

CENTURY PONDS

ENVIRONMENTAL ASSESSMENT WORKSHEET (EAW)

CITY: MAPLEWOOD

COUNTY: RAMSEY

Responsible Governmental Unit (RGU)

City of Maplewood

1830 County Road B

Maplewood, MN 55109

[City of Maplewood, MN](http://www.cityofmaplewood.com)

June 2025

Prepared by:



ALLIANT

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ENVIRONMENTAL ASSESSMENT WORKSHEET

This Environmental Assessment Worksheet (EAW) form and EAW Guidelines are available at the Environmental Quality Board’s website at: <http://www.egb.state.mn.us/EnvRevGuidanceDocuments.htm>. The EAW form provides information about a project that may have the potential for significant environmental effects. The EAW Guidelines provide additional detail and resources for completing the EAW form.

Cumulative potential effects can either be addressed under each applicable EAW Item, or can be addresses 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:

Century Ponds

2. Proposer:

Contact Person:	Mike Suel – DR Horton, Inc. - MN
Title:	Land Development Manager
Address:	20860 Kenbridge Ct
City, State, ZIP:	Lakeville, MN 55044
Phone:	952-985-7823
Fax:	N/A
Email:	msuel@drhorton.com

3. RGU:

Contact Person:	Michael Martin, City of Maplewood
Title:	Assistant Community Development Director
Address:	1830 County Road B
City, State, ZIP:	Maplewood, MN 55109
Phone:	651-249-2303
Fax:	N/A
Email:	michael.martin@maplewoodmn.gov

4. Reason for EAW Preparation: (Check One)

Required	Discretionary
<input type="checkbox"/> EIS Scoping	<input type="checkbox"/> Citizen petition
<input checked="" type="checkbox"/> Mandatory EAW	<input type="checkbox"/> RGU discretion
	<input type="checkbox"/> Proposer initiated

If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):
4410.4300 Subp 19. Residential Development

5. Project Location

County: Ramsey

City/Township: Maplewood

PLS Location (¼, ¼, Section, Township, Range): N½ of the SE¼ of Section 12, Township 28 N, Range 22 W

Watershed (81 major watershed scale): Mississippi River – Twin Cities (20)

GPS Coordinates: 44.9246345, -92.9871686

Tax Parcel Number: 122822440002, 122822110002

6. Project Description

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

The Century Ponds project is a proposed low-density development consisting of single-family homes and townhomes on a 92.25 acre former golf course in the City of Maplewood, Ramsey County, Minnesota. It is located in the southwest quadrant of Lower Afton Rd E (CSAH 39) and Century Ave S (CSAH 25) and will include internal roads and connection to municipal utilities (Appendix A, Figure 1).

- 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.

There is currently an abandoned clubhouse and parking lot located in the southeastern portion of the parcel that will be demolished as a part of the new construction (Appendix A, Figure 1). The proposed project includes the construction of new single-family residential housing and townhomes. This includes approximately 78 (55' wide lot) single-family unattached homes and 56 (65' wide lots) single-family unattached homes, and 73 townhomes. The project will include a new internal roadway network, connection to municipal sanitary sewer and water systems, public parks, and trails (Appendix A, Figure 4).

The project site is comprised of two parcels which are summarized below (Table 1).

Table 1. Parcels Within the Project Site for Residential Development

Parcel ID	Parcel Size (Acres)	Current Use	Project Details
122822440002	140.5	Park	Correction facility located in the northern parcel, located off the project site. Clubhouse and parking lot located in the southeastern portion of the parcel. Pre-existing trails from the golf course throughout the parcel.
122822110002	37.44	Park	Pre-existing trails from the golf course throughout the parcel.



Roadway access into the development will occur through Ramsey County CSAH 39 (Lower Afton Rd), Ramsey County CSAH 25 (Century Ave), and Linwood Ave E.

Mass grading is anticipated to begin in Summer of 2025. Construction of homes will begin in Winter 2025. Construction will last approximately four years depending on market conditions.

The developer will be responsible for site grading, utilities, sanitary sewer, water supply, roadway infrastructure, stormwater, and erosion control during construction. Management of the site will fall to the individual homeowners, the designated HOA, and the City of Maplewood for various portions of the site after construction is completed.

c. *Project magnitude:*

Table 2. Project Magnitude Data

Total Project Acreage: 92.25 acres	
Linear project length	Public roadway: 5,838 linear feet Private roadway: 7,465 linear feet
Number and type of residential units:	78 – 55’ wide lots 56 – 65’ wide lots 73 – townhome units
Residential building area (in square feet)	2,059,516 sq. ft
Commercial building area (in square feet)	N/A
Industrial building area (in square feet)	N/A
Institutional building area (in square feet)	N/A
Other uses – specify (in square feet)	N/A
Structure height(s)	1-2 stories for homes and 2 story townhomes.

