ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW)

Redwood Falls Southeast Development Project

Redwood Falls, MN

Residential, commercial and industrial development on 324 acres southeast of Redwood Falls.

August 2021

ENVIRONMENTAL ASSESSMENT WORKSHEET

Table of Contents

Appendices

List of Abbreviations

BMP	Best Management Practices
Co Hwy	County Highway
CR	County Road
CSAH	County State Aid Highway
DNR	Department of Natural Resources
BWSR	Minnesota Board of Water and Soil Resources
EA	Environmental Assessment
EAW	Environmental Assessment Worksheet
LGU	Local Government Unit
MGS	Minnesota Geologic Survey
MnDNR	Minnesota Department of Natural Resources
MN	State of Minnesota
MnDOT	Minnesota Department of Transportation
MPCA	Minnesota Pollution Control Agency
MPCA WIMN	Minnesota Pollution Control Agencies What's in My Neighborhood website
NHIS	Natural Heritage Information System
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
PWI	Public Waters Inventory
RGU	Responsible Governmental Unit
R/W	Right-of-Way
SHPO	State Historic Preservation Office
SWPPP	Storm Water Pollution Prevention Plan
TH	Trunk Highway
TMDL	Total Maximum Daily Load
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
WCA	Wetland Conservation Act

1 Project Title

Redwood Falls Southeast Development Project

2 Proposer

Organization:	City of Redwood Falls
Contact person:	James Doering
Title:	Public Works Project Coordinator
Address:	333 S. Washington Street, PO Box 526
City, State, ZIP:	Redwood Falls, MN 56283
Phone:	(507) 616-7400
Email:	jdoering@ci.redwood-falls.mn.us

3 RGU

Organization:	City of Redwood Falls
Contact person:	James Doering
Title:	Public Works Project Coordinator
Address:	333 S. Washington Street, PO Box 526
City, State, ZIP:	Redwood Falls, MN 56283
Phone:	(507) 616-7400
Email:	jdoering@ci.redwood-falls.mn.us

4 Reason for EAW Preparation

Required:

- ☐ EIS Scoping
- ☒ Mandatory EAW MS 4410-4300, Subpart 36

Discretionary:

- ☐ Citizen petition
- ☐ RGU discretion
- ☐ Proposer initiated

5 Project Location

County	Redwood County		
City/Township	Redwood Falls		
PLS Location (¼, ¼, Section, Township, Range):	**Section**	**Township**	**Range**
SW Parcel: NW1/4 EX RR & ALL SW1/4 E & N OF RR, 208.55A	8	112	35
NE Parcel: SE1/4 LYING S OF CTY DITCH 52 EX TR 640' X 510', 140.51A	5	112	35
Watershed (82 major watershed scale):	Minnesota River (Mankato) (07020007)		

GPS Coordinates:	SW Parcel: NW corner - 15T 334085 4932736 NE corner - 15T 334868 4932734 SE corner - 15T 334837 4931375 SW corner - 15T 334073 4932150 NE Parcel: NW corner - 15T 334919 4933407 NE corners - 15T 335333 4933455, 15T 335334 4933340, 15T 335416 4933236, 15T 335690 4933231 SE corners - 15T 335687 4932902, 15T 335510 4932894, 15T 335486 4932758 SW corner - 15T 334902 4932763
Tax Parcel Number:	62-008-2020 (SW), 62-005-4020 (NE)
County	Redwood

Exhibit 1. Regional Location

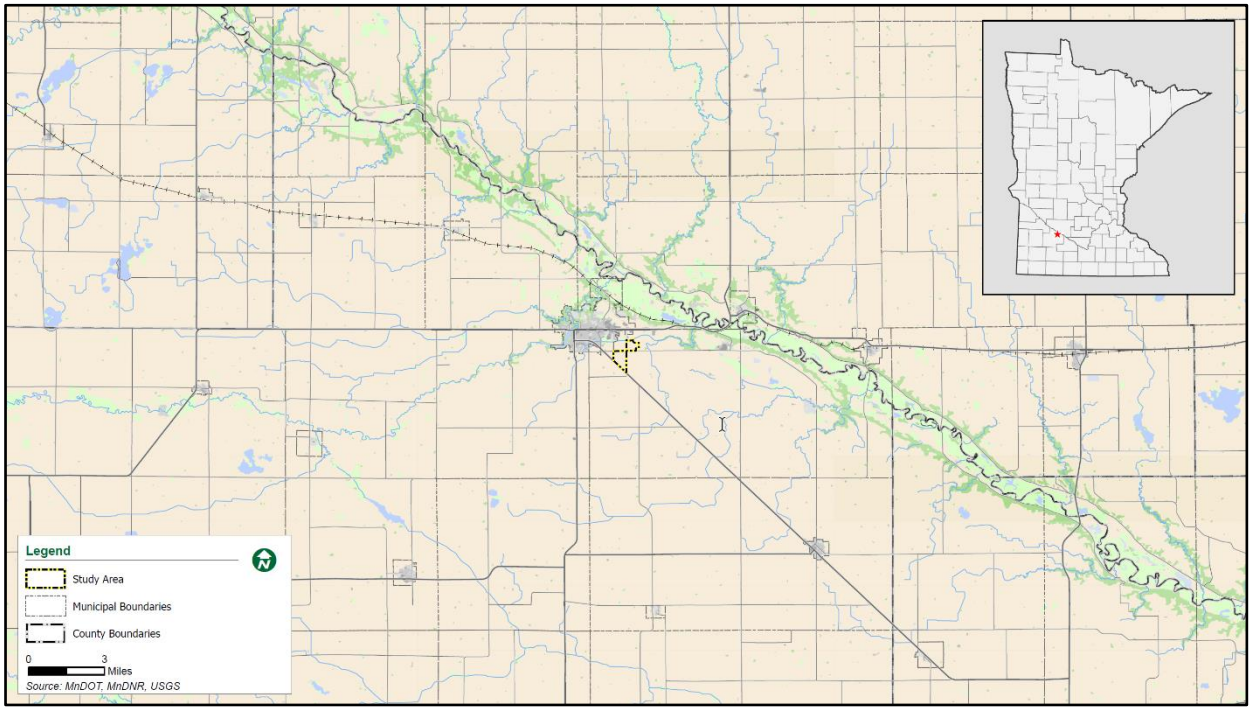
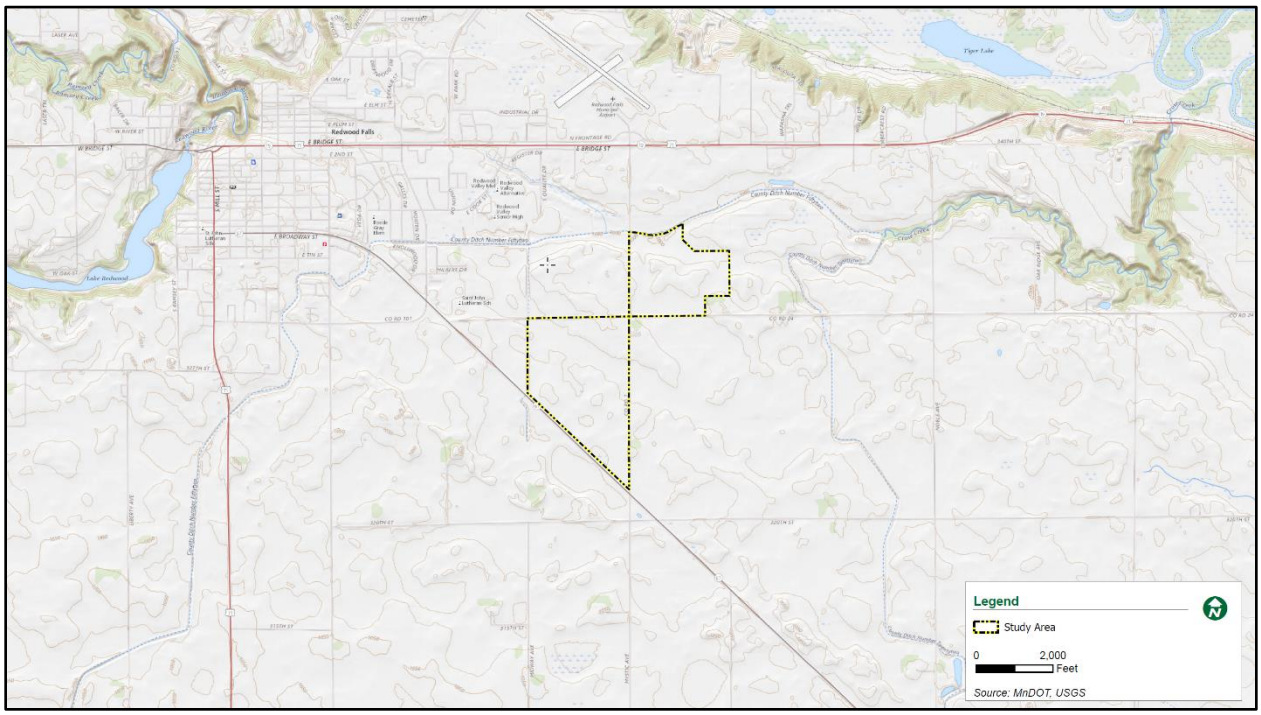


