill under the converting building/auxiliary storage. Therefore, the proposed Site grading, converting building/auxiliary storage, and paved vehicular access (7,220 cubic yards of net fill) will not require floodplain mitigation.

Modification to the north culvert end draining under the Cross City Trail into Keene Creek is proposed. This culvert work would occur within the Site boundary, outside of public waters, and not in Keene Creek, not requiring a DNR Public Waters Work Permit. No work is intended to be completed on the culvert ends that discharge directly in to Keene Creek from this Site. The culvert currently restricts upstream flows from the Site with the possibility of overflowing or back flowing on to the Site, ultimately flooding it. The culvert end work proposed would increase the cross-section area and flow path to pass through the property, reducing the potential for flood impact to the Site. Keene Creek is an established floodway; as such, filling the flood fringe would not affect the hydraulic capacity of the main channel.

Throughout the construction and post-construction process, the Site does not anticipate the storage of materials within the identified flood areas meeting the above defined criteria.

- iv. *If any critical facilities (i.e., facilities necessary for public health and safety, those storing hazardous materials, or those with housing occupants who may be*

insufficiently mobile) are proposed in floodplain areas and other areas identified as at risk for localized flooding, describe the risk potential considering changing precipitation and event intensity.

No critical facilities are within or will be located within floodplain areas. The finished building floor elevations and outdoor operational/storage areas will be above the 100-year floodplain elevations and floodway.

- b. *Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 10a above, concentrating on implications for environmental effects.*

The proposed Sofidel America – Duluth Facility Expansion meets the economic development and land use goals and objectives in the Imagine Duluth 2035 plan. The renovation and expansion of the facility would provide the opportunity for more employment, expand on the reuse of previously developed lands, and have it perform at a higher rate for products than its current state, and notes further investment into the City of Duluth and ultimately its external stakeholders.

The creation of 160 jobs from the proposed project and its associated manufacturing expansion would support the community and the city in meeting the goals for the City of Duluth Consolidated Plan.

The recommendations as noted from the plan also include that lands that are not waterfront properties but are strategically ideal for multi-modal transportation purposes due to road and rail access and current zoning should be maintained as industrial lands (Duluth-Superior Metropolitan Interstate Council, 2016). Another recommendation supported by the site includes the reduction of sedimentation into the federal shipping channel; as the site and proposed activities include filtration and stormwater management ponds, this would assist in meeting the requirements as noted from the associated plan and for future reduction in sedimentation.

From the proposed Site, the Sofidel America – Duluth Facility Expansion would assist in the economic development of the for the Duluth and St. Louis County area and meet St. Louis County Comprehensive Land Use Plan. While the county experienced a loss in jobs in manufacturing, the proposed project would create 160 new jobs. One of the objectives identified noted the leveraging of locational advantages to develop economic strengths, in which this site would assist in fulfilling this. Through the renovation and expansion of the site, the broadening of the industrial base and additional value added from the existing facilities and the spin-off of adding additional markets, this would drive the county's objective forward.

Of the St. Louis Watershed Comprehensive Watershed Management Plan, priority issues were identified to be surface water quality, drinking water protection, land use, altered hydrology, and habitat. For the proposed Sofidel America – Duluth Facility Expansion, the Site would adhere to this plan and anticipate to not contribute to additional water quality pollutants to the watershed, maintain the existing land use and zoning, add on-site water storage, and not damage habitat. While noted in Section 13, the Site would not be disturbing known capped contamination areas.

The current land use of the Site supports the expansion of the industrial activity and is compatible with future land use anticipated for the area in general. As this Site is currently utilized for

industrial activities near a mixed use or residential neighborhood, no changes are anticipated for possible conflicts. As the process would be changed on Site, the odor that can impact the residential neighborhood would be lessened.

As a part of the Site would be above building height limits, a height variance had been approved at the June 11, 2024 City of Duluth Planning Commission meeting. The warehouse on Site with the approved height variance would be the only allowed building to go up to 152-feet.

The buildings on Site comply with structure setbacks in the Shoreland Overlay District, however a variance will be required to locate a proposed fence within the setback.

Floodplain mitigation is not required since there is a proposed net volume increase of 3,073 cubic yards within the FEMA Flood Zone AE, and details about how the floodplain will be manipulated and the structure protected from flooding are discussed in the sections above.

From the City of Duluth's Ordinances, Section 50-25.5 requires screening along the western boundary, which is anticipated for in the Site plans.

- c. *Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 10b above and any risk potential.*

As the building height variance was approved conditional to a completed environmental review by the City of Duluth Planning Commission on June 11, 2024, the site would only be allowed to go up to 152-feet on the warehouse. The I-G zone district for the Site is exempt from screening requirements for mechanical equipment on building roofs. The warehouse would be painted white and blue to keep with the company's color scheme and would lessen the visual impact of the building against the skyline and Lake Superior.

Further work is to be completed in regard to applying for and obtaining the shoreland variance for the proposed fence as well as the special use permit for the fill located in the floodplain. As this Site has considered all relevant City of Duluth and St. Louis County plans in development, no other anticipated measures are included to mitigate the incompatibility.

11. Geology, soils and topography/land forms:

- a. *Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.*

The unconsolidated sediments (surficial Geology) within the Site are mapped as clay and fill from anthropogenic activities according to the Minnesota State Geology Survey (University of Minnesota, 2023). This is likely due to the historical industrial land use of the Site. The surficial geology of the Site is shown in Figure 12 (Appendix C).

The depth to bedrock within the Site is estimated to be 401-450 feet mean sea level. The uppermost bedrock units within the Site are the upper contact zone of the Duluth Complex, which is

a midcontinent rift intrusive super suite comprised of Ferrodiorite, ferromonzodiorite and ferrogabbro (Bauer, et al., 2022).

No sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions are known or mapped to be present within the Site (Minnesota Department of Natural Resources, 2024). According to the University of Minnesota’s Natural Resource Atlas the water table within the Site is approximately 0-10 feet from the soil surface (University of Minnesota, 2022). The activities proposed in the Site are not expected to have adverse impacts on geological features outside the movement of soils during construction. Proper soil stabilization and topsoil preservation will occur within construction limits where needed and will be in accordance with the Site’s SWPPP during construction.

- b. *Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 12.b.ii.*

According to the United States Department of Agriculture-Natural Resource Conservation Service (USDA-NRCS) Web Soil Survey, the soils within the proposed Site consist of the following classifications:

Table 11-1: USDA-NRCS Soil Types

Map Unit Symbol	Map Unit Name	Farmland Class	Site coverage (%)
1020A	Bowstring and Fluvaquents, loamy, 0 to 2 percent slopes, frequently flooded	Not Prime farmland	0.22
E9E	Miskoaki-Fluvaquents, frequently flooded, complex, 0 to 45 percent slopes	Not Prime farmland	1.10
E18B	Urban land-Cuttre-Rock outcrop complex, 0 to 8 percent slopes	Not Prime farmland	44.24
1028A	Urban land-Udorthents-Aquents complex, 0 to 8 percent slopes	Not Prime farmland	47.33
E18A	Urban land-Cuttre-Rock outcrop complex, 0 to 3 percent slopes	Not Prime farmland	6.96
W	Water	Not Prime Farmland	0.15

A map of the soil unit locations is provided as Figure 11, Appendix C. As indicated in Table 11-1 above, USDA-NRCS soil survey data suggest the site is dominated by human-altered soils (map units E18A, E18B, and 1028A). Characteristics of altered soils cannot be predicted by the soil survey and onsite investigation is necessary to assess likely soil properties and limitations. Along the southwest boundary of the Site there are very poorly drained mucks, which are mapped near Keene Creek which flows into

the St. Louis River southeast of the Site. There are also loams, silts and clays mapped along the western boundary of the Site. These soils at the Site have been heavily disturbed from previous anthropogenic industrial activities and conclusions of their stability and erosivity may not be fully anticipated due to modifications made to the soils over an extensive period of time.

From the Braun Intertec Geotechnical Report utilized to address the proposed design and construction for infrastructure improvements to the Site, the following table depicts the subsurface profile.

Table 11-2: Subsurface Profile Summary

Strata	Soil Type - ASTM Classification*	Range of Penetration Resistances**	Commentary and Details
Pavement section	---	---	<ul style="list-style-type: none"> ▪ Encountered in multiple borings ▪ Overall thickness ranges from 3 to 20 inches. ▪ Apparent aggregate surfacing thickness ranges from 3 to 16 inches. ▪ Bituminous thickness ranges from 3 to 8 inches. ▪ Concrete thickness in one boring was 6 inches. ▪ Apparent aggregate base is 12 to 16 inches.
Topsoil	SM, SC	---	<ul style="list-style-type: none"> ▪ Encountered in multiple borings ▪ Predominantly black to dark brown SM and SC with roots. ▪ Thicknesses at boring locations varied from 1/2 to 1 1/2 feet. ▪ Moisture condition generally moist.
Fill	SP-SM, SM, SC, CL, CH, ML, Concrete, Wood	---	<ul style="list-style-type: none"> ▪ Encountered below the pavement section, topsoil, and at the surface in multiple borings ▪ Moisture condition generally moist or wet. ▪ Extended to depths ranging from 2 to 20 feet. ▪ Fill soil at various boring locations extend to at least 14 1/2 feet. ▪ Portions of fill soils are highly variable, with soils intermixed. ▪ Portions of various borings contained variable amounts of debris, including concrete, bituminous, brick, wood, plastic, metal, coal slag, PVC and ductile iron pipe, and glass. ▪ Occasional layers of slightly organic to organic soils, mixed with organic soils near boundary with backwater deposit soils. ▪ Portions of the existing fill soil in two borings had an organic odor. ▪ Fill soil in samples from 2 to 6 1/2 feet in one boring had a petroleum-like odor. ▪ Variable amounts of gravel and cobbles, may also contain boulders.

Strata	Soil Type - ASTM Classification*	Range of Penetration Resistances**	Commentary and Details
Backwater deposits	PT, SM, CL	3 to 24 BPF	<ul style="list-style-type: none"> ▪ Encountered below the fill soils in various borings. ▪ Though not encountered, backwater deposits are anticipated to be present in numerous borings. ▪ Fibrous peat and organic silty sand and sandy lean clay with roots and wood. ▪ Extended to depths ranging from 13 1/2 to 38 feet. ▪ Thickness of backwater deposit layers ranged from 3 1/2 to 31 1/2 feet.
Lacustrine deposits	SP, SP-SM, SM, ML	3 to 47 BPF	<ul style="list-style-type: none"> ▪ Encountered below the topsoil, existing fill, and backwater soils in each boring except ▪ Consistency of sandy and silty soils was generally loose to medium dense. ▪ Consistency of clayey soils was generally soft to medium. ▪ Moisture condition generally moist or wet.
	SC, CL, CH	1 to 26 BPF	
Glacial Till	ML, CL	17 to Greater than 50 blows per 6 inches	<ul style="list-style-type: none"> ▪ Encountered below the lacustrine deposits in few borings. ▪ Consistency was generally dense to very dense or hard. ▪ Variable amounts of gravel; may contain cobbles and possibly boulders. ▪ Moisture condition generally moist.

*SM: silty sand, SC: clayey sand, SP-SM: poorly graded sand & silty sand, CL: lean clay, CH: fat clay, ML: silt, PT: peat, ML: silt

**BPF: blows per foot

From the borings, this supports the heavy anthropogenic activities on Site and show the unpredictability of the soils located there. These can be associated with the industrial activities that have taken place at the Site.

From the USDA-NRCS, the erosivity T-Factor and K-Factors are undefined with the exceptions of map unit symbols E9E and 1020A (USDA-NRCS, 2024). These soils have noted erosivity factors due to their proximity to Keene Creek, however, would not be disturbed.

Review of available geological information indicate near surface soil within the Site generally consists of clay and silty clay glacial lacustrine sediment associated with the Barnum Formation deposits of the Superior Lobe glacial advance.

Based on the borings completed by Braun Intertec (report available upon request), the surface materials on Site consist of existing bituminous, concrete, and aggregate surfacing pavements, and silty sand and clayey sand topsoil. Topsoil thicknesses range from 0.50- to 1.50- feet and are black to dark brown in color. Below the surficial pavement and topsoil, the Site soils consist of existing fill, organic backwater deposited soils, and native lacustrine soils, underlain by glacial till soils at depth.

The existing fill soils consisted of poorly graded sand with silt, silty sand, clayey sand, sandy lean clay, fat clay, and sandy silt extending to depths ranging from 2 to as great as 20 feet. Portions of the existing fill contained variable amounts of debris, including concrete, bituminous, brick, wood, plastic, metal, coal slag, PVC and ductile iron pipe, and glass. The backwater deposits consisted primarily of peat with some areas of organic silty sand and sandy lean clay. The lacustrine soils consisted of poorly graded sand, poorly graded sand with silt, silty sand, clayey sand, sandy lean clay, fat clay, sandy silt, and silt. The sandy and silty lacustrine soils were generally loose to medium dense in consistency, and the clayey lacustrine soils were generally soft to medium. Dense to very dense silt and hard sandy lean clay glacial till was encountered below the lacustrine soils at depth.

Surface elevations in the project Site range from approximately 630 feet in the western portion of the Site to 604 feet above mean sea level in the east, according to the United States Geologic Survey (USGS) 7.5-minute quadrangles and available LiDAR topographic data (Appendix A, Figure 3). The area within the Site vicinity generally slopes to the east towards St. Louis River and Lake Superior.

Preliminary grading includes grading activities on the Site with removal of 256,012 cubic yards of subgrade and topsoil with fill of 72,061 cubic yards. This results in a net loss of 183,951 cubic yards with a total disturbance of 68.50 acres.

- *NOTE: For silica sand projects, the EAW must include a hydrogeologic investigation assessing the potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water. Descriptions of water resources and potential effects from the project in EAW Item 12 must be consistent with the geology, soils and topography/land forms and potential effects described in EAW Item 11.*

12. Water resources:

- a. *Describe surface water and groundwater features on or near the Site in a.i. and a.ii. below.*
 - i. *Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, shoreland classification and floodway/floodplain, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include the presence of aquatic invasive species and the water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.*

The Site contains several surface water features, including stormwater management basins and wetlands. According to the National Wetland Inventory, four wetlands are located within the Site (Minnesota Department of Natural Resources, 2023). Two excavated freshwater pond wetlands are directly located southeast and west of the main building. Additionally, a freshwater emergent and a freshwater shrub wetland are located along the eastern boundary of the Site. An onsite wetland delineation was completed by Braun Intertec in May 2024, identifying four wetlands along the southeastern and southwestern portion of the Site along with several potentially non-regulated wetlands created from stormwater ditches and swales (Figure 13b, Appendix C). The wetland boundary and type determination and No-Loss Determination (for the non-regulated stormwater features) was

approved by the Wetland Conservation Act Local Government Unit (City of Duluth) on July 13, 2024 (refer to Appendix D). The USACE issued a Section 404 Federal Clean Water Act Approved Jurisdictional Determination (AJD) for the non-regulated stormwater features on July 30, 2024 (refer to Appendix D).

No listed MPCA 303d Impaired Waters or DNR Public Waters are located within the Site. Two surface waters listed as DNR public waters and MPCA impaired waters are located adjacent to the Site; Keene Creek (a designated trout stream) to the southwest of the Site and the St. Louis River east of the Site (U.S. Environmental Protection Agency, 2024). Keene Creek (Assessment Unit ID MN04010201-627) is listed as an impaired water (Minnesota Pollution Control Agency, 2024) for aquatic life and aquatic recreation designated uses, for the impairment parameters chloride and Escherichia Coli (E. coli). The St. Louis River (St. Louis Bay) (Assessment Unit ID 69-1291-00) is listed as an impaired water for fish and aquatic consumption designated uses for the impairment parameters Polychlorinated biphenyls (PCBs), Toxaphene, Dioxin (including 2,3,7,8-TCDD), DDT (Dichlorodiphenyltrichloroethane), Dieldrin, PCBs in fish tissue, and Mercury in fish tissue and in water column (Minnesota Pollution Control Agency, 2024).

There are no wildlife lakes, migratory waterfowl feeding/resting lakes, or outstanding resource value waters located within a one mile-radius of the Site boundaries. The St. Louis River Natural Area is a special designation and is noted within one mile-radius of the Site boundaries.

No surface waters or wetlands at the Site are known to contain aquatic invasive species. According to the DNR List of Infested Waters (dated July 15, 2024), the nearest water with documented aquatic invasive species is the St. Louis River, specifically the stretch downstream of the Fond du Lac Dam (Minnesota Department of Natural Resources, 2024). This stretch of the St. Louis River includes the estuary into Lake Superior and the following aquatic invasive species have been documented in both waters: faucet snail (*Bithynia tentaculata*), New Zealand mud snail (*Potamopyrgus antipodarum*), round goby (*Neogobius melanostomus*), ruffe (*Gymnocephalus cernuus*), spiny waterflea (*Bythotrephes longimanus*), viral hemorrhagic septicemia (VHS), white perch (*Morone americana*), and zebra mussel (*Dreissena polymorpha*). Eurasian watermilfoil (*Myriophyllum spicatum*) has also been documented in Lake Superior (Minnesota Department of Natural Resources, 2024).

Since no project activities would occur within the St. Louis River or Lake Superior, the proposed project does not have the potential to encounter or spread aquatic invasive species from either waterbody.

The Site is located within the City of Duluth's Shoreland Management Zones (City of Duluth, n.d.). The eastern edge of the Site is mapped within the general development shoreland management zone and the majority of the southern half of the Site is included within the cold water shoreland management zone. Additionally, portions of the Site are mapped within floodplain zones (FEMA Flood Map number 2704210040D, effective on 11/4/1992) (Federal Emergency Management Agency (FEMA), 2024). The entirety of the southern half of the Site is located within a mapped 500-year floodplain with a portion of the south-central portion of the Site mapped as a 100-year floodplain (Figure 14). Proposed shoreland and floodplain impacts and design elements to mitigate these impacts are further discussed in Section 10.a.ii.

- ii. *Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on Site or nearby, explain the methodology used to determine this.*

Based on geotechnical and environmental borings completed by Braun Intertec , the groundwater onsite was encountered in soil borings at depths ranging between 2 and 19 feet below ground surface (bgs); which correlates to groundwater elevations of 607 to 591 feet above mean sea level (MSL).

The quaternary water table is located 0-10 feet below ground surface (Natural Resource Reserach Institute, 2022). The project is not located within a Minnesota Department of Health (MDH) wellhead protection area (Minnesota Department of Health, 2019). There are 12 wells located within the Site, according to the MDH Minnesota Well Index (Minnesota Department of Health, 2024), are listed below and illustrated on Figure 8.

According to previous environmental investigations completed at the site, the site is listed on the permanent list of priorities (PLP) and State Hazard Waste Sites (SHWS) databases in association with State Superfund Site ID SR0000179. The listing involves groundwater monitoring of chlorinated solvent-impacted groundwater in an area labeled “Well 7 Area”, located on the southeast portion of the site. As part of the groundwater monitoring within the Well 7 Area, seven monitoring wells were installed at the site and identified in Table 12-1 below as “verified” wells. The remaining five “unverified” wells appear to be installed during the initial investigation activities associated with the PLP listing, which was completed between 1985 and 1987.

Based on groundwater investigations and monitoring conducted near the Well 7 Area between 1985 and 2021, a Minnesota Decision Document (MDD) for the Well 7 Area was signed on February 27, 2023. The MDD indicated that no action was necessary to protect human health, welfare, and the environment and the onsite monitoring wells associated with the State Superfund Site ID SR0000179 were sealed.

Table 12-1: MDH Index Wells

Unique Number	Well Name	Depth (ft)	Verification	Use	Well Status
792439	W-35	26	Verified	Monitoring Well	Active
727223	W-31	25	Verified	Monitoring Well	Active
100002078 8	W-7	N/A	Verified	Monitoring Well	Unknown
727224	W-32	27	Verified	Monitoring Well	Active
545614	MW-23A	18	Verified	Monitoring Well	Active
727222	MW-24	29.5	Verified	Monitoring Well	Active
100002078 9	W-24	14.5	Verified	Monitoring Well	Unknown
427438	W-7A	16	Not Verified	Test Well	Sealed
433122	LAKE SUPERIOR PAPER	20	Not Verified	Monitoring Well	Active
433124	LAKE SUPERIOR PAPER	23	Not Verified	Monitoring Well	Active
433121	LAKE SUPERIOR IND.	50	Not Verified	Piezometer	Active

Unique Number	Well Name	Depth (ft)	Verification	Use	Well Status
433123	LAKE SUPERIOR PAPER	24	Not Verified	Monitoring Well	Active

b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.

i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic, and industrial wastewater produced or treated at the Site.

1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.

The existing and proposed Site estimated domestic wastewater average flow for the proposed project is 350 gallons per minute (gpm) for sump flow and 315.12 gpm for sanitary discharge from all portions of the proposed project. The current infrastructure at the Site is sized appropriately to handle the wastewater generated from the proposed facility expansion.

The Site is currently connected to the City of Duluth’s existing sanitary sewer system. The City’s sanitary sewer system discharges to the Western Lake Superior Sanitary District (WLSSD), located approximately 2.50-miles northeast of the Site. From their comprehensive plan, WLSSD has the design capacities as listed in the table below:

Table 12-2: Wastewater treatment plant design capacities

	Capacity
Flow	48.4 MGD
Peak Flow	100.0 MGD
Total Suspended Solids	112,000 lb/d
Biochemical Oxygen Demand	121,000 lb/d

*MGD = Million gallons per day

Lb/d = pounds per day

In referring to the Site and its anticipated waste characteristics and flowed to the WLSSD, the treatment plant would not need additions, improvements, or revised pre-treatment agreements as a result of this project.

For the Site, the wastewater currently flows from the processes to a pre-treatment system. Treatment on Site includes a wastewater treatment plant that clarifies the water and removes solids prior to discharge to WLSSD. For the past 2024 (under ownership of Sofidel America), the average sanitary flow to WLSSD is 21,567.33 gallons per month. With the change in the process, the water consumption anticipated for the Site is not expected to change, indicating the wastewater discharge would remain nearly the same.

The Site currently has an appropriate Industrial Wastewater Discharge Permit from WLSSD. Prior to

discharge, the current operations have a pre-treatment system on the Site. This permit was effective February 1, 2024, and expires with renewal on September 30, 2024. This permit was granted in accordance with the categorical and local specifications with effluent limitations, monitoring requirements, general conditions, and other specific requirements for the Site to abide by. This permit is consistent with the WLSSD Industrial Pretreatment Ordinance. As described in the permit, Table 12-3 outlines the pollutant with its maximum effluent limitation to be sent to WLSSD and sampling criteria/monthly average.

Table 12-3: WLSSD Effluent Limitations

Pollutant or Pollutant Property	Maximum for and 1 day (limit type)	Monthly Average shall not exceed:
Copper (Cu)	0.26 mg/L -- (local)	
Zinc (Zn)	1.60 mg/L -- (local)	
Nickel (Ni)	1.50 mg/L -- (local)	
Cadmium (Cd)	0.030 mg/L -- (local)	
Chromium (Cr)	1.00 mg/L -- (local)	
Lead (Pb)	0.22 mg/L -- (local)	
Mercury (Hg)	0.05 µg/L -- (local)	EPA Method 1631 Grab sample
pH(Minimum)	5.5 --- (local)	Grab sample
pH (Maximum)	12.0 --- (local)	Grab sample
Pentachlorophenol	*	Categorical (production based)
Trichlorophenol	*	Categorical (production based)

**The District may not require routine compliance monitoring for verification of categorical standards for PCP, TCP, and Zinc, provided the Permittee can, through sampling for analysis of its wastewater, certify that PCP, TCP, and Zinc concentrations are well below categorical limitations or through analysis of its process can certify that it does not utilize chlorophenolic containing slimicides and biocides; and zinc hydrosulfite as a bleaching agent.*

To the date of this EAW, the industrial wastewater discharges to WLSSD have been compliant with all conditions set forth in the permit. The Site plans to modify the aforementioned permit prior to new operations. The future permit would potentially have different conditions, but with current history of the monitoring conducted, it is to be assumed the new activities would not violate the potential conditions.

- 2) *If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system. If septic systems are part of the project, describe the availability of septage disposal options within the region to handle the ongoing amounts generated as a result of the project. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity, and amount with this discussion.*

There is no proposed wastewater discharge to any SSTS at the Site.

- 3) *If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or*

groundwater from wastewater discharges, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects.

There is no proposed wastewater discharge to any surface or groundwater resources.

- ii. *Stormwater - Describe changes in surface hydrology resulting from change of land cover. Describe the routes and receiving water bodies for runoff from the project site (major downstream water bodies as well as the immediate receiving waters). Discuss environmental effects from stormwater discharges on receiving waters post construction including how the project will affect runoff volume, discharge rate, and change in pollutants. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity, and amount with this discussion. For projects requiring NPDES/SDS Construction Stormwater permit coverage, state the total number of acres that will be disturbed by the project and describe the stormwater pollution prevention plan (SWPPP), including specific best management practices to address soil erosion and sedimentation during and after project construction. Discuss permanent stormwater management plans, including methods of achieving volume reduction to restore or maintain the natural hydrology of the site using green infrastructure practices or other stormwater management practices. Identify any receiving waters that have construction-related water impairments or are classified as special as defined in the Construction Stormwater permit. Describe additional requirements for special and/or impaired waters.*

Pre-Construction Stormwater Runoff

Under current conditions, the land cover consists of buildings, vegetated areas, impervious surfaces, and several small stormwater management basins. Stormwater from impervious surfaces flow into storm sewers, stormwater conveyances, and basins located throughout the Site. Stormwater ultimately discharges to one stormwater management pond located northeast of the Site, the St. Louis River, or Keene Creek through storm sewer systems on the southwest corner of the Site or through the culvert under South 50th Avenue West leading to the wetland fringe located on the eastern edge of the Site.

The City of Duluth Municipal Separate Storm Sewer System (MS4) requires any project disturbing over 1-acre to acquire beyond the State of Minnesota construction stormwater permit to obtain the MS4 Statement of Compliance from the City Engineer and an Erosion and Sediment Control Permit.

Post-Construction Stormwater Runoff

The Site and the construction of the proposed facility expansion would incur land disturbance and alterations to the overall drainage on Site, including proposed stormwater management for areas of the Site that currently do not have adequate stormwater management and net increase in impervious surface of 8.55 acres. This drainage and permanent stormwater treatment system would be designed in accordance with the City of Duluth Municipal Separate Storm Sewer System (MS4) and National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater (CSW) General Permit requirements.

The City of Duluth MS4 permit requires a rate control requirement and a reduction of total suspended solids (TSS) by 50% from construction sites and no net increase in total phosphorus. The post-

development peak flow rates from the City of Duluth for redevelopment projects must not exceed the pre-development standards. Discharge rates from the Site must be less than pre-project rates for the 2-, 10-, and 100-year 24-hour events and back-to-back 10-year event. In addition to stormwater treatment, the proposed filtration basins also provides stormwater detention for rate control and temperature reduction. The pond will reduce discharge and peak flow rates from the Site for all design storms, with reductions ranging from 65-85% depending on the storm event.

Environmental effects from post-construction stormwater discharges on receiving waters and from facility operations would increase stormwater volume, however, the conceptual design plans institute several stormwater filtration ponds throughout the Site. These ponds would assist in controlling the volume, temperature, and rate of stormwater runoff leaving the Site, and would allow for potential pollutants to settle prior to discharge. Per the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Industrial Stormwater (ISW) General Permit, the proposed ponding area would not be within 1,000 feet upgradient or 100 feet downgradient of an active karst feature, not within a wellhead protection area, would not be a part of a spill containment plan, and would not meet design parameters outlined in the permit under section 382 for the potential of a monitoring waiver.

The potential future climate trends for Minnesota and this Site may have to account for an increased frequency of 100-year, 24-hour storm events, however, the current NPDES ISW permit requires the design parameters of the stormwater pond up to the 10-year, 24-hour storm event. The intensity and frequency of a 100-year 24-hour storm event is anticipated to increase by upwards of 21.8% by 2060 (United States Environmental Protection Agency, 2023). Currently, rates from the National Oceanic and Atmospheric Administration (NOAA) Atlas 14, Volume 8, Version 2 predicts the 10-year, 24-hour storm event to incur 3.36-4.67 inches of precipitation (National Oceanic and Atmospheric Administration, 2017).

A NPDES CSW general permit would be required as over 1-acre would be disturbed. The anticipated acreage disturbed would be approximately 65.8 acres. The CSW general permit requires any project over 50 acres and drains to a special or impaired waters to include with its Notice of Intent (NOI) to be submitted no later than 30 days prior to the beginning of construction activity. The project's future stormwater pollution prevention plan (SWPPP) would be required to address the best management practices (BMP's) specific for the Site and construction activities. These BMP's may include but would not be limited to silt fence, sediment control logs, erosion control blanket, seeding, mulching, permanent stormwater pond, and stabilized construction exit(s). Within 1-mile of the Site, there are no construction-related water quality impairments as defined in the CSW permit, however, special waters (Keene Creek) have additional parameters that will be adhered to as outlined in the CSW general permit (Sections 23.1-23.14) and addressed in the appropriate Stormwater Pollution Prevention Plan (SWPPP) and civil construction plans for the construction of the Site.

The Site would require an NPDES ISW permit and the related SWPPP as well. This incorporates a post-construction stormwater management plan for the operational aspects of the Site and benchmark monitoring. The Site includes greenspace and a stormwater pond to allow for the detention and treatment of stormwater.

- iii. *Water appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water*

supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Discuss how the proposed water use is resilient in the event of changes in total precipitation, large precipitation events, drought, increased temperatures, variable surface water flows and elevations, and longer growing seasons. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation. Describe contingency plans should the appropriation volume increase beyond infrastructure capacity or water supply for the project diminish in quantity or quality, such as reuse of water, connections with another water source, or emergency connections.

Temporary short-term construction dewatering of groundwater may be required at the time of construction (depending on current field conditions) to facilitate construction activities of phased grading, placement of structural footings, and utility trenches/pits. If dewatering is anticipated to exceed 10,000 gallons per day or 1,000,000 gallons per year, the contractor performing the applicable work would be required to obtain a Temporary Construction Dewatering Water Appropriations Permit from the DNR prior to initiating dewatering activities. Measures to avoid, minimize, or mitigate the environmental effects from construction related to dewatering are unknown at this time, and therefore would be determined when developing the dewatering plan as required by a future SWPPP amendment of the NPDES CSW Permit for the Site.

Potable water supply would be sourced from the City of Duluth's existing water supply, with a water line located along Central Avenue. The Lakewood Water Treatment Plant supplies approximately 13,000,000 gallons of treated drinking water per day with the capacity to treat upwards of 68,000,000 per day (City of Duluth, 2024). For the Site, the current water usage from 2024 (under ownership of Sofidel America) averages 40,136,558 gallons per month. The Site anticipates for the proposed usage to not increase water usage, insinuating the ability for the Lakewood Water Treatment Plant to provide water at its current rate.

There are no identified wells within the Site boundary that would require sealing (Appendix B, Figure 8). If wells are discovered during construction, appropriate MDH well sealing measures would be followed by a licensed well contractor.

iv. *Surface Waters*

- a) *Wetlands - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed and identify those probable locations.*

Non-regulated (existing stormwater basins) and regulated wetlands will be impacted. Approximately 0.78 acres of regulated wetlands on the southwestern edge of the Site (Wetland D) will be partially filled, excavated, and/or temporarily disturbed as a result of the proposed project (refer to Proposed Wetland Impacts in Appendix E. Alternate designs are pending consideration to minimize regulated Wetland D impacts to the greatest extent possible while achieving the project goals. The total proposed Wetland D impacts will be quantified and provided within a future wetland replacement plan application for the City of Duluth and U.S. Army Corps of Engineers consideration of approval. If unavoidable impacts to regulated wetlands are proposed that require compensatory mitigation, offsite mitigation per the Minnesota Wetland Conservation Act (WCA) and Section 404 Federal Clean Water Act would be secured prior to initiating on-site wetland disturbances. It is anticipated that any offsite mitigation credits would be from the same bank service area the project is located in.

- b) *Other surface waters- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.*

No physical alterations or indirect effects to other surface waters are anticipated from the proposed project. The project would not change the type or number of watercrafts used on any nearby surface waters.

13. Contamination/Hazardous Materials/Wastes:

- a. *Pre-project site conditions - Describe existing contamination or potential environmental hazardson or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.*

Various previous environmental investigations have been prepared for the Site. The most recent and pertinent investigations and documents as they pertain to the Site and this EAW are summarized below.

Phase I Environmental Site Assessment, ST Paper, 100 North Central Ave, 301 North 50th Ave W, & 4920 Recycle Way, Duluth, Minnesota, prepared by Terracon Consultants, Inc., dated December 1,

2023 (2023 Phase I ESA).