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 purpose of the proposed project is to provide residential development in the City of Maplewood that includes single-family homes and townhomes. This proposed residential development will meet the City’s need to provide residential housing options to meet the demands of current and future residents. The project is being carried out by a private entity and not 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 for environmental review.

There are no future stages of this development that are planned or likely to occur.

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.

The project is not a subsequent stage of an earlier project.

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.

Observed climate trends for Ramsey County were taken from the Minnesota Climate Trends website (MnDNR 2023b). Trends from 1895 to 2025 were displayed graphically for average annual temperature, total annual precipitation, and the Palmer Drought Severity Index (PDSI). The graphs show raw data as a smoothed time series and average over the entire reporting period. The trend over the past 50 years, 1975-2025, was also displayed. The PDSI synthesizes temperate and precipitation data to create an index of relative dryness that ranges from -10 (very dry) to +10 (very wet). It is used to describe effects of climate change on long-term drought (> 12 months) through the mechanism of potential evapotranspiration.

Historic Climate Trends

Historic Annual Average Temperature for Ramsey County

Average annual temperature for the entire reporting period was 44.09 °F and the average for the 21st Century, 2000-2025 was 45.3 °F. The trend for the past 50 years is an increase of 0.56 °F per decade. See Figure 1 below.

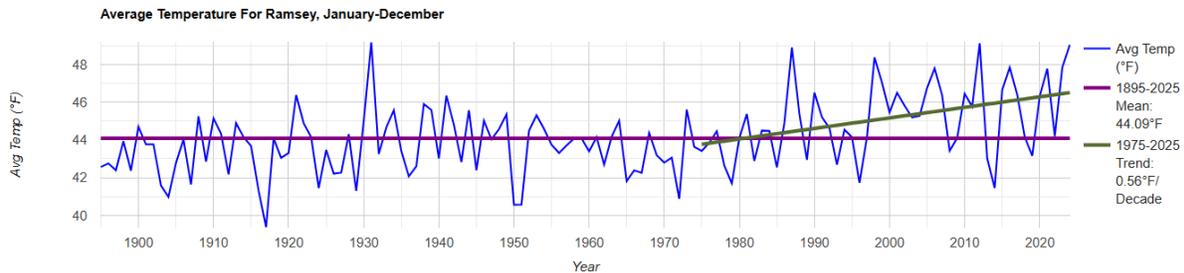


Figure 1. Historic Annual Average Temperature for Ramsey County (1895-2025)

Source: Minnesota Department of Natural Resources, Minnesota Climate Trends (state.mn.us)

Historic Annual Average Precipitation for Ramsey County

Total annual precipitation for the entire reporting period averaged 29.42 inches, and the average for the 21st Century was 30.53 inches. The trend for the past 50 years is an increase of 0.08 inches per decade. See Figure 2 below.

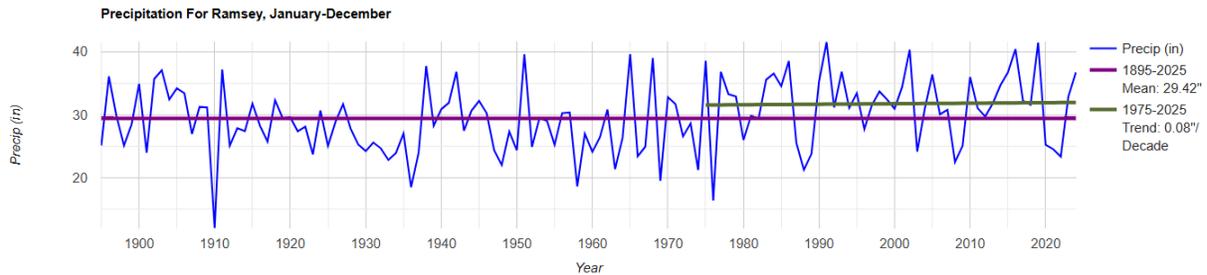


Figure 2. Historic Annual Average Precipitation for Ramsey County (1895-2025)

Source: Minnesota Department of Natural Resources, [Minnesota Climate Trends \(state.mn.us\)](https://state.mn.us)

Historic PDSI Values for Ramsey County

The average PDSI for the entire reporting period was 0.35, and the average for the 21st Century was 1.67. The trend for the past 50 years is an increase of 0.11 per decade. See Figure 3 below.