Exhibit 2. USGS Location



6 Project Description

a. EQB Monitor Description

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

The City of Redwood Falls is proposing a residential, commercial and industrial development project on two parcels of 208 acres and 116 acres, respectfully, southeast of the current city limits. Development activities will include utility installation, road construction, both unattached and attached residential units, open space areas, and commercial and industrial space. The city proposes to annex this area into the city limits to enable continued growth.

b. Complete Description

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.

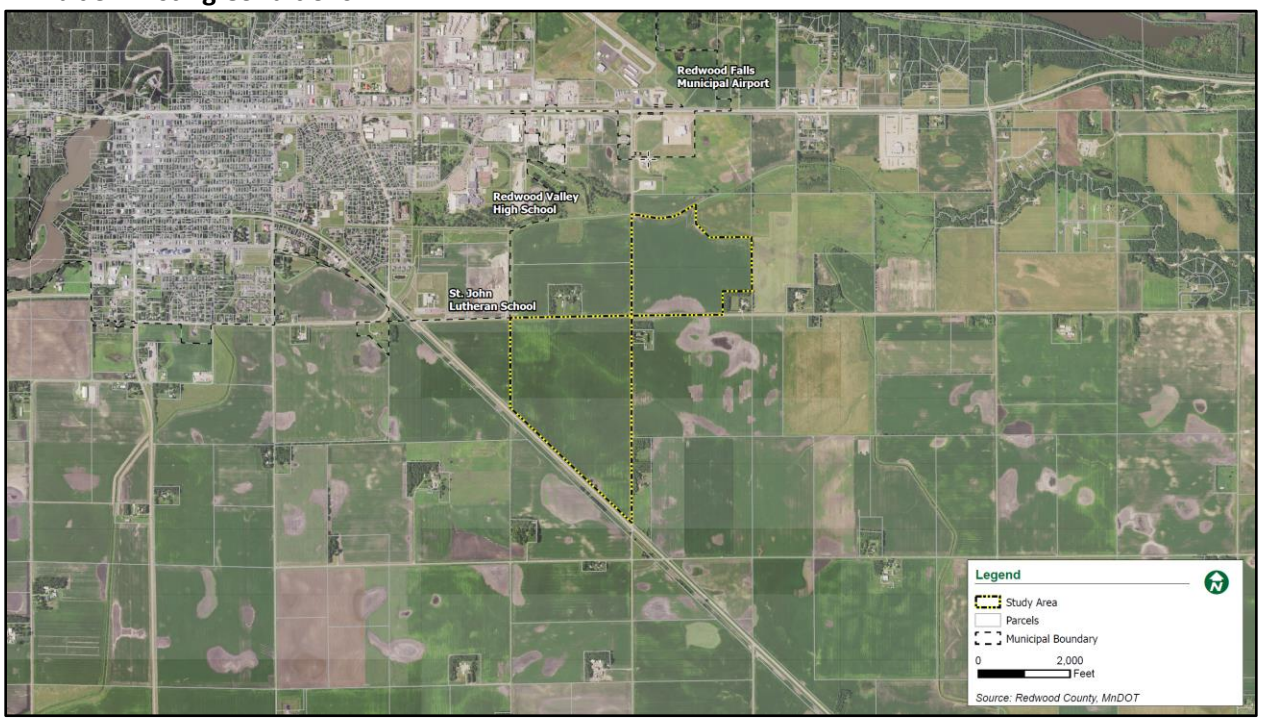
Project Description (Including Context/Need)

The City of Redwood Falls proposes to develop two parcels totaling 324 acres for industrial, residential and commercial development southeast of the current city limits. This project will incorporate

development in a phased approach across the two parcels. The parcel northeast of the intersection of County State Aid Highway (CSAH) 1 and CSAH 24 (NE parcel) will be developed primarily for light industrial use. The parcel southwest of this same intersection (SW parcel), will be developed for primarily residential use with the potential for commercial areas. Conceptual development plans for these parcels can be found in **Appendix C**.

These parcels are currently owned by the Redwood Falls Port Authority and leased out for agricultural production. Construction is anticipated to commence in the Spring 2022 with full build-out completed over several years pending current and future developer interest.

Exhibit 3. Existing Conditions



Subsurface utilities including storm sewer, sanitary sewer, and watermains are planned to service the subdivision and industrial areas. Proposed new streets will be bituminous mat/aggregate base sections with low traffic volumes and occasional post-construction truck traffic in the NE parcel. It's anticipated that grade changes for structures will be limited to five feet. Structures will include residential development, both single-family and multi-family units, commercial properties, and light industrial and/or warehousing facilities.

The phased approach will facilitate build-out on these parcels over time as development pressures continue to increase in and around Redwood Falls. Phase 1 construction will begin in Spring 2022 and add amenities to both parcels, including a lift station, watermain loop, and preparing the site for additional utilities and roadways. This phase will also include initial residential development in the SW parcel. Phase 2 will commence based on developer interest and anticipates completing residential and commercial construction in the SW parcel and add light industrial and/or warehousing facilities in the NE parcel.

Construction Methods

Construction is anticipated to begin in Spring 2022 and will include land clearing and grading with conventional excavation equipment typical for heavy earth work and roadbuilding. This may include backhoes, loaders, dozers, off-road trucks, and over-road trucks. New utility installation will include watermains, sanitary sewer and storm sewer in addition to electric and natural gas.