According to the recently conducted Phase I ESA, the eastern portion of the Site historically consisted of a foundry from at least 1892 until at least 1981, a match production facility from 1902 until 1949, and a canning facility from 1955 until at least 1983. The western portion of the Site historically consisted of residential and retail/commercial structures from 1892 until the 1980s, including auto body facilities from 1949 until 1961 and again in the 1980s, and a filling station in the 1930s and the 1950s. Furthermore, a transformer station was historically located in the central portion of the Site from 1908 until at least 1963. The Site was converted to a pulp and paper mill facility in 1989 until the present-day. Environmental covenants and easements have been applied to the Site in association with hazardous substance impacts detected in the soil and groundwater as a result of historical site uses.

The 2023 Phase I ESA identified the following environmental conditions in connection with the Site.

Recognized Environmental Conditions (RECs)

“The Site is listed in the Permanent List of Priorities (PLP) and State Hazardous Waste Sites (SHWS) databases as State Superfund Site ID SR0000179. Chlorinated solvent-impacted groundwater has been identified at concentrations exceeding Minnesota Department of Health (MDH) regulatory limits and has historically been monitored in the Well 7 Area at the Site. An easement has also been issued for the Well 7 Area that grants the MPCA permission to conduct remediation and take other response actions as necessary in the area. According to Mark Burgess, Environmental Manager with ST Paper, the wells were sealed in agreement with the MPCA, and the facility is waiting on a closure letter to be issued. In absence of the issuance of the closure letter, the chlorinated-solvent impacted groundwater and/or soil vapor represents a REC to the Site; however, once a closure letter is issued, the impacted groundwater and/or soil vapor and the easement to conduct additional response actions will be deemed a CREC.”

Controlled Recognized Environmental Conditions (CRECs)

“The Site is listed in the Corrective Action Report (CORRACTS) database in association with Site ID MND982205494, which is associated with the hazardous waste vault located in the western portion of the Site. Approximately 23,000 cubic yards of lead- and polychlorinated biphenyl (PCB)-contaminated soil and debris resultant from the former Union Compressed Steel operations at the Site were excavated and placed in the vault as part of hazardous materials remediation activities. The vault is designed to protect the hazardous materials from releasing into the environment in the form of leachate. An Environmental Covenant has been applied to the Site that includes activity and use limitations. Based on the presence of an Environmental Covenant requiring continued operations and monitoring, as well as detailing activity and use limitations, the hazardous waste vault represents a CREC to the Site.”

Historical Recognized Environmental Conditions (HRECs)

“The Site is listed in the Leaking Aboveground Storage Tank (LAST) database in association with MPCA Leak Site ID LS0006775, which consisted of a petroleum release to soil and surface water. Remediation was conducted in the form of an excavation and pumping of the contaminated water, with confirmation samples of the soil and groundwater identifying petroleum compounds at concentrations below residential use standards. The listing received closure in 1994. Based on the response actions and the Site closure status, the release associated with LS0006775 represents an HREC for the Site.”

In preparation for the planned Sofidel facility expansion, an Additional Investigation Work Plan was prepared by Braun Intertec and dated March 25, 2024. The Work Plan was approved by the Minnesota

Pollution Control Agency (MPCA) Brownfield Program in an email on March 29, 2024, with a follow-up written approval letter on April 2, 2024. The objective of the Additional Investigation was to characterize the environmental conditions in proposed construction areas and to support the development of a Response Action Plan/Construction Contingency Plan (RAP/CCP) for the planned facility expansion project.

A summary of the previously completed environmental documents were outlined within the Additional Investigation Work Plan and summarized below:

- 1985 – Trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride were detected in the Site groundwater at elevated concentrations near the Well 7 Area.
- 1986 – Lead and polychlorinated biphenyls (PCBs) were detected in Site soil at elevated concentrations near the former scrap yard. Also, the State of Minnesota entered into a Stipulation Agreement with Lake Superior Paper Industries to establish two areas of contamination: the Well 7 Area and Union Compressed Steel Company scrap yard.
- 1987 – Approximately 23,000 cubic yards of cadmium, lead, and PCB-impacted soils were excavated from the central portion of the Site and disposed of in the 3-acre Hazardous Waste Vault Area (the Vault), a permitted Resource Conservation and Recovery Act (RCRA) Treatment Storage and Disposal Facility (TSDF – EPA ID #MND982205494) on the western portion of the Property. Note that the Vault is outside of the Site area, as defined for this letter.
- 1988 – A groundwater extraction well and six monitoring wells were installed in the Well 7 Area. Extracted groundwater was routed to the Western Lake Superior Sanitary District (WLSSD) for treatment.
- 2007 – MPCA took over the operation and monitoring of the Well 7 Area, groundwater extraction activities stopped.
- 2012 – A chemical injection pilot test was conducted in the Well 7 Area.
- 2020 – Environmental Covenant recorded on the Vault parcels.
- 2021 – Easement recorded on the Well 7 Area parcels to allow the MPCA to conduct investigations and take response actions. Stipulation Agreement was terminated.
- 2023 – Minnesota Decision Document (MDD) for the Well 7 Area was signed. The MDD indicated that no action is necessary to protect human health, welfare, and the environment. This determination is contingent upon the current property owner, recording and implementing the terms of an MPCA-approved Environmental Covenant for the Well 7 Area.

Additional Investigation Report, Sofidel America – Duluth Facility Expansion, 100 North Central Avenue, Duluth, Minnesota, MPCA Site ID: BF0002698, prepared by Braun Intertec, dated July 8, 2024 (2024 Additional Investigation Report).

Additional investigation activities completed in general accordance with the MPCA approved Additional Investigation Work Plan were conducted between April 1, 2024, and May 9, 2024. The following conclusions were provided in the 2024 Additional Investigation Report:

- The investigation included soil, groundwater, and soil vapor samples collected from 56 SPT borings, 12 PP soil borings, 5 test pits, 12 temporary monitoring wells, and 20 soil vapor probes.
- Fill soil was encountered from the ground surface to depths of 2 to 20 feet bgs. The fill soil was highly variable and primarily consisted of silty sand, clayey sand, and clay with varying

amounts of gravel and cobbles. In 34 of the 61 soil borings and test pit locations, intermixed debris was observed including concrete, bituminous, brick, wood, plastic, metal, coal slag, PVC and ductile iron pipe, and glass at depths ranging from 2 to 19.5 feet bgs. Fill soil with intermixed debris extending to depths beyond 6.5 feet was mainly observed on the eastern portion of the Site and just beyond the existing building to the southwest.

- Native soils at the Site consisted of backwater, lacustrine, and glacial till deposits. Backwater deposits were generally encountered on the eastern portion of the Site near the banks of the St. Louis River, at depths ranging between 13.5 to 38 feet bgs with thicknesses ranging between 3.5 to 31.5 feet. The backwater deposits consisted of fibrous peat, organic silty sand, and sandy lean clay with roots and wood. Native soils encountered below the backwater deposits and/or underlying the fill soil on the western portion of the Site consisted of sandy, silty sand, and clay deposits.
- Field monitoring of soil from the borings and test pits identified elevated photoionization detector (PID) readings in 37 of the 61 soil borings and test pit locations. In general, PID readings were less than 50 parts per million (ppm), with the exception of five investigation locations which were located on the eastern portion of the Site and were identified within the backwater strata layer. Volatile organic compound (VOC) analytical results from the five areas with PID readings greater than 50 ppm detected benzene and/or naphthalene at concentrations greater than their respective Screening Soil Leaching Value (SLV). It is likely the elevated PID readings above 50 ppm and associated elevated concentrations of benzene and/or naphthalene identified within the backwater layer is attributed to the decaying organic matter.
- Petroleum-like odors were noted during soil screening of boring ST-25 from 2 to 6.5 feet bgs with PID readings ranging from 30.1 to 46.4 ppm. The soil sample collected from the interval with petroleum-like odors detected diesel range organics (DRO) at a concentration of 3,580 milligrams per kilogram (mg/kg) and gasoline range organics (GRO) at a concentration of 112 mg/kg, both exceeding the MPCA unregulated fill criterion of 100 mg/kg.
- Elevated concentrations of polychlorinated biphenyls (PCB's), polycyclic aromatic hydrocarbons (PAH's), and metals were detected within the fill soil at the Site at concentrations exceeding applicable regulatory criteria. PCBs in soil samples ST-16 (0-2'), ST-19 (0-2'), ST-21 (0-2'), ST-25 (2.5-4'), ST-46 (4.5-6'), and ST-56 (2.5-6') were detected at concentrations exceeding applicable regulatory criteria. PAHs in soil samples ST-5 (14.5-16'), ST-18 (9.5-11'), ST-42 (2.5-4'), ST-44 (4.5-6'), and ST-56 (2.5-6') were detected at concentrations exceeding applicable regulatory criteria. Metals, including antimony, arsenic, copper, lead, and/or zinc were detected in soil samples ST-5 (14.5-16'), ST-10 (2.5-4'), ST-19 (0-2'), ST-44 (4.5-6'), and ST-56 (2.5-6') at concentrations exceeding applicable regulatory criteria. In addition, hazardous lead which failed Toxicity Characteristic Leaching Procedure (TCLP) was identified in soil sample ST-19 (0-2'). In general, soil samples identified with PCB, PAHs, and metals at concentrations exceeding applicable regulatory criteria are correlated to boring locations and intervals with intermixed debris.
- Groundwater was observed at depths ranging from 2 to 19 feet bgs corresponding to an elevation ranging between 607 and 591 feet. Analytical results of groundwater samples detected benzene in groundwater sample PP-4, vinyl chloride in groundwater sample PP-3,

benzo(a)pyrene in groundwater samples PP-2 and PP-4 through PP-7, the benzo(a)pyrene (BaP) equivalent in groundwater samples PP-1, PP-2, and PP-4 through PP-7, PCBs in groundwater sample PP-4, and arsenic in groundwater samples PP-3 and PP-4 at concentrations exceeding the Minnesota Department of Health (MDH) drinking water criteria.

- Laboratory analysis detected various petroleum and non-petroleum related VOCs in subsurface soil vapors at the Site. All soil vapor concentrations were below 33X the Commercial/Industrial Intrusion Screening Values (ISV's) with the exception of 1,3-butadiene, which is a compound commonly identified in subsurface soil vapor samples collected from a variety of urban sites. MPCA guidance indicates that the cause for these detections may be related to laboratory misidentification or sampling methods, and that without historical evidence of a 1,3-butadiene source at a specific site, the detection of this compound is typically not viewed as an environmental concern.
- Methane was detected in three of the eight soil vapor samples collected on the eastern portion of the Site within the proposed building footprint at concentrations exceeding the 5%, which is the identified lower explosive limit (LEL) for methane.

A Response Action Plan/Construction Contingency Plan (RAP/CCP) was prepared for the project and submitted to the MPCA's Voluntary Investigation and Cleanup (VIC) Program and Petroleum Brownfields (PB) Program for review and approval (available upon request). The RAP/CCP includes details on appropriate methods to handle and dispose of any such contaminated materials when encountered.

Additional regulated sites were identified within MPCA's What's In My Neighborhood (WIMN) (Minnesota Pollution Control Agency, n.d.). These sites were not identified as environmental concerns due to their closed status or the activities and lack of violations recorded. Additional locations noted on Site by Regulations are noted in Table 13-1.

Table 13-1: Additional Site Regulation Identification

Name	Permit	Activity	Status	Date
Duluth Paper Mill	MNR000109983	Hazardous Waste-Very small quantity generator	Active	1/25/2024
Filler Unloading Facility Duluth Mill	C00029828	Construction Stormwater	Closed	02/10/2012
New Page - Duluth Recycled Pulp Mill	MNS00021892; TS0055483	Aboveground Tanks; Hazardous Waste, Minimal quantity generator	Active	08/17/2015
ST Paper	BF0002698	Brownfields, Voluntary Investigation and Cleanup	Active	04/02/2024

The Site also currently has diesel and gasoline 1,000-gallon storage of each for Site operations. The current plans for the Sofidel America – Duluth Facility Expansion includes the removal and proper disposal of the tanks with replacement of same size.

Currently, there are registered tanks on site that provide storage of materials utilized in the process on

Site. These Above Ground Storage tanks (AST) are as follows:

- 8,000-gallon sulfuric acid AST located southeast of the Recycle Fiber Facility
- 9,400-gallon hydrogen peroxide AST located southeast of the Recycle Fiber Facility
- Two 205,000-gallon clay ASTs located on the western exterior of the Tissue Mill building
- 262,000-gallon calcium carbonate AST located on the western exterior of the Tissue Mill building
- 230,322-gallon pulp AST located on the western exterior of the Tissue Mill building
- Two 543,122-gallon pulp ASTs located on the northern exterior of the Tissue Mill building
- 646,400-gallon pulp AST located on the eastern exterior of the Tissue Mill building, south of the Former Greenwood Mill portion of the building.
- Approximately 500-gallon liquified petroleum (LP) tank located south of the Tissue Mill building.

These tanks are utilized in the process at the Site. From the Phase I, no RECs were identified from the tanks, indicating they are in good condition, stored properly, and not causing nuisance conditions. These tanks are remaining on Site and are not changing.

- b. *Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solidwaste including source reduction and recycling.*

Construction-related waste materials (i.e., wood, concrete, bituminous, metals, plastics, etc.) will be generated during each construction phase. Construction-related waste will be recycled or disposed of in approved facilities, as appropriate. Toxic or hazardous substances used during project construction or operations (i.e., petroleum products, hydraulic fluid, and other chemical products) will be stored and disposed of following local and state guidelines.

Mixed municipal and recyclable solid waste would continue to be generated by facility operations. Waste management complies with applicable laws, rules, and ordinances related to the management of solid and hazardous wastes per Minnesota Statutes, section 473.811. Recycling is managed in accordance with the 2016 Recycling Law (Minnesota Statutes Chapter 115A, Section 115A.151 and Section 115A.552), and relevant City codes requiring source separation and curbside pick-up. Waste collection is contracted and disposed of by a third-party hauler to be picked up weekly and hauled to a MPCA permitted landfill.

From the Site, the generated wastes from the operations would not increase except from solid waste due to an increase of employees. Materials utilized would intend to be entirely consumed in the process.

- c. *Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location, and size of any new above or below ground tanks to store petroleum or other materials. Indicate the number, location, size, and age of existing tanks on the property that the project will use. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include*

development of a spill prevention plan.

Hazardous materials and petroleum products would be in use for both during construction activities and as part of future operations at Sofidel America – Duluth Facility. Hazardous materials and petroleum-based products used for construction would be limited to small quantities including but not limited to cleaning products, paint related materials and various petroleum-based lubricants and fuels. Temporary storage at the Site for construction-related activities would be established to minimize the potential for any spills or releases. These materials would be under control by the general contractor and its subcontractors, and Safety Data Sheets (SDSs) will be maintained on-site in the job trailer or electronically kept for the duration of construction activities. The general contractor will implement a safety program for the project which will include requirements for proper use of hazardous substances and adhere to all applicable Sofidel America–Duluth safety requirements while at the Site.

Current and future operations utilize and store hazardous substances and petroleum-based products at the Site. Sofidel America – Duluth currently has an up-to-date management plan for the Site and would continue to adhere to it for future operations. There would be no increase in storage quantity of petroleum products on Site. Local and State Permits for handling and storage of materials are already in place and intend to be compliant for future operations. The facility has a current Spill Prevention, Control and Countermeasure (SPCC) plan in effect.

- d. *Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.*

The Site is currently a Small Quantity Generator of hazardous waste with a hazardous waste ID Number of MN000109983. For the Site, this is for waste aerosols and paint waste. This waste is handled and disposed of by a third party licensed hazardous waste transporter. The generation of hazardous waste for the Site for the operation after expansion is not anticipated to increase. Should major changes to the licenses need to occur due to operational changes, these would be completed.

As discussed in Section 13.a, the Site is listed in the CORRACTS database in association with Site ID MND982205494, which is associated with the hazardous waste vault located in the western portion of the Site. The vault is designed to protect the hazardous materials from releasing into the environment in the form of leachate. An Environmental Covenant has been applied to the Site that includes activity and use limitations. The project and future operations would not disturb or impact the existing hazardous waste vault.

The Site is also listed on the PLP and SHWS databases associated with chlorinated solvent-impacted groundwater identified at the site in the Well 7 Area. According to the MDD for the Well 7 Area, no action is necessary to protect human health, welfare, and the environment. All proposed Site improvements within the Well 7 Area would be done so in accordance with the approved RAP/CCP.

The Sofidel America – Duluth Facility Expansion does not anticipate the generation and storage of any hazardous waste for the construction-related activities or for future operations. During construction-

related activities such as excavation, contaminated and debris-laden soil may be encountered. The contamination and/or debris-laden soil, when encountered, would need to be managed and hauled off-site to a permitted landfill. This fill soil is impacted with varying concentrations of hazardous substances including metals, Polychlorinated Biphenyl's (PCB's), Volatile Organic Compounds (VOC's), and Polycyclic Aromatic Compounds (PAH's). Some soil is considered hazardous due to the leachable lead concentration that exceeds the waste disposal criterion of 5.0 milligrams per liter.

A Response Action Plan/Construction Contingency Plan (RAP/CCP) for use during construction-related activities would be utilized at the Site. The RAP/CCP will detail requirements for management, treatment, transport, and off-site disposal at a permitted landfill for contaminated and debris-containing fill soil that are required to be removed. The RAP/CCP also provides an outline for the contingency procedures for addressing any unexpected environmental conditions encountered during construction. The RAP/CCP document will be submitted to the MPCA Voluntary Investigation and Cleanup (VIC) Program for review and approval prior to the start of construction-related activities. For assurance the RAP/CCP Plan would be adhered to during construction-related activities, environmental monitoring would be conducted.

14. Fish, wildlife, plant communities, and sensitive ecological resources (rare features):

- a. *Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.*

The Site is located in an urban portion of the City of Duluth adjacent to the St. Louis River Estuary. As listed in Table 8-1 within Section 8, land cover within the Site is primarily impervious surfaces (buildings, roads, packed gravel areas, parking lots, rail lines etc.), maintained turf grasses and open brushy or grassland areas. Aside from a wooded floodplain riparian area bordering Keene Creek (outside of the Site) in the southwest portion, landscaping trees are individually scattered throughout the Site, primarily in the western half. As described in Section 12, several wetlands are also present within the Site, primarily in the southern portion.

Including the St. Louis River Estuary to the east, the surrounding area is highly developed with a mix of commercial, industrial, and residential properties along with significant infrastructure (railroads, shipping/receiving terminals, Interstate 35, US Highway 2 etc.). With the Site and majority of the surrounding area developed, limited habitat is present to support fish and wildlife use or populations.

- b. *Describe rare features such as state-listed (endangered, threatened, or special concern) species, native plant communities, Minnesota Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-038) and/or correspondence number (MCE) from which the data were obtained and attach the Natural Heritage Review letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.*

Braun Intertec Corporation holds a license agreement from the Minnesota Department of Natural Resources (DNR) for a local copy of the Natural Heritage Information System (NHIS) geodatabase (License #038). A query of the database was made on May 8, 2024, for Element Occurrences (EO) within a 3-mile radius of the Site. EOs for thirteen (13) species were identified by the NHIS database (spatial location information of each species cannot be shared in a public document per the license agreement) within 3-miles of the Site. Five of the EOs are for state threatened or endangered species including two birds, one insect, and two plants. The remaining eight entries are species of special concern, including

one bird, three fish, one mussel and three plants.

A Natural Heritage Review request has also been submitted to the DNR through the Minnesota Conservation Explorer (MCE) and the project is pending further review (Appendix C).

An online query was also submitted to the U.S. Fish & Wildlife (USFWS) database through the Information for Planning and Conservation (IPaC) tool on July 25, 2024 (US Fish and Wildlife Service, 2024). The IPaC results (Appendix C) indicated that the Site is within the range of four federally listed species, one candidate species, and one species proposed for listing as endangered: the threatened Canada Lynx (*Lynx canadensis*), threatened Gray Wolf (*Canis lupus*), endangered Northern Long-eared Bat (*Myotis septentrionalis*), candidate Monarch Butterfly (*Danaus plexippus*), the threatened Rufa Red Knot (*Calidris canutus rufa*), and the Tricolored Bat (*Perimyotis subflavus*), which is proposed for listing as endangered.

The IPaC results do not indicate observations of these species near or within the Site. IPaC results identified species that may occur within the Site based on the broad geographic ranges of the species (such as occurrence within the county). In contrast, the NHIS results report actual observations within a set distance (three miles was used for this report). A summary of the listed species identified in the IPaC and NHIS queries is listed in table 14-1 below.

Table 14-1: Federal and State Listed Species' Status within 3 miles of the Site.

Common Name	Scientific Name	Federal Status	State Status	Type
USFWS IPaC Species Query Results				
Canada Lynx	<i>Lynx canadensis</i>	Threatened	Special Concern	Mammal
Gray Wolf	<i>Canis lupus</i>	Threatened	Delisted	Mammal
Monarch Butterfly	<i>Danaus plexippus</i>	Candidate	N/A	Insect
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Endangered	Special Concern	Mammal
Rufa Red Knot	<i>Calidris canutus rufa</i>	Threatened	N/A	Bird
Tricolored Bat	<i>Perimyotis subflavus</i>	Proposed Endangered	Special Concern	Mammal
DNR NHIS Species Query Results				
American Eel	<i>Anguilla rostrata</i>	N/A	Special Concern	Fish
Beach Heather	<i>Hudsonia tomentosa</i>	N/A	Threatened	Vascular Plant
Common Tern	<i>Sterna hirundo</i>	N/A	Threatened	Bird
Creek Heelsplitter	<i>Lasmigona compressa</i>	N/A	Special Concern	Mussel
Discoïd Beggarticks	<i>Bidens discoidea</i>	N/A	Special Concern	Vascular Plant
Hairy-necked Tiger Beetle	<i>Cicindela hirticollis rhodensis</i>	N/A	Endangered	Insect
Lake Chub	<i>Couesius plumbeus</i>	N/A	Special Concern	Fish
Lake Sturgeon	<i>Acipenser fulvescens</i>	N/A	Special Concern	Fish
Pale Sedge	<i>Carex pallescens</i>	N/A	Endangered	Vascular Plant
Peregrine Falcon	<i>Falco peregrinus</i>	N/A	Special Concern	Bird
Piping Plover	<i>Charadrius melodus</i>	Endangered	Endangered	Bird
Soapberry	<i>Shepherdia canadensis</i>	N/A	Special Concern	Vascular Plant

Common Name	Scientific Name	Federal Status	State Status	Type
Torrey's Mannagrass	<i>Torreyochloa pallida</i>	N/A	Special Concern	Vascular Plant

The IPaC results also noted that the bald and golden eagles along with seventeen (17) migratory birds of conservation concern have been documented within the vicinity of the Site. Eagles are protected by the Bald and Golden Eagle Protection Act (BGEPA) which prohibits the take of bald or golden eagles, and this protection extends to body parts, eggs, or nests. A “taking” includes the following actions: pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. In addition to direct impacts, this Act covers disturbance around eagle nests that could disrupt nesting or cause nest abandonment.

Migratory birds are legally protected by the Migratory Bird Treaty Act (MBTA), which implements international treaty agreements through federal law. The Act prohibits take of protected migratory bird species. Take encompasses killing, capturing, selling, trading or transport. Prohibitions extend to adult birds, juveniles, and active nests during the breeding season. Both the BGEPA and MBTA are administered by the USFWS, and if migratory birds or eagles are found occupying the Site during construction, any potential impacts would be permitted in accordance with all applicable state and federal laws.

Since the Site does not contain any bluffs, forests, waterbodies (lakes, rivers, streams), sandy/gravelly shorelines or islands, sand dunes, or rock ledges/outcrops, suitable habitat is not present for the majority of species identified in state and federal databases. Based on observations from the 2024 Braun Intertec wetland delineation, and significant disturbance from industrial activities in the Site (discussed in Section 13), the wetlands present do not provide suitable habitat for the Discoid Beggarticks or Torrey’s Mannagrass, both state special concern plant species.

While gray wolves inhabit large areas of northern Minnesota, the Site does not contain favorable wolf hunting or resting habitat (northern forests, mountains, and large grasslands). Additionally, since the gray wolf is a highly mobile and wide-ranging species, it is generally not affected by single site development or redevelopment projects within urban areas such as the proposed project.

Herbaceous vegetation on the Site may provide habitat for monarch butterflies. However, pollinator floral resources appear to be limited since 92% of the Site is lawn/landscaping or impervious surfaces. As a result, the butterfly is unlikely to forage or reside within the Site but may be a transient visitor during migration.

Based on the NHIS query results, Minnesota Breeding Bird Atlas data, and reports from local birding organizations (Hawk Ridge Bird Observatory, Midwest Peregrine Society etc.), peregrine falcons are known to inhabit areas within 1-mile of the Site. Breeding peregrine falcons have also been documented within 3-miles (Minnesota Breeding Bird Atlas, 2024) In Minnesota, peregrine falcons nest primarily on tall buildings/structures or bridges in urban areas and on cliffs along Lake Superior. Peregrine falcons will also nest on cliffs above lakes in the Boundary Waters Canoe Area Wilderness and on bluffs along the Mississippi River in southeastern Minnesota (Stucker, 2018).

While no bat species were identified in the NHIS query results, the trees onsite may provide potential summer roosting habitat for both the northern long-eared and tricolored bats. The trees within the Site also provide nesting habitat for migratory birds.

A summary of habitats for each species and determination of effect from the proposed project is provided in Appendix C.

The Site does not occur in or near designated Critical Habitat and no portion of the Site is located within a Minnesota Biological Survey (MBS) site. The southern end of the Site is separated from the Riverside to Grassy Point MBS site by South 50th Avenue West, Keene Creek, and a Northern Pacific Railroad line. Riverside to Grassy Point is ranked as a site of moderate biodiversity significance by the MBS.

Two other MBS sites are located within 3 miles of the Site: Bear Island to Smithville and Magney-Snively Forest, which are ranked as sites of high and outstanding biodiversity significance, respectively. Several native plant communities are mapped by the DNR within both of these MBS sites as listed in Table 14-2 below.

Table 14-2: Minnesota Biological Survey Sites and Mapped Native Plant Communities within 3 miles of the Site.

Minnesota Biological Survey (MBS) Site	Biodiversity Significance Ranking	Mapped Native Plant Communities
Bear Island to Smithville	High	Alder (Maple- Loosestrife) Swamp, Aspen- Birch- Red Maple Forest, Estuary Marsh (Lake Superior), Willow- Dogwood Shrub Swamp
Magney-Snively Forest	Outstanding	Aspen- Birch Woodland, Bedrock Shrubland (Inland), Black Ash- Basswood Forest, Sugar Maple- Basswood (Bluebead Lily) Forest, White Cedar- Yellow Birch Forest
Riverside to Grassy Point	Moderate	N/A

Additionally, the Site is within an area designated as the St. Louis River Estuary Important Bird Area (IBA) by Audubon Minnesota in partnership with the DNR. IBAs are non-regulatory and are part of an international conservation effort aimed at conserving globally important bird habitats (Minnesota Department of Natural Resources, 2024). The St. Louis River Estuary IBA includes a variety of forest, wetland and shoreline habitats downstream of the Fond du Lac dam to Lake Superior. The heavily developed industrial and residential areas along the Minnesota side of the St. Louis River and Minnesota Point are also included within this IBA. Over 238 species of birds have been documented within the St. Louis River Estuary IBA including a high diversity of waterfowl (27 species) and shorebirds (31 species) in addition to large numbers of raptors during migration periods (National Audubon Society, 2013).

- c. *Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project including how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.*

Since the Site is primarily developed with impervious surfaces, there is limited habitat for fish and wildlife, native ecosystems, or plant communities. Redevelopment of the Site for continued industrial use is not anticipated to adversely affect any rare and/or protected species identified in federal and state databases. Seasonal considerations for any required tree clearing work would minimize potential

impacts to listed bat species and migratory birds. Additionally, the treatment of stormwater onsite and implementation of a SWPPP during construction would reduce potential indirect impacts from sedimentation to aquatic species in the St. Louis River Estuary and other surrounding water bodies.

The monarch butterfly is listed as a candidate species by the USFWS, and the tricolored bat is proposed for listing as endangered. As candidate and proposed listing species, neither is currently protected under the Endangered Species Act (ESA). Voluntary conservation measures for the monarch butterfly are encouraged for development projects that occur within its range. Designed conservation measures may include planting native flowering vegetation species in landscaped areas that bloom spring through fall and removal/control of invasive plant species that establish post-construction.

While peregrine falcons have been documented within 1-mile of the Site, there are no currently known occurrences of peregrine falcons nesting on existing buildings/structures within the Site. Therefore, no impacts to peregrine falcons are anticipated from the proposed project. Once complete, the proposed project may provide additional nesting habitat for peregrine falcons since the new warehouse (~152-foot height) would be an additional tall building in the area.

Since the peregrine falcon is a special concern species in Minnesota, it is not protected under the Minnesota Endangered Species Statute. Special concern species are tracked by the DNR due to their rarity in Minnesota or are species that require unique/highly specific habitat(s) and are carefully monitored as a result. However, the peregrine falcon is federally protected under the MBTA, which protects non-game bird species from take. As of December 3, 2021, the MBTA again prohibits incidental take (take of birds or destruction of bird nests with eggs or chicks resulting from activities conducted for other purposes including construction, maintenance, tree removal etc.) of migratory birds.

As discussed in Section 7, Minnesota's climate is projected to change in the following decades primarily through increases in both average temperatures and precipitation. These climatic changes along with the projected increased frequency of droughts, are expected to exacerbate habitat stressors (habitat loss, fragmentation, degradation and pollution along with the introduction of invasive species and/or disease) at varying levels of severity for wildlife across Minnesota (Minnesota Department of Natural Resources, 2016). In particular, ecosystems within the Laurentian Mixed Forest Province (ecological classification) of northeast Minnesota where the Site is located, are expected to be more vulnerable to moisture stress from droughts, increased spread of invasive vegetation species, insect pests and diseases, seasonal shifts in the amount, timing and intensity of precipitation, and increased freeze-thaw cycles from climate change (Minnesota Department of Natural Resources, 2016).

Probable future effects from climate change at Site may include shifts in natural vegetation from historically established species to ones that thrive under warmer temperatures (Ex: changes in tree distribution from aspen, birch, and spruce dominant to oak and hickory species). Other expected impacts include increased stormwater and flash flooding, which could require additional management.

However, since limited wildlife habitat is present within the Site, impacts from climate change in the context of the proposed project to any species potentially present onsite in the future are anticipated to be minimal or nonexistent. Of the species identified in state and federal databases for the Site location, the peregrine falcon is most likely to inhabit the Site, and therefore may experience the most climate change related impacts in the Site vicinity.

Other species with limited potential to visit or inhabit the Site include the monarch butterfly, northern

long-eared bat and tri-colored bat. As discussed above in Section 14.b, the monarch butterfly is unlikely to inhabit the Site due to the existing landcover. The vegetation species present and specifically the concentration of plants that provide floral resources to pollinators are influenced by land use practices. Therefore, the availability of pollinator floral resources (particularly milkweed (*Asclepias sp.*)) impact the monarch butterfly more significantly than any potential effects from climate change, particularly in context of the proposed project. Similarly, northern long-eared and tricolored bats in Minnesota are impacted by the fungus causing white-nose syndrome at orders of magnitude far greater than projected impacts from climate change (Minnesota Department of Natural Resources, 2016), particularly in context of the proposed project.

According to the Audubon Society's 2019 climate change report for Minnesota, *Survival by Degrees: 389 Species on the Brink*, peregrine falcon populations are expected to remain stable even at temperature increases up to 3 degrees Celsius (C) (National Audubon Society, 2024). At a temperature increase of 3 degrees C, the peregrine falcon is expected to lose 14% of its summer range across North America, gain 41% additional range, and maintain 86% of its current range. Within Minnesota, these projected range changes would limit suitable summer habitat for the peregrine falcon to scattered areas within northern Minnesota and the North Shore Highlands along Lake Superior, which includes the Site location (National Audubon Society, 2024). Despite the projected broad loss of suitable summer habitat in Minnesota at temperature increases of 1.5 to 3 degrees C, the proposed project is not anticipated to impact the peregrine falcon due to the expected relative climate stability of the North Shore Highlands eco region.

There is a minimal risk for the introduction and spread of invasive species from or into the Site. Equipment and materials used during construction and for operational activities on and off Site would be visually inspected by the contractor and/or Sofidel America Corporation staff prior to loading to determine if it meets department of transportation hauling standards. If observed on equipment, personnel, or vehicles, soil and/or vegetation would be removed via cleaning prior to departure from the Site. Additionally, during project construction, work would occur only within designated areas to minimize potential of spreading invasive vegetation species.

- d. *Identify measures that will be taken to avoid, minimize, or mitigate the adverse effects to fish, wildlife, plant communities, ecosystems, and sensitive ecological resources.*

During construction, all disturbed soils would be temporarily protected by sediment and erosion control measures that would be installed and maintained for the duration of the proposed project. Additionally, any required tree clearing would be completed between November 15 and March 31 (outside the active roosting season for bats and nesting season for migratory birds) to minimize potential impacts to listed bat species and migratory birds. If peregrine falcons or other migratory birds are found nesting within the Site and seasonal restrictions on work activities cannot be followed, the USFWS would be consulted prior to any work beginning.