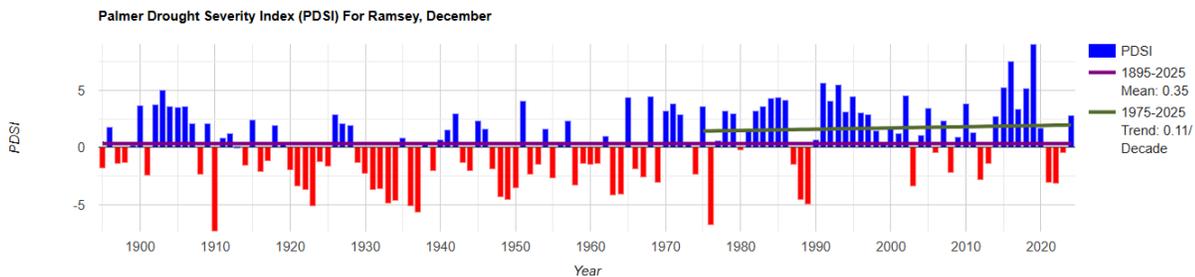


Figure 3. Historic PDSI Values for Ramsey County (1895-2025)

Source: Minnesota Department of Natural Resources, [Minnesota Climate Trends \(state.mn.us\)](https://state.mn.us)

These three parameters, average annual temperature, total annual precipitation, and PDSI, show general trends consistent with climate change predictions for eastern Minnesota: warmer temperatures, less precipitation, and more variable and extreme conditions, such as higher maximum temperature and more variable precipitation that could lead to more drought periods. With an increase in more variable and extreme conditions, it is expected that more precipitation will be delivered in both large quantities in intense storm events, accompanied with periods of long drought conditions. This has the effect of creating more flood events, increased runoff, and potentially, less infiltration of precipitation into the groundwater. Higher temperatures will result in more evapotranspiration, and when combined with more variable precipitation, and will lead to more intense droughts.

Future Climate Trends

The MN DNR Minnesota Climate Explorer was used to project trends in temperature and precipitation using Ramsey County as the target area (MnDNR 2023c). The climate explorer website utilizes eight different climate projection models to estimate a projected average annual temperature and precipitation ranges. The

tool then calculates an average from all eight models. The tool estimates average historical temperature and precipitation and three future projections that include:

- 1) Mid-century (2040-2059), RCP 4.5;
- 2) Late century (2080-2099), RCP 4.5; and
- 3) Late century (2080-2099), RCP 8.5

The RCP values are defined as Relative Concentration Pathways (RCP) of 4.5 watts/m² or 8.5 watts/m² of energy through radiative forcing per unit land area. These values roughly correspond to carbon dioxide (CO₂) concentrations of 650 ppm or 1,000 ppm (lower or higher emissions scenarios). Current atmospheric CO₂ concentration is around 410 ppm. Projections for future average annual temperature and total annual precipitation are shown in Figures 4 and 5 below.

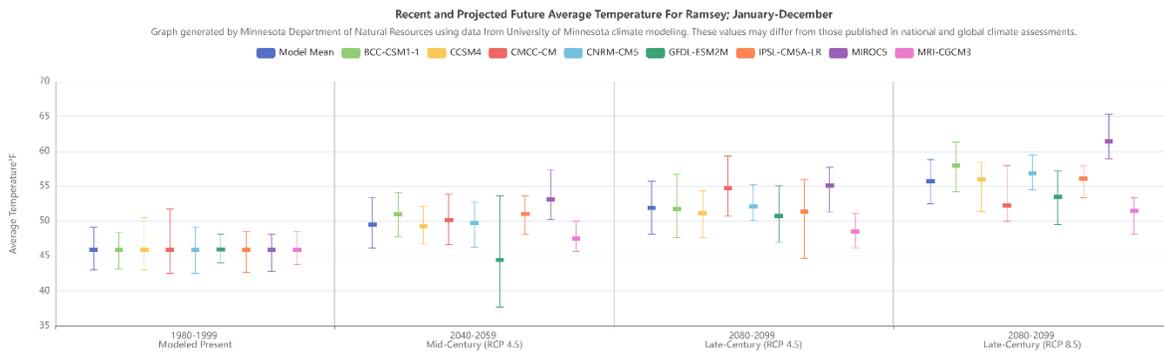


Figure 4. Project Temperatures in Ramsey County

Source: Minnesota Department of Natural Resources, Minnesota Climate Trends (state.mn.us)