Following utility installation, construction will transition to vertical structures, including single-family and multi-family residential units, commercial and light industrial facilities. Typical construction methods will be followed for both horizontal and vertical construction.

Modification to Existing Equipment

There are currently no structures on these parcels that would require modification or demolition.

c. Project Magnitude

Table 1: Project Magnitude*

Total Project Acreage	324 acres
Linear project length	N/A
Number and type of residential units	102 attached 128 unattached
Commercial building area (in square feet)	5,000 sq ft (SW parcel)
Industrial building area (in square feet)	TBD (NE parcel)
Institutional building area (in square feet)	N/A
Other uses – specify (in square feet)	Future Trail = 112,000 sq ft
Structure height(s)	In accordance w/ local ordinance

*Project magnitude information is estimated based on current development concept plans.

d. Project Purpose

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.

As the City of Redwood Falls continues to see new growth, the city is proposing a combined residential housing, commercial and industrial development project across two-parcels which total 208 acres and 116 acres, respectively. The housing development will help serve the needs of this growing community by offering a variety of single-family and multi-family building lots. Similarly, the proposed commercial and industrial development areas will support the city's efforts to attract and retain businesses to the region and advance economic growth.

e. Future Development

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 for environmental review.

f. Previous Development

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.

7 Cover Types

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

Project construction and potential disturbance limits were used to define the study area footprint in **Table 2**, below.

Table 2: Cover Types

	Before	After*		Before	After*
Wetlands	1.18 ac	1.18 ac	Lawn/landscaping	N/A	79 ac
Deep water/streams	N/A	N/A	Impervious surfaces (includes roads, parking areas, and structures)	N/A	221 ac
Wooded/forest	N/A	N/A	Stormwater Pond	N/A	10 ac
Brush/Grassland	23 ac	10.5 ac	Other (describe): Trail	N/A	2.5 ac
Cropland	300 ac	0 ac			
			TOTAL	**324 ac**	**324 ac**

*Acreages are approximations

8 Permits & 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.

Permits and Approvals

All known permits at state, federal, and local levels necessitated by the project are listed in **Table 3**, below.

Table 3. Required Permits & Approvals

Government Agency	Type of Application/Permit	Status
Federal Agencies		
Federal Emergency Management Agency	Letter of Map Revision (LOMR)	To be applied for
State Agencies		
Minnesota Pollution Control Agency	National Pollutant Discharge Elimination System (NPDES) Construction Storm Water Permit	To be applied for
	Sanitary Sewer Extension Permit	To be applied for
Minnesota Department of Health	Watermain Extension Permit	To be applied for
Minnesota Department of Natural Resources	Water Appropriations Permit	To be applied for
Local Agencies (if applicable)		
Redwood County	Stormwater Outlet Permit to CD52	To be applied for
Redwood Soil & Water Conservation District	Grading/Excavating Permit	To be applied for
Redwood County / Paxton Township	Annexation	To be completed

9 Land Use

a. Existing Land Use

Description

Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.

Currently, the two parcels are being used for agricultural cropland. Referring to historic aerial photography, the area has historically been used for agricultural production since at least the early 1900s. There are no significant potential environmental hazards due to these past land uses anticipated at the project site.

The proposed development sites include the intersection of CSAH 1 and CSAH 24. To the northwest of the SW parcel is St. John Evangelical School and a health center presently under construction. The SW parcel is also bordered along the SW property line by Trunk Highway (TH) 67.

There are several single-family residences and agricultural fields near the two parcels as seen in **Exhibit 3**.

The proposed development is compatible with anticipated growth in the region and no significant impacts are anticipated to adjacent properties. Site design and construction best management practices will buffer and protect adjacent properties and resources.

Local 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.

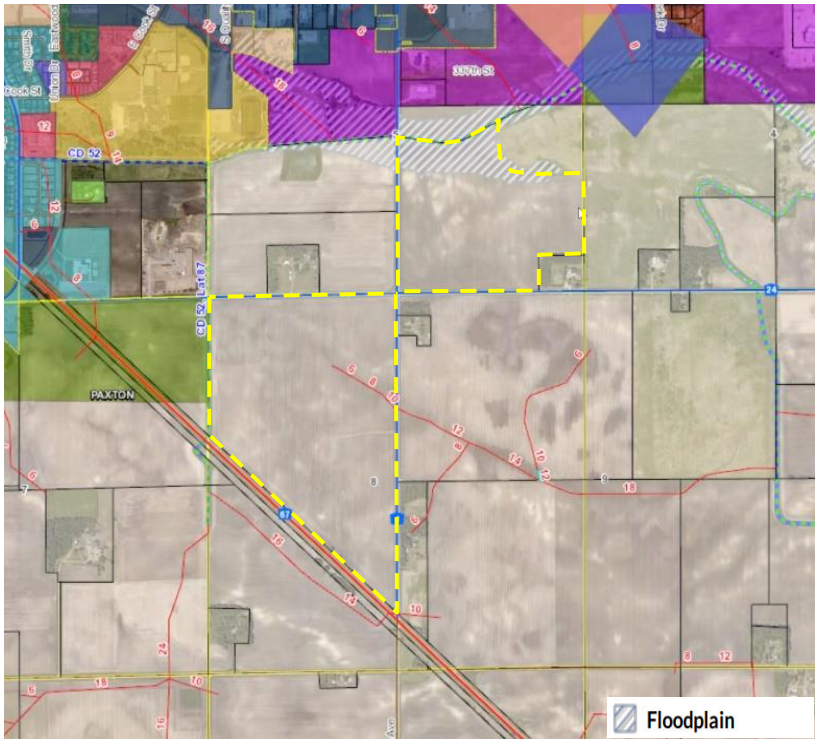
The City of Redwood Falls plans to annex these southeastern parcels to expand its residential, commercial and industrial growth areas. Conversations with Redwood County and Paxton Township have occurred and are ongoing to ensure a smooth process. The city is currently reviewing and updating its comprehensive plan to ensure this, and any other future growth areas are identified and incorporated into that document. Following approval of the SE Development EAW, the city will initiate the annexation process.

Zoning

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

Zoning for these parcels is currently designated as Agricultural. There is a public drain tile located on the SW parcel and shoreland-floodplain identified on the northern portion of the NE parcel (**Exhibit 4**). The Letter of Map Reduction (LOMR) recommends reducing the floodplain limits as identified in **Appendix D**.

Exhibit 4. Current Zoning and Overlays[1]



Pending approval of the environmental review process, the city anticipates annexing the parcels and updating area zoning to Rural Residential (R-R), unless otherwise designated at the time of annexation. This annexation and rezoning process is projected to occur in early 2022.

b. Project Compatibility

Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

The proposed development project is presently inconsistent with the city's approved comprehensive and zoning plans. Pending approval of the environmental review process, the city will finalize updates to the comprehensive and zoning plans and work with Redwood County and Paxton Township to annex these parcels into the city limits.

c. Project Incompatibility

Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.

Please refer to Response 9b.