15. Historic properties:

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid,

minimize, or mitigate adverse effects to historic properties.

On May 8, 2024, a request for technical assistance was made to the Minnesota State Historic Preservation Office (SHPO) to determine whether historic structures, archaeological sites, and/or traditional cultural properties may exist on or near the Site. Due to staffing shortages, the SHPO was unable to complete the file request and recommended that a qualified archaeologist complete this task using the online Minnesota Office of the State Archaeologist (OSA) databases, the results of which to be summarized in a Phase Ia literature review to determine the potential for the Project to impact known or suspected archaeological sites (refer to June 17, 2024 SHPO email correspondence in Appendix D).

The project proposer also initiated a Phase Ia literature review report. This review and report (conducted by InSitu Archaeological Consulting, May 10, 2024) utilized files maintained by the Minnesota Office of the State Archaeologist (OSA) and SHPO, therefore the report is not available for public disclosure (available upon written request). From the Phase Ia literature review, there were 4 previous archaeological resource inventories/surveys completed, 11 previously recorded archaeological sites, and 153 previously recorded architectural resources within the 2-mile study area. Of these, none are located within the boundaries of or adjacent to the Site.

The current conditions of the Site indicate that while there may have been potential areas of historical significance, the amount of land use conversions, construction, and earthwork has significantly degraded the landscape and could have considerably impacted the potential of intact archaeological deposits. The Site is entirely within the existing footprint of previously disturbed land, concluding that it may have, if not totally, impacted any archaeological resources. Due to these factors, the Phase Ia report recommends no further archaeological resource work, as the Site has a low potential for impacting any intact traditional cultural properties or archaeological resources. On June 17, 2024, SHPO responded with an email stating to follow the recommendations from the Phase Ia report and SHPO would not be looking at this project further for review. It is anticipated that SHPO will review this EAW document during the public comment period.

From the Phase Ia literature review report, the Site would not impede the viewshed of the identified resources that depend on the significance of a view.

16. Visual:

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

The Site is sloping from west to east with approximately the eastern two-thirds of the Site as generally flat in elevation up to the St. Louis River. Scenic views of the St. Louis River are present along the eastern project boundary. Surrounding off-site areas are primarily industrial and residential land uses with limited greenspace and partially obstructed views of the St. Louis River and Lake Superior. The Site is partially surrounded by trees and vegetation to the west and south with limited visibility onto the Site from Central Avenue and Waseca Industrial Boulevard.

Visual effects from the facility operations would include vapor plumes from the buildings heating systems during winter months, parking lot and other exterior lighting, and mobile vehicle/equipment

lights. Night time construction is not anticipated for this project, thus no additional lighting would be implemented during construction activities. The tallest proposed building (up to 152 feet) is located east of the existing facility, and therefore primarily visible from the east (St. Louis River) and at higher elevations to the west and north of the Site. Viewsheds to existing buildings (brown) and proposed buildings (white) are illustrated on the perspective drawings provided in Appendix E. An earthen berm currently exists along Central Avenue to assist in deterring visual effects from the west side of the road.

Mitigation efforts proposed include domed exterior lights, that are downcast and cutoff, in the parking and shipping areas that meet City of Duluth Code (Section 50-31), trees around the parking lot, near the western perimeter between the residential areas and the Site, and greenspace areas.

17. Air:

- a. *Stationary source emissions - Describe the type, sources, quantities, and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants. Discuss effects to air quality including any sensitive receptors, human health, or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.*

The proposed project will have air emissions of particulate matter (PM), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}) from small combustion processes (discussed below), paper roll conversion process and vehicle traffic on paved roads. The paper roll conversion process generates dust from tripping of paper rolls. Each paper roll conversion line (CNV line) will have its own exhaust. Dust (particulate matter) from the operation will be collected through a vacuum with suction hoods strategically located near the dust generation points. Once the dust is captured, it will be conveyed through vacuum into a large drum filter. The filter media will be continuously cleaned by a vacuum system that sends the dust removed from the media into a machine called "briquetter" that compresses the dust into bricks.

The proposed project will have natural gas-fired space heating and other air handling equipment. Based on the square footage of new buildings associated with the proposed project it is conservatively assumed that the total heat input to the natural gas-fired heating equipment is 90,000 Btu/hr. Emissions from space heating will include low levels of PM, PM₁₀, PM_{2.5}, nitrogen oxides (NO_x), sulfur dioxide (SO₂), volatile organic compounds (VOC), carbon monoxide (CO), greenhouse gases (carbon dioxide, methane, nitrous oxide), and various hazardous air pollutants (HAP).

Backup power for the proposed project will be provided by battery rather than internal combustion emergency engines thereby avoiding air emissions from these types of engines.

Potential air emissions from stationary sources associated with the proposed project are low and, as described above, are limited to natural gas combustion emissions from space heating and particulate matter dust from paper trimming operations. The project will require a minor amendment to the Part 70 Air Emissions Operating Permit (Permit Number 13700141-102 or "Air Permit") to add the new emissions sources. The project will comply with the requirements of the Air Permit and no conditions in the Air Permit need to be modified to accommodate the new emissions sources. Table 17-1 below presents the potential to emit (PTE) of the project compared to the insignificant modification thresholds

and minor amendment thresholds in Minn. R. 7007.1250 and Minn. R. 7007.1450 respectively and the New Source Review (NSR)/112g thresholds. The pound per hour net PTE increase associated with the project is above the insignificant modification threshold for nitrogen oxides (NO_x) and particulate matter- 10 microns or less (PM₁₀), but below the thresholds listed in Minn. R. 7007.1450. The pound per hour PTE of all other pollutants is below the insignificant modification threshold. The annual PTE of all pollutants are below the NSR/112g thresholds.

Table 17-1: Potential to Emit

Pollutant	Total Net PTE increase (lb/hr)	Total Net PTE increase (short tons/yr)	Minn. R. 7007.1250 Insignificant Modification Threshold (lb/hr)	Minn. R. 7007.1450 Minor Amendment Threshold (lb/hr)	New Source Review/112 threshold (short tons/yr)	Amendment Type Triggered
NO _x	2.49	0.65	2.28	9.13	250	Minor
CO	0.55	0.21	5.7	22.28	250	NA
PM ¹	4.56	24.4	NA	NA	250	NA
PM ₁₀ ¹	1.09	5.06	0.855	3.42	250	Minor
PM _{2.5} ¹	0.31	0.88	NA	NA	250	NA
SO ₂	9.62 x 10 ⁻⁴	7.26 x 10 ⁻⁴	2.28	9.13	250	NA
VOC	0.20	5.54 x 10 ⁻²	2.28	9.13	250	NA
Lead	8.50 x 10 ⁻⁴	2.13 x 10 ⁻⁴	0.025	0.11	250	NA
HAP-Total		1.89 x 10 ⁻³	NA	NA	10	NA
HAP-Single		1.65 x 10 ⁻³	NA	NA	25	NA

¹Emission rates do not take into account control from the drum filter on the paper trim system. Actual emissions will be significantly lower than presented in this table.

Based on the quantity and nature of the stationary source air emissions adverse effects on air quality are not expected. Air emissions are not expected to affect attainment or maintenance of National Ambient Air Quality Standards (NAAQS) or Minnesota Air Quality Standards (MAAQS) in the area. NAAQS and MAAQS are limits on concentrations of certain air pollutants in the air and are designed to provide public health protection, including protecting the health of sensitive populations. The project area is in attainment with all NAAQS and MAAQS.

- b. *Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g., traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.*

Vehicle tailpipe emissions include particle pollution, carbon monoxide, hydrocarbons, and nitrogen oxides and will occur from vehicles traveling to and from the Site and during construction.

As described in EAW question 20, there will be an increase in vehicular traffic to the Site; however, it is not expected that additional air emissions from the project's additional traffic generation will substantially affect air quality in the area.

Best practices to minimize diesel idling from trucks within the Site will be evaluated and implemented (if feasible) by the project proposer at the start of normal operations.

- c. *Dust and odors – Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 17a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.*

The construction of the proposed project is expected to generate fugitive dust periodically over the course of construction. Fugitive dust is expected from the handling of soils or other silt-containing material, including activities associated with debris removal, site preparation, construction, and wind erosion of storage piles. Fugitive dust is also expected from resuspension of loose material on both paved and unpaved roads from construction vehicle traffic. The amount of fugitive dust generated will vary by the type of construction activity, the level of activity, and the prevailing meteorological conditions. Effects on air quality from fugitive dust generated from construction activities will be temporary and localized. Fugitive dust from construction activities will be minimized with best management practices as necessary and per the Construction Stormwater Pollution Prevention Plan (SWPPP).

Fugitive dust associated with ongoing normal operations of the facility includes dust from resuspension of loose material on paved mill roads (further described in item 17.a). Fugitive emissions will be minimized per the facility's Part 70 Air Emissions Permit and through best management practices outlined in the facility's NPDES ISW SWPPP and are dynamic to the time of year and activities on Site. Stationary sources are discussed in Section 17.a.

Odors generated by the project are expected to be similar to odors typical of construction or industrial sites. No new pulp or paper making activities are included in this project, the change to the process includes conversion of parent tissue rolls and materials into various commercial products which is not expected to generate odors. Any odors from manufacturing will be limited by the fact that the majority of the mill's processes will occur indoors.

18. Greenhouse Gas (GHG) Emissions/Carbon Footprint

- a. *GHG Quantification: For all proposed projects, provide quantification and discussion of project GHG emissions. Include additional rows in the tables as necessary to provide project-specific emission sources. Describe the methods used to quantify emissions. If calculation methods are not readily available to quantify GHG emissions for a source, describe the process used to come to that conclusion and any GHG emission sources not included in the total calculation.*

Table 18-1 includes a summary of the potential GHG emissions for this project. The supporting calculations are included in Appendix G. The primary greenhouse gases emitted from the facility include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) from the combustion fossil fuels. GHG emissions can be categorized as direct or indirect. Direct emissions are emissions released directly from properties owned or under the control of a project proposer and are also referred to as "Scope 1" emissions. Scope 1 emissions from the project include stationary source emissions from the combustion

of natural gas for building space heating. Additional Scope 1 emissions include GHGs from off-road vehicles associated with the construction of the project as well as GHGs from additional project related vehicle traffic. The quantity of GHG emissions from vehicle traffic will vary significantly based on the distance that the vehicles travel.

Scope 1 emissions also include emissions from land-use change. Land-use change associated with the project is within the Site’s existing developed property. Approximately 6 acres of grassland will be converted to impervious surface or “settlement” and approximately .58 acres of wetland will be converted to settlement. The Intergovernmental Panel on Climate considers “settlements” to include tracts of less than ten acres that may meet the definitions for cropland, grassland, or other land but are completely surrounded by urban or built-up land, and so are included in the settlements category (United States Environmental Protection Agency, 2024). Therefore, no GHG emissions associated with land use change are minimal and were not quantified.

Indirect emissions originate either upstream or downstream of the project. These emissions are commonly referred to as “Scope 2” and Scope 3” emissions. Examples of Scope 2 emissions include off-site generation of purchased electricity, steam, and heating and cooling. Scope 2 emissions from the facility include emissions related to additional electricity demand.

Example of scope 3 emissions are from off-site provision of wastes management services, no scope 3 emissions were calculated for the project as sufficient data is not currently available to perform this calculation.

A common way to report emissions of these gases is to multiply the emissions of each gas (in tons) by its global warming potential (GWP) and to report the total GHG emissions as total carbon dioxide equivalents (CO₂e). The tables below represent GHG emissions as CO₂e. The CO₂e emissions presented in the tables below are based on best available emissions factors and estimates of the equipment usage, vehicle types, vehicle miles traveled, and energy consumption. There is uncertainty associated with the emission factors as they represent average emission rates across vehicle or equipment types. Similarly, there is significant uncertainty associated with activity levels, especially associated with the type and usage of vehicles during construction and operation of the project.

Table 18-1: Construction Emissions

Scope	Type of Emission	Emission Sub-type	Project-related CO ₂ e Emissions (short tons/year)	Calculation method(s)
Scope 1	Combustion	Mobile Equipment	20.1 ¹	Estimate of construction vehicle types and fuel consumption based on data from Oregon Nonroad Diesel Equipment Survey and Emissions Inventory. Emission factors from EPA’s “Emission Factors for Greenhouse Gas Inventories”. See Appendix G for calculations.
Scope 1	Land Use	Conversion	N/A	Land use change minimal and therefore CO ₂ emissions not quantified
Scope 1	Land Use	Carbon Sink	N/A	Land use change minimal and therefore carbon sink not quantified
TOTAL			20.1	

¹Annualized over the life (30+ years) of the project

Table 18-2: Operational Emissions

Scope	Type of Emission	Emission Sub-type	Existing facility CO ₂ e Emissions (short tons/year)	Project-related CO ₂ e Emissions (short tons/year)	Total CO ₂ e Emissions (tons/year)	Calculation method(s)
Scope 1	Combustion	Mobile Equipment	21,800 ¹	16,000 ¹	37,800 ¹	Emission factors from EPA's "Emission Factors for Greenhouse Gas Inventories" See Appendix G for calculations.
Scope 1	Combustion	Stationary Equipment	72,200	100	72,300	40 CFR pt. 98. See Appendix G for calculations
Scope 2	Off-site Electricity	Grid-based	Not quantified	6,600	Not quantified	Emission factors from EPA's "Emission Factors for Greenhouse Gas Inventories" See Appendix G for calculations.
Scope 3	Off-site Waste Mgmt.	Area	Not Quantified ²	Not Quantified ²	Not quantified ²	N/A
TOTAL				22,700		

¹Emissions from vehicles are highly dependent on actual vehicles miles traveled which may vary significantly from estimates.

²CO₂e emissions from waste management were not included in the evaluation; however, the majority of waste generated by the project, once operational will be either reused in the paper making process or recycled, so the amount of greenhouse gases generated from management of waste generated by the project is expected to be minimal when compared to other sources greenhouse gases.

b. GHG Assessment

- i. Describe any mitigation considered to reduce the project's GHG emissions.

Sofidel America Corporation has a carbon footprint assessment program and will assess potential alternative energy sources for the proposed expansion; however, it is too early in project development for this evaluation. The proposed project would use LED lighting and nearly all waste from the proposed project (tissue scraps, cardboard, etc.) would be recycled either within the paper making process or sent off-site for recycling. Additional considerations for this expansion project could include energy efficiency strategies during construction and operations, as well as mobile equipment mitigation strategies (electrification of vehicles and charging infrastructure).

- ii. *Describe and quantify reductions from selected mitigation, if proposed to reduce the project's GHG emissions. Explain why the selected mitigation was preferred.*

As described above the proposed project will use LED lighting and nearly all waste from the proposed project will be recycled either within the paper making process or set off-site for recycling. A refined calculation of reductions from these practices is not reasonable; however, according to the U.S. Department of Energy, LEDs use up to 90% less energy than traditional incandescent bulbs. Further evaluation of mitigation opportunities will occur as the project is implemented, but these evaluations have not yet been completed. Additional considerations for this expansion project can include energy efficiency strategies during construction and mobile equipment mitigation strategies, examples including the electrification of vehicles and charging infrastructure.

- iii. *Quantify the proposed projects predicted net lifetime GHG emissions (total tons/#of years) and how those predicted emissions may affect achievement of the Minnesota Next Generation Energy Act goals and/or other more stringent state or local GHG reduction goals.*

The net lifetime estimated total GHG emissions from the project is 22,700 ton/yr. The majority of these emissions are from vehicle traffic and will vary significantly with actual vehicle miles traveled and electricity usage. GHG emissions from electricity are expected to decrease overtime as power generation in Minnesota's shifts to more renewable energy.

This quantity of GHG emissions is not expected to significantly impede Minnesota's progress toward achieving the Next Generation Energy Act goals (based on the MPCA's 2023 legislative report Minnesota's estimated total GHG emissions in 2020 was greater than 150 million tons of CO₂e).

19. Noise

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including: 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

Minnesota's noise pollution rules are based on statistical calculations that quantify noise levels over a one-hour monitoring period. The L₁₀ calculation is the noise level that is exceeded for 10 percent, or six minutes, of the hour, and the L₅₀ calculation is the noise level exceeded for 50 percent, or 30 minutes, of the hour. There is not a limit on maximum noise. The statutory limits for a residential location are L₁₀ = 65 dBA and L₅₀ = 60 dBA during the daytime (7:00 a.m. – 10:00 p.m.) and L₁₀ = 55 dBA and L₅₀ = 50 dBA during the nighttime (10:00 p.m. – 7:00 a.m.) (Minn. R. 7030.0040). This means that during the one-hour period of monitoring, daytime noise levels cannot exceed 65 dBA for more than 10 percent of the time or 60 dBA more than 50 percent of the time. The basic noise rules for other noise area classifications are:

Table 19-1: State Noise Standards

Noise Area Classification	Daytime		Nighttime	
	L ₁₀	L ₅₀	L ₁₀	L ₅₀
1	65	60	55	50
2	70	65	70	65
3	80	75	80	75

Current noise varies from multiple sources and several land uses surrounding the Site, including but not limited to rail operations, industrial and commercial activities, electrical generation power plant, commercial and personal watercraft on the St. Louis River, non-motorized public trail users, residential, and vehicle traffic on Central Avenue, Interstate 35, and Waseca Industrial Road (See Figure 7 in Appendix B).

Due to the distance from the Site to the nearest receptors, noise from construction activities and operations need to be accounted for and reduced where practical and feasible. On-site sound levels will differentiate due to the source, movement, proximity to the Site boundary, barriers, wind, vegetation, proximity from the source to the receptor, and receptor noise level in decibel readings. The nearest receptors are identified as the traveling public along Central Avenue, Waseca Industrial Road, Cross City Trail, Irving Park, and the residential neighborhoods west of Central Avenue, and North of Interstate 35.

Construction noise will occur outside during daytime hours of 7am to 7pm during weekdays and 7am to 7pm on weekends per the City of Duluth’s noise ordinance and within buildings during daytime and/or nighttime hours. Construction noise generating equipment and activities may include earthwork/grading equipment and building activities. If blasting were to occur, all applicable noise regulations would be adhered to, including but not limited to notification, daytime hour only, and proper planning and permitting.

Post-construction noise generated from facility operations would occur inside facility buildings and structures during daytime and nighttime hours. Noise sources and levels are expected to be unchanged and negligible compared to the ambient noise from surrounding roadways and rail operations. Occasional outdoor activities will continue to generate noises from the start up and shut down of trucks, back-up alarms, and general Site maintenance activities (snow removal and lawn/landscaping) and building or equipment maintenance. There may be occasional infrequent high frequency, short duration noise levels (nuisance noise) expected during short term non-routine operational activities. Reoccurring outdoor site, building, and equipment maintenance activities will be scheduled during daytime hours. Loading docks and truck traffic would be limited to the southern end of the Site, away from sensitive noise receptors.

Construction and post-construction operational noise sources are not expected to contribute to nonconformance with the Minnesota State Statute 7030.0040, is not expected to contribute to excessive noise or nonconformance with the State noise standards for nearby receptors, or negatively affect the nearby receptors quality of life. Mitigation measures on Site can include but are not limited to back up alarms (squawkers), elevation difference for rooftop units, vegetation and landscaping, noise being reduced by buildings, operational hours, insulation of units and buildings, and location of truck parking and loading and its proximity to sensitive resources.

20. Transportation

- a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.

Current Site generated estimated traffic conditions from the Minnesota Department of Transportation are provided in Tables 20-3 & 20-4 below. An additional 128 employee parking spaces are anticipated as well as 3 more trailer spaces and 60 more truck-trailer parking spaces for the Site.

The proposed traffic would use both Central Avenue and Waseca Industrial Road to access the Site. Truck traffic will continue to utilize the existing Waseca Industrial Road entrance to the facility docks/shipping area for loading and scale. Employee and contractor traffic is anticipated to access the Site from Central Avenue. For this entrance, visitors would utilize an intercom system for access through the gate. Alternative non-motorized modes of transportation to the Site may utilize Cross City Trail to access Central Avenue. The Duluth Transit Authority does currently have a stop along Central Avenue, providing public transit to the Site.

Table 20-1: MnDOT Traffic Annual Count: Central Avenue

Year	Traffic Count
1999	6,200
2003	6,600
2007	6,700
2011	4,400
2015	5,800
2018	5,800
2022	4,249
<i>Annual Average</i>	5,678

Table 20-2: MnDOT Traffic Count: Waseca Industrial Road

Year	Traffic Count
1999	1,600
2003	350
2007	1,500
2011	1,850
2014	1,300
2018	1,450
2022	1,064
<i>Annual Average</i>	1,302

Table 20-3: Sofidel America – Duluth Facility Current Traffic Counts

Current	Count
Truck	
Monthly Average	635
Daily Peak	30
Cars	
Day	50

Current	Count
Night	10

Table 20-4: Current and Future Sofidel America - Duluth Parking

Car Parking	Space Count
Current	200
Expansion Estimate	328
Truck Parking	Space Count
Current	Undesignated
Expansion Estimate	60
Trailer Parking	Space Count
Current	14
Expansion Estimate	17

- b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: <http://www.dot.state.mn.us/accessmanagement/resources.html>) or a similar local guidance.

Traffic estimates, provided by Sofidel America – Duluth, as noted in Table 20-5, show an estimated increase in traffic counts for truck traffic utilizing the Waseca Industrial Road entrance to the south and other vehicle traffic utilizing the Central Avenue entrance to the west. These trips would only occur during operational days (two shifts per day, Monday through Friday with little to no traffic during the weekends and holidays). From the current daytime peak average compared to the 2028 estimations, a 214% increase in daytime traffic to the Site is expected but would not exceed 250 vehicles per day or 2,500 daily trips.

Table 20-5: Sofidel America - Duluth Future Traffic Estimates

	2026 Estimations	2027 Estimations	2028 Estimations
Truck			
Monthly Average	845	940	1,100
Daily Peak	47	57	71
Cars			
Day	79	91	107
Night	22	31	41

- c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

No transportation mitigation strategies for this Site have currently or are proposed to be implemented. This is due to the established facility operations, surrounding industrial area, and existing road design that is sufficient for the projected increase in truck capacity. The increase of employee traffic to the Site would not cause a detrimental impact to the surrounding area as the traffic estimates provided by

Sofidel America – Duluth (based on current and future production estimates) remain under the requirements for a Traffic Impact Study. If needed, Sofidel America – Duluth would consider reasonable minimization and mitigation measures to relieve a specific future traffic related concern.

21. Cumulative potential effects: (Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)

- d. *Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.*

The geographic scale considered in the cumulative potential effects analysis would include land adjacent to and within an approximately one-mile radius of the Site. Reasonably foreseeable future projects that are funded or planned to be constructed within the next ten years would be considered for the cumulative potential effects analysis.

- e. *Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.*

A desktop review of current and reasonably foreseeable future public and private projects was conducted on July 31, 2024. Desktop resources reviewed included the EQB Monitor publication of upcoming projects and the City of Duluth’s knowledge of public and private current and planned projects (<https://duluthmn.gov/planning-development/environmental/environmental-reviews/>, <https://duluthmn.maps.arcgis.com/apps/MapTour/index.html?appid=e6778c451e4e44749c7e1adb1ab5ee53>, and <https://duluthmn.gov/engineering/significant-projects-past-current-and-future/>).

Two private multi-family housing projects are currently under construction (Wadena West, approximately 0.75 miles west of the Site, and Fairmount Cottage Homes, approximately 0.43 miles north of the Site). Both projects will not interact with the environmental aspects of the proposed project and may be completed prior to the start of construction for the proposed project. Several public road projects and public infrastructure projects are under construction or will start construction within one mile of the Site. These public projects are separate projects that are independent of the construction activities, timelines, and potential environmental effects associated with the proposed project.

Additional future projects within one mile of the Site are reasonable to assume as the City of Duluth continues to grow and redevelop, however, no known future projects associated with this project are planned. Environmental impacts from these future projects are unlikely to contribute to cumulative impacts as each future project would be individually mitigated to ensure minimal cumulative impacts.

- a. *Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.*

The future projects addressed in Section 21 b. would not interact with the Site. No interactions with the environmental effects of the Site are expected.

22. Other potential environmental effects: If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

No additional impacts from this project other than those discussed above are anticipated.

RGU CERTIFICATION (The Environmental Quality Board will only accept SIGNED Environmental Assessment Worksheets for public notice in the EQB Monitor.)

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages, or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature Jason Mozol Date 8/19/24
Title Planner II

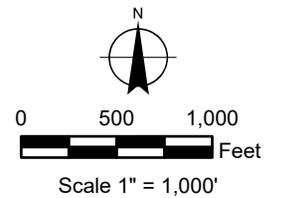
Appendix A
Project Location Maps



Image Source: Google Earth



 Approximate Site Boundary



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Drawn By: SL
Date Drawn: 3/15/2024
Checked By: MUB
Last Modified: 6/5/2024

Sofidel America - Duluth Facility Expansion

100 North Central Avenue

Duluth, Minnesota

**Project
Location Map**

Figure 1

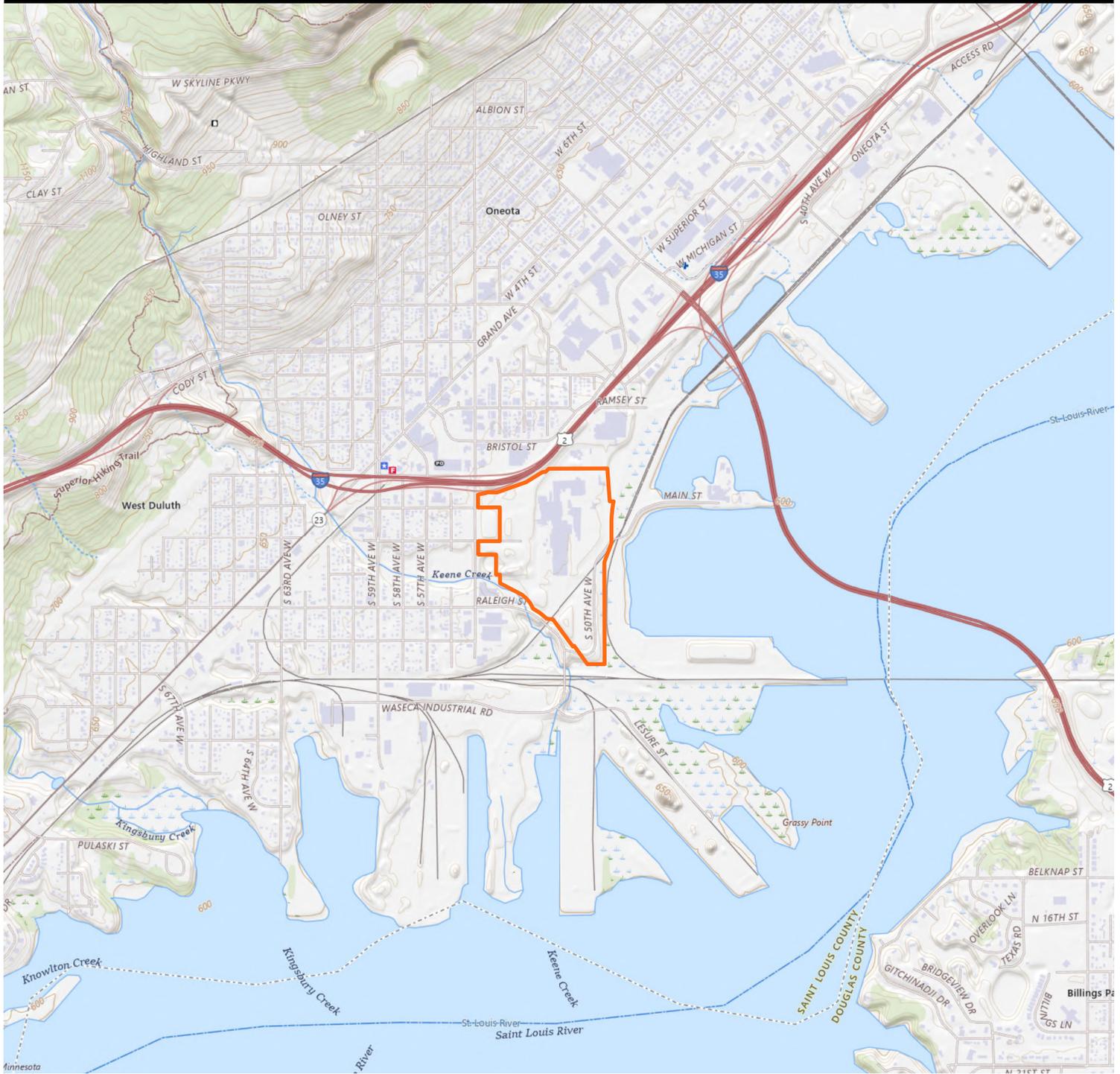


Image Source: USGS US Topo



Approximate Site Boundary



0 1,000 2,000
 Feet
 1 inch = 2,000 feet

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Project No:
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Drawing No:
 Fig2_USGSTopo_EAW

Drawn By: JPM
 Date Drawn: 4/5/2024
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 Last Modified: 5/20/2024

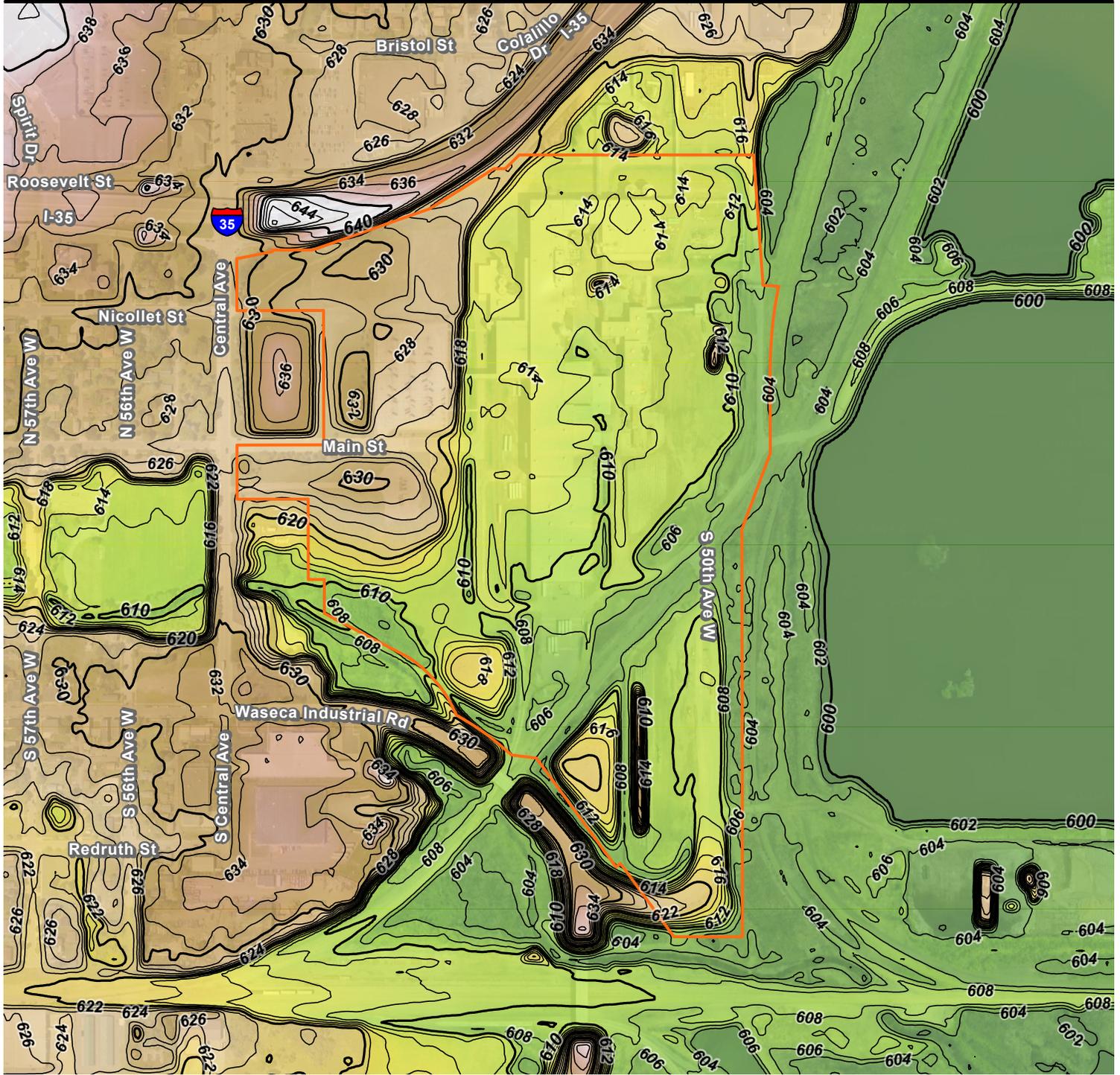
Sofidel America - Duluth Facility Expansion