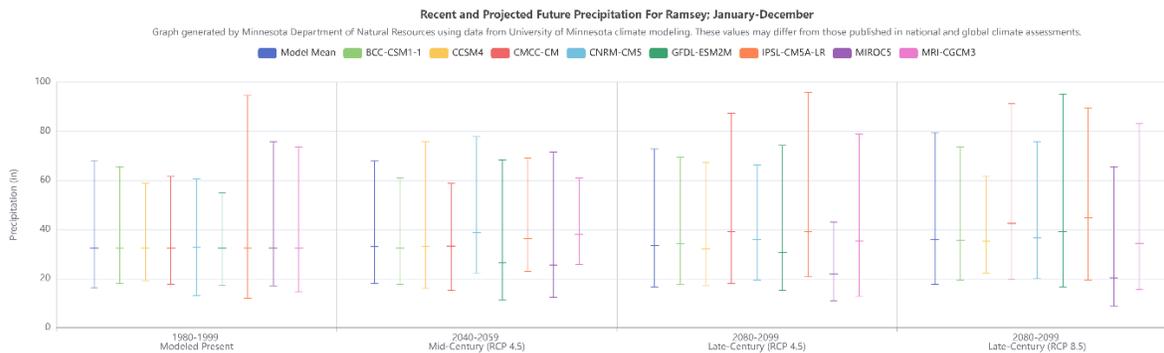


Figure 5. Projected Precipitation in Ramsey County

Source: Minnesota Department of Natural Resources, Minnesota Climate Trends (state.mn.us). Definitions of the models included in this analysis can be found at Climate Explorer Metadata | Minnesota DNR (state.mn.us).

There is a large amount of variability in projections, reflecting uncertainty in modeling and predictions. Overall, the models suggest continued increases in average temperature and total precipitation.

Two additional tools were used to project climate trends for Ramsey County: Climate Mapping for Resilience and Adaptation (CMRA, 2025) and Climate Resilience Evaluation and Awareness Tool (CREAT) Risk Assessment Application for Water Utilities (EPA 2025). These tools were used to estimate several parameters in 2035 and 2060 using low and high emissions scenarios (roughly corresponding to the RCP 4.5 and RCP 8.5 scenarios above). The estimated parameters were increase in average temperature, the number of days with extreme

temperatures (>90 °F) annually, total annual precipitation, and increased intensity of 100 year storm events (expressed as a percentage). These projections are shown in Table 3 below.

Table 3. Project Changes in Climate Parameters

Parameter	Date	Lower Emission Scenario	Higher Emission Scenario
Increase in Average Temperature ¹	2035	2.7 °F	3.8 °F
	2060	5.3 °F	7.5 °F
Extreme Temperature (Days Over 90 °F; historical trend 1976-2005: 10 days/year) ²	2035	31 days	40 days
	2070	42 days	69 days
Annual Precipitation (historical trend 1976-2005: 31 inches/year) ²	2035	31 inches	31 inches
	2070	31 inches	32 inches
Increased Intensity of 100 Year Storm Events ¹	2035	2.5%	13.7%
	2060	4.9%	26.6%

Source: ¹EPA 2025, ²CMRA 2025

The projected changes from these models are fairly consistent with that described above from the MN DNR Minnesota Climate Explorer. In particular, these models predict higher average temperatures, an increase in extreme heat, and slightly higher precipitation than was observed historically. The largest increases occur later in the 21st Century and under higher emission scenarios. The models also predict increased severity of large storm events. Both tools show a slight increase in precipitation. This is likely due to an increase in climate variability. Overall, precipitation may not significantly increase, but the likelihood of extreme weather is likely. It is assumed that more extreme storms will occur, followed by longer periods of drought conditions.

- 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 4. Climate Adaptation and Resilience

Resource Category	Climate Considerations	Project Information	Adaptations
Project Design	Aspects of the building architecture/materials choices and site design may negatively affect urban heat island conditions in the area considering changing climate zones, temperature trends, and potential for extended heat waves	Climate change risks and vulnerabilities identified include: Higher temperatures, heat waves, drought, urban heat island	Project will use energy efficient building materials that reduce needs for home heating and cooling. The project will be compliant with the City’s landscape ordinance and landscaping will include over 453 newly planted trees which will help ameliorate urban heat islands and extreme temperatures. 98% of the site will be enhanced open/natural area, further ameliorating urban heat islands and extreme temperatures.
Land Use	Land use change will increase the amount of impervious surfaces that may negatively affect urban heat island	Climate change risks and vulnerabilities identified include:	Project will incorporate over 453 newly planted trees to break up impervious areas and

	<p>conditions in areas considering changing climate zones, temperatures trends, and potential for extended heat waves.</p> <p>Land use change will increase the amount of impervious surfaces that may negatively affect localized flooding considering changing precipitation and event intensity.</p>	<p>Dark impervious surfaces can increase urban heat island effect and amplify warming temperatures of climate change</p> <p>Impervious surfaces generate stormwater runoff, and paired with increased storm intensity could generate higher volumes of stormwater runoff more rapidly leading to localized flooding.</p>	<p>provide shade over the impervious surfaces.</p> <p>Incidental wetland will be converted to stormwater ponds in the northern part of the project site. Non-incident wetlands will remain undisturbed. Stormwater ponds and wetlands will reduce the likelihood of localized flooding and reduce the urban heat island effect.</p>
Water Resources	Addressed in item 12		
Contamination/Hazardous Materials/Wastes	Protection of water resources from soil and water contamination	There is low risk of the project introducing hazardous materials or waste to the project site.	N/A
Fish, wildlife, plant communities, and sensitive ecological resources (rare features)	Addressed in item 14.		