[1] Beacon – Redwood County, Overlay Map, https://beacon.schneidercorp.com/Application.aspx?AppID=800&LayerID=12803&PageTypeID=1&PageID=5979#

10 Geology, Soils, & Topography/Landforms

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 site geology consists of topsoil underlain by mostly glacial till with some alluvial deposits. The surficial topsoil layer is about 1 ½' to 2 ½' deep at the boring locations identified in the geotechnical report in **Appendix D**. The topsoil consists mostly of black, lean clay with numerous visible organics. Underlying the surficial deposits, brown sandy lean clay till, brown lean clay or brown sand alluvial deposits were encountered at the boring locations.

The main geologic deposit encountered at the site consisted of clayey sand and sandy lean clay, glacial till. The upper portion of till was somewhat weathered. The till varied in color from brown nearer the surface to gray at depth. Additionally, the till contained some gravel and numerous lenses and layers of sane. The consistency of the till varied from firm to hard.

Depth to bedrock on the project site is approximately 200 to 400 feet below ground surface (**Appendix A, Figure 6**).

b. Soils & 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 11.b.ii.

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Maps were reviewed around the proposed housing development parcel and industrial development parcel. For both sites, the predominant soils are clay loam and loam material, along with some silty clay and silty loam material. These soil types are characterized by relatively shallow seasonal ground water and are susceptible to frost action. However, these soils are not atypical of those found in the rest of southeastern Redwood Falls. There is no indication of swamp, peat, or muck deposits within either site.

The predominant soil types and soil component names within the proposed development area are listed in **Tables 4** and **5**.

The NRCS classifies soils into hydrologic soil groups, A – D:

- Group A – Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands.
- Group B – Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately course texture.
- Group C – Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture.
- Group D – Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays with high swelling potential, soils with a permanent high-water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material.
- Group "/D" – Soils with a high-water table, but if drained conform to the first letter listed before "/D" (for example, A/D, B/D).

Also included in the table is the erosion factor K-rating by whole soil, which indicates erodibility and factors in the presence of rock fragments. SW parcel K values range from 0.24 to 0.32, and generally the higher the value the more susceptible the soil is to sheet and rill erosion by water. The dominant soil type, Canisteo clay loam, covers approximately 30.5% of the SW parcel's site acreage.

Soils within the project area are not particularly susceptible to sheet and rill erosion by water. See **Item 11.b.ii.** for a discussion of erosion/sedimentation control measures related to stormwater runoff.

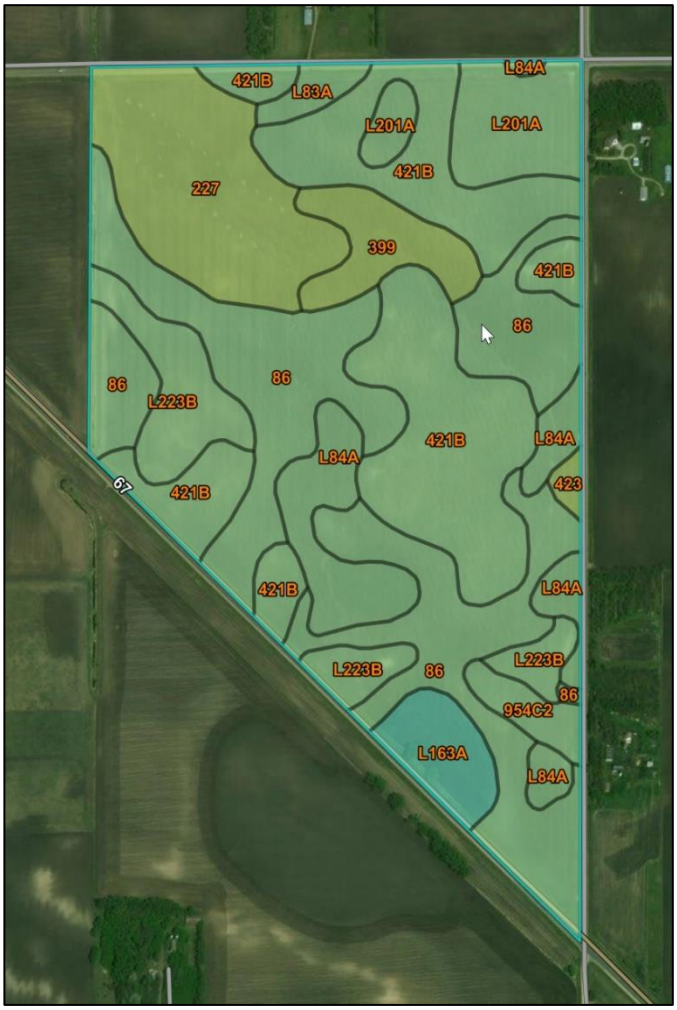
Table 4. Soil Types within SW Parcel Project Area[2]

Map Unit Symbol	Map Unit Name	Farmland Classification	Hydrologic Soil Group	Erosion, K Factor, Whole Soil
86 (30.5%)	Canisteo clay loam, 0-2% slopes	Prime farmland if drained	C/D	.28
227 (12.4%)	Lemon.28d loam, 0-2% slopes	Prime farmland if drained	B/D	.24
399 (4.0%)	Biscay cla.24y loam, depressional, 0-1% slopes.28	Prime farmland if drained	C/D	.24
421B (25.9%)	Amiret loam, 2-6% slopes	All areas are prime farmland	B	.28
423 (0.5%)	Seaforth loam, 1-3% slopes	All areas are prime farmland	C	.24
954C2 (1.7%)	Storden-Ves complex, 6-10% slopes, moderately eroded	Farmland of statewide importance	B	.28
L83A (1.2%)	Webster clay loam, 0-2% slopes	Prime farmland if drained	C/D	.28
L84A (7.8%)	Glencoe clay loam, 0-1% slopes	Prime farmland if drained	C/D	.28
L163A (3.2%)	Okoboji silty clay loam, 0-1% slopes	Prime farmland if drained	C/D	.32

[2] Natural Resources Conservation Service Web Soil Survey, https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx, accessed June 8, 2021.

Map Unit Symbol	Map Unit Name	Farmland Classification	Hydrologic Soil Group	Erosion, K Factor, Whole Soil
L201A (5.8%)	Normania loam, 1-3% slopes	All areas are prime farmland	C	.28
L223B (7.1%)	Amiret-Swanlake loams, 2-6% slopes	All areas are prime farmland	B	.28

Exhibit 5. Soil map of the SW Parcel



K values for the NE parcel range from .20 to .32 and the dominant soil type, Amiret loam, covers approximately 24.7% of the parcel's acreage.

Soils within this portion of the project area are also not particularly susceptible to sheet and rill erosion by water. Again, see **Item 11.b.ii.** for a discussion of erosion/sedimentation control measures related to stormwater runoff.

Table 5. Soil Types within NE Parcel Project Area[1]

Map Unit Symbol	Map Unit Name	Farmland Classification	Hydrologic Soil Group	Erosion, K Factor, Whole Soil
41B (1.3%)	Estherville sandy loam, 2-6% slopes	Farmland of statewide importance	A	.20
86 (5.1%)	Canisteo clay loam, 0-2% slopes	Prime farmland if drained	C/D	.28
247 (9.9%)	Linder loam	All areas are prime farmland	B/D	.32
255 (10.4%)	Mayer loam, 0-2% slopes	Prime farmland if drained	B/D	.24
421B (24.7%)	Amiret loam, 2-6% slopes	All areas are prime farmland	B	.28
884 (8.2%)	Webster-Delft complex, 0-2% slopes	Prime farmland if drained	C/D	.28
954C2 (11.9%)	Storden-Ves complex, 6-10% slopes, moderately eroded	Farmland of statewide importance	B	.28
L83A (10.2%)	Webster clay loam, 0-2% slopes	Prime farmland if drained	C/D	.28
L84A (11.2%)	Glencoe clay loam, 0-1% slopes	Prime farmland if drained	C/D	.28
L223B (7.2%)	Amiret-Swanlake loams, 2-6% slopes	All areas are prime farmland	B	.28

Exhibit 6. Soil Map of the NE Parcel

Soils present will require some sort of granular correction under roadways and slab on grade building foundations to mitigate frost action. In general, planning for future roadways should include geotextile fabric and edge drains to mitigate the effects of frost action. This information is informed by the geotechnical analysis completed (**Appendix D**).