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Duluth, Minnesota

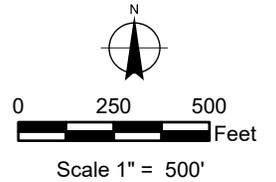
**USGS
 Topographic Map**

Figure 2



Data Sources: Minnesota DNR, MnTOPO

- Approximate Site Boundary
- MnTOPO Surface Contours
- 2' Intermediate Contour
- 10' Index Contour



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Project No:
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Drawing No:
 Fig3_Topo_EAW

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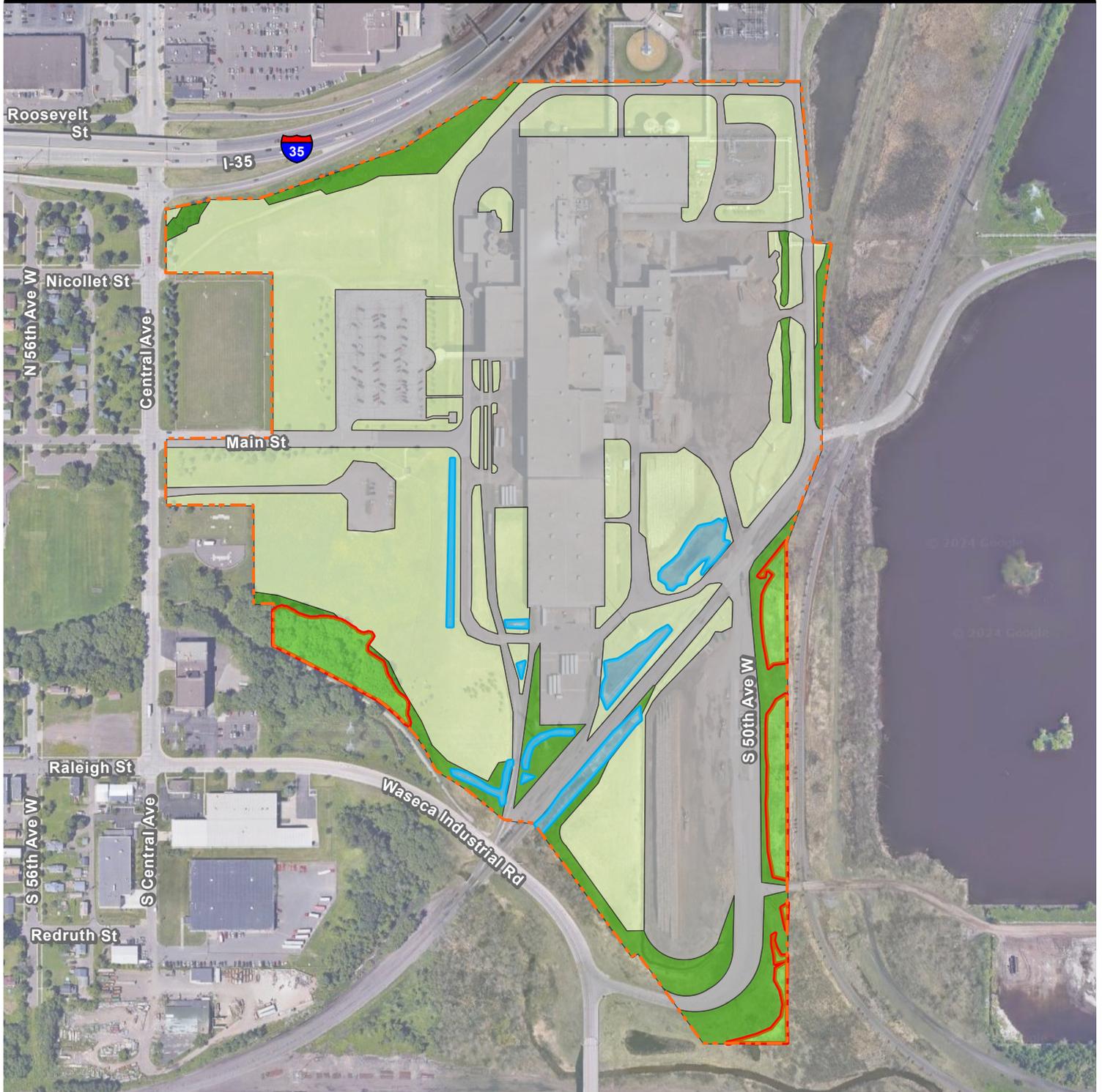
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Duluth, Minnesota

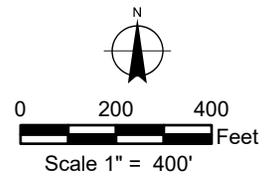
**Surface Contour
 Map**

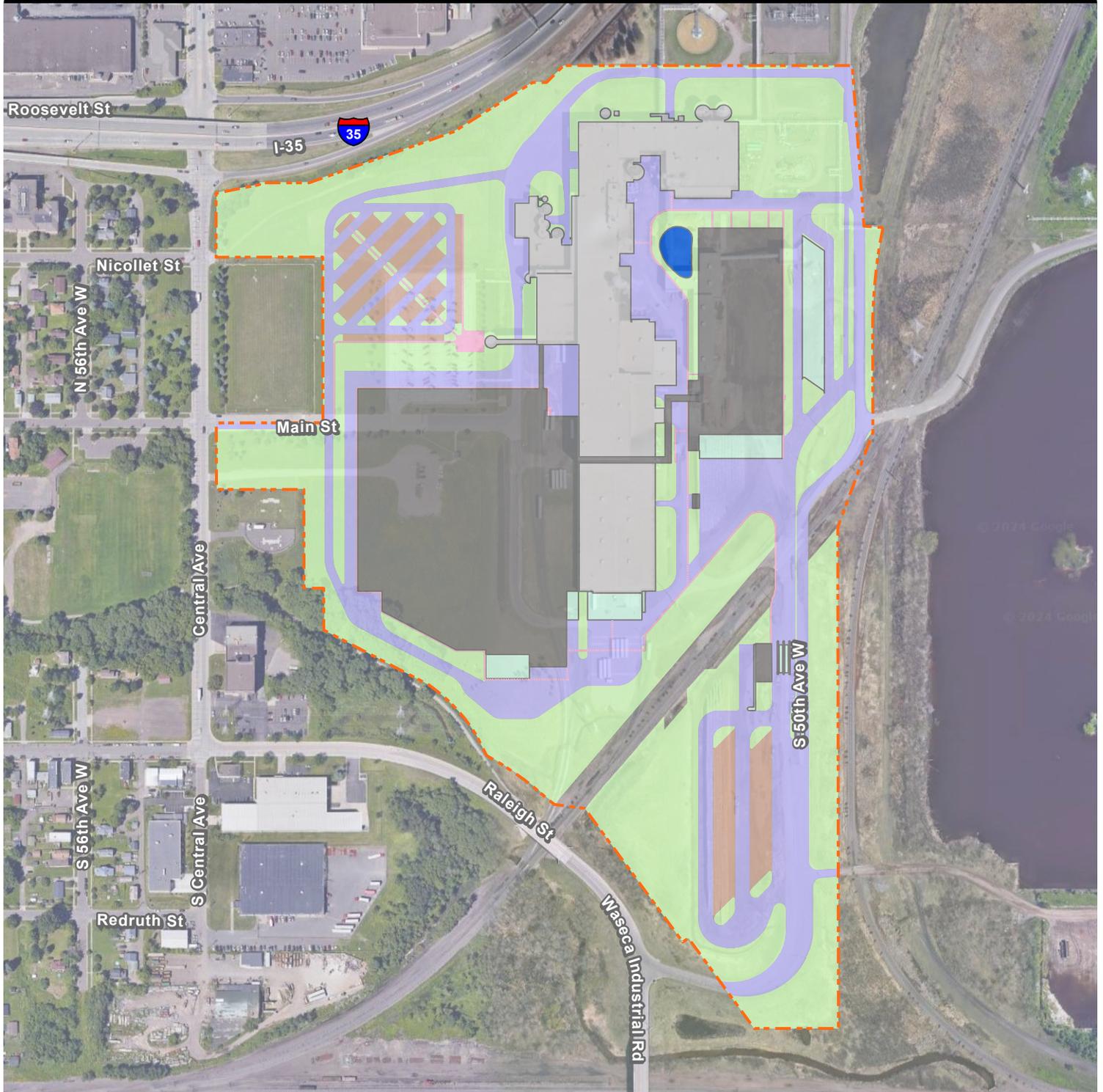
Figure 3

Appendix B
Land Use Features

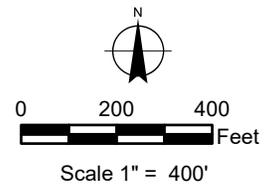


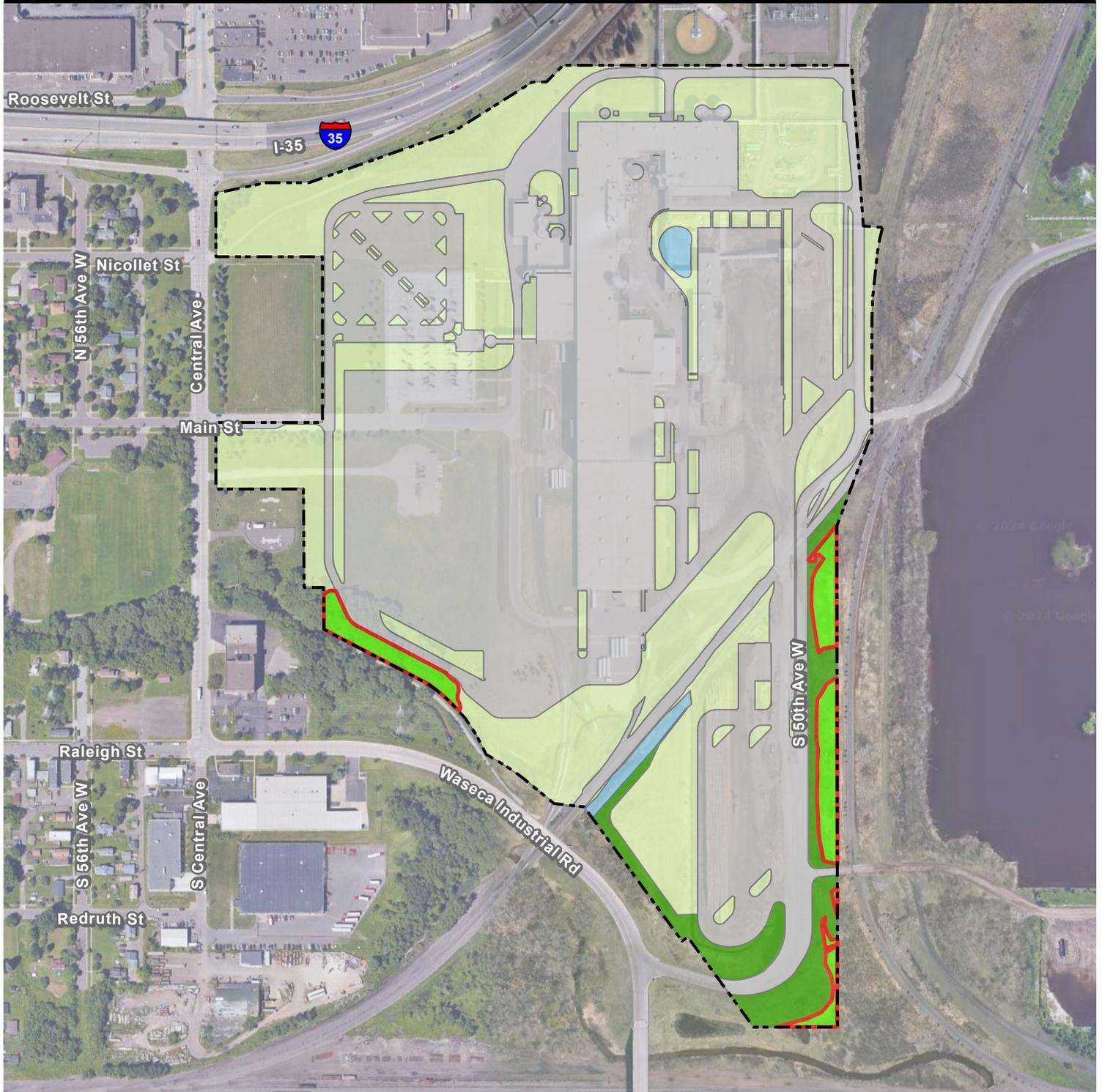
- Site Boundary (Approx. 76.78 Acres)
- Wetlands Delineated in the Field (2.54 Acres)
- Stormwater Pond/Ditch (Non-Regulated Wetland/Ditch) (1.32 Acres)
- Lawn and Landscaping (28.46 Acres)
- Impervious Surface (38.45 Acres)
- Brush/Grassland (6.01 Acres)





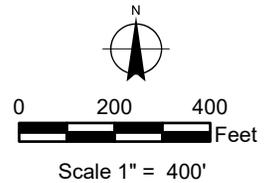
- | | |
|----------------------|------------------------------|
| Site Boundary | Existing Building |
| New Building | New Area Paved with Concrete |
| Proposed Development | Sidewalks |
| Green Area | Street |
| New Parking Area | Water |





- Site Boundary (Approx. 76.78 Acres)
- Impervious Surface (47.00 Acres)
- Lawn/Landscaping (24.16 Acres)*
- Stormwater Pond/Ditch (0.58 Acres)
- Brush/Grassland (3.08 Acres)
- Wetland (1.96 Acres)

*Includes conceptual stormwater management basins (size and locations TBD)



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 Fig6_Landcover_Proposed_EAW

Drawn By: JPM
 Date Drawn: 4/5/2024
 Checked By: MUB
 Last Modified: 6/26/2024

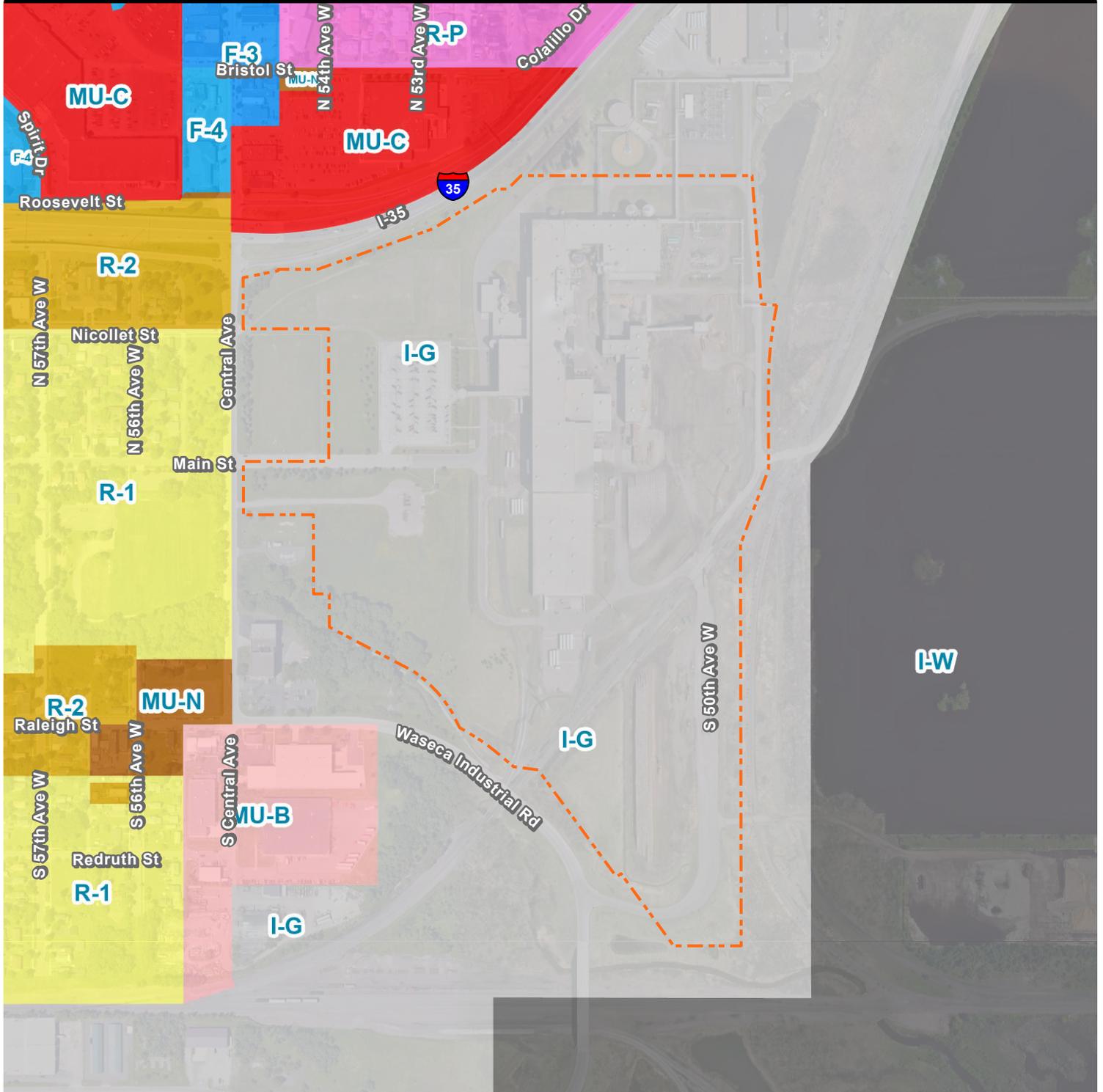
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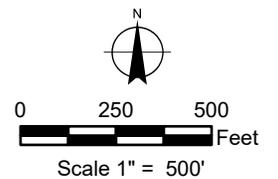
**Proposed
 Landcover Type**

Figure 6



- | | |
|-----------------------------------|--------------------------------|
| Approximate Site Boundary | R-P (Residential Planned) |
| Unified Development Code Zoning | MU-B (Mixed Use Business Park) |
| F-3 (Mid-Rise Community Shopping) | MU-C (Mixed Use Commercial) |
| F-4 (Mid-Rise Community Mix) | MU-N (Mixed Use Neighborhood) |
| R-1 (Residential Traditional) | I-G (Industrial General) |
| R-2 (Residential Urban) | I-W (Industrial Waterfront) |

Data Source: City of Duluth Community Planning GIS



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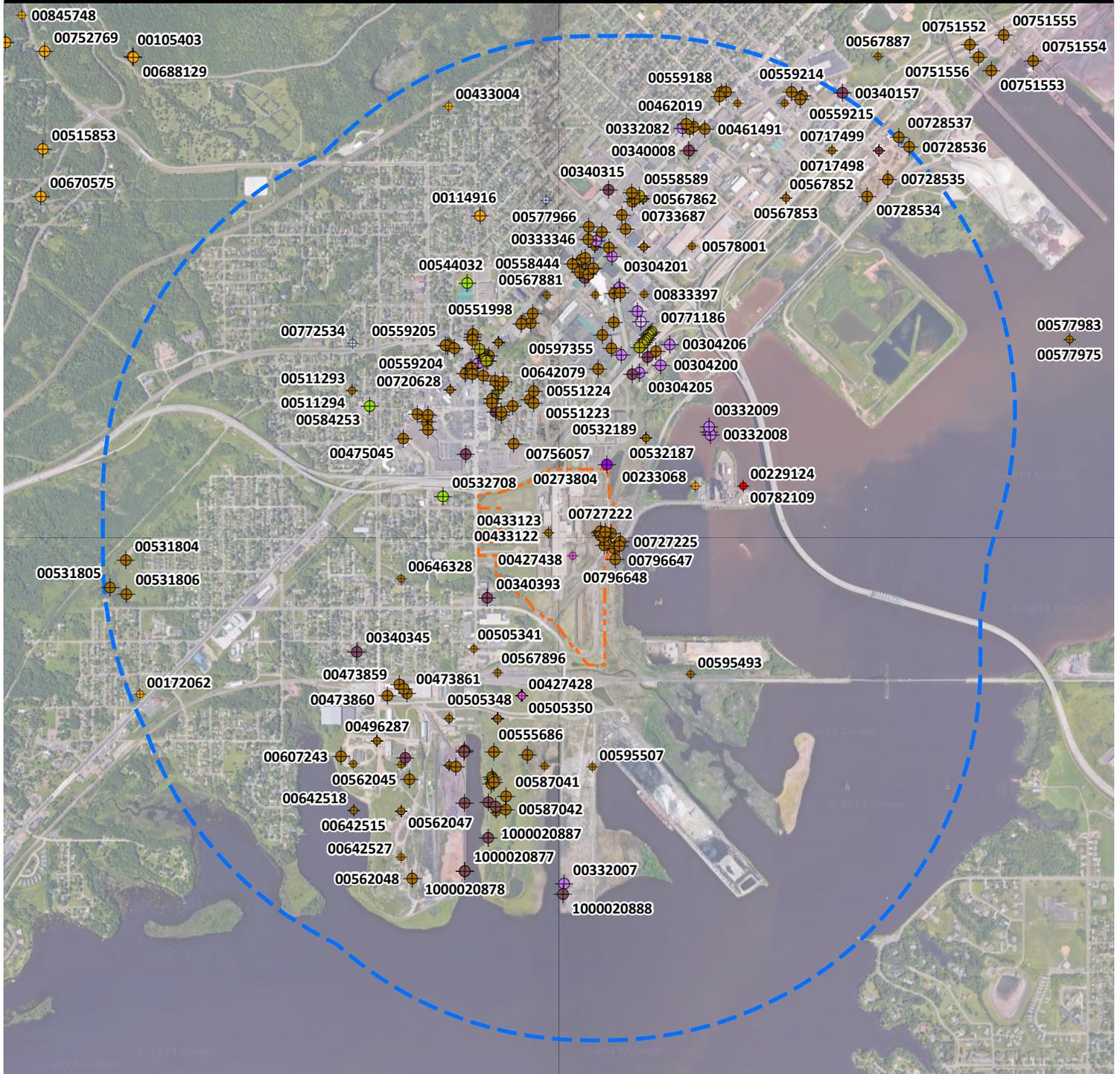
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Zoning Map

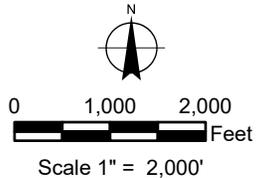
Figure 7



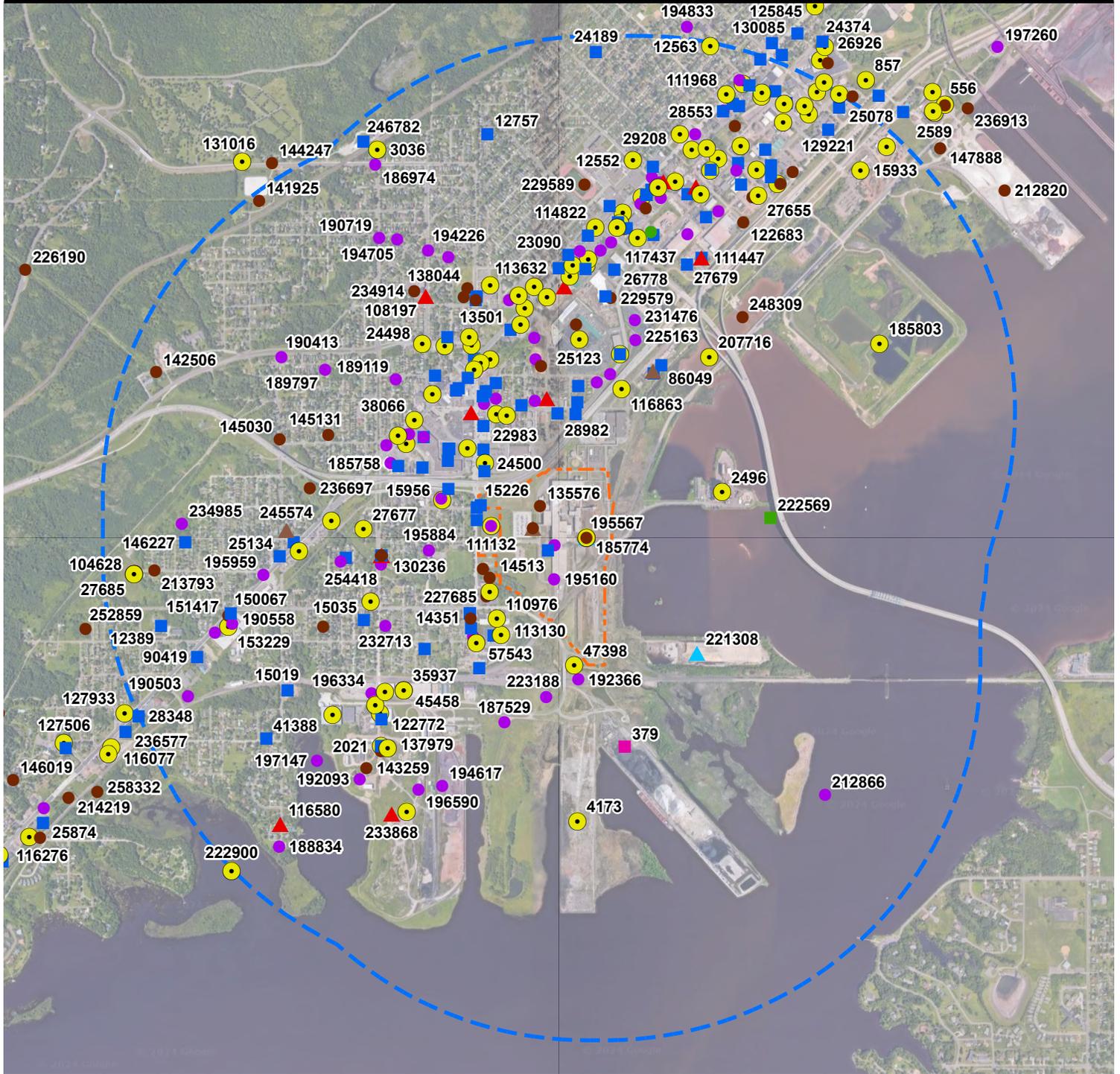
Sources: Minnesota Well Index (MWI) Public GIS Layer

- Approximate Site Boundary
- 1 Mile Buffer
- Verified Wells
 - Domestic
 - Elevator
 - Environmental Bore Hole
 - Monitor Well
- ⊕ Observation Well
- ⊕ Other (specify in remarks)
- ⊕ Piezometer
- ⊕ Recovery Well
- ⊕ Remedial
- ⊕ Unverified Wells
 - ⊕ Commercial
- ⊕ Domestic
- ⊕ Dewatering Well
- ⊕ Environmental Bore Hole
- ⊕ Monitor Well
- ⊕ Piezometer
- ⊕ Remedial
- ⊕ Test Well

No Wellhead Protection Areas Identified Nearby.

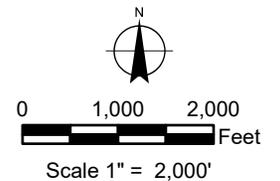


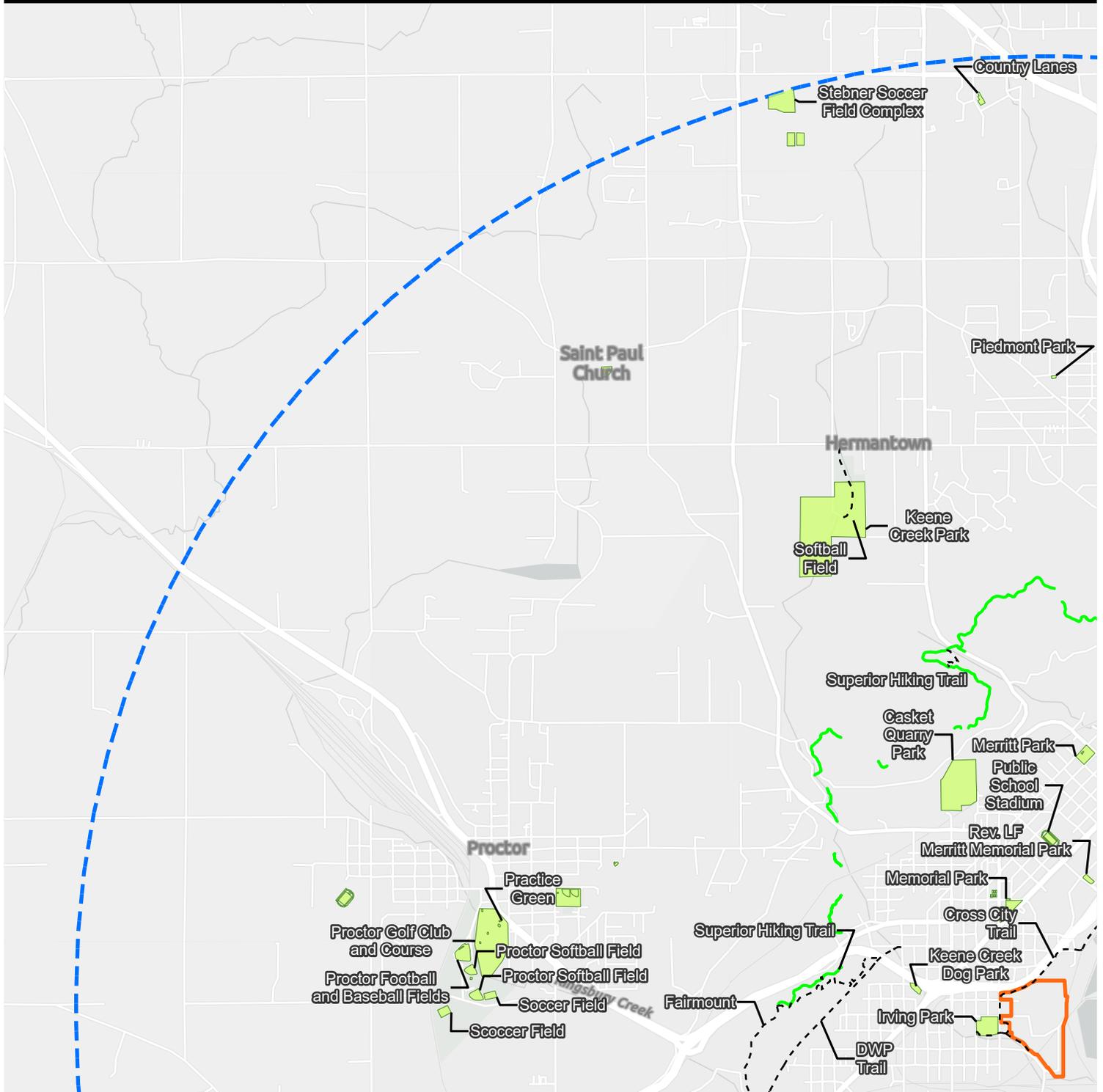
 <p>The Science You Build On.</p> <p>11001 Hampshire Avenue S Minneapolis, MN 55438 952.995.2000 braunintertec.com</p>	<p>Project No: B2402210.02_EAW</p> <hr/> <p>Drawing No: Fig8_Wells_EAW</p> <hr/> <p>Drawn By: JPM Date Drawn: 4/5/2024 Checked By: MUB Last Modified: 5/20/2024</p>	<p>Sofidel America - Duluth Facility Expansion</p> <hr/> <p>100 North Central Avenue</p> <hr/> <p>Duluth, Minnesota</p>	<p>MDH Wells & Wellhead Protection Areas</p> <hr/> <p style="background-color: #2e7d32; color: white; padding: 5px; display: inline-block;">Figure 8</p>
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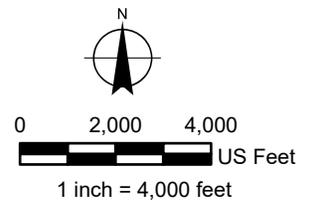
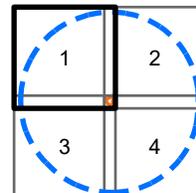
Sources: MPCA What's In My Neighborhood

- - - Approximate Site Boundary
- - - 1 Mile Buffer
- MPCA What's in my Neighborhood Sites
- Multiple Programs
- Air Quality
- Environmental Review
- Hazardous Waste
- Investigation and Cleanup
- Solid Waste
- Stormwater
- ▲ SSTS
- ▲ Tanks
- ▲ Water Quality



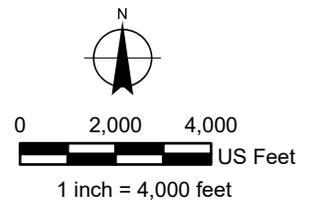
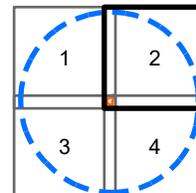