8. Cover Types

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

The total amount of land cover before and after development is described below in Table 5. See Appendix A Figures 3 and 4 for the existing cover and proposed cover conditions.

Table 5. Land Cover of the Project Site Before and After the Proposed Development

Land Cover Type ¹	Before (acres)	After (acres)
Wetlands and shallow lakes (<2 meters deep)	10	10
Deep lakes (>2 meters deep)	0	0
Wooded/forest ²	6	6
Rivers/streams	0	0
Brush/Grassland	63	0
Cropland	0	0
Livestock rangeland/pastureland	0	0
Lawn/landscaping	0	0
Green infrastructure TOTAL (from table below*)	11	30
Impervious surface ³	2	5



Stormwater Pond (wet sedimentation basin) ⁴	0	2
Residential ⁵	0	39
Other (describe)	0	0
TOTAL	92	92

Notes:

¹The total land cover acreage is reported as the sum of the unrounded values.

²There are pockets of trees throughout the project site. Along the west and east boundaries are the densest forest cover which will remain undisturbed.

³These numbers do not include current and proposed trails, sidewalks, and driveways.

⁴Detention ponds.

⁵These numbers include residential properties and lawn/landscaping.

Table 6. Green Infrastructure of the Project Site Before and After the Proposed Development

Green Infrastructure	Before (acres)	After (acres)
Constructed infiltration systems (infiltration basins/infiltration trenches/rainwater gardens/bioretention areas without undergrains/swales with impermeable check dams) ¹	0	2
Constructed tree trenches and tree boxes	0	0
Constructed wetlands	2	0
Constructed green roofs	0	0
Constructed permeable pavements	0	0
Other (describe) ²	9	28
TOTAL	11	30

¹Filtration basins

²Other represents existing habitat areas and proposed enhanced areas.

Trees	Number
Number of mature trees removed during ¹ development	~ 170
Number of new trees planted ²	~ 453

¹The majority of the site is brush/grassland with individual pockets of trees scattered throughout the project site. The densest tree coverage is along the east and west boundaries. The exact number of trees that will be removed is not known at this time. An estimate is provided.

²The number of trees to be planted is an estimate based on the most recent tree removal list.

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.

The permits listed below in Table 7 are the permits required for the proposed project.

Table 7. Required Permits and Approvals for the Proposed Project

Unit of Government	Types of Application	Status
Federal		
U.S. Army Corps of Engineers (USACE)	Clean Water Act Section 404 Permit Approved Jurisdictional Determination	To be submitted
State		
Minnesota Department of Health (MDH)	Watermain Extension Permit	To be submitted
Minnesota Department of Natural Resources (MN DNR)	Water Appropriation Permit (Construction Dewatering) Incidental Take Permit	To be submitted, if necessary To be submitted, if necessary
Minnesota Pollution Control Agency (MPCA)	National Pollution Discharge Elimination System (NPDES)/State Disposal System (SDS) General Permit	To be submitted
Minnesota Pollution Control Agency (MPCA)	Sanitary Sewer Extension Approval Section 401 Water Quality Certification or Waiver 10-day Demolition Notification	To be submitted To be submitted, if necessary If needed
Metropolitan Council	Sewer Permit	To be submitted
Local		
City of Maplewood	Stormwater Management Plan	To be submitted
	Erosion and Sediment Control Plan	To be submitted
	Comprehensive Plan Amendment	Submitted
	Rezoning	Received
	Preliminary Plat	Received
	Final Plat Approval	To be submitted
	General Development Plan	To be submitted
	Grading Permit	To be submitted
Ramsey County	Building Permit	To be submitted
	Right-of-Way Permit	To be submitted
Ramsey County	Access Permit (s)	To be submitted
	Right-of-Way Permit	To be submitted
Washington County	Right-of-Way Permit	To be submitted
Ramsey-Washington Metro Watershed District	Watershed District Permit	To be submitted



Unit of Government	Types of Application	Status
Federal		
Ramsey-Washington Metro Watershed District	Wetland Boundary/Type Approval	Approved

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 project site was formerly a golf course called the Ponds at Battle Creek that closed in September 2021. The project site is currently zoned as Farm Residential. The majority of land cover is brush, grassland, and wetlands with an abandoned club house and parking lot located towards the center of the project site. There are numerous cart trails located throughout the project site. The land has remained undisturbed since the golf course closed, aside from mowing activity completed by Ramsey County.