Topsoil

The topsoil consists of black, lean clay with numerous visible organics. The topsoil deposits are judged to be low strength and compressible under anticipated footing loadings.

Till

The till soils consist of brown to gray, sandy lean clay and clayey sand with a consistency of firm to hard. The till soils have low to moderate strength and compressibility characteristics. The sandy lean clay and clayey sand are slow-draining soil types that are susceptible to freeze-thaw movements when subject to freezing temperatures.

Fine Alluvium

The N-values recorded in the fine alluvium indicate these soils exhibit soft to stiff consistency. The fine-alluvium has low to moderate strength and compressibility characteristics. The lean clay with sand is a slow-draining soil type that is susceptible to freeze-thaw movements when subject to freezing temperatures. The moisture content of some of the lean clay soils was well above the optimum moisture content which will make them difficult to work, dry, and recompact if used as backfill.

Coarse Alluvium

Gray, coarse alluvial, silty sand was encountered from 19 ½ feet to 24 ½ feet below the surface at boring 1 and brown, coarse alluvial, sand with silt was encountered from 19½ feet to 29 ½ feet at boring 3, and 2½ feet to 7 feet at boring 5. The N-values recorded in the coarse alluvium indicate these soils exhibit loose to dense relative density. The coarse alluvium has low to moderate strength and compressibility characteristics. The dirtier silty sand (SM) alluvial soils observed in soil borings have a moderate susceptibility to freeze-thaw movements. The silty sand is a moderate to slow-draining soil type. The cleaner sand with silt alluvial soils (SP-SM) are generally a moderate draining soil type with low susceptibility to freeze-thaw frost movements.

11 Water Resources

a. Surface Water & Groundwater Features

Describe surface water and groundwater features on or near the site.

Surface Water

Describe lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include 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.

Public Waters – One Mile Search Area

The project site is within the Minnesota River – Mankato major watershed (HUC8: 07020007) and has County Ditch 52 bordering the northern parcel and County Ditch 22 less than one-mile east.

County Ditch 52 is listed as impaired for benthic macroinvertebrates. A Total Maximum Daily Load (TMDL) analysis has not been completed for this public ditch.

Wetlands

A wetland delineation was conducted on September 16, 2020, which identified two wetlands, wetlands 8 and 12, totaling 1.2 acres. Wetland 8 is a Type 2 Fresh (wet) meadow with an area of 0.09 acres. It is located along the southern portion of the project within the agricultural field and drains to the TH 67 ROW.

Wetland 12 is just outside the northeast portion of the project area and is not in agricultural production. The wetland is a Type 6 Shrub Carr and Type 2 Fresh (wet) Meadow wetland with an area of 1.09 acres.

An approved jurisdictional determination was requested from the Saint Paul District of the U.S. Army Corps of Engineers (USACE). The wetlands were determined not to be jurisdictional under Section 404 of the Clean Water Act (**Appendix B**).

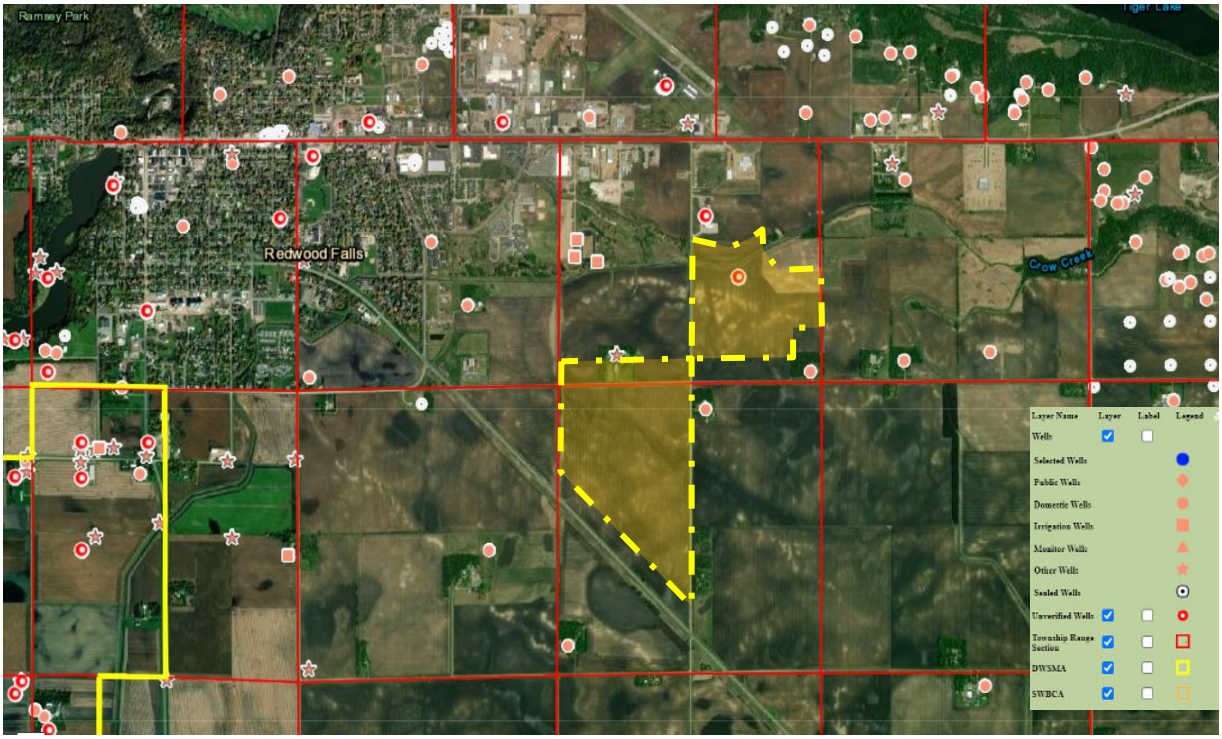
Ground Water

Describe 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.

Subsurface water was noted as shallow as five feet during the soil boring assessment. The borings were monitored for groundwater seepage during drilling operations and were measured for groundwater accumulation shortly after completion of drilling. Groundwater levels should be expected to fluctuate seasonally and annually. The time of year the borings were drilled, and the history of precipitation prior to drilling, should be known when using water level information on the soil borings logs to extrapolate water levels at other points in time. This information was informed by the geotechnical report (**Appendix D**).

The proposed project site is outside of an identified wellhead protection area. There are no known wells on either of the two parcels, although one unconfirmed well is identified on the NE parcel (**Exhibit 7**). Any unexpected wells encountered on site will be sealed in accordance with Minnesota Department of Health's (MDH) requirements.