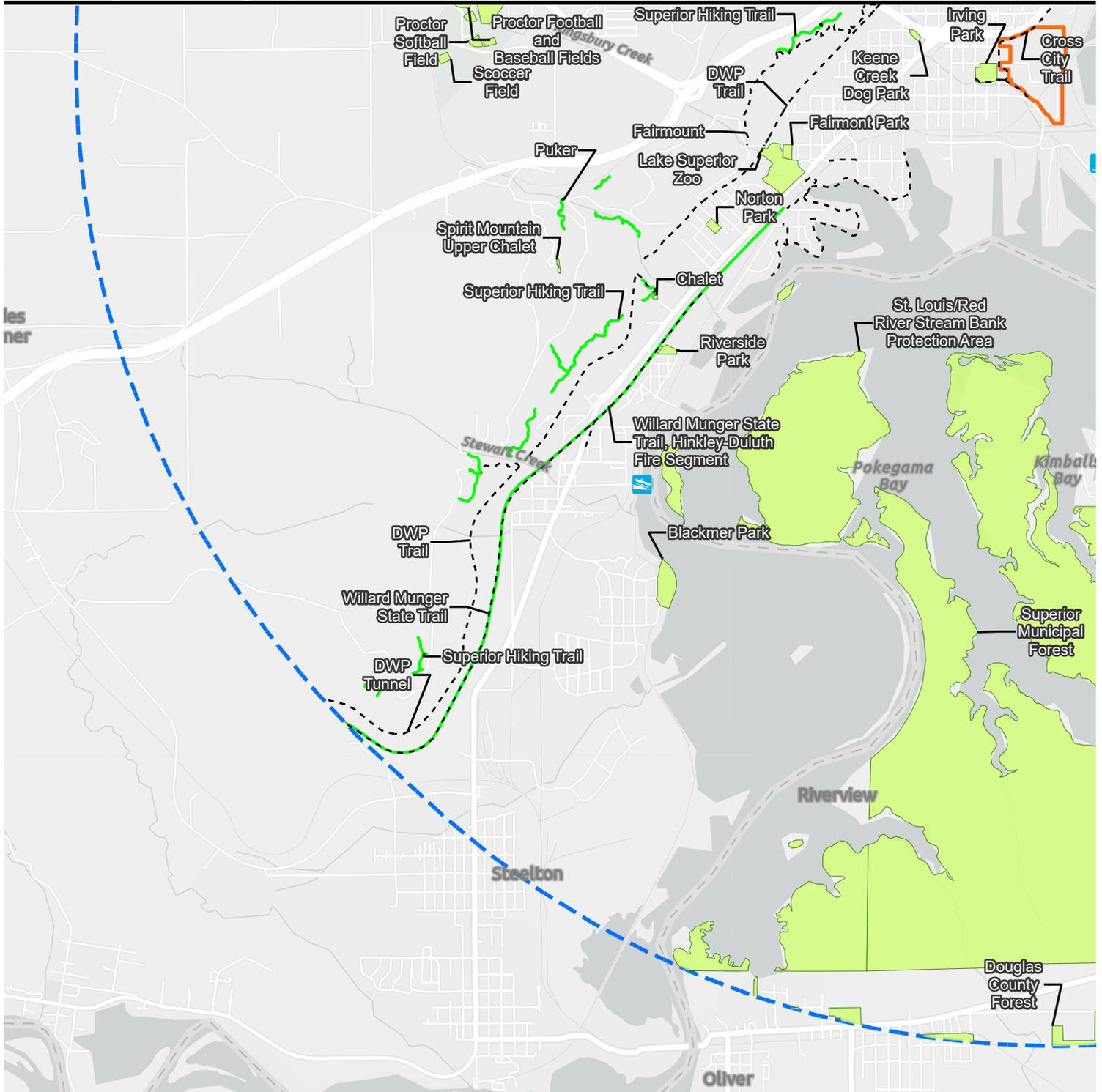
- Approximate Site Boundary
- 5 Mile Buffer
- State Park Trails and Roads (MnDNR)
- Recreation Area (OpenStreetMap)
- Footpath/Cycleway (OpenStreetMap)



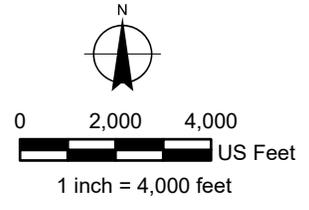
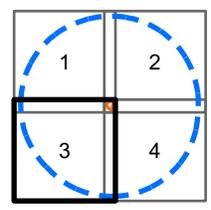


-  Approximate Site Boundary
-  5 Mile Buffer
-  Trailer Launch (MnDNR)
-  State Park Trails and Roads (MnDNR)
-  Recreation Area (OpenStreetMap)
-  Footpath/Cycleway (OpenStreetMap)





-  Approximate Site Boundary
-  5 Mile Buffer
-  Carry-In (MnDNR)
-  Trailer Launch (MnDNR)
-  State Park Trails and Roads (MnDNR)
-  Recreation Area (OpenStreetMap)
-  Footpath/Cycleway (OpenStreetMap)



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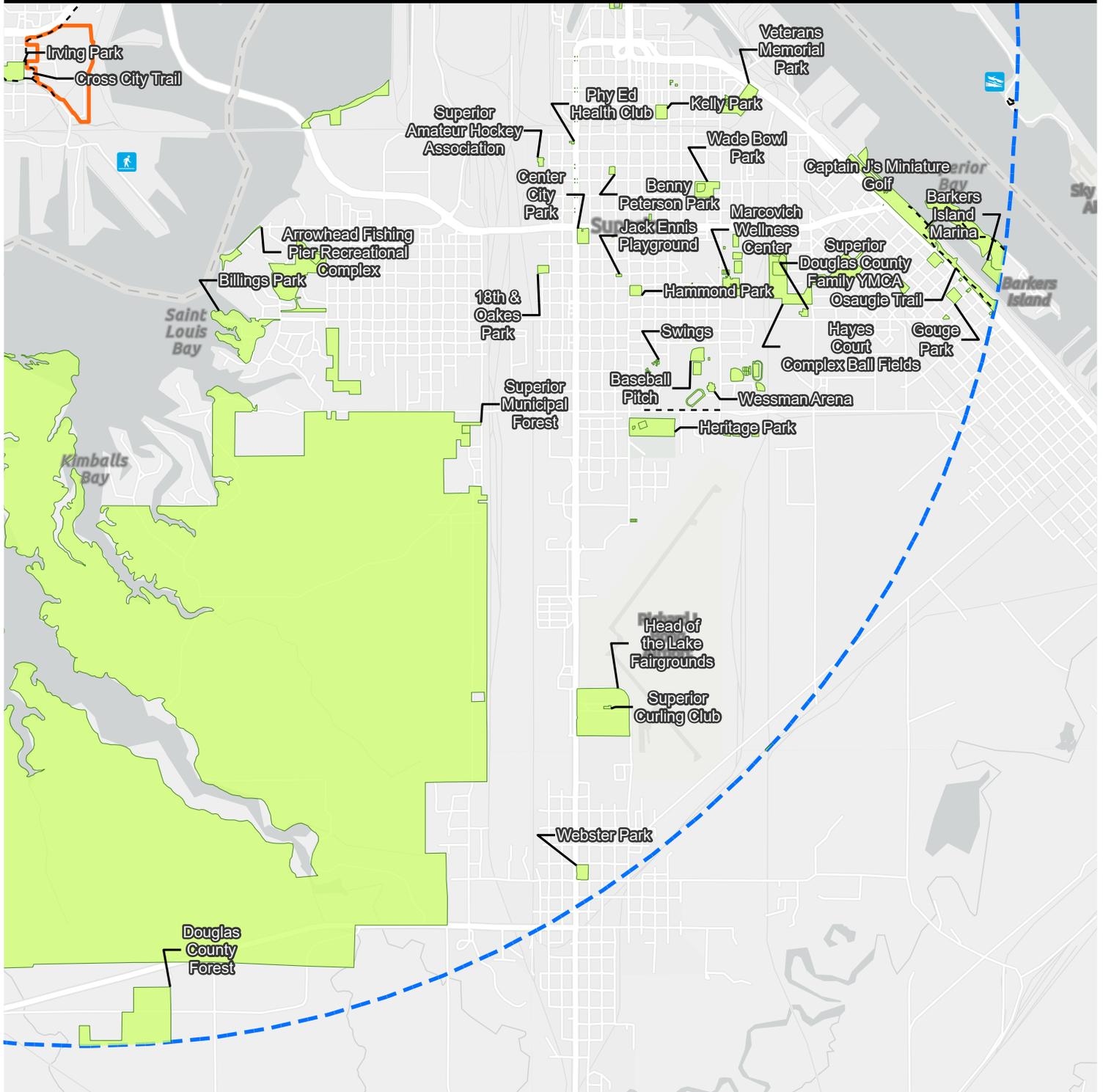
100 North Central Avenue

Duluth, Minnesota

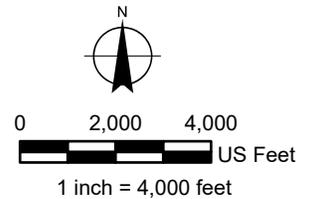
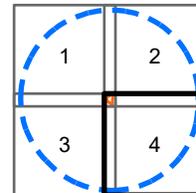
Recreational Areas

Sheet:
 3 of 4

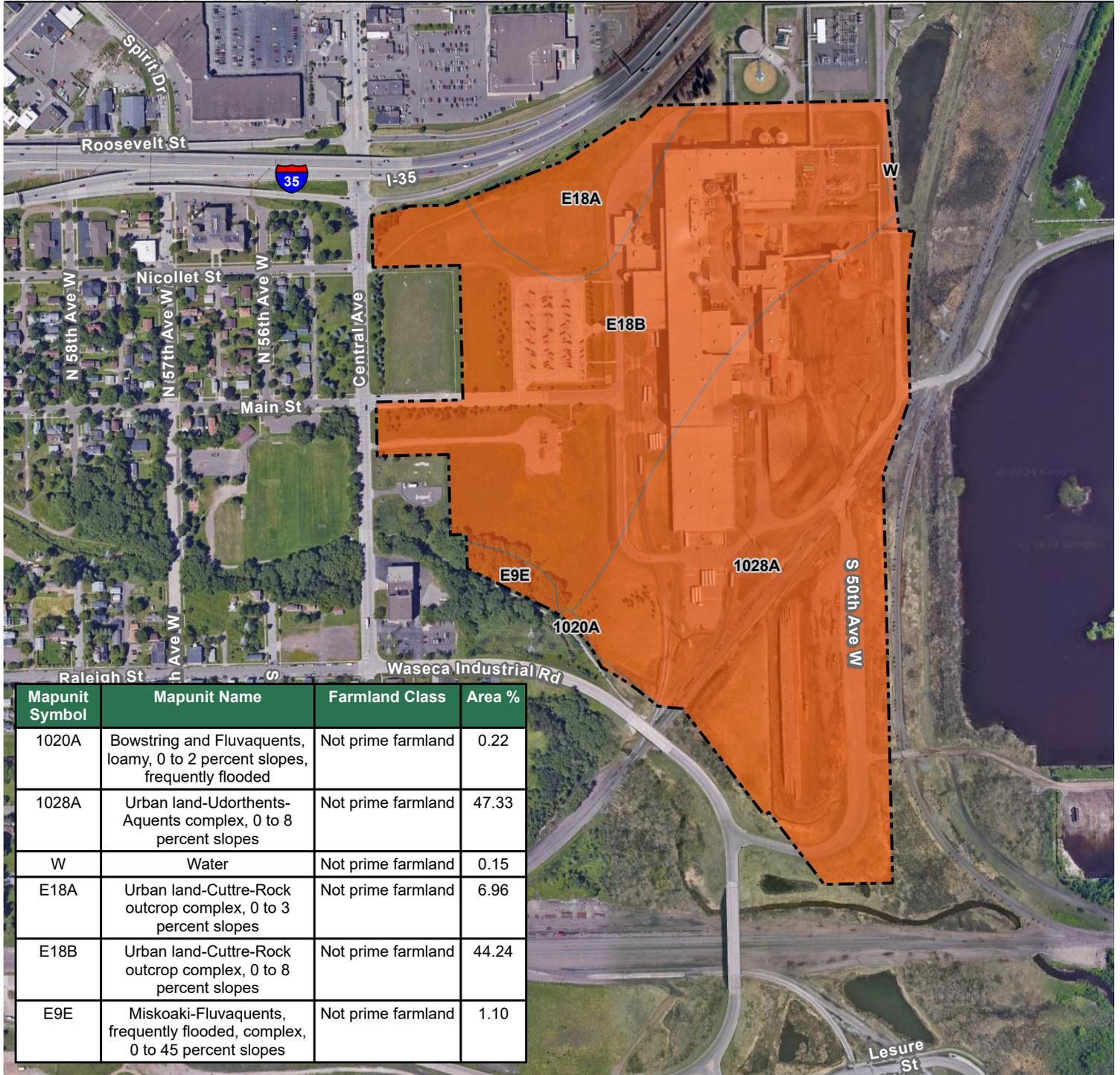
Figure 10



-  Approximate Site Boundary
-  5 Mile Buffer
-  Carry-In (MnDNR)
-  Trailer Launch (MnDNR)
-  Recreation Area (OpenStreetMap)
-  Footpath/Cycleway (OpenStreetMap)



Appendix C
Natural Resources

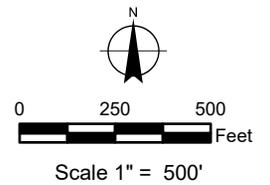


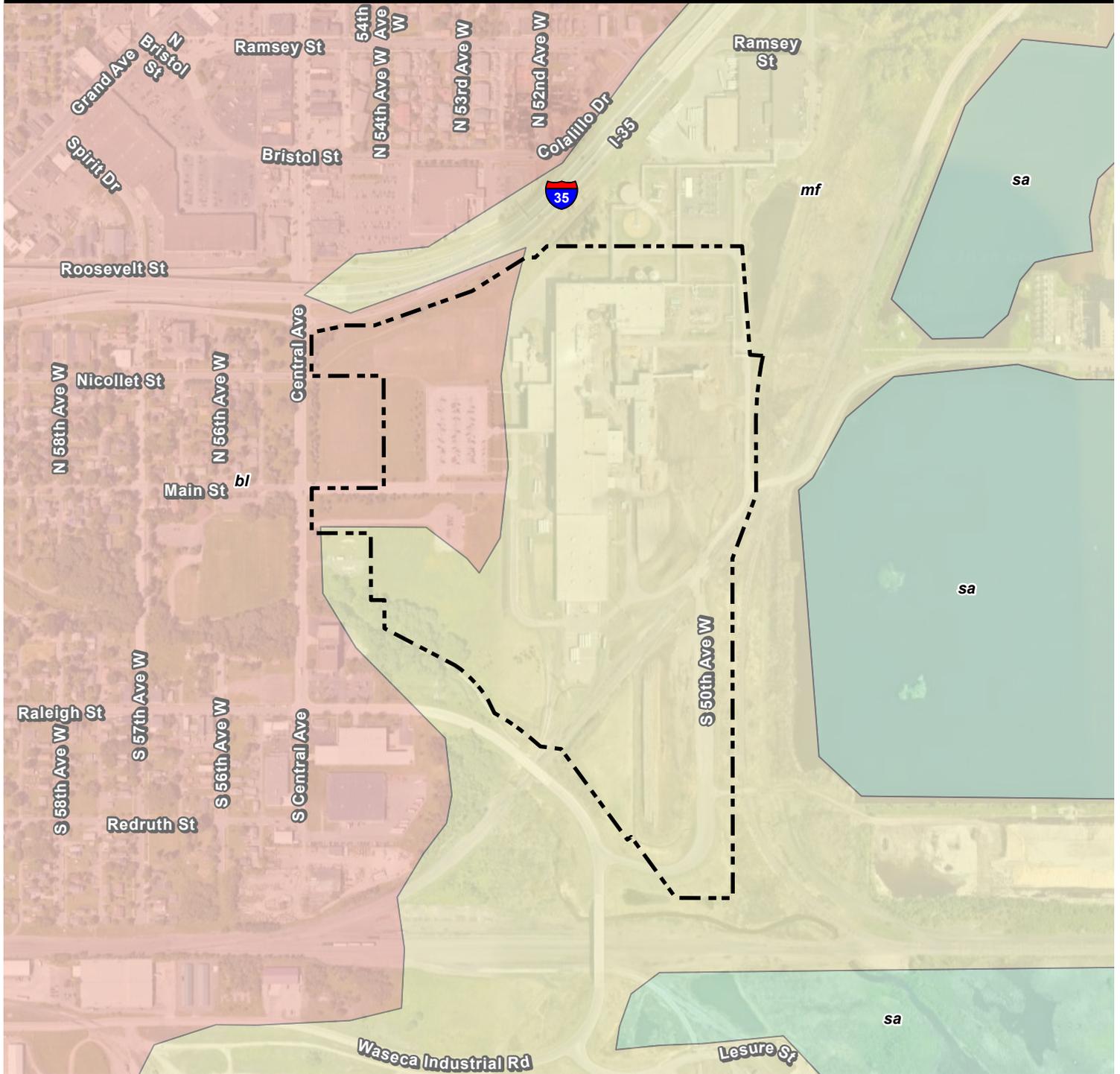
Approximate Site Boundary

NRCS Farmland Classification

Not prime farmland

Data Sources: NRCS, MNDOT

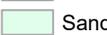


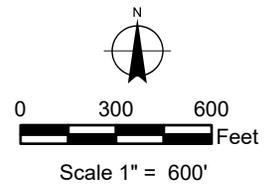


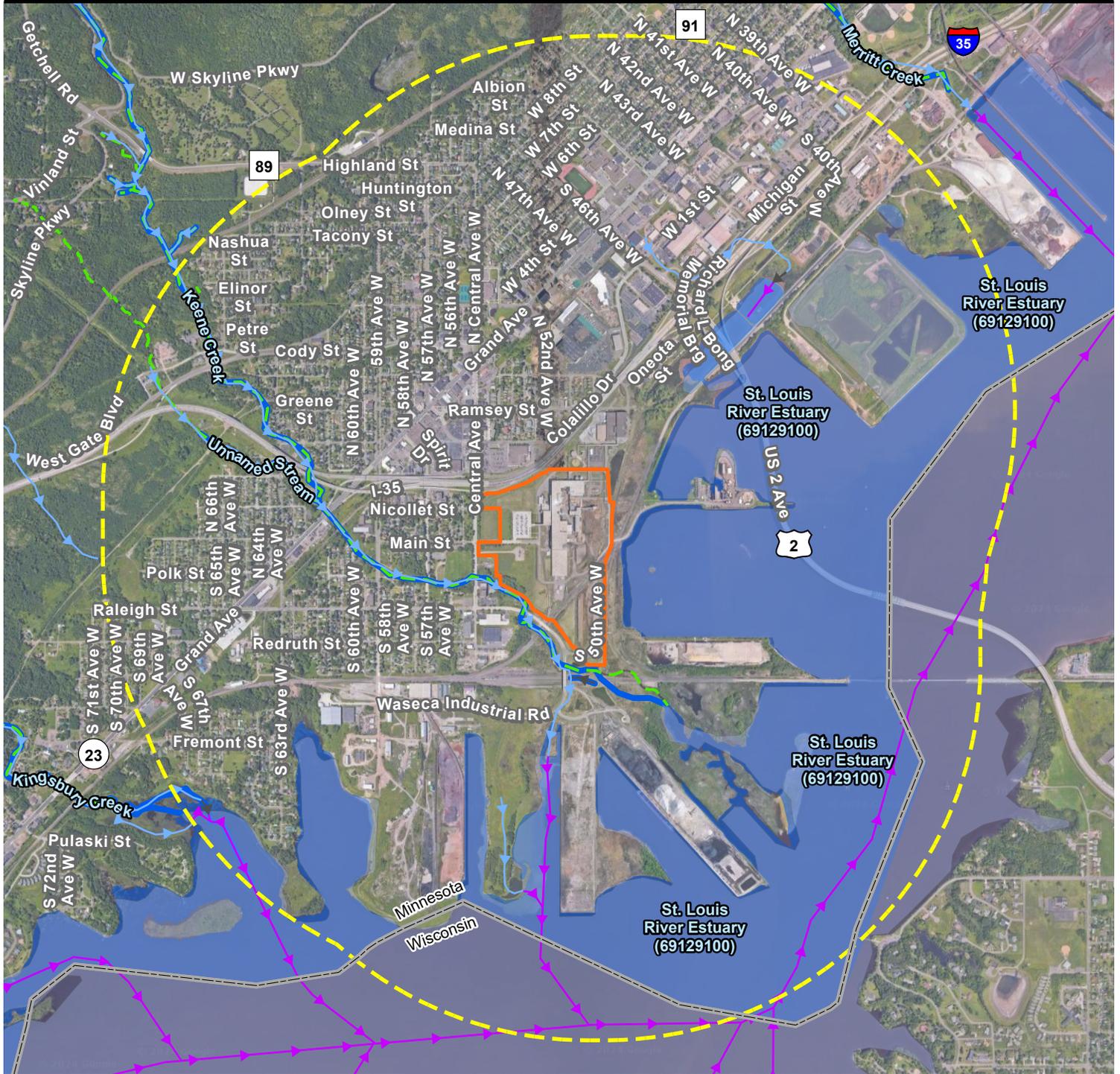
Sources: MN Geological Survey, Google Earth

 Approximate Site Boundary

Surficial Geology (MN Geological Survey)

-  Clay
-  Fill
-  Sand

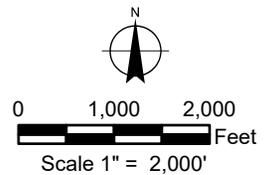


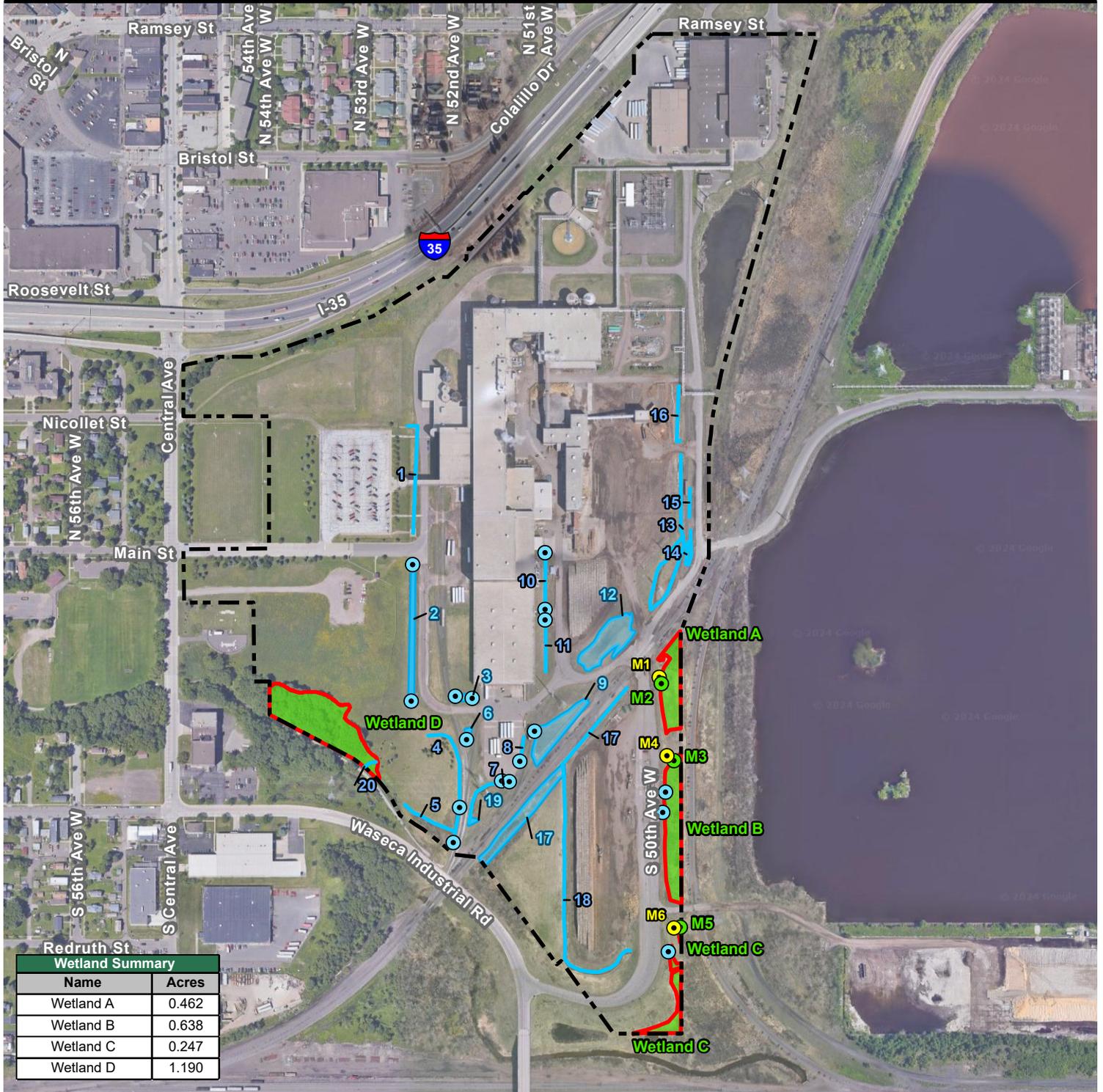


Data Sources: Minnesota DNR, USGS, US Census Bureau

- Approximate Site Boundary
- 1 Mile Radius
- Stream/River
- Lake Pond
- MnDNR Public Waters Basins
- MnDNR Public Water Watercourse*
- Trout Stream*
- State Boundary
- USGS (NHD) Flowline
- Artificial Path
- Connector
- Stream River

*Keene Creek PWI data modified for accuracy by Braun Intertec as directed by the City of Duluth from Central Avenue to Waseca Industrial Rd.

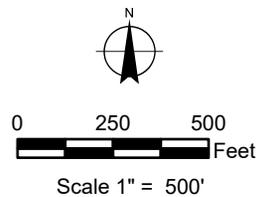


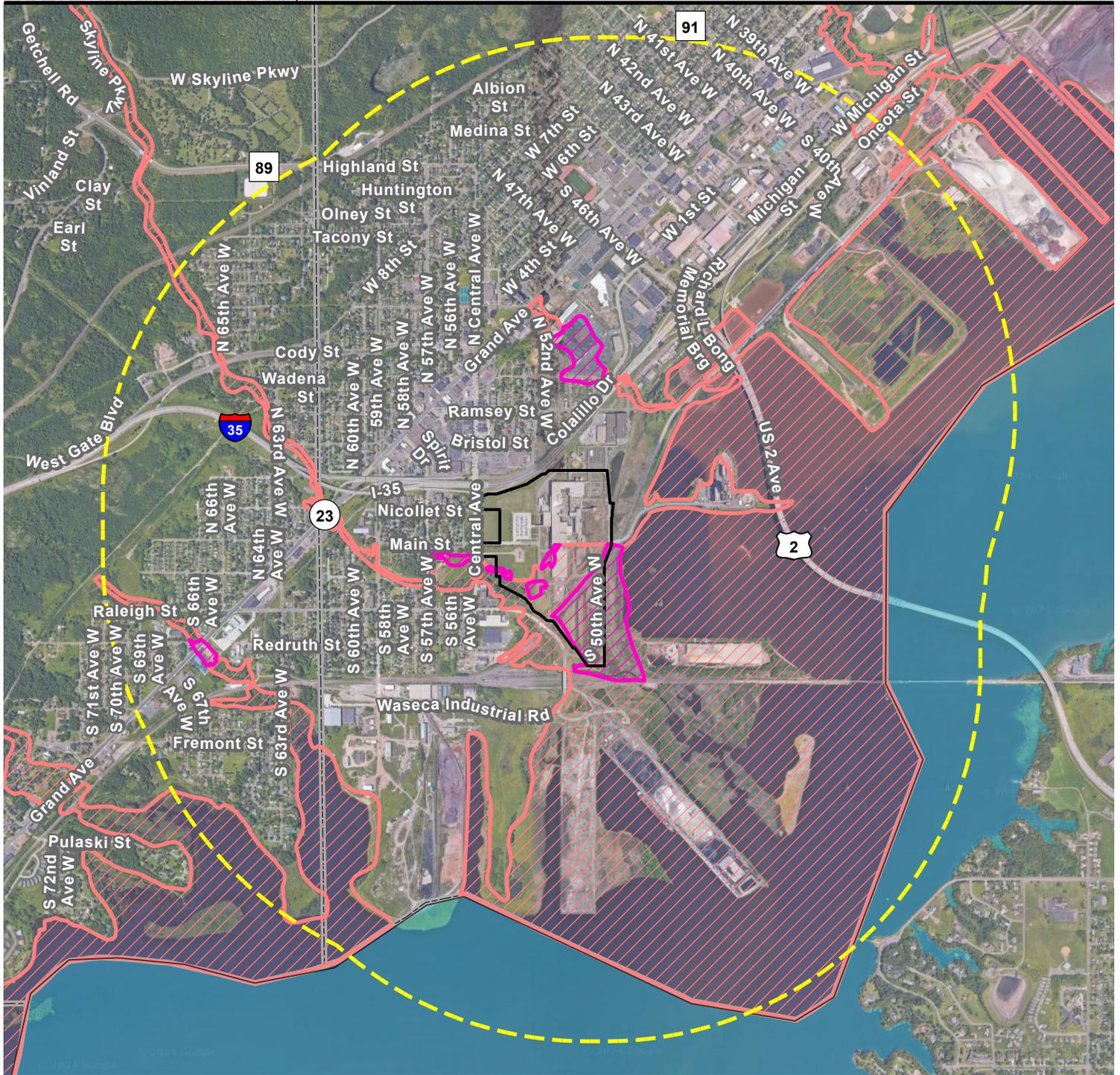


Wetland Summary	
Name	Acres
Wetland A	0.462
Wetland B	0.638
Wetland C	0.247
Wetland D	1.190

- Approximate Site Boundary
- Delineated Wetland Boundary
- Delineated Wetland Area
- Wetlands Delineated by Aerial Photos
- Upland Sample
- Wetland Sample
- Culvert Sample

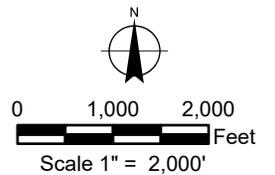
NOTE: Wetland boundaries and types are approximate for illustrative purposes only and do not reflect actual survey data.





Sources: Minnesota DNR, FEMA, USFWS, Google Earth

- Approximate Site Boundary
- 1 Mile Radius
- Township Boundary
- FEMA Unmodernized Panels
- FEMA Unmodernized Floodplain
- 100-year Floodplain
- 500 Floodplain
- 1% Annual Chance Flood Hazard





United States Department of the Interior



FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793

In Reply Refer To:
Project Code: 2024-0087350
Project Name: Sofidel

07/25/2024 15:20:08 UTC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance

Please refer to our [Section 7 website](#) for guidance and technical assistance, including [step-by-step instructions](#) for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A [demonstration video](#) showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of "no effect" or "may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species' biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a "Not Likely to Adversely Affect" (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a "May Affect" determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for "May Affect" determinations unless otherwise indicated in your output letter.

Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review. If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of "There are no listed species found within the vicinity of the project," then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

Northern Long-Eared Bats

Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 15 to March 31. During the active season (April 1 to November 14) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 3 inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

Effect determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

If any of the above activities are proposed, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/ Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter. Additional information about available tools can be found on the Service's [northern long-eared bat website](#).

Whooping Crane

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "[Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States](#)."