Current and historic land use adjacent to the site is primarily residential. The immediate surrounding land use includes the following:

- *Land use north:* Ramsey County Correctional Facility.
- *Land use west of the site:* Residential development was created after 1974.
- *Land use southwest of the site:* There are wetlands located to the southwest.
- *Land use south of the site:* Residential development was created after 1974.
- *Land use east of the site.* Residential development was created after 1991.

Parks near the project site:

- *Northeast:* Odawa Park and Potawatomi Park
- *Northwest:* Battle Creek Regional Park
- *South:* Applewood Park

Most soils on the project site are categorized as prime farmland soils or farmland of statewide importance soils (Appendix A, Figure 6). There are three soils classified as not farmland with map unit symbols: 342E (Kingsley sandy loam), 504D (Duluth silt loam), and 540 (Seelyville Muck). See Section 11 for a further discussion about soils within the project site.

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

The City of Maplewood Comprehensive Plan 2040 (City of Maplewood, 2019) identifies areas for growth of developing neighborhoods and commercial use. The project site is currently designated as a park in the City's Comprehensive Plan (Figure 4-35 of City of Maplewood, 2019). A Comprehensive Plan Amendment to reclassify the property as a park into residential development in the City's Comprehensive Plan was applied for by DR Horton, Inc. (developer) and signed by Ramsey County (current owner) in February 2025. The amendment is currently pending approval from the City of Maplewood. The proposed Century Ponds Project is consistent with the envisioned growth of the adjacent land use in the area (City of Maplewood, 2019).

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

Proposed zoning of the site includes approximately 47 acres of small lot single dwelling (R-1s) in the form of one to two-story homes and multiple dwellings (R-3) in the form of two-story townhomes. The proposed unit count on the site falls within the City of Maplewood's lot minimum and zoning requirements.

There are no special zoning areas identified such as shoreland, floodplain, wild and scenic rivers, critical area, or agricultural preserves on or adjacent to the site. Per the Met Council's Local Planning handbook, approximately 44 acres of the project site will be dedicated to wetlands, trails, a park, and conservation. The nearest floodplain is approximately one mile north of the project site adjacent to CSAH 25. The nearest DNR PWI watercourse is located approximately one mile north of the project site. (Appendix A, Figure 6).

- 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.*

There are no critical facilities planned for floodplains or other areas at risk of flooding.

- b. *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 project of low and medium-density residential housing is compatible with the City's zoning and designation of the area for growth of new neighborhoods. Surrounding parcels are mostly zoned as low and medium-density residential housing which will likely remain unchanged in the future. The proposed development will incorporate mitigation measures to minimize environmental impacts as discussed in the following sections of this EAW.

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

No incompatibilities have been identified.

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.*

Bedrock at the site is Ordovician-middle and upper; Decorah, Plattville, Glenwood, St Peter. Surficial geology consists of till, loess over till, silty lacustrine deposits, alluvium over outwash, loess and/or silty glaciofluvial deposits over loamy glaciofluvial deposits over stratified sandy and gravelly outwash, and organic matter. No known karst features are mapped on or in the immediate vicinity of the site. The nearest mapped karst features are sinkholes approximately 4 miles west and 5 miles east of the site. Depth to bedrock is mapped as 51-150 feet below ground surface (Jirsa et al., 2010). The stratigraphy report from the only well within the site, reported a depth to bedrock of 64 feet where Decorah shale bedrock was encountered (MDH, 2025).

- 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.*

The USDA NRCS Web Soil Survey for Ramsey County shows that 12 soil series are mapped within the site. Based on the NRCS Web Soil Survey Hydric Rating, there is one hydric soil. The percent hydric soil in Table 8 indicates what percent of the soils major and minor components are hydric. All soils series mapped on the site, and the project area, range from not prime farmland, prime farmland soils, and farmland of statewide importance (Appendix A, Figure 6).