Exhibit 7. MDH Well Index and Surface Water Protection Area[3]



b. Project Effects & Mitigations

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.

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.

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.

If the wastewater discharge is to a subsurface sewage treatment system (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.

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.

[3] Minnesota Department of Health, Minnesota Well Index, https://mnwellindex.web.health.state.mn.us/#.

The City of Redwood Falls will need to expand its sewer main to this project site and a lift station will be added to the NE parcel during the Phase 1 infrastructure development.

Wastewater generation will stem from a combination of the single-family, multi-family, commercial and industrial structures at the proposed site. Wastewater will be collected and flow through installed sanitary municipal and domestic wastewater facilities with locations shown in **Appendix C**.

No industrial wastewater will be produced at this site.

No wastewater treatment will be done on site. Wastewater will be collected in the expanded sewer system and treated at the existing Redwood Falls municipal sewage treatment facility.

An estimate of the amount of wastewater produced at the proposed project area is dependent upon the businesses that move into this site. Average wastewater generation per day for commercial and light industrial facilities is around 1000 to 1500 gallons per day per acre. Peak flows may reach 2000 gallons per day per acre.

An estimate of residential wastewater generation is based on 100 gallons per capita per day[4], 230 homes with an average of 2.5 to 3 people per home, resulting in a projected volume of 69,000 gallons per day.

Developers, in coordination with city staff, will ensure wastewater generated is within the system's infrastructure design parameters and all required permits are received and regulations followed.

Stormwater

Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.

Stormwater Quantity and Quality

Runoff will increase due to an approximately 70% increase in impervious surfaces as part of this project. The proposed stormwater runoff will be collected into a stormwater management system prior to being discharged at or below existing flow rates. Stormwater detention and sedimentation ponds will be installed to reduce quantity of runoff and ensure water quality is not impacted during precipitation events. The proposed stormwater management system will meet and/or exceed MPCA requirements.

Runoff Routes

Runoff will follow topography as identified in the proposed development plans and enter stormwater ponds or storm sewers. Water from these stormwater ponds will either infiltrate or enter wetlands and ditches on or adjacent to the site. Stormwater runoff in the NE parcel will primarily flow towards County

[4] Based on industry standards, per communication with Bolton & Menk, Inc. Environmental Engineers.

Ditch 52. Runoff in the SW parcel will flow primarily north and west along County Ditch 22. Natural runoff flow is identified in **Appendix A, Figure 8**.

Stormwater Controls

An Erosion and Sediment Control Plan and a Stormwater Pollution Prevention Plan (SWPPP) will be completed and implemented prior to construction. Stormwater control measures will include proactive erosion control efforts incorporating best management practices (BMP) including but not limited to silt fences, gravel construction entrances, stormwater retention and sedimentation ponds and other mitigation as identified in the SWPPP and any local or county grading and excavation permit requirements.

Grading will be limited to roadway construction, utility installation, stormwater ponds, and currently known residential and/or facility locations. Soils from the cut areas will be used in the fill areas, thereby reducing the need for hauling or transporting fill on or off site. Land disturbing activities will occur in a phased approach so BMP controls can be incorporated throughout all phases of construction. In areas outside the construction zones, vegetation shall be preserved to provide vegetative cover and reduce erosion in those areas.

Maximum efforts will be incorporated during construction and post-construction to reduce erosion and protect water quality within the watershed.

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. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.

Watermain utility and associated infrastructure will be extended to this site by the City of Redwood Falls. The city anticipates adding future water storage, as a new water tower, on the NE parcel and the approximate location is annotated on the conceptual design plans in **Appendix C**.

A Minnesota Department of Natural Resources water appropriations permit will be required for this expanded water usage. Water flow and pressure will be adequate for service to the development area.

Surface Waters

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. 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.

Wetlands

Delineated Wetlands

On September 16, 2020, a field investigation was performed to evaluate and verify the existence and boundary of any aquatic resources located within the study area. Two wetlands were found to exist within the study area. The wetland delineation report can be found in **Appendix D;** the Technical Evaluation Panel findings and Wetland Conservation Act Notice of Decision can be found in **Appendix B**.

Permitting and Sequencing Information

No wetland impacts are proposed. A no-loss application will be submitted to the Local Government Unit for approval. There are no requirements through section 404 of the Clean Water Act to submit a pre-construction notification for projects that will not impact jurisdictional Waters of the United States.

Since no impacts to aquatic resources are anticipated, additional analyses are not required.

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. 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.

The city will submit a Letter of Map Revision (LOMR) to the Federal Emergency Management Agency (FEMA) based on results from a hydrologic study that recommends reducing the flood zone on the northern portion of the NE parcel (**Appendix D**). While minimal, if any structure development is anticipated for that area, a stormwater pond is projected as stormwater runoff catchment prior to reaching the county ditch.

12 Contamination/Hazardous Materials/Wastes

a. Pre-project Site Conditions

Describe existing contamination or potential environmental hazards on 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

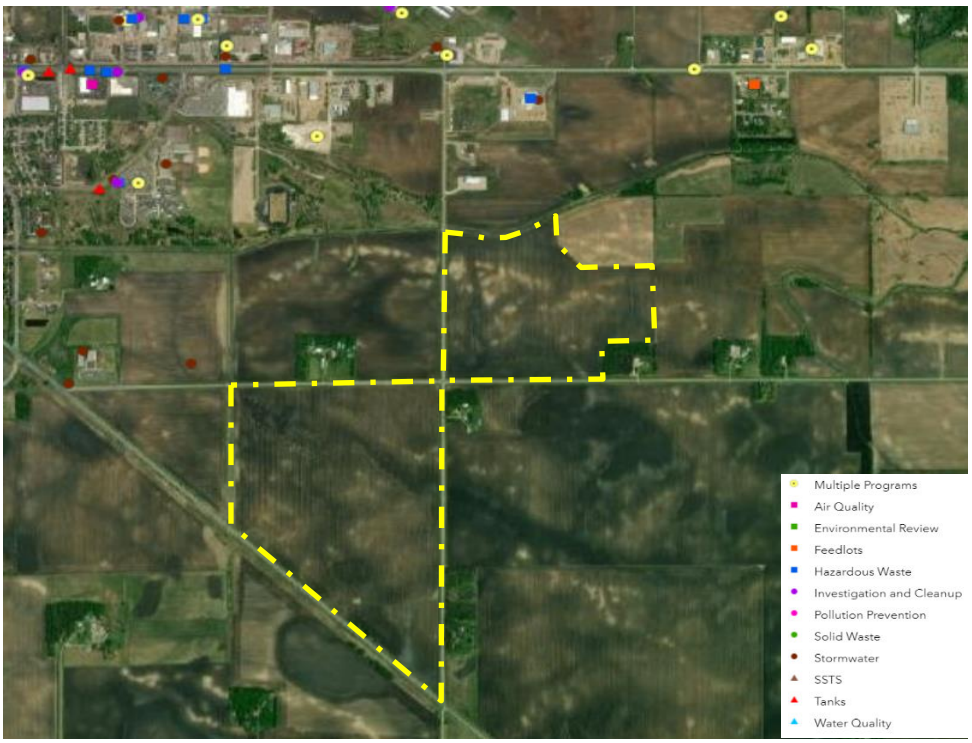
project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.