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. It is the responsibility of the project proponent to survey the area for any migratory bird nests. If there is an eagle nest on-site while work is on-going, eagles may be disturbed. We recommend avoiding and minimizing disturbance to eagles whenever practicable. If you cannot avoid eagle disturbance, you may seek a [permit](#). A [nest take permit](#) is always required for removal, relocation, or obstruction of an eagle nest. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of [recommendations that minimize potential impacts to migratory birds](#). Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to

wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

State Department of Natural Resources Coordination

While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

Minnesota

[Minnesota Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: Review.NHIS@state.mn.us

Wisconsin

[Wisconsin Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: DNRRERReview@wi.gov

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Minnesota-Wisconsin Ecological Services Field Office

3815 American Blvd East

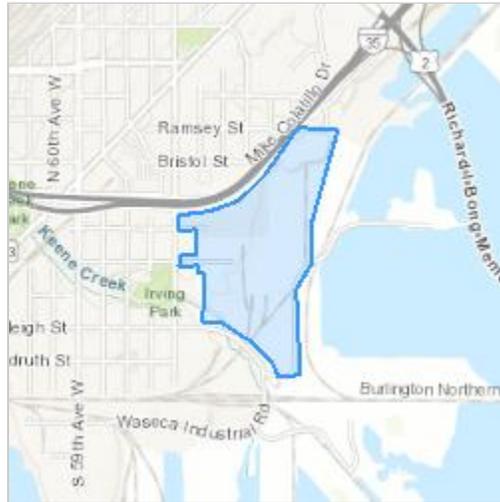
Bloomington, MN 55425-1659

(952) 858-0793

PROJECT SUMMARY

Project Code: 2024-0087350
Project Name: Sofidel
Project Type: Commercial Development
Project Description: building expansion
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@46.7345518,-92.16202699311548,14z>



Counties: St. Louis County, Minnesota

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> Population: Wherever Found in Contiguous U.S. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
Gray Wolf <i>Canis lupus</i> Population: MN There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4488	Threatened
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Rufa Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black Tern <i>Chlidonias niger surinamensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10

NAME	BREEDING SEASON
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Common Tern <i>Sterna hirundo</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4963</p>	Breeds May 1 to Aug 31
<p>Connecticut Warbler <i>Oporornis agilis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9442</p>	Breeds Jun 15 to Aug 10
<p>Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9465</p>	Breeds May 15 to Aug 10
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745</p>	Breeds May 1 to Jul 20
<p>Le Conte's Sparrow <i>Ammospiza leconteii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9469</p>	Breeds Jun 1 to Aug 15
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31

NAME	BREEDING SEASON
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Ruddy Turnstone <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/10633	Breeds elsewhere
Veery <i>Catharus fuscescens fuscescens</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11987	Breeds May 15 to Jul 15
Whimbrel <i>Numenius phaeopus hudsonicus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11991	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

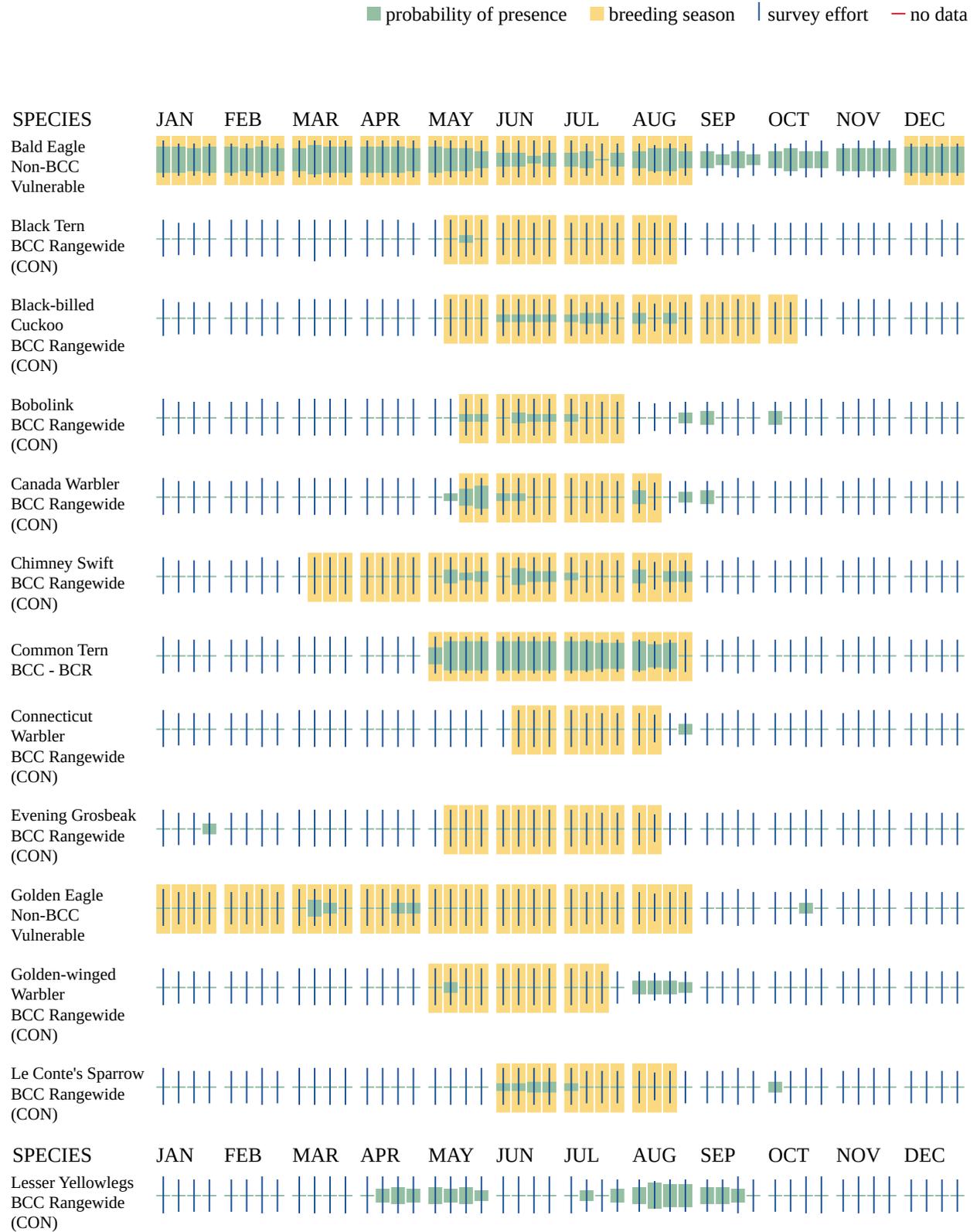
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

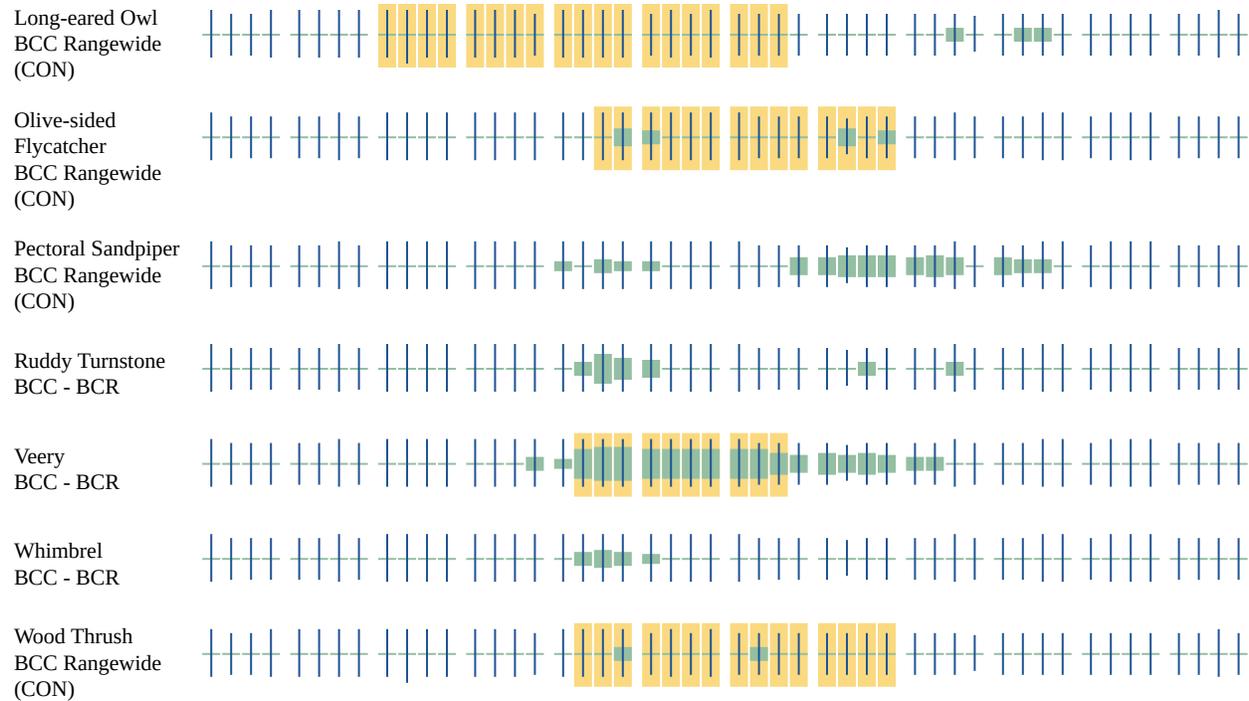
Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1A

- PEM1C

FRESHWATER POND

- PUBGx
- PUBFx

RIVERINE

- R2UBGx

IPAC USER CONTACT INFORMATION

Agency: Braun Intertec
Name: Ben Ruhme
Address: 11001 Hampshire Ave South
City: Minneapolis
State: MN
Zip: 55438
Email: bruhme@braunintertec.com
Phone: 6125082770

Appendix C – Protected Species Habitat & Effect Determination Summary

Common Name	Scientific Name	Federal Status ¹	State Status ¹	Habitat	Impact	Comment
American Eel	<i>Anguilla rostrata</i>	none	SPC	Medium to large rivers and streams.	No effect	Suitable habitat is not present within the project area.
Beach Heather	<i>Hudsonia tomentosa</i>	none	T	Sand dunes & sandy beaches of large lakes above normal wave action reach.	No effect.	Suitable habitat is not present within the project area.
Canada Lynx	<i>Lynx canadensis</i>	T	SPC	Boreal forest, mixed hardwood conifer forest and coniferous bogs.	No effect.	Suitable habitat is not present within the project area.
Common Tern	<i>Sterna hirundo</i>	none	T	Lake shores and coastlines. Nests on sandy/gravelly beaches, sparsely vegetated islands or dredge spoil piles.	No effect.	Suitable habitat is not present within the project area.
Creek Heelsplitter	<i>Lasmigona compressa</i>	none	SPC	Small rivers and streams.	No effect.	Suitable habitat is not present within the project area.
Discoid Beggarticks	<i>Bidens discoidea</i>	none	SPC	Marshes, sloughs of large rivers and wet meadows/carr.	No effect.	Suitable habitat is not present within the project area.
Gray Wolf	<i>Canis lupus</i>	T	delisted	Northern forests, mountains and grasslands.	May affect; not likely to adversely affect.	Highly mobile and wide ranging species. Generally not effected by single site or redevelopment activities such as the proposed project.
Hairy-necked Tiger Beetle	<i>Cicindela hirticollis rhodensis</i>	none	E	Sandy beaches along Lake Superior.	No effect.	Suitable habitat is not present within the project area.
Lake Chub	<i>Couesius plumbeus</i>	none	SPC	Littoral zone of lakes. Small to medium rivers & streams.	No effect.	Suitable habitat is not present within the project area.
Lake Sturgeon	<i>Acipenser fulvescens</i>	none	SPC	Large rivers and lakes.	No effect.	Suitable habitat is not present within the project area.
Monarch Butterfly	<i>Danaus plexippus</i>	C	none	Meadows, open fields and clearings with plants that provide floral resources, particularly milkweed.	May affect; not likely to adversely affect.	Limited floral resources appear to be at the Site, which provides poor habitat for the species and it is unlikely to be present.
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	E	SPC	Caves, mesic-hardwood and floodplain forests.	May affect; not likely to adversely affect.	This project may affect the endangered Northern long-eared bat due to the presence of trees on Site. However, the Site is not located within a township containing known hibernacula or roost trees. While the bat is unlikely to be present, the trees on site may provide potential summer roosting habitat. To avoid impacts to the bat, it is recommended to complete tree clearing activities outside the active roosting season (Nov 15- March 31).
Pale Sedge	<i>Carex pallescens</i>	none	E	Edges of fire dependent forests adjacent to Lake Superior shoreline.	No effect.	Suitable habitat is not present within the project area.

Appendix C – Protected Species Habitat & Effect Determination Summary

Common Name	Scientific Name	Federal Status ¹	State Status ¹	Habitat	Impact	Comment
Peregrine Falcon	<i>Falco peregrinus</i>	none	SPC	Cliffs and tall buildings near large open spaces, often near large bodies of water.	May affect; not likely to adversely affect.	The species is known to inhabit locations within 1-mile of the project area and breeding has been documented within 3-miles. Tall buildings, bridges or structures preferred for nesting in urban environments are also present within 1-mile in the city of Duluth. However, peregrine falcons are not known to utilize any of the buildings onsite and therefore no impacts are anticipated from the proposed project.
Piping Plover	<i>Charadrius melodus</i>	E	E	Sandy beaches with gravel or pebble substrate, sparsely vegetated lakeshore areas.	No effect	Suitable habitat is not present within the project area.
Rufa Red Knot	<i>Calidris canutus rufa</i>	T	none	Tundra slopes, sedge meadows, lakeshores, estuaries, sandy beaches, tidal mudflats and salt marshes.	No effect	Suitable habitat is not present within the project area.
Soapberry	<i>Shepherdia canadensis</i>	none	SPC	Fire dependent forests, often on steep rocky bluffs, rock ledges & outcrops.	No effect.	Suitable habitat is not present within the project area.
Torrey's Mannagrass	<i>Torreyochloa pallida</i>	none	SPC	Bogs, marshes, swamps and shorelines & shallow margins of lakes, rivers, ponds & streams.	No effect.	Suitable habitat is not present within the project area.
Tricolored Bat	<i>Perimyotis subflavus</i>	Proposed E	SPC	Caves, mesic-hardwood and fire dependent forests.	May affect; not likely to adversely affect.	This project may affect the tricolored bat due to the presence of trees on Site. While the bat is unlikely to be present, the trees on site may provide potential summer roosting habitat. To avoid impacts to the bat, it is recommended to complete tree clearing activities outside the active roosting season (Nov 15- March 31).
Migratory birds		MBTA		Various	May affect; not likely to adversely affect.	Various migratory birds may nest in shrubs and trees on the property. Avoidance should be considered by clearing vegetation outside the migratory bird breeding season (May-August for most species).

¹T = Threatened, E = Endangered, C = Candidate, SPC = Special Concern; MBTA = protected under Migratory Bird Treaty Act



Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

Project Name: Sofidel America- Duluth Facility Expansion

Project Proposer: Sofidel America Corporation

Project Type: Development, Commercial/Institutional/Industrial

Project Type Activities: Tree Removal;Grading;Structure Removal or Bridge Removal;Wetland impacts (e.g., dewatering, tiling, drainage, discharge, excavation, fill, runoff, sedimentation, changes in hydrology)

TRS: T49 R14 S18, T49 R14 S7

County(s): St. Louis

DNR Admin Region(s): Northeast

Reason Requested: State EAW

Project Description: The Sofidel America - Duluth facility is an existing industrial site. Currently, the Site manufactures parent rolls of tissue paper from recycled and virgin ...

Existing Land Uses: The Site is located in an urban portion of the City of Duluth adjacent to the St. Louis River Estuary with primarily impervious surfaces (buildings, roads, ...

Landcover / Habitat Impacted: Landscaped trees would be removed for the proposed building expansion. Brush/grassland and maintained turf grasses areas would also be reduced from the ...

Waterbodies Affected: Approximately 0.78 acres of regulated wetland (WCA & Clean Water Act Section 404) would be impacted on the southwestern edge of the site through partial ...

Groundwater Resources Affected: Based on previous environmental investigations completed within the project area, groundwater within the southeast portion of the site (known as Well 7 ...

Previous Natural Heritage Review: No

Previous Habitat Assessments / Surveys: No

SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
Project Details	Comments	Tree Removal - Recommendations
Ecologically Significant Area	Comments	Lakes - Recommendations
State-Listed Endangered or Threatened Species	Needs Further Review	State-protected Species in Vicinity
State-Listed Species of Special Concern	Comments	Recommendations
Federally Listed Species	No Records	Visit IPaC For Federal Review



August 5, 2024

Project Name: Sofidel America- Duluth Facility Expansion
Project Proposer: Sofidel America Corporation
Project Type: Development, Commercial/Institutional/Industrial
Project ID: MCE #2024-00654

AUTOMATED RESULTS: FURTHER REVIEW IS NEEDED

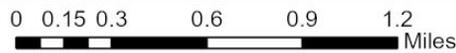
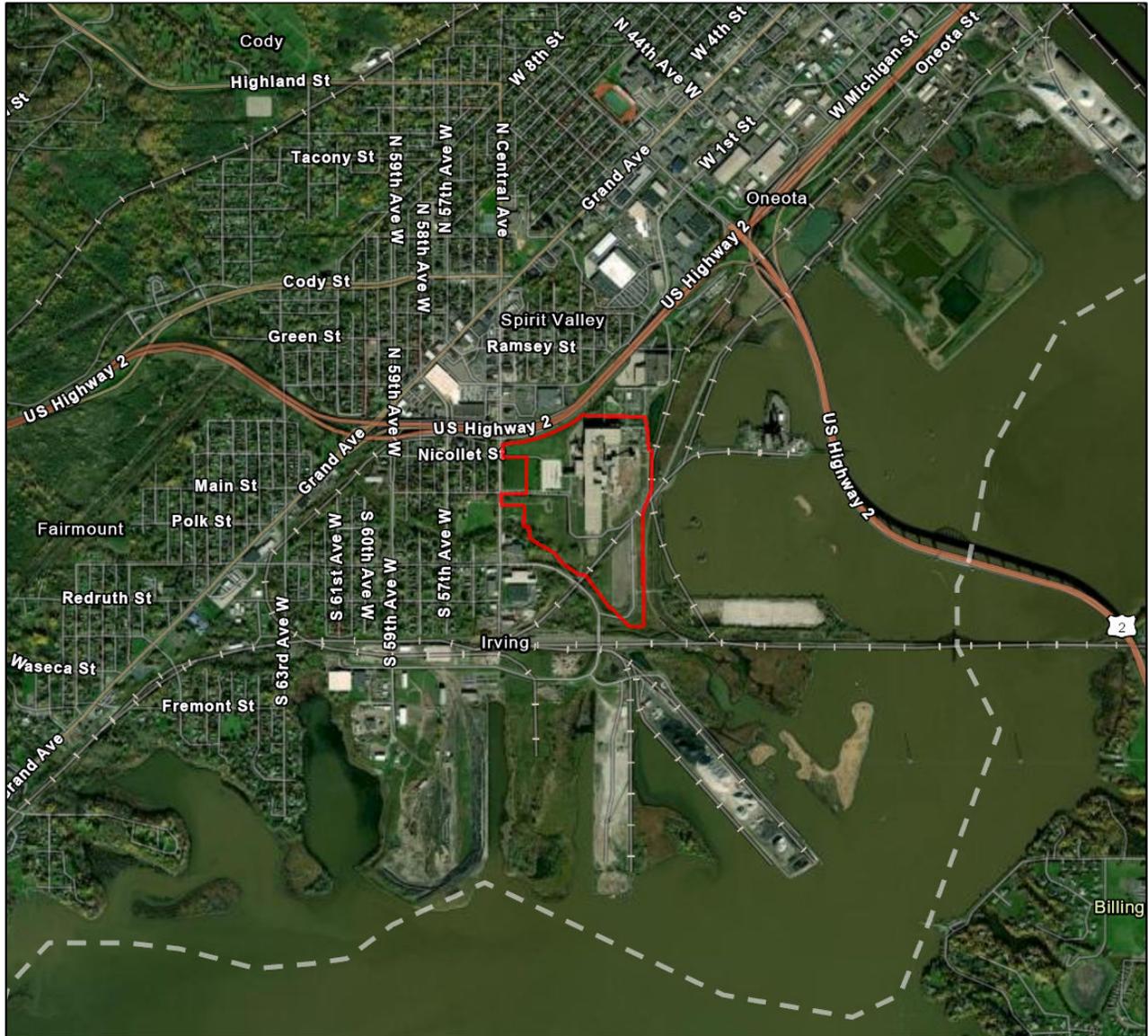
As requested, the above project has undergone an automated review for potential impacts to rare features. Based on this review, one or more rare features may be impacted by the proposed project and further review by the Natural Heritage Review Team is needed. You will receive a separate notification email when the review process is complete and the Natural Heritage Review letter has been posted.

Please refer to the table on the cover page of this report for a summary of potential impacts to rare features. For additional information or planning purposes, use the Explore Page in Minnesota Conservation Explorer to view the potentially impacted rare features or to create a Conservation Planning Report for the proposed project.

If you have additional information to help resolve the potential impacts listed in the summary results, please attach related project documentation in the Edit Details tab of the Project page. Relevant information includes, but is not limited to, additional project details, completed habitat assessments, or survey results. This additional information will be considered during the project review.

Sofidel America- Duluth Facility Expansion

Aerial Imagery With Locator Map



 Project_Boundary

Project Type: Development, Commercial/Institutional/Industrial

Project Size (acres): 74.98

County(s): St. Louis

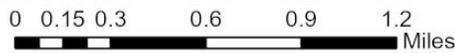
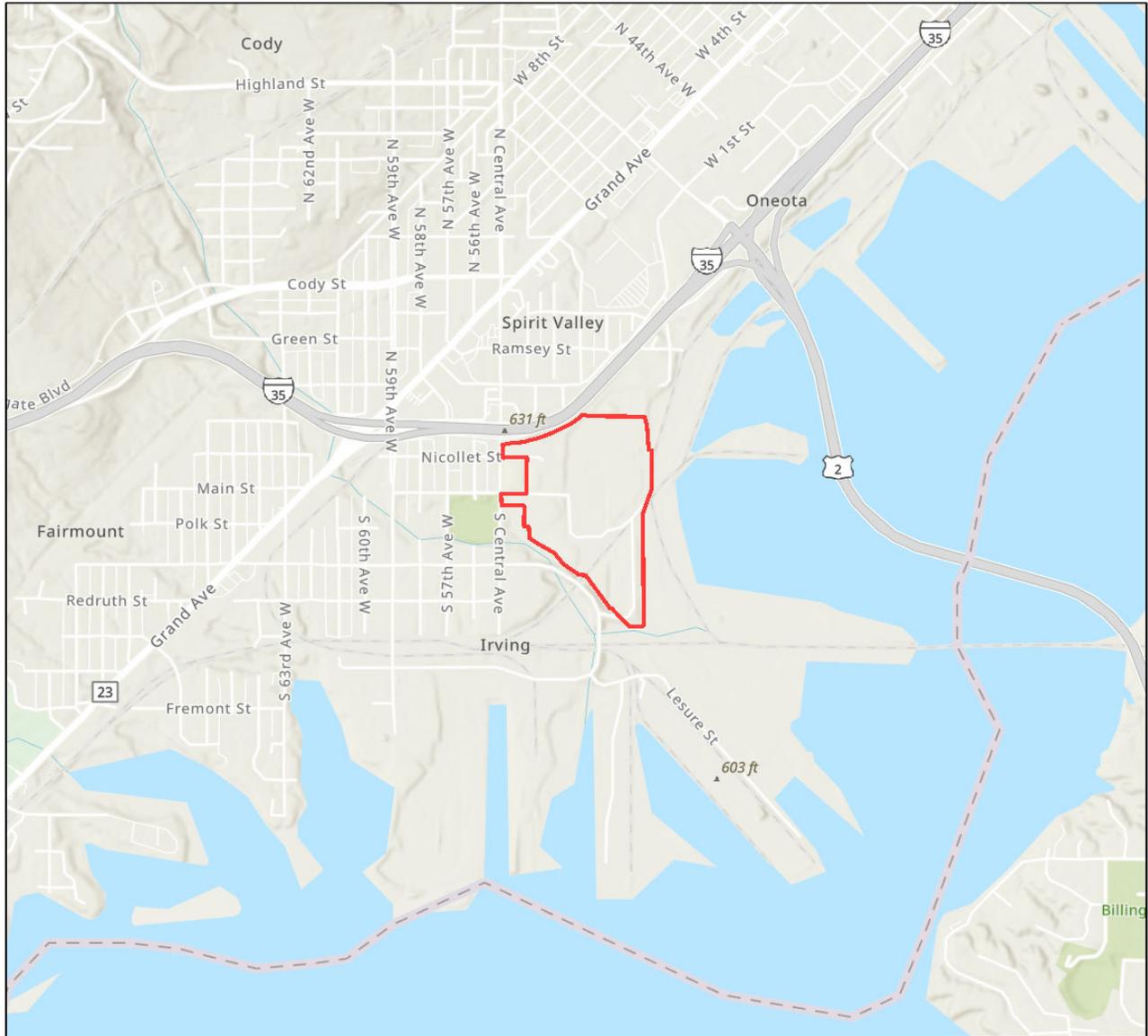
TRS: T49 R14 S18, T49 R14 S7

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
St. Louis County (MN), Fond du Lac Reservation, Esri, TomTom, Garmin,
SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census



Sofidel America- Duluth Facility Expansion

USA Topo Basemap With Locator Map



 Project_Boundary

Project Type: Development, Commercial/Institutional/Industrial

Project Size (acres): 74.98

County(s): St. Louis

TRS: T49 R14 S18, T49 R14 S7

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Esri, NASA, NGA, USGS, FEMA
St. Louis County (MN), Fond du Lac Reservation, Esri, TomTom, Garmin,



Appendix D
Studies, Reports, and Approvals

Muhlack, Brooke

From: GraggJohnson, Kelly (ADM) <kelly.graggjohnson@state.mn.us>
Sent: Monday, June 17, 2024 07:55
To: Muhlack, Brooke
Subject: RE: Sofidel America - Duluth Project Review Request by the State Historic Preservation Office

Thanks Brooke –

Due to limited staff and resources, the Minnesota State Historic Preservation Office is no longer able to provide formal responses to technical assistance requests.

Instead, we encourage you to use Minnesota’s Statewide Historic Inventory Portal (MnSHIP), which is an online tool that can help you identify any previously identified above-ground historic resources that may be located within your project area. For more information on MnSHIP, please see this link: [Minnesota's Statewide Historic Inventory Portal \(mn.gov\)](https://mn.gov/admin/shpo/surveyandinventory/research/)

We also encourage you to visit the Office of the State Archaeologist’s online portal to access the Public Map which may help you identify if there are any previously identified archaeological sites located in your general project area. Archaeological site information is protected, so detailed information on archaeological sites is reserved for qualified archaeologists and historic preservation professionals, tribal historic preservation officers, and the Minnesota Indian Affairs Council. For more information regarding the OSA portal, please see this link: <https://osaportal.gisdata.mn.gov/>

Qualified archaeologists can request additional information from SHPO about archaeological site eligibility status/determinations, survey reports (architecture-history and archaeology), and restricted property information. You can visit the Research @ SHPO webpage to learn more about how to obtain information you may need for your research to identify historic properties that may be affected by your project: <https://mn.gov/admin/shpo/surveyandinventory/research/>

It is our understanding that the goal of the EAW is to describe how a proposed project may affect the environment, which includes historic resources. An archaeological assessment of the project (a Phase Ia) will help determine whether the project has the potential to affect known or suspected archaeological sites. A Phase I archaeological survey will provide more information regarding whether known or previously unknown archaeological sites are located within the proposed project area. These studies should be developed and structured to best inform the project’s effects on archaeological resources. For a list of consultants who have expressed an interest in undertaking such surveys, please visit the website <https://www.mnhs.org/preservation/directory>, and select “Archaeologists” in the “Specialties” box.

If the proposed project will use federal funds, occur on federal land, or will require a federal permit (such as a USACE 404 permit), it may be subject to review under Section 106 of the National Historic Preservation Act. If the project becomes a federal undertaking, additional consultation between the federal agency and the SHPO will be necessary in order to define an appropriate area of potential effect (APE) for the federal undertaking as well as the necessary historic property identification and evaluation efforts required for a federal review, and this information will be helpful to help the project move forward.

Best Regards,

Kelly

Kelly Gragg-Johnson (she/her/hers) | **Environmental Review Program Specialist**

50 Sherburne Avenue, Suite 203

Saint Paul, MN 55155

(651) 201-3285 | kelly.graggjohnson@state.mn.us

Please reference this [SHPO Environmental Review Program Update](#) regarding current project review timelines and staffing changes for the Environmental Review Program.

From: Muhlack, Brooke <BMuhlack@braunintertec.com>

Sent: Monday, June 17, 2024 7:37 AM

To: GraggJohnson, Kelly (ADM) <kelly.graggjohnson@state.mn.us>

Cc: Fristed, Travis <tfristed@braunintertec.com>

Subject: RE: Sofidel America - Duluth Project Review Request by the State Historic Preservation Office

Hi Kelly:

Here is the link:  [Sofidel SHPO request final.pdf](#)

This is for an EAW. The RGU is the City of Duluth.

Brooke A. Muhlack | **Braun Intertec** | 712.635.1785

From: GraggJohnson, Kelly (ADM) <kelly.graggjohnson@state.mn.us>

Sent: Monday, June 17, 2024 07:35

To: Muhlack, Brooke <BMuhlack@braunintertec.com>

Subject: RE: Sofidel America - Duluth Project Review Request by the State Historic Preservation Office

Brooke - Please update the link, I am no longer able to access it. Also, please let me know why this project is being submitted. Is there federal or state agency involvement? If this is for an EAW, please let me know

Thanks

Kelly

Kelly Gragg-Johnson (she/her/hers) | **Environmental Review Program Specialist**

50 Sherburne Avenue, Suite 203

Saint Paul, MN 55155

(651) 201-3285 | kelly.graggjohnson@state.mn.us

Please reference this [SHPO Environmental Review Program Update](#) regarding current project review timelines and staffing changes for the Environmental Review Program.

From: Muhlack, Brooke <BMuhlack@braunintertec.com>

Sent: Wednesday, May 8, 2024 1:07 PM

To: MN_ADM_ENV Review SHPO <ENReviewSHPO@state.mn.us>

Cc: Fristed, Travis <tfrieded@braunintertec.com>; Ullery-BruX, Megan <MUllery@braunintertec.com>

Subject: Sofidel America - Duluth Project Review Request by the State Historic Preservation Office

This message may be from an external email source.

Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

Ms. Beimers,

Please see the link for our request for a historic and cultural resource review for a project in Duluth, Minnesota:

 [Sofidel SHPO request final.pdf](#)

As the file is too big to send via email, please use the link.

If you have any questions or require more information, do not hesitate to respond to this email or call me at (712)635-1785.

Kind regards,



Brooke A. Muhlack

Senior Consultant

712.635.1785 mobile

Download my contact: [Brooke A. Muhlack](#)

braunintertec.com | [Twitter](#) | [LinkedIn](#) | [Facebook](#)

May 8, 2024

Ms. Sarah Beimers
 State Historic Preservation Office
 203 Administration Building
 50 Sherburne Ave
 St. Paul, Minnesota 55155

RE: Request for Historic and Cultural Resources Review
 Duluth, Minnesota

Dear Ms. Beimers:

Sofidel America – Duluth, formally ST Paper, LLC, is proposing demolition and remodeling of their facility in the City of Duluth, St. Louis County, Minnesota (refer to Figure 1). The proposed project would alter previously disturbed lands that have historically been used for residential and industrial land uses. The project area is currently occupied and facility operational by Sofidel America’s tissue paper mill.

Braun Intertec is conducting an Environmental Assessment Worksheet (EAW) on behalf of Sofidel America – Duluth for the proposed facility expansion. The future development scenario would include facility expansion for manufacturing, warehousing, and shipping operations. The property parcels are currently classified as urban land in an industrial-zoned area by the City of Duluth.

The table below provides location information on the project area.

Address:	100 North Central Avenue, Duluth, Minnesota 55807
Property Identification Number(s):	010-2806-00020, 010-2806-00030
Latitude:	46.734365
Longitude:	-92.161869
Section, Township, Range:	SE 1/4 of Section 07 & NE 1/4 of Section 18, Township 49N, Range 14W
Elevation:	605-620 feet above mean sea level
Size:	Approximately 76.8 Total Acres

A project area location map and diagram are attached.

On behalf of the Sofidel America – Duluth, we are requesting that SHPO review the project area to determine whether there are known or likely historical/cultural resources on the property. The information received from SHPO will be incorporated into an EAW for the study area. Please note a Phase IA literature review is in progress and will be submitted before May 17th under separate cover for SHPO review and concurrence.

Sofidel America – Duluth
SHPO Request
B2402210.02
May 8, 2024

If you have any questions or require additional information, please contact Travis Fristed 952-500-1180 or Brooke Muhlack at 712-635-1785.

Sincerely,

BRAUN INTERTEC CORPORATION



Brooke A. Muhlack
Senior Scientist



Travis G. Fristed, PWS, CMWP
Group Manager, Principal Scientist

Enclosed: SHPO Request Form
 Location Maps
 Site Reconnaissance Pictures

Please mail the completed form and required material to:

ENReviewSHPO@state.mn.us



Request for Project Review by the State Historic Preservation Office (SHPO)

This is a new submittal

This is additional information relating to SHPO Project #: _____

DATE: _____

I. GENERAL PROJECT INFORMATION

Project Title: _____

Project Address (or Location): _____

City / Township (circle one): _____ Zip: _____ County: _____

Legal Description: Township _____ Range _____ E/W (circle one) Section _____ Quarter-section _____

II. PROJECT CONTACT INFORMATION

Project Contact Name: _____ Title: _____

Company/Agency: _____

Street Address: _____ Phone Number: _____

City: _____ State: _____ Zip: _____ Email: _____

III. FEDERAL AND/OR STATE INVOLVEMENT

Federal Agency (if applicable): _____

(Agency providing funds, licenses, or permits)

Permit or Project Reference #: _____

State Agency (if applicable): _____

(Agency providing funds, licenses, or permits)

Permit or Project Reference #: _____

Local Agency (if applicable): _____

(Continued on Reverse Side)

Please refer to *Instructions for Completing the Request for Project Review* form on our website. Submit one *Request for Project Review* form for each project. For questions regarding the SHPO review process, please [visit our website](#) or contact Kelly Gragg-Johnson (651-201-3285) or Leslie Coburn (651-201-3286) or by email at ENReviewSHPO@state.mn.us.