Table 8. Soil Classifications on the Project Site

Symbol	Soil Name	% of Project Site	% Hydric	Hydric Category	Farmland Category	Hydrologic Soil Group
153B	Santiago silt loam, 2 to 6 percent slopes	25.3%	0.0%	Nonhydric	Prime farmland	B
342E	Kingsley sandy loam, 18 to 30 percent slopes	14.5%	0.0%	Nonhydric	Not prime farmland	C
504C	Duluth silt loam, 6 to 12 percent slopes	12.4%	3.0%	Predominantly Nonhydric	Farmland of statewide importance	C
504B	Duluth silt loam, 1 to 6 percent slopes	12.1%	3.0%	Predominantly Nonhydric	Prime farmland	C
504D	Duluth silt loam, 12 to 25 percent slopes	8.7%	3.0%	Predominantly Nonhydric	Not prime farmland	C
452	Comstock silt loam, 0 to 3 percent slopes	8.1%	5.0%	Predominantly Nonhydric	Prime farmland if drained	B/D
507	Poskin silt loam	5.6%	3.0%	Predominantly Nonhydric	Prime farmland if drained	B/D
342C	Kingsley sandy loam, 6 to 12 percent slopes	4.4%	0.0%	Nonhydric	Farmland of statewide importance	C
49C	Antigo silt loam, 6 to 15 percent slopes	1.60%	0.0%	Nonhydric	Farmland of statewide importance	B
540	Seelyeville muck	1.50%	100.0%	Hydric	Not prime farmland	A/D
342B	Kingsley sandy loam, 2 to 6 percent slopes	0.40%	3.00%	Predominantly Nonhydric	Prime farmland	C
166	Ronneby fine sandy loam	0.20%	5.00%	Predominantly Nonhydric	Prime farmland if drained	B/D
W	Water	5.40%	0.00%	Nonhydric	Not prime farmland	None

Elevations on the project site range from a high of 1,080 feet above sea level in the west portion of the site to a low of 1,016 in the northwest corner. Topography is primarily flat.

Site grading during construction is expected to require an average of 11 feet of cut over 92.25 acres. This yields an estimate of 300,000 cubic yards of soil movement. An MPCA Construction SWPPP will be required prior to the initiation of earthwork since the area will disturb more than once acre of land. In compliance with the General NPDES Permit for construction activities, the project proponent and construction contractor will implement Best Management Practices (BMPs) to reduce erosion and sedimentation and stabilize exposed soils after construction. During construction, appropriate sediment and stormwater best management practices will be utilized to prevent erosion and runoff from the site. The project will construct buildings, roads, sidewalks, driveways, turfgrass, and stormwater facilities. All of which will stabilize the soil to minimize erosion. The stormwater facilities will regulate surface water runoff to minimize the potential to transport sediment offsite.

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.

Kjolhaug Environmental Services completed a wetland delineation in November 2023 of the site. 14 wetlands were delineated onsite (Appendix A, Figure 9). The Ramsey-Washington Metro Watershed District (RWMWD) approved the wetland delineation and issued a Notice of Decision in May 2024 (Appendix B). RWMWD approved that Wetlands 1, 2, 3, 4, 7, and 8 are considered incidental wetlands since they are excavated in historic upland areas. These wetland areas were created as part of the development of the the Ponds at Battle Creek golf course in 2002. Incidental wetlands, as defined under the Wetland Conservation Act, are wetlands that were created in non-wetland areas and impacts to these features are not regulated. .

Table 9. Wetlands Located Within the Project Site

Wetland ID	Size (ac) ¹	Circular 39 ²	Wetland Type	
			Cowardin ²	Eggers and Reed ²
WTL 1*	0.04	3/1	PEM1Cx/Ax	Excavated shallow marsh with a seasonally flooded portion connected via excavated drainageway #1
WTL 2*	0.78	5	PUBGx	Excavated shallow open water
WTL 3*	0.77	5	PUBGx	Excavated shallow open water
WTL 4*	0.81	5/3/1	PABGx/PEM1Cx/ PEM1Ax	Excavated shallow open water wetland with a shallow marsh fringe and an excavated seasonally flooded drainageway (#2)
WTL 5	0.33	3/1	PEM1C/A	Shallow marsh with a seasonally flooded fringe
WTL 6	0.65	5/2/1	PABG/PEM1A	Shallow open water wetland with a wet meadow fringe and a seasonally flooded portion
WTL 7*	0.03	1	PEM1Ax	Excavated wet meadow
WTL 8*	0.23	5/3	PEM1Fx/Cx	Excavated shallow open water wetland with a shallow marsh fringe
WTL 9	0.08	5/2	PEM1F/B	Shallow open water with a wet meadow fringe
WTL 10	0.91	5/3/2	PEM1F/C/B	Shallow open water with a shallow marsh and wet meadow fringe
WTL 11	2.76	5/3/2	PEM1F/C/B	Shallow open water with a shallow marsh and wet meadow fringe
WTL 12 ³	5.22	5/3/2/1	PEM1F/C/B/A	Shallow open water with a shallow marsh and wet meadow fringe and shallow marsh and seasonally flooded portions
WTL 13**	0.07	1	PEM1A	Seasonally flooded basin
WTL 14	0.52	5/2	PEM1Fx/B	Excavated shallow open water with wet meadow fringe

¹Approximate size of wetlands. Size includes the wetland size within the project site only.