The MPCA's "What's in my Neighborhood" site identified six permits located within a one-mile radius of each parcel as identified below. None of these locations poses a significant threat or impact to the proposed development project site.

Table 6. MPCA "What's in my Neighborhood" Sites within 1-mile

Site Number	Site Name	Site or Permit Type	Distance from Proposed Parcel
229266	Carris Health Redwood	Construction Stormwater	0.67 miles from SW parcel
150482	St Johns Addition	Construction Stormwater	0.96 miles from SW parcel
131834	CSAH 24 & St. John Lutheran School	Construction Stormwater	0.98 miles from SW parcel
138950	Titan Machinery	Construction Stormwater	0.78 miles from NE parcel
213712	Titan Machinery	Hazardous Waste	0.79 miles from NE parcel
133611	Redwood Falls Ready Mix	Industrial Stormwater; Wastewater	0.99 miles from NE parcel

Exhibit 8. MPCA's *What's in my Neighborhood* Site Information



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 solid waste including source reduction and recycling.

Construction activities for this development will generate substantial waste. The amount of waste is anticipated to be representative of construction projects of this size and scope. The contractors will dispose of any wastes generated in an approved method and/or to an approved facility. The contractors will be encouraged to recycle as many construction materials as feasible. All brush and tree waste generated on site – although minimal due to the current land-use in agricultural production – will be chipped or otherwise disposed of and will not be burned on site.

After construction activities are complete for the proposed development project, typical municipal commercial and residential solid waste is anticipated. All solid waste materials will be handled through licensed solid waste haulers. Numerous agencies and organizations offer best management practices to avoid or minimize waste generation through reuse and recycling activities or by encouraging sustainable purchasing practices to reduce impacts. Local businesses will be encouraged to participate in these practices and take advantage of available resources.

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 above or below ground tanks to store petroleum or other materials. 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.

Fuels and oils typical for the operation of construction equipment will be delivered but not stored on site. Building products used for home and facility construction will be used, stored and disposed of properly.

No previous environmental hazards have been identified on the proposed development site. Normal construction, household, and commercial hazardous wastes are anticipated. Toxic or hazardous materials, such as fuel for construction equipment and materials used in the construction of homes and facilities (paint, adhesives, stains, acids, bases, etc.) will likely be used during site preparation and construction. Spills of these materials are not planned but could require notification of the Minnesota Duty Officer if a significant spill occurs. Builders and contractors are responsible for proper management and disposal of any wastes brought or generated on site. During construction, any toxic or hazardous materials will be properly used, stored and disposed of when finished.

While the specific type of industries for the NE parcel are presently unknown, any generation of hazardous materials will be handled according to local and state guidelines and regulations.

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.

Please see Items 12b and 12c.

13 Fish, Wildlife, Plant Communities, & Sensitive Ecological Resources (Rare Features)

a. Resources/Habitats/Vegetation

Describe fish and wildlife resources as well as habitats and vegetation on or near the site.

Wildlife species typically associated with habitat of the type and quality present include white-tailed deer, raccoons, coyote, turkey, squirrel, other small rodents, and birds common to the area. The proposed project will likely displace the wildlife populations that temporarily use the agricultural areas for food and cover. These wildlife species are anticipated to relocate to other nearby habitat in the area until construction is complete. Some species may return post-construction and others may be permanently displaced.

The main wildlife resources are the ditches located along the northern portion of the NE parcel and along the western edge of the SW parcel. The NE parcel area is anticipated to be impacted during stormwater pond construction, but no facility construction is anticipated within the 100-year floodplain area identified in the Letter of Map Amendment (LOMA) study.

b. Rare Features

*Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County 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-____) and/or correspondence number (ERDB **20210284**) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.*

Based on project area review by MnDNR Natural Heritage staff, no rare, threatened or endangered species were identified on or adjacent to the proposed project location (**Appendix B**).

A U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) tool was accessed for this project. Since no federal funds are anticipated as part of this development, a formal USFWS consultation was not required. The IPaC identified two threatened species (Northern long-eared bat and

Prairie bush clover), one migratory bird (Bobolink), and two wetland areas (Riverine ditches) as being possible in this region. The IPaC resources list can be found in **Appendix B**.

No significant effects to these species or areas are anticipated as part of this project. Due to the current land-use on these areas, with the absence of trees, the Northern long-eared bat is not anticipated to be on the project site and no tree removals are required as part of this project. The only possible location for the Prairie bush-clover is adjacent to the county ditches and those will not be directly impacted by this project. Bobolink habitat is minimally present on or near the proposed project site. As previously mentioned, the two riverine wetlands (public ditches) are not anticipated to be impacted as part of this project.

c. Project Effects

Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. 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.

While minimal habitat currently exists due to agricultural operations, the main impact of this proposed project is loss of habitat, primarily food and cover resources. The 1.2 acres of wetlands on site are not anticipated to be impacted and will retain their current conditions. The constructed stormwater ponds may provide additional habitat for waterfowl and herpetofauna.

Additional effects include habitat fragmentation. This area may currently serve as a corridor for wildlife species, and this will be reduced during construction activities. Following construction, wildlife may continue to use this area to move from one location to another.

The project is not anticipated to have the potential to spread or introduce invasive species. The construction operators will follow BMPs to control and appropriately manage any invasive species. Reseeding and landscaping materials will be predominantly free of invasive plants or plant parts.

d. Control Measures

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

While no critical habitat or extent of suitable habitat presently exists on the proposed project site, construction activities will incorporate measures to minimize risk to plant and wildlife species.

To reduce potential impacts to other wildlife, wildlife-friendly materials (“bio-netting” or “natural-netting”) will be used for erosion control measures, as these are not made of plastic and reduce harmful impacts. Four-inch-high curbs at a 3:1 slope are preferred for turtle and other species movement through the area. Care will be taken to fill any trenches dug to place utilities and minimize animals getting trapped. Vegetation management in infrequently mowed areas, such as along ditches or stormwater ponds should be done mechanically to reduce pesticide and herbicide use.

Additional measures to control erosion, such as silt fencing and native seed mixes, will occur within the project area. Silt fencing will be removed and appropriately discarded following revegetation of those areas. Native species will be used as appropriate. Other protective measures will be implemented according to local and state regulations.

14 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.

Early notification information was submitted to the State Historic Preservation Office (SHPO) in March 2021 and a response was received on April 27, 2021, recommending a Phase I archaeological survey be completed due to the nature and location of the proposed project (SHPO No. 2021-1536). Bolton & Menk, Inc. cultural resource staff completed a Phase I archaeological reconnaissance survey of the proposed project area in May/June 2021. Standard archaeological survey techniques including pedestrian survey in agricultural fields were employed.

The survey identified a single chert flake and was assigned archaeological site number 21RW0136 by the Office of the State Archaeologist (OSA). Close-interval pedestrian survey around the find spot location and a shovel test excavated at the find spot failed to yield additional cultural resources. As site 21RW0136 represents a single lithic find spot, it was recommended not eligible for listing in the National Register of Historic Places (NRHP). The Phase I survey report recommended no further archaeological investigations for the project as proposed.[5] SHPO reviewed the Phase I survey report and concurred with the report recommendations on July 19, 2021 (**Appendix B**).