IV. PROJECT DESCRIPTION AND BOUNDARIES

A) REQUIRED FOR ALL PROJECTS

Write a detailed description of the proposed project. (See attached.)

Attach a map of project location, with project area(s) clearly marked. Road names must be included and legible.

B) Architecture

Are there any buildings or structures within the project area? Yes No

If **No**, continue to the Archaeology section below. If **Yes**, submit all of the following information:

List all buildings and structures within the project area and the year they were built. (See attached.)

Photographs of **each** building and structure located within the project area, along with a photo key. Include streetscape images, if applicable. All photographs must be clear, crisp, focused, and taken at ground level. Aerial photos are insufficient.

List known historic buildings or structures located within the project area (i.e., individual properties or districts which are listed in the National Register or which meet the criteria for listing in the National Register). (See attached.)

C) Archaeology

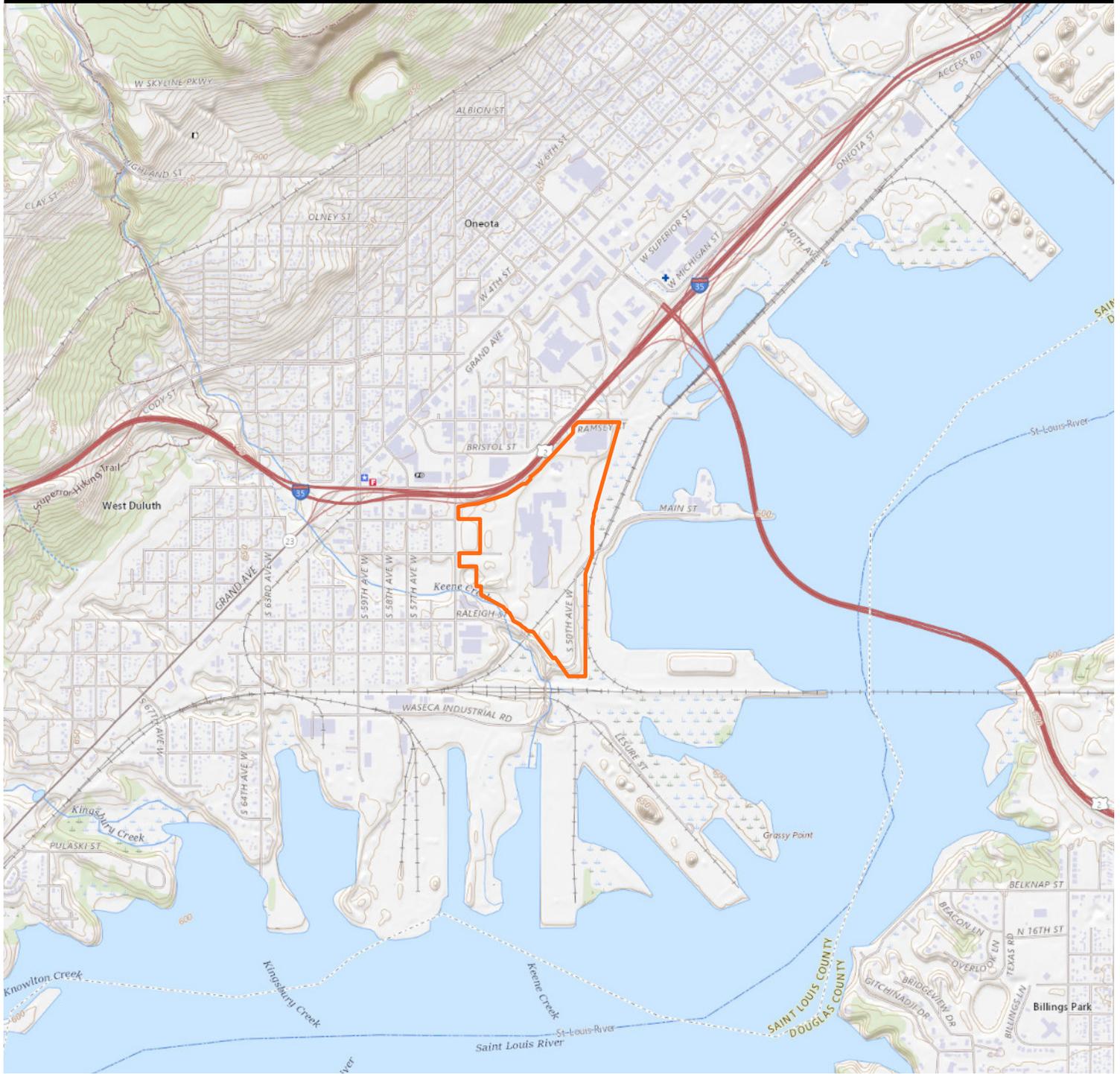
Does the proposed undertaking involve ground-disturbing activity? Yes No

If **No**, this form is complete. If **Yes**, submit all of the following information:

Attach the relevant portion of a 1:24000-scale USGS topographic map (photocopied or computer generated) **with the project boundary marked**.

Description of current and previous land use and disturbances: (See attached.)

Any available information concerning known or suspected archaeological resources within the project area. (See attached.)



Source: USGS US Topo Map



 Approximate Site Boundary



0 1,000 2,000 Feet

Scale 1" = 2,000'

**BRAUN
INTERTEC**
The Science You Build On.

11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No:
B2402210.02

Drawing No:
Fig1_LocMap

Drawn By: SL
Date Drawn: 3/15/2024
Checked By: MUB
Last Modified: 4/28/2024

Sofidel America

100 North Central Avenue

Duluth, Minnesota

**Site Location
Map**

Figure 1



Photograph #1	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing east	
Subject:	Overall facility from western boundary	



Photograph #2	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing south	
Subject:	Western boundary facing south	



Photograph #3	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	BRAUN INTERTEC
Direction:	Facing east	
Subject:	Site entrance from South Central Avenue	



Photograph #4	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	BRAUN INTERTEC
Direction:	Facing south	
Subject:	South facing along South Central Avenue	



Photograph #5	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing north	
Subject:	North facing along South Central Avenue	



Photograph #6	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing east	
Subject:	Jumbo reel storage building	



Photograph #7	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing north	
Subject:	Facing north on western portion of the site	



Photograph #8	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing west	
Subject:	West facing along southern boundary and entrance from South 50 th Avenue West	



Photograph #9	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing east	
Subject:	East facing along southern boundary	



Photograph #10	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing north	
Subject:	Facing north overview of site from south	



Photograph #11	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing north	
Subject:	North facing site overview from southeast	



Photograph #12	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing west	
Subject:	Facing west from southwestern corner	



Photograph #13	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing south	
Subject:	South facing from southwestern corner	



Photograph #14	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing north	
Subject:	Eastern boundary facing north overview of buildings	



Photograph #15	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing south	
Subject:	Eastern boundary, truck parking, rail	



Photograph #16	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing west	
Subject:	Eastern boundary facing west	



Photograph #17	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing north	
Subject:	Eastern boundary road facing north	



Photograph #18	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing west	
Subject:	Eastern boundary overview of site	



Photograph #19	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing south	
Subject:	Eastern boundary access road facing south	



Photograph #20	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing south	
Subject:	Northeast corner facing south overview of laydown	



Photograph #21	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing west	
Subject:	Northeast corner facing west overview of laydown	



Photograph #22	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing west	
Subject:	Northern boundary access road facing west	



Photograph #23	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing south	
Subject:	Northern boundary facing south overview of site	



Photograph #24	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing east	
Subject:	Northern boundary facing east	



Photograph #25	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	BRAUN INTERTEC
Direction:	Facing north	
Subject:	Eastern employee parking facing north	



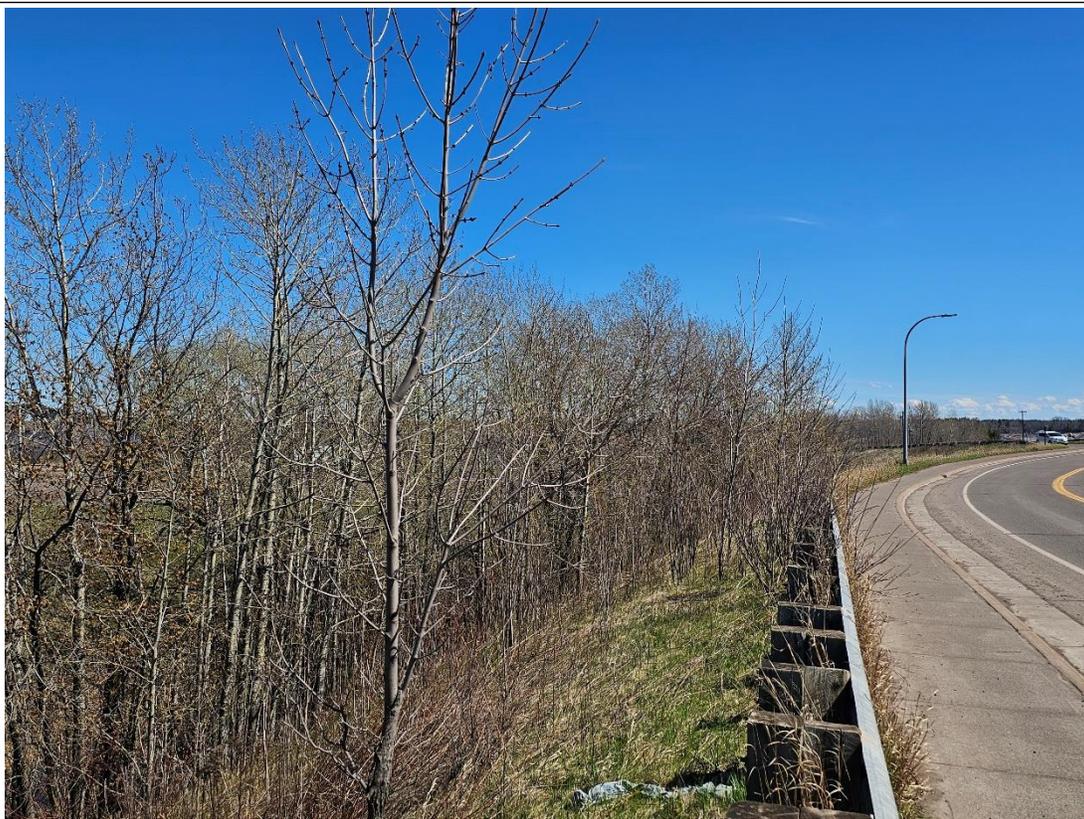
Photograph #26	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	BRAUN INTERTEC
Direction:	Facing east	
Subject:	Building overview facing east	



Photograph #27	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing north	
Subject:	Southern boundary facing north	



Photograph #28	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	
Direction:	Facing west	
Subject:	Southern boundary facing west	

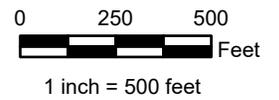


Photograph #29	Sofidel America - Duluth	B2402210.02
Date:	May 3, 2024	BRAUN INTERTEC
Direction:	Facing southeast	
Subject:	Southern boundary facing southeast	



Image Source: Google

 Approximate Site Boundary



11001 Hampshire Avenue S
 Minneapolis, MN 55438
 952.995.2000
 braunintertec.com

Project No:
 B2402210.02

Drawing No:
 Fig2_SiteBoundary

Drawn By: JPM
 Date Drawn: 4/5/2024
 Checked By: MUB
 Last Modified: 4/28/2024

Sofidel America

100 North Central Avenue

Duluth, Minnesota

**Site Boundary
 Map**

Figure 2

Fristed, Travis

From: Muhlack, Brooke
Sent: Monday, June 17, 2024 8:29 AM
To: Fristed, Travis
Subject: FW: Phase IA Literature Review for the Duluth Facility Expansion Project, St. Louis County, Minnesota

Brooke A. Muhlack | **Braun Intertec** | 712.635.1785

From: GraggJohnson, Kelly (ADM) <kelly.graggjohnson@state.mn.us>
Sent: Monday, June 17, 2024 08:28
To: Craig Picka <CPicka@insitucrm.com>
Cc: Abraham Ledezma <ALedezma@insitucrm.com>; Muhlack, Brooke <BMuhlack@braunintertec.com>
Subject: RE: Phase IA Literature Review for the Duluth Facility Expansion Project, St. Louis County, Minnesota

Thanks Craig – We have received a copy of the Phase Ia report and will not commenting at this time. Due to limited staff and resources, the Minnesota State Historic Preservation Office is not providing formal responses to technical assistance requests. We will add the report to our files. I'm assuming the recommendations in the Phase Ia report will be incorporated into the EAW.

Best Regards,

Kelly



Kelly Gragg-Johnson (she/her/hers) | **Environmental Review Program Specialist**

50 Sherburne Avenue, Suite 203

Saint Paul, MN 55155

(651) 201-3285 | kelly.graggjohnson@state.mn.us

Please reference this [SHPO Environmental Review Program Update](#) regarding current project review timelines and staffing changes for the Environmental Review Program.

From: Craig Picka <CPicka@insitucrm.com>
Sent: Saturday, May 18, 2024 9:25 AM
To: MN_ADM_ENV Review SHPO <ENReviewSHPO@state.mn.us>
Cc: Abraham Ledezma <ALedezma@insitucrm.com>
Subject: Phase IA Literature Review for the Duluth Facility Expansion Project, St. Louis County, Minnesota

This message may be from an external email source.

Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

Good morning,

I have attached to this email one (1) copy of a cultural resource literature review letter report and associated cover letter prepared by In Situ Archaeological Consulting, LLC (In Situ) on behalf of Braun Intertec. The report, *Phase IA Literature Review for the Duluth Facility Expansion Project, St. Louis County, Minnesota*, documents the results of a Phase IA literature review and assessment for the proposed Duluth Facility Expansion Project in St. Louis County. At the present time, the Project is not subject to Section 106 review, as the Project will not require federal assistance or authorization. However, this cultural resource assessment is being completed as part of an Environmental Assessment Worksheet (EAW) for the Project. Braun Intertec and In Situ request formal comments/recommendations from the Minnesota State Historic Preservation Office regarding the cultural resource assessment for this project.

Two previously recorded architectural resources fall within the project area. Resource SL-DUL00753 is a railroad depot that is unevaluated for the NRHP, and resource XX-RRD-NPR030 is an abandoned railroad corridor that is eligible for the NRHP. In Situ recommends these resources be avoided; however, at this time, the proposed project will be avoiding any direct impacts to both resources. As long as these resources are avoided by the undertaking, then no further work is recommended for these resources for this project.

As discussed in the attached document, portions of the project area have been subject to prior industrial and residential development, and it is likely that the project area may likely have been heavily impacted by previous development. It is probable that those activities would have significantly, if not totally impacted any archaeological resources that may or may not have been present in relation to the project area, leaving a nominal potential for the intact presence of significant archaeological remains within the proposed project area. Therefore, it is the opinion of In Situ that a Phase I cultural resource management survey may not be warranted for this project and no further cultural resource work is recommended for this project.

If you have any questions regarding the report and findings, please feel free to contact me at (952) 658-8891 or at cpicka@insitucrm.com or Abraham Ledezma at aledezma@insitucrm.com.

Thank you,

Craig Picka, M.S., RPA

Principal Investigator

In Situ Archaeological Consulting, LLC

7630 Executive Drive

Eden Prairie, MN 55344

www.insitucrm.com

Office: (952) 658-8891

Cell: (507) 430-9551

CONFIDENTIALITY NOTICE: *The contents of this email message and any attachments are intended solely for the addressee(s) and may contain confidential and/or privileged information and may be legally protected from disclosure. If you are not the intended recipient of this message or their agent, or if this message has been addressed to you in error, please immediately alert the sender by reply email and then delete this message and any attachments. If you are not the intended recipient, you are hereby notified that any use, dissemination, copying, or storage of this message or its attachments is strictly prohibited.*

- Wetland D is a floodplain wetland associated with Keene Creek.

¹ Findings must consider any TEP recommendations.

Attached Project Documents

Site Location Map Project Plan(s)/Descriptions/Reports (specify): Updated exhibits received 6/26/24

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for \$500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

Yes¹ No

¹If yes, all appeals must first be considered via the local appeals process.

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Planning Commission 160 City Hall, 411 West First Street Duluth, MN 55802

Notice Distribution (include name)

Required on all notices:

<input checked="" type="checkbox"/> SWCD TEP Member: R.C. Boheim, Andy Kasun	<input checked="" type="checkbox"/> BWSR TEP Member: David Demmer
<input type="checkbox"/> LGU TEP Member (if different than LGU contact):	
<input checked="" type="checkbox"/> DNR Representative: Sam Martin, Bri Speldrich	
<input type="checkbox"/> Watershed District or Watershed Mgmt. Org.: NA	
<input checked="" type="checkbox"/> Applicant (notice only): Megan Ullery-Bruce and Travis Fristed <input checked="" type="checkbox"/> Agent/Consultant (notice only): Rob Peterson	

Optional or As Applicable:

<input checked="" type="checkbox"/> Corps of Engineers:	
<input type="checkbox"/> BWSR Wetland Mitigation Coordinator (required for bank plan applications only):	
<input type="checkbox"/> Members of the Public (notice only):	<input type="checkbox"/> Other:

Signature: 	Date: 7/13/24
---	----------------------

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
332 MINNESOTA STREET, SUITE E1500
ST. PAUL, MN 55101-1323

July 30, 2024

Regulatory File No. MVP-2024-00741-LRK

Sofidel America Corp.
c/o: Simone Giacomelli
100 North Central Avenue
Duluth, MN 55807

Dear Simone Giacomelli:

This letter regards an approved jurisdictional determination for approximately 48 acres located in Section 17, Township 49 North, Range 14 West, St. Louis County, Minnesota (46.734181, -92.161483). The review area for our jurisdictional determination is identified within the yellow polygon on the enclosed figure labeled MVP-2024-00741-LRK Page 1 of 1.

The review area contains no waters of the United States subject to Corps of Engineers (Corps) jurisdiction. Therefore, you are not required to obtain Department of the Army authorization to discharge dredged or fill material within this area. The rationale for this determination is provided in the enclosed Approved Jurisdictional Determination form. You are also cautioned that the area of waters described on the enclosed Jurisdictional Determination form is approximate and is not based on a precise delineation of aquatic resources.

This determination is only valid for the review area shown within the yellow polygon on the enclosed figure labeled MVP-2024-00741-LRK Page 1 of 1.

The delineation included herein has been conducted to identify the location and extent of the aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of an NRCS Certified Wetland Determination with the local USDA service center, prior to starting work.

If you object to this approved jurisdictional determination, you may request an administrative appeal under Corps regulations at 33 CFR 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Mississippi Valley Division Office at the address shown on the form.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the enclosed NAP.

It is not necessary to submit an RFA form to the division office if you do not object to the determination in this letter

This approved jurisdictional determination may be relied upon for five years from the date of this letter. However, the Corps reserves the right to review and revise the determination in response to changing site conditions, information that was not considered during our initial review, or off-site activities that could indirectly alter the extent of wetlands and other resources on-site. This determination may be renewed at the end of the five year period provided you submit a written request and our staff are able to verify that the limits established during the original determination are still accurate.

If you have any questions, please contact me at (651) 383-5914 or lorin.r.kinney@usace.army.mil. In any correspondence or inquiries, please refer to the regulatory file number shown above.

Sincerely,

A handwritten signature in black ink that reads "Lorin Kinney". The signature is written in a cursive, flowing style.

Lorin Kinney
Project Manager

cc:

Marcello Marzano (Sofidel)
Travis Fristed (Agent)
David Demmer (BWSR)
Bri Speldrich (DNR)
Andy Kasun (SWCD)



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
332 MINNESOTA STREET, SUITE E1500
ST. PAUL, MN 55101-1323

2024-00741-LRK

July 30, 2024

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Approved Jurisdictional Determination in accordance with the “Revised Definition of ‘Waters of the United States’”; (88 FR 3004 (January 18, 2023) as amended by the “Revised Definition of ‘Waters of the United States’; Conforming” (8 September 2023) ,¹ 2024-00607-MWM. MFR 1 of 1.

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.² AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.³

On January 18, 2023, the Environmental Protection Agency (EPA) and the Department of the Army (“the agencies”) published the “Revised Definition of ‘Waters of the United States,’” 88 FR 3004 (January 18, 2023) (“2023 Rule”). On September 8, 2023, the agencies published the “Revised Definition of ‘Waters of the United States’; Conforming”, which amended the 2023 Rule to conform to the 2023 Supreme Court decision in *Sackett v. EPA*, 598 U.S., 143 S. Ct. 1322 (2023) (“*Sackett*”).

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. For the purposes of this AJD, we have relied on Section 10 of the Rivers and Harbors Act of 1899 (RHA),⁴ the 2023 Rule as amended, as well as other applicable guidance, relevant case law, and longstanding practice in evaluating jurisdiction.

¹ While the Revised Definition of “Waters of the United States”; Conforming had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.

² 33 CFR 331.2.

³ Regulatory Guidance Letter 05-02.

⁴ USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), 2024-00607-MWM (SP 3104-61)

1. SUMMARY OF CONCLUSIONS.

- a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).
 - i. Wetland 1, 417.423 linear feet. Excluded water (ditch), not a Water of the US.
 - ii. Wetland 2, 0.146 acre. Excluded water (stormwater feature), not a Water of the US.
 - iii. Wetland 3, 0.028 acre. Excluded water (stormwater feature), not a Water of the US.
 - iv. Wetland 4, 463.778 linear feet. Excluded water (ditch), not a Water of the US.
 - v. Wetland 5, 205.746 linear feet. Excluded water (ditch), not a Water of the US.
 - vi. Wetland 6, 0.011 acre. Excluded water (stormwater feature), not a Water of the US.
 - vii. Wetland 7, 241.575 linear feet. Excluded water (ditch), not a Water of the US.
 - viii. Wetland 8, 89.553 linear feet. Excluded water (ditch), not a Water of the US.
 - ix. Wetland 9, 0.318 acre. Excluded water (stormwater feature), not a Water of the US.
 - x. Wetland 10, 205.563 linear feet. Excluded water (ditch), not a Water of the US.
 - xi. Wetland 11, 187.490 linear feet. Excluded water (ditch), not a Water of the US.
 - xii. Wetland 12, 0.403 acre. Excluded water (stormwater feature), not a Water of the US.
 - xiii. Wetland 13, 590.777 linear feet. Excluded water (ditch), not a Water of the US.
 - xiv. Wetland 14, 210.138 linear feet. Excluded water (ditch), not a Water of the US.
 - xv. Wetland 15, 102.242 linear feet. Excluded water (ditch), not a Water of the US.
 - xvi. Wetland 16, 211.225 linear feet. Excluded water (ditch), not a Water of the US.
 - xvii. Wetland 17, 850.500 linear feet. Excluded water (ditch), not a Water of the US.
 - xviii. Wetland 18, 981.974 linear feet. Excluded water (ditch), not a Water of the US.
 - xix. Wetland 19, 0.009 acre. Excluded water (stormwater feature), not a Water of the US.

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), 2024-00607-MWM (SP 3104-61)

2. REFERENCES.

- a. "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (January 18, 2023) ("2023 Rule")
- b. "Revised Definition of 'Waters of the United States'; Conforming" 88 FR 6194 (September 8, 2023))
- c. *Sackett v. EPA*, 598 U.S., 143 S. Ct. 1322 (2023)

3. REVIEW AREA. The features within the review area include 6 non-jurisdictional stormwater features and 13 non-jurisdictional ditches identified in Section 1(a) of this MFR and as shown on the attached figure labeled MVP 2024-00741-LRK, Page 1 of 1 within the yellow polygon. The identified features are within the Sofidel America-Duluth industrial facility and adjacent to Interstate 35. The review area is between Latitude: 46.734181, Longitude: -92.161483 and is located in Sections 17, Township 49 North, Range 14 West in the City of Duluth, St. Louis County, Minnesota.

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), THE TERRITORIAL SEAS, OR INTERSTATE WATER TO WHICH THE AQUATIC RESOURCE IS CONNECTED. N/A

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, THE TERRITORIAL SEAS, OR INTERSTATE WATER. N/A

6. SECTION 10 JURISDICTIONAL WATERS⁵: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.⁶ N/A

⁵ 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

⁶ This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), 2024-00607-MWM (SP 3104-61)

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the 2023 Rule as amended, consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the 2023 Rule as amended. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.
 - a. Traditional Navigable Waters (TNWs) (a)(1)(i): N/A
 - b. The Territorial Seas (a)(1)(ii): N/A
 - c. Interstate Waters (a)(1)(iii): N/A
 - d. Impoundments (a)(2): N/A
 - e. Tributaries (a)(3): N/A
 - f. Adjacent Wetlands (a)(4): N/A
 - g. Additional Waters (a)(5): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

- a. Describe aquatic resources and other features within the review area identified in the 2023 Rule as amended as not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5). Include the type of excluded aquatic resource or feature, the size of the aquatic resource or feature within the review area and describe how it was determined to meet one of the exclusions listed in 33 CFR 328.3(b).⁷

The features identified within the review area include Wetlands 1-19. Wetlands 2, 3, 6, 9, 12, and 19 are stormwater features constructed in upland to collect and retain water as settling basins. Wetlands 1, 4, 5, 7, 8, 10, 11, 13, 14, 15, 16, 17, and 18 are ditches constructed in upland, drain only upland, do not carry relatively permanent flow, and are not relocated tributaries. These determinations are based on the following:

⁷ 88 FR 3004 (January 18, 2023)

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), 2024-00607-MWM (SP 3104-61)

- US Geological Service 3DEP Hillshade and DEM and MNDNR 2-foot contour maps shows the ponds are located in areas of the project that are higher in elevation and supportive of uplands.
- Recent and historic aerial photos show that ponds are located in close proximity to industrial developments and consist of geometry indicative of being manmade to store stormwater from these developments.

In conclusion, Wetlands 1, 4, 5, 7, 8, 10, 11, 13, 14, 15, 16, 17, and 18 each meet the definition of a (b)(3) excluded ditch as they were created by excavating dry land, drain only dry land, and the features don't carry relatively permanent flow, nor are they relocated tributaries. Wetlands 2, 3, 6, 9, 12, and 19 each meet the definition of a (b)(5) excluded artificial lakes and ponds as they were created by excavating dry land to collect and retain water as settling basins. Thus, these features are not waters of the United States and are not subject to Section 404 of the Clean Water Act (CWA).

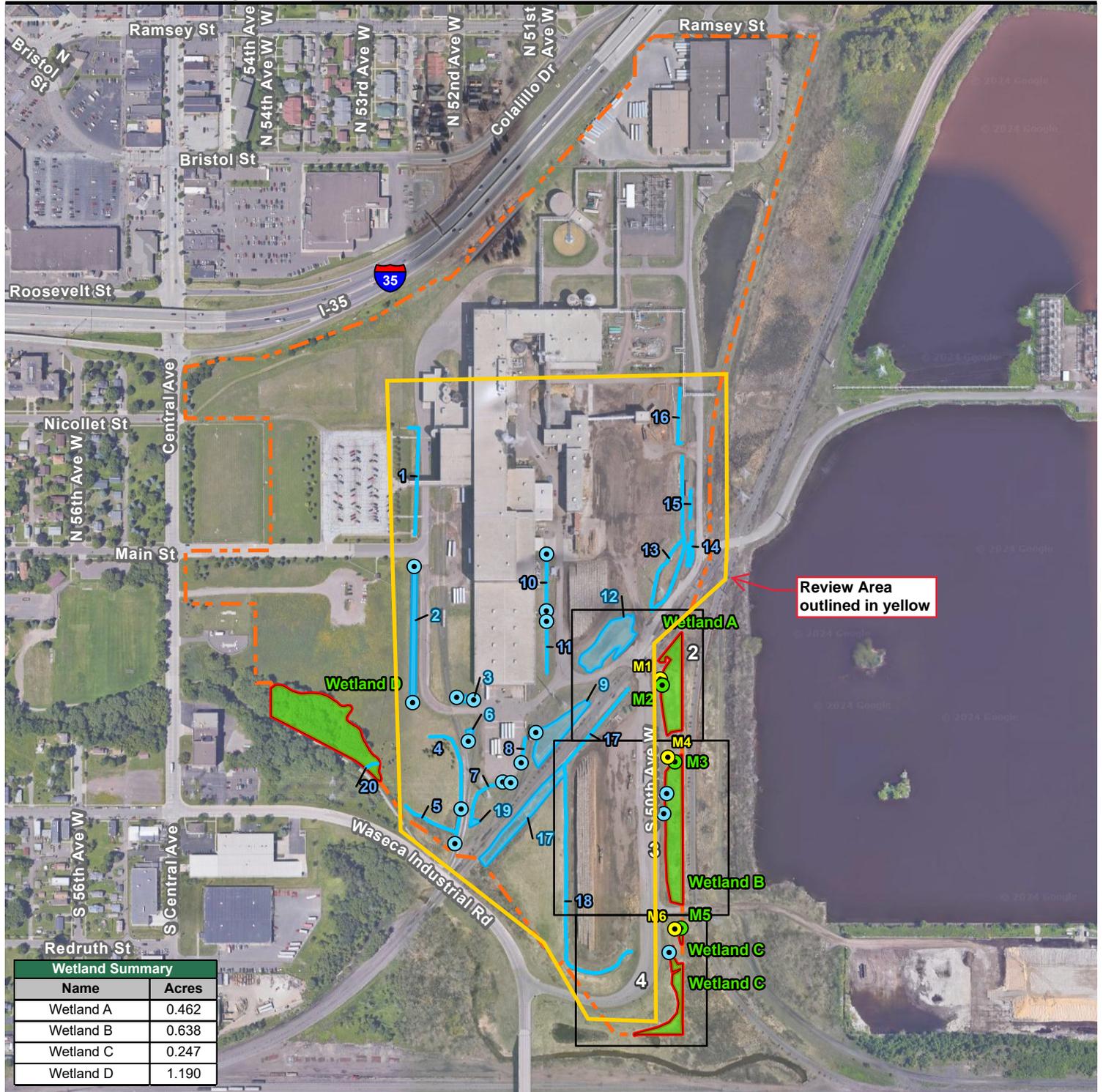
- b. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the 2023 Rule as amended (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water). N/A

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

- a. Wetland Delineation Report prepared by Braun Intertec Corporation. (Travis Fristed) on June 6, 2024.
- b. USA Soils Map Units, USA Soils Hydric Class, and MNDNR Hillshade – 2016 accessed from the NRV.

10. OTHER SUPPORTING INFORMATION. N/A

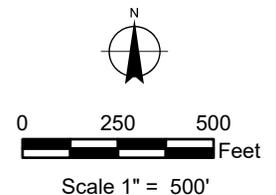
11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.



Wetland Summary	
Name	Acres
Wetland A	0.462
Wetland B	0.638
Wetland C	0.247
Wetland D	1.190

- Approximate Site Boundary
- Delineated Wetland Boundary
- Delineated Wetland Area
- Wetlands Delineated by Aerial Photos
- Upland Sample
- Wetland Sample
- Culvert Sample

NOTE: Wetland boundaries and types are approximate for illustrative purposes only and do not reflect actual survey data.



11001 Hampshire Avenue S
 Minneapolis, MN 55438
 952.995.2000
 braunintertec.com

Project No:
 B2402210.02

Drawing No:
 Fig8_WetlandDelin

Drawn By: JPM
 Date Drawn: 4/5/2024
 Checked By: MUB
 Last Modified: 6/6/2024

Sofidel America – Duluth Facility Expansion

100 North Central Avenue

Duluth, Minnesota

**Wetland
 Delineation**

Sheet:
 1 of 4

Figure 8

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Sofidel America Corp	File Number: MVP-2024-00741-LRK	Date: 7/30/2024
Attached is:		See Section below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/>	PERMIT DENIAL WITHOUT PREJUDICE	C
<input type="checkbox"/>	PERMIT DENIAL WITH PREJUDICE	D
<input checked="" type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	E
<input type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	F

SECTION I

The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/appeals/> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL WITHOUT PREJUDICE: Not appealable

You received a permit denial without prejudice because a required Federal, state, and/or local authorization and/or certification has been denied for activities which also require a Department of the Army permit before final action has been taken on the Army permit application. The permit denial without prejudice is not appealable. There is no prejudice to the right of the applicant to reinstate processing of the Army permit application if subsequent approval is received from the appropriate Federal, state, and/or local agency on a previously denied authorization and/or certification.