²See **Appendix B** for further explanation on wetland classifications.

³WTL 12 is a MN DNR Public Water Wetland 62-248 W (unnamed)

*Incidental Wetlands, **Partially Incidental Wetland.

The DNR Public Waters Inventory identified DNR Public Water Wetland 62-248 W (unnamed) within the review area.

MPCA 303d Impaired Waters List

There are no MPCA 303d Impaired Waters within one mile of the project site.

Special Waters

The project site does not overlap with any trout stream/lake, wildlife lake, migratory waterfowl feeding/resting lake, or outstanding resource value water.

- 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.*

No springs, seeps, or aquifers are documented on the site. None were observed during an onsite wetland delineation. The nearest mapped springs are 1-2 miles away, both northwest and southwest of the site (MnDNR, 2025). There is one documented well on project site, well number 668484, and 12 wells within 500 feet of the site as determined using the Minnesota Department of Health’s County Well Index (MDH, 2025; Appendix 1, Figure 8). Water levels recorded in wells around the site were recorded at elevations between 718 and 995 feet above sea level, which correspond to depths below ground surface of 52 – 309 feet. Additional information about these wells is listed in Table 10 below.

The site is not within the Minnesota Department of Health wellhead protection area (MDH,2025). The Prairie Du Chien-Jordan Aquifer is the closest well to the site and is not a part of a drinking water supply management area (DWSMA, 2025).

Table 10. Domestic Water Wells Located 500 feet from the Project Site

Well No.	Aptos Narrow Surface Elevation(ft)	Use	Depth (ft)	Cased Depth (ft)	Depth to Static Water Level (ft)	Aquifer	Estimated Distance to Project Site (ft)
668484	1025	Irrigation	550	378	232	Prairie Du Chien Jordan	0
670759	1043	Domestic	350	332	280	Prairie Du Chien Group	80
110433	1040	Domestic	141	112	71	Decorah-Platteville	240
531419	1040	Domestic	345	306	245	Prairie Du Chien Group	151
142328	1037	Domestic	155	140	65	Platteville	94
133503	1027	Domestic	315	286	245	St. Peter	73
401868	1049	Domestic	325	270	265	St. Peter	356
110412	1047	Other	141	114	52	Decorah	222
1000020437	1026	Domestic	NA	NA	NA	NA	244



Well No.	Aptos Narrow Surface Elevation(ft)	Use	Depth (ft)	Cased Depth (ft)	Depth to Static Water Level (ft)	Aquifer	Estimated Distance to Project Site (ft)
1000023260	1039	Domestic	NA	NA	NA	NA	112
1000025204	1037	Domestic	181	140	NA	NA	94
850408	1037	Domestic	360	325	251	St. Peter	85
852523	1027	Domestic	360	230	309	Prairie Du Chien Group	69

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.

MCES provides wastewater treatment for the City of Maplewood sanitary sewer flows. Treatment systems include the biological or chemical treatment to remove targeted contaminants from the wastewater.

The project is expected to produce domestic wastewater that is typical of a residential development. In the City of Maplewood 2040 Comprehensive Sanitary Sewer Plan several trunk sanitary sewer improvements have been identified to meet future needs of growth areas, address public health issues or to eliminate the need for existing lift stations. The schedule for a number of these improvements will be directly related to development activity in the area. Many of these improvements include sewer extensions along Carter Ave, Century Ave S, Henry Lane and Sterling Street to connect to MCES Carver Lake Interceptor.

There will be several internal sanitary sewer lines extending throughout the project site that connect and flow to the main trunk sewer. The project is proposed to be connected to the existing stub in the northwest corner of the property to serve the entire site. An additional option being explored is connecting into the City of Woodbury's sanitary stub located in the southeast corner (off Century Ave) to serve the townhomes. By splitting the sanitary sewer into north and south service areas, it will lead to less construction activities around the central wetland area, allowing for shallower sanitary sewer in the north portion of the site. It will also help with future maintenance.

The City's sanitary sewer system is broken up into 74 sewer districts. These districts consist of only a collection system, which connects and discharges to MCES interceptors. The collection systems include sewer services, trunk sewer pipe, lateral sewer pipe, manholes, and lift stations which collect the sewer flow from private residential, commercial, and industrial properties within the City. In addition to public systems that discharge into the regional wastewater treatment system, there are 102 subsurface sewage treatment systems

(SSTS) in the City of Maplewood. The number of SSTS continues to decline as the City is able to phase them out and connect those properties to the public sanitary sewer system. (City of Maplewood, 2019). The project is expected to add approximately 145 pounds per day to the sanitary sewer which equates to approximately 17 gallons per day, which is