15 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 current visual expanse includes views of the surrounding agricultural area (**Exhibit 9** and **10**). Visual impacts will include removal of vegetation and construction of residential, commercial and industrial facilities. This will change the rural views and identify this area as urban growth.

[5] 2021. Bolton & Menk, Inc. *Phase I Archaeological Survey for Redwood Falls Southeast Development Project, Paxton Township, Redwood County, Minnesota*. On file at SHPO.

During construction activities, this land-use change will be pronounced with grading and excavation activities. Additional visual impacts are anticipated to include construction equipment and hauling vehicles to and from the site. Occasional dust plumes are anticipated as minimal due to exercised dust control measures.

Exhibit 9. View from TH 67 looking north

Exhibit 10. View from CSAH 24 and CSAH 1 intersection looking NE

16 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, and any greenhouse gases. 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.

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.

Sources of emissions associated with the proposed development includes use of equipment during construction activities and vehicle emissions once established residential, commercial and industrial areas are developed. Projected vehicle emissions are not anticipated to be a significant issue of concern during or following construction activities.

Stationary sources of air emissions will stem from domestic heat sources in residential, commercial and industrial facilities once they are constructed. These emissions are anticipated to be minimal and will comply with current residential and industry standards for heating and cooling equipment.

c. Dust & 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 16a). 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 proposed development is not anticipated to generate any odors.

Dust generation is anticipated during construction activities and is sometimes a concern for area residents. The primary source of dust generation will stem from vehicles entering and exiting the construction area prior to incorporating paved roadways. A wet dust suppression plan, including watering dirt construction roads, will be followed during construction operations to minimize the effects of dust. Additionally, periodic cleanup of the construction site and limiting the amount of soil disturbance will help control dust generation.

Following development operations, dust should be limited to that typical of a residential and commercial area.

No long-term or significant impacts are anticipated from dust and odors.

17 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.

a. Existing Noise

Existing noise sources in the vicinity of the development site include farming equipment and vehicle traffic along TH 67. Additional construction activities north of the SW parcel has also been a factor, although that is temporary in nature.

b. Construction Noise

Noise associated with the proposed construction will be generated from grading and excavation activities to prepare the site for utility and roadway installation. See **Table 7** for typical noise levels of construction equipment measured at 50 feet.

Table 7: Typical Construction Equipment Noise Levels at 50 Feet

Equipment	Manufacturers Sampled	Total Number of Models in Sample	Peak Noise Level (dBA*)	
			Range	Average
Backhoes	5	6	74-92	83
Front Loaders	5	30	75-96	85
Dozers	8	41	65-95	85
Graders	3	15	72-92	84
Scrapers	2	27	76-98	87
Pile Drivers	N/A	N/A	95-105	101

* Units of "A-weighted decibels"

Source: United States Environmental Protection Agency and Federal Highway Administration

State noise rules (MR 7030) which defines daytime hours as 7am to 10pm, and nighttime as 10pm to 7am. Redwood Falls' noise ordinance (Ordinance No. 54, 10.14, Subd. 2.) aligns with the state regulations. Construction activities are anticipated to follow these regulations and any variances will be requested and approved through the city. The site may be opened one hour before operating hours to allow for staging and work preparation.

Construction operations will occur within state noise standards as cited in **Table 8** below.

Table 8: Noise Standards (MN Statute 7030.0040)

Noise Area Classification	Daytime		Nighttime	
	L_{50}	L_{10}	L_{50}	L_{10}
1 (Residential)	60	65	50	55
2 (Commercial)	65	70	65	70
3 (Industrial)	75	80	75	80

*L_{10} is the sound level, expressed in dBA, which is exceeded 10% of the time for one hour
*L_{50} is the sound level, expressed in dBA, which is exceeded 50% of the time for one hour

c. Traffic Noise

Traffic noise is anticipated to increase during construction activities and post-construction with established residential, commercial and industrial sites. Operators will ensure all vehicles and equipment have mufflers and operate in accordance with state and local regulations.

No long-term or significant impacts are anticipated from noise.

18 Transportation

a. Project-Related Traffic

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.

The project site does not presently include any parking spaces. It is anticipated the proposed project will incorporate parking areas at the multi-family residential, commercial and industrial areas.

Existing traffic conditions include the current Annual Average Daily Traffic (AADT) for Trunk Highway (TH) 67, CSAH 24, CSAH 1, and TH 19 as listed below[6].

- TH 67 = 2,000
- CSAH 24 = 2,350
- CSAH 1 = 2,850
- TH 19 = 5,400

TH 67 and TH 19 are anticipated to see minimal impact from the proposed project area's additional traffic. CSAH 24 and CSAH 1 would likely see a moderate impact as these would be the two primary

[6] Minnesota Department of Transportation, Traffic Mapping Application, https://mndot.maps.arcgis.com/apps/webappviewer/index.html?id=7b3be07daed84e7fa170a91059ce63bb.

entrance roads into both the SW and NE parcels. The intersection of CSAH 24 and CSAH 1 is currently a four-way stop sign.

Possible improvements to the CSAH 24 and CSAH 1 intersection, as well as the county roads themselves, may be required as development increases in and around this area. It is anticipated these will remain as two-lane roadways and no expansion is projected at this time.

b. Potential Congestion

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,

Proposed development in this area may result in increased traffic along TH 67, CSAH 24, CSAH 1 and TH 19. As development continues, transportation amenities may be required pending the types of commercial and industrial businesses attracted to the area.

While traffic will increase, traffic congestion is not anticipated to be a significant issue for the project as proposed.

19 Cumulative Potential Effects

a. Geographic Scales & Timeframes

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

It is estimated the proposed development as outlined in **Appendix C** may take upwards of 20 years to completely build-out. That timeline could be significantly reduced pending development interest in this area, which aligns with the anticipated growth in and around Redwood Falls. The city will promote sustainable practices to reduce changes associated with local and regional development.

b. Future Projects

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.

Any additional road or other improvements in this area may compound impacts identified in this EAW, especially during active construction. The city will work closely with the county and area townships to determine any potential constraints or opportunities.

Annexation, zoning and all permit and approval requirements will be secured prior to construction.

c. Discussion/Summary of Cumulative Potential Effects

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 cumulative effects associated with this project are essentially the effects of continued growth and development. This can have both positive and negative effects on the human and natural environment. The largest impact to these parcels is the loss of agricultural cropland and increase in impervious surfaces. Through responsible development and using best management practices, negative impacts can be minimized.

Future development in the proposed location will generate more traffic, placing some additional pressure on the surrounding transportation systems. To account for this, continued transportation planning at the local and county levels is necessary to provide for the long-term development and anticipated growth in the City of Redwood Falls.

Through the increase in traffic and impervious surfaces, and adding facilities with heating and cooling systems, there may be a minimal increase in greenhouse gas (GHG) emissions. It is unlikely this will grossly increase the regional impacts from climate change. Best management practices during the construction process, use of energy efficient building materials and appliances or other systems, and the addition of native landscape vegetation and tree species may help offset impacts from increased GHG emissions.

20 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.

The project is not anticipated to adversely impact any additional human or environmental elements not already addressed by this EAW.

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 in Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature Keith Muenchow Date 08-25-2021

Title City Administrator

Appendix A: Figures

Appendix B: Agency Correspondence

Appendix C: Development Concept Plans

Appendix D: Additional Assessments