D: PERMIT DENIAL WITH PREJUDICE: You may appeal the permit denial

You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information for reconsideration

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- **RECONSIDERATION:** You may request that the district engineer reconsider the approved JD by submitting new information or data to the district engineer within 60 days of the date of this notice. The district will determine whether the information submitted qualifies as new information or data that justifies reconsideration of the approved JD. A reconsideration request does not initiate the appeal process. You may submit a request for appeal to the division engineer to preserve your appeal rights while the district is determining whether the submitted information qualifies for a reconsideration.

F: PRELIMINARY JURISDICTIONAL DETERMINATION: Not appealable

You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision you may contact:

U.S. Army Corps of Engineers
St. Paul District
Regulatory Division
332 Minnesota Street, Suite E1500
St. Paul, MN 55101-1323

Phone: 651-290-5525

If you have questions regarding the appeal process, or to submit your request for appeal, you may contact:

Brian Oberlies
Administrative Appeals Review Officer
Mississippi Valley Division
P.O. Box 80 (1400 Walnut Street)

Vicksburg, MS 39180-0080
Phone: 601-634-5820
Email: brian.m.oberlies@usace.army.mil

SECTION II – REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. Use additional pages as necessary. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:
Email address of appellant and/or agent:	Telephone number:

Appendix E
Conceptual Site Plans

Sofidel America - Duluth Facility Expansion

Perspective Drawings

Facing northwest from southeast.



Facing northwest from southeast.



Facing southeast from northwest (over I-35).



Facing southeast from northwest (over I-35).



Appendix F
Minnesota Climate Explorer Data

Figure 15

Precipitation For St. Louis River; January-December

All graphs generated by Minnesota Department of Natural Resources, using temperature and precipitation data from NOAA.

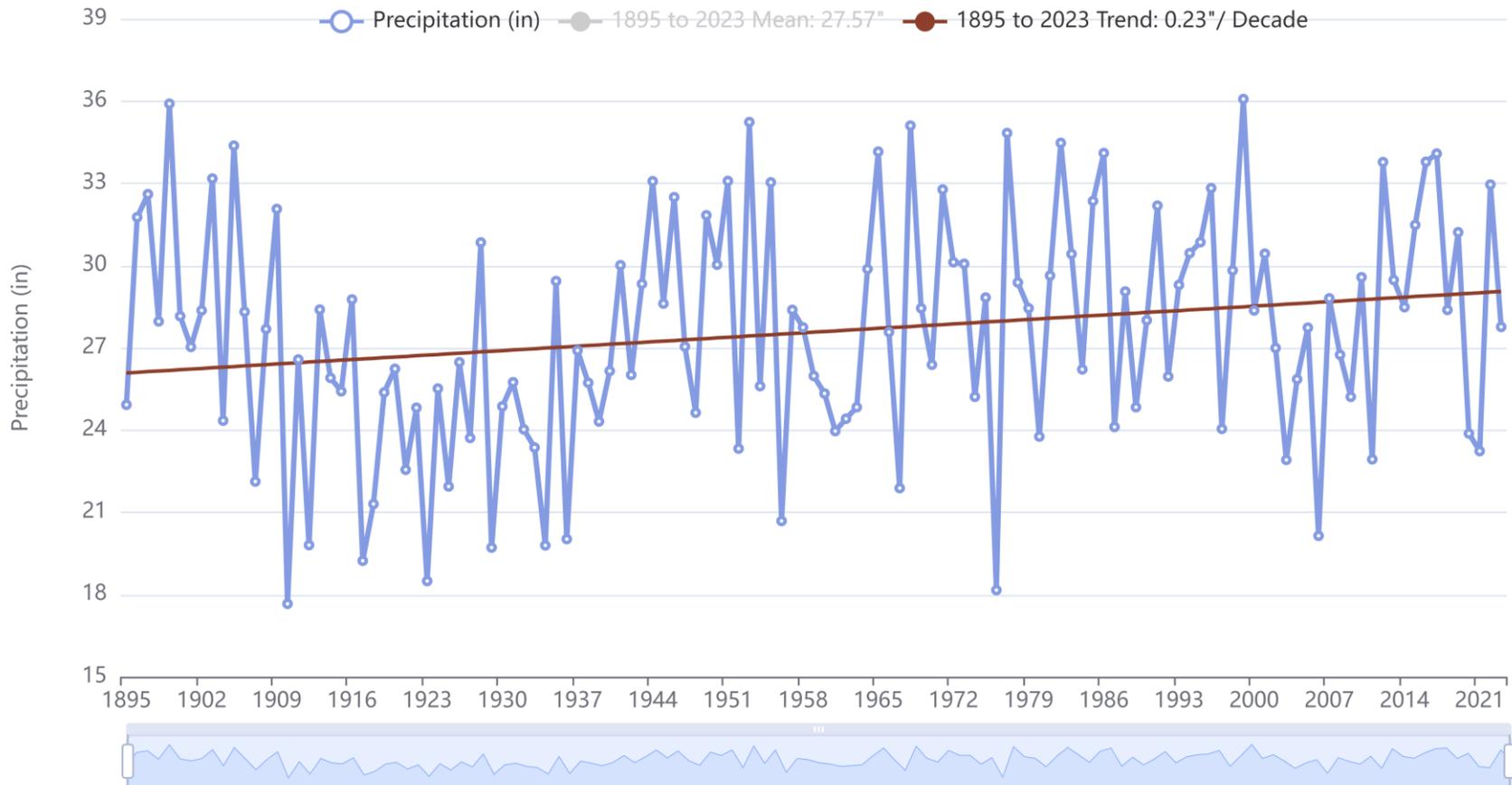


Figure 16

Average Temperature For St. Louis River; January-December

All graphs generated by Minnesota Department of Natural Resources, using temperature and precipitation data from NOAA.

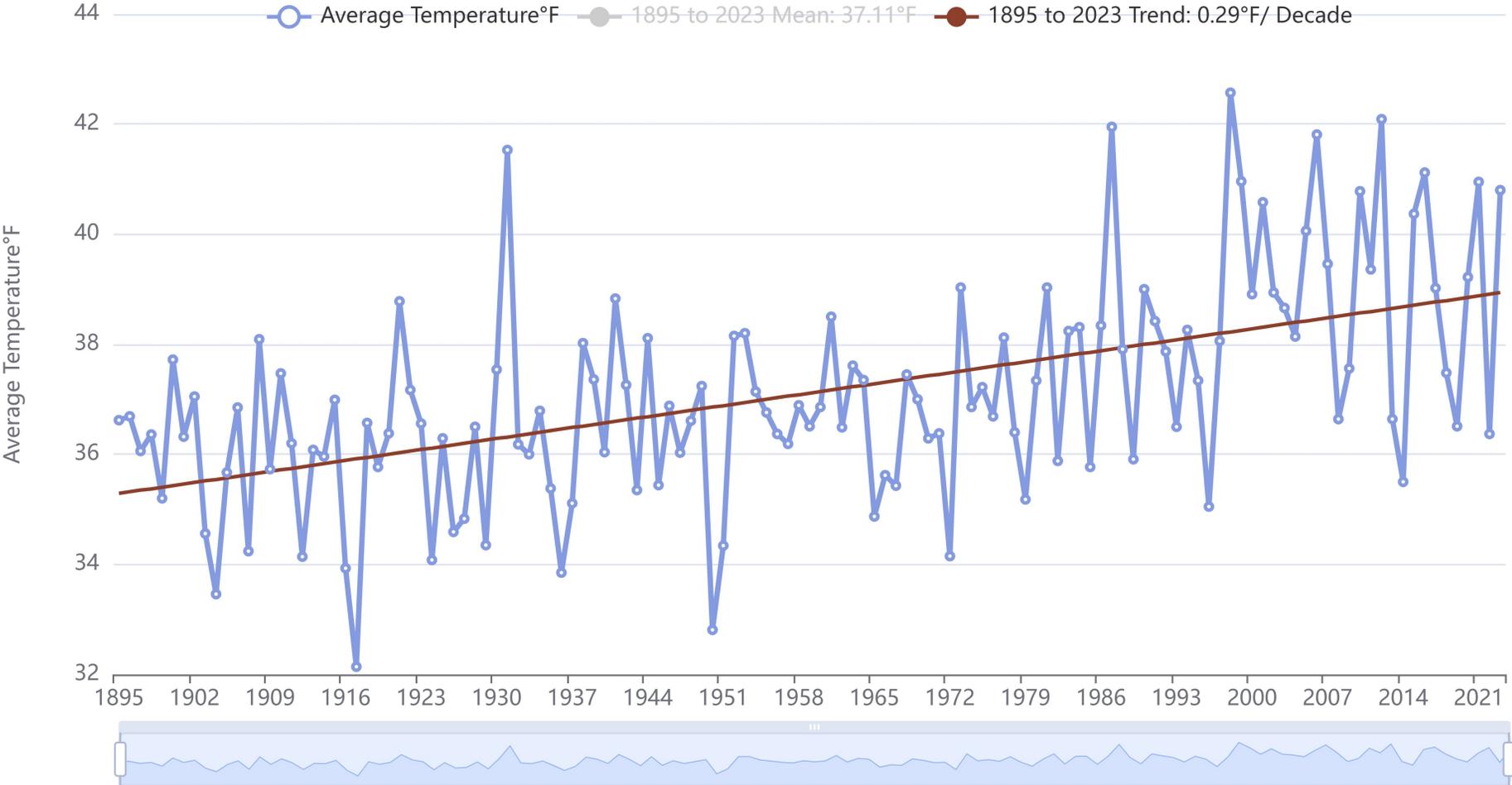
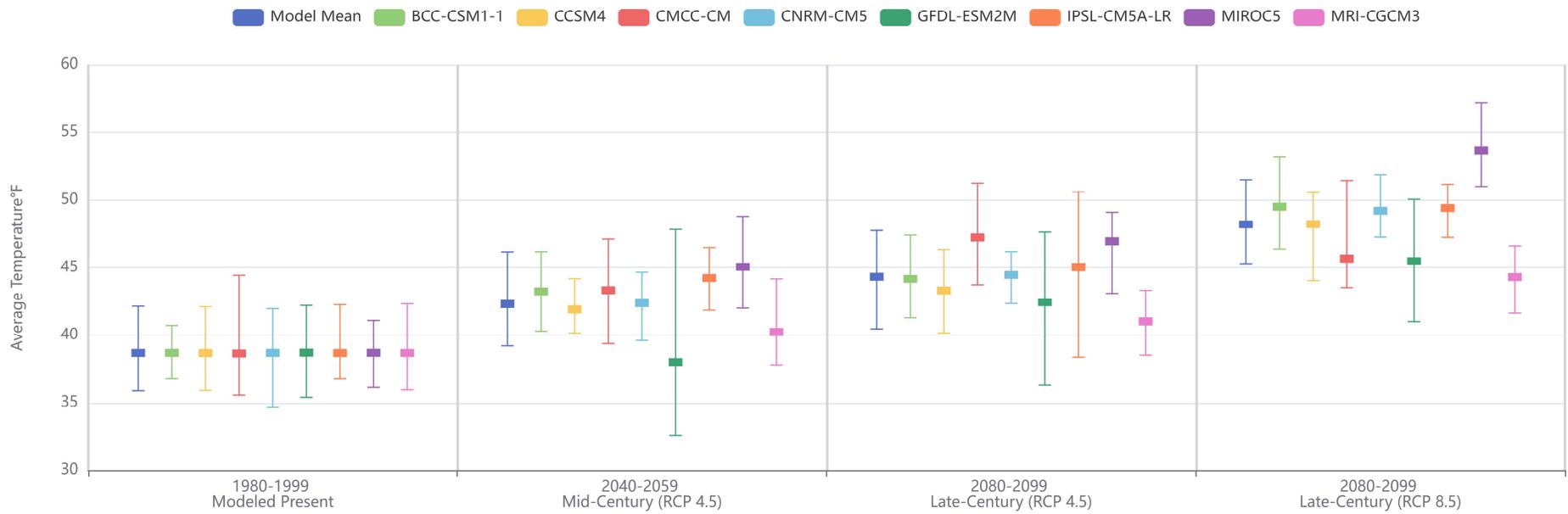


Figure 17

Recent and Projected Future Average Temperature For St. Louis River; January-December

Graph generated by Minnesota Department of Natural Resources using data from University of Minnesota climate modeling. These values may differ from those published in national and global climate assessments.



Climate Change Trends in Minnesota through 2099

Hazard	Projections through 2099	Confidence in Projected Changes
Warming Winters	Continued loss of cold extremes and dramatic warming of coldest conditions	Highest
Extreme Rainfall	Continued increase in frequency and magnitude; unprecedented flash-floods	Highest
Heat Waves	More hot days with increases in severity, coverage, and duration of heat waves	High
Drought	More days between precipitation events, leading to increased drought severity, coverage, and duration	Moderately High
Heavy Snowfall	Large events less frequent as winter warms, but occasional very large snowfalls	Moderately Low
Severe Thunderstorms & Tornadoes	More "super events" possible, even if frequency decreases	Moderately Low

Source: MN DNR State Climatology Office. Projected and expected trends among common weather hazards in Minnesota, and confidence that those hazards will change through 2099 in response to climate change. Graphic based on information from the 2014 National Climate Assessment.

Figure 19: Climate Change Trends in Minnesota through 2099

Figure 20

Maximum Temperature For St. Louis River; January-December

All graphs generated by Minnesota Department of Natural Resources, using temperature and precipitation data from NOAA.

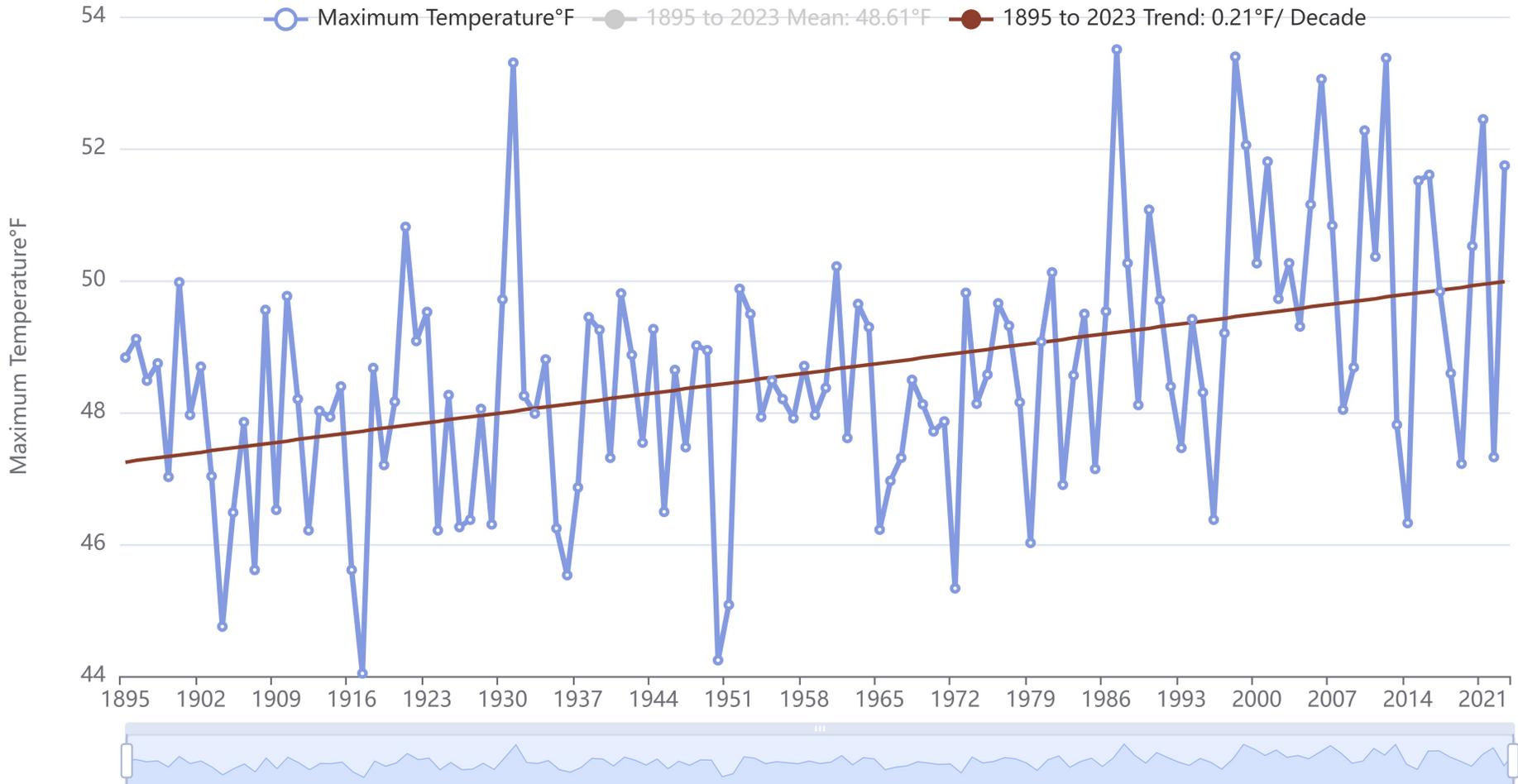
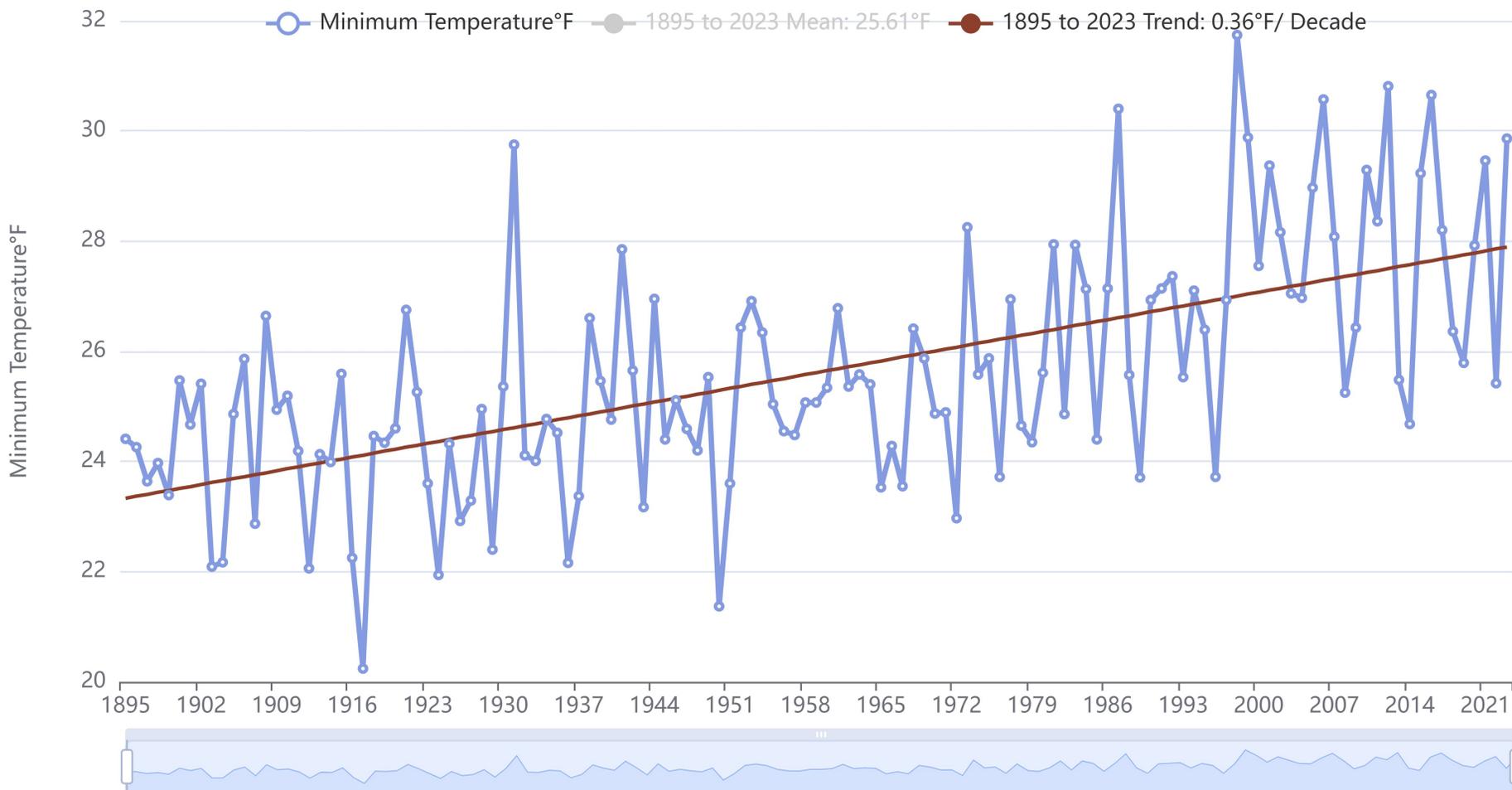


Figure 21

Minimum Temperature For St. Louis River; January-December

All graphs generated by Minnesota Department of Natural Resources, using temperature and precipitation data from NOAA.



Appendix G
Greenhouse Gas Emissions Calculations

**Sofidel America - Duluth Facility Expansion
Greenhouse Gas Emissions**

Greenhouse Gas Emissions Summary

Direct Emissions

Operations - Facility Fuel Combustion Sources					
	CO ₂	CH ₄	N ₂ O	Mass Sum	CO ₂ e
	TPY	TPY	TPY	TPY	TPY
Stationary Source Combustion	94	1.77E-03	1.77E-04	94	94

Operations - Mobile Source Combustion					
	CO ₂	CH ₄	N ₂ O	Mass Sum	CO ₂ e
	TPY	TPY	TPY	TPY	TPY
Mobile Sources (Vehicle Traffic)	15,875	0.09	0.40	15,875	15,996.6

Construction - Mobile Source Combustion					
	CO ₂	CH ₄	N ₂ O	Mass Sum	CO ₂ e
	TPY	TPY	TPY	TPY	TPY
Mobile Sources (Construction)	19.5	1.93E-03	1.80E-03	19.5	20.1

Construction - Land-Use					
					CO ₂ e
					TPY
Land-Use (Construction)					0.0

	CO ₂	CH ₄	N ₂ O	Mass Sum	CO ₂ e
	TPY	TPY	TPY	TPY	TPY
Total Direct Emissions	114	0.004	0.0020	114	16,017

Indirect Emissions

Operations - Off-Site Electricity Production					
	CO ₂	CH ₄	N ₂ O	Mass Sum	CO ₂ e
	TPY	TPY	TPY	TPY	TPY
Off-Site Electricity Production	5,619	0.6120	9.00E-02	5,620	5,661

	CO ₂	CH ₄	N ₂ O	Mass Sum	CO ₂ e
	TPY	TPY	TPY	TPY	TPY
Total Indirect Emissions	5,619	0.612	0.0900	5,620	5,661

Atmospheric Removals of GHGs

Construction/Operations - Land-Use					
					CO ₂ e
					TPY
Land-Use (Sinks) ²					0.0

	CO ₂	CH ₄	N ₂ O	Mass Sum	CO ₂ e
	TPY	TPY	TPY	TPY	TPY
Total Sinks	0	0	0	0	0

Total Emissions including Sinks = Direct Emissions + Indirect Emissions + Sinks

	CO ₂	CH ₄	N ₂ O	Mass Sum	CO ₂ e
	TPY	TPY	TPY	TPY	TPY
Total	5,733	0.616	0.0920	5,733	21,678
Total Net Lifetime GHG Emissions (tons/# of years)					

Conversion Factors:	
CO ₂ to CO ₂ e	1
CH ₄ to CO ₂ e	25
N ₂ O to CO ₂ e	298

Source: Stationary Source Operations (Existing)

	Distillate Fuel Oil No. 2 Emission Factor (lb/MMBtu)	Natural Gas Emission Factor (lb/MMBtu)	Global Warming Potential	Emission Factor Source
CO ₂	150	107	1	1
CH ₄	6.08E-03	2.03E-03	25	1
N ₂ O	1.22E-03	2.03E-04	298	1

Unit	Throughput	Throughput Units	Operating Hours	CO ₂ PTE (tpy)	CH ₄ PTE (tpy)	N ₂ O PTE (tpy)	CO ₂ e PTE (tpy)
Diesel Fire Pump (EQUI 7)	2.53	MMBtu/hr	500	94.7	3.84E-03	7.68E-04	95.0
RTO (TREA 2)	4.08	MMBtu/hr	8,760	1,920	0.0362	3.62E-03	1,922
Boiler 1 (EQUI 115)	54.5	MMBtu/hr	8,760	25,649	0.483	0.0483	25,675
Boiler 2 (EQUI 116)	54.5	MMBtu/hr	8,760	25,649	0.483	0.0483	25,675
Hood Burner 1 (EQUI 118)	20	MMBtu/hr	8,760	9,412	0.177	0.0177	9,422
Hood Burner 2 (EQUI 119)	20	MMBtu/hr	8,760	9,412	0.177	0.0177	9,422
Total				72,137	1.36	0.137	72,211

Sources	Source#
40 CFR pt. 98, Tables A-1, C-1, and C-2	1

Source: Stationary Source Operations (New)

	Distillate Fuel Oil No. 2 Emission Factor (lb/MMBtu)	Natural Gas Emission Factor (lb/MMBtu)	Global Warming Potential	Emission Factor Source
CO ₂	150	107	1	1
CH ₄	6.08E-03	2.03E-03	25	1
N ₂ O	1.22E-03	2.03E-04	298	1

Unit	Throughput	Throughput Units	Operating Hours	CO ₂ PTE (tpy)	CH ₄ PTE (tpy)	N ₂ O PTE (tpy)	CO ₂ e PTE (tpy)
Natural Gas Equipment	0.2	MMBtu/hr	8,760	94	1.77E-03	1.77E-04	94
Total				94	1.77E-03	1.77E-04	94

Sources	Source#
40 CFR pt. 98, Tables A-1, C-1, and C-2	1

**Sofidel America - Duluth Facility Expansion
Greenhouse Gas Emissions**

Source: Mobile Sources - Construction Activities

Estimated Project Life: 30 years
Project Building Floorspace: 588,439 ft²

Vehicle Types	Fuel type	Estimated Fuel Usage Per Square Foot of Building Floorspace (gal/sq. ft) ¹	Estimated Total Fuel Usage During Construction Period (gallons)	CO ₂ Emission Factor (kg/gal) ²	CO ₂ Emissions During Construction Period (ton)	CH ₄ Emission Factor (g/gal) ²	CH ₄ Emissions During Construction Period (ton)	N ₂ O Emission Factor (g/gal) ²	N ₂ O Emissions During Construction Period (ton)	CO ₂ e Emissions During Construction Period (ton)
Crawler tractors/dozers	Diesel	0.0055	3,264	10.21	37	1.01	3.63E-03	0.94	3.38E-03	38
Excavators	Diesel	0.065	38,249	10.21	430	1.0	4.26E-02	0.94	3.96E-02	443
Graders	Diesel	0.0036	2,133	10.21	24	1.0	2.38E-03	0.94	2.21E-03	25
Pavers	Diesel	2.03E-04	120	10.21	1	1.0	1.33E-04	0.94	1.24E-04	1
Rollers	Diesel	0.0035	2,085	10.21	23	1.0	2.32E-03	0.94	2.16E-03	24
Rough terrain forklifts	Diesel	0.010	6,146	10.21	69	1.0	6.84E-03	0.94	6.37E-03	71
Rubber tire loaders	Diesel	1.03E-05	6	10.21	0	1.0	6.73E-06	0.94	6.26E-06	0
Skid steer loaders	Diesel	1.19E-04	70	10.21	1	1.0	7.78E-05	0.94	7.24E-05	1
Total (tons)					586		0.0580		0.054	604
Total (tons/year, annualized over project life)					19.5		1.93E-03		1.80E-03	20.1

¹ A rough estimate of vehicle types and fuel consumption was made using data from "Oregon Nonroad Diesel Equipment Survey and Emissions Inventory," August 26, 2020 (<https://www.oregon.gov/deq/aq/Documents/orNonroadDieselRep.pdf>). An estimate of gallons of diesel per square footage of floorspace (gal/ft²) was estimated by dividing the Table 4-18 annual fuel use estimates for each vehicle type by the ² CO₂, CH₄, and N₂O emission factors taken from Table 2 and Table 5 of EPA's "Emission Factors for Greenhouse Gas Inventories", June 2024 (<https://www.epa.gov/system/files/documents/2024-02/ghg-emission-factors-hub-2024.pdf>), vehicle type: Construction/Mining Equipment.

**Sofidel America - Duluth Facility Expansion
Greenhouse Gas Emissions**

Source: Mobile Sources - Transportation Operations (Existing)

Types	Fuel type	Avg. # of Vehicle Trips per Day (1)	Days Per Week	Average Round-Trip Distance per Trip (mi)	Assumed Fuel Usage Rate (mpg)	Total Vehicle Miles Traveled (VMT/yr)	Total Annual Fuel Usage (gal/yr)	CO2 Emission Factor (kg/gal) (2)	Annual CO2 Emissions (ton)	CH4 Emission Factor (g/mile) (2)	Annual CH4 Emissions (ton)	N2O Emission Factor (g/mile) (2)	Annual N2O Emissions (ton)	Annual CO2e Emissions (ton)
Current Truck Traffic Counts	Diesel	53	7	600	6	11,557,000	1,926,167	10.21	21,678	0.0095	1.21E-01	0.0431	5.49E-01	21,845
Total									21,678		0.121		0.549	21,845

(1) Total average vehicle trips per day based on monthly average of 635, conservatively assuming all traffic is medium- and heavy-duty trucks.
 (2) CO2, CH4, and N2O emission factors taken from Table 2 and Table 4 of EPA's "Emission Factors for Greenhouse Gas Inventories", June 2024 (<https://www.epa.gov/system/files/documents/2024-02/ghg-emission-factors-hub-2024.pdf>)

Note: GHG emissions will vary significantly based on vehicle type and distance traveled. This data is not readily available, so assumptions were made for these variables.

Sofidel America - Duluth Facility Expansion
Greenhouse Gas Emissions

Source: Mobile Sources - Transportation Operations (Project-Related)

Types	Fuel type	Avg. # of Vehicle Trips per Day (1)	Days Per Week	Average Round-Trip Distance per Trip (mi)	Assumed Fuel Usage Rate (mpg)	Total Vehicle Miles Traveled (VMT/yr)	Total Annual Fuel Usage (gal/yr)	CO2 Emission Factor (kg/gal) (2)	Annual CO2 Emissions (ton)	CH4 Emission Factor (g/mile) (2)	Annual CH4 Emissions (ton)	N2O Emission Factor (g/mile) (2)	Annual N2O Emissions (ton)	Annual CO2e Emissions (ton)
Project-related Truck Traffic Counts	Diesel	39	7	600	6	8,463,000	1,410,500	10.21	15,875	0.0095	8.86E-02	0.0431	4.02E-01	15,997
Total									15,875		0.089		0.402	15,997

(1) Total average vehicle trips per day based on monthly average expected vehicles in 2027 (1,100) less current monthly average vehicles, conservatively assuming all traffic is medium- and heavy-duty trucks.
(2) CO2, CH4, and N2O emission factors taken from Table 2 and Table 4 of EPA's "Emission Factors for Greenhouse Gas Inventories", June 2024 (<https://www.epa.gov/system/files/documents/2024-02/ghg-emission-factors-hub-2024.pdf>)

Note: GHG emissions will vary significantly based on vehicle type and distance traveled. This data is not readily available, so assumptions were made for these variables.

**Sofidel America - Duluth Facility Expansion
Greenhouse Gas Emissions**

Source: Off-Site Emissions from Electricity Generation

Off-Site Electricity	
Assumptions:	
<u>Total Project</u>	
Estimated total project site annual electricity use, MWh/year	12,000
Conversion Factors:	
lb/ton	2,000
lb/kg	2.204
CO ₂ to CO ₂ e	1
CH ₄ to CO ₂ e	25
N ₂ O to CO ₂ e	298

Pollutant	EPA Pollutant Type	Emission Factor ¹ (lb/MWh)	Off-Site Emissions From Electricity Generation (TPY)
CO ₂ e ²	GHG	943.5	5,661
CO ₂	GHG	936.5	5,619
CH ₄	GHG	0.102	0.612
N ₂ O	GHG	0.015	9.00E-02

¹ CO₂, CH₄, and N₂O emission factors taken from Table 6 of EPA's "Emission Factors for Greenhouse Gas Inventories", June 2024 (<https://www.epa.gov/system/files/documents/2024-02/ghg-emission-factors-hub-2024.pdf>). "Total Output" emission factors were used as directed in the Table 6 footnot. MROW factors.

² CO₂e emissions are based on global warming potential from 40 CFR 98 Subpart A, Table A-1 (CO₂=1, CH₄=25, and N₂O=298), November 29, 2013.

³ U.S. Energy Information Administration (US EIA), May 2018 (<https://www.eia.gov/consumption/commercial/data/2018/index.php?view=consumption#electricity>). "Electricity consumption and conditional energy intensity by building size, 2018". Electricity energy intensity for retail buildings 10,000 to 100,000 square feet used as a representative building type and size

Appendix H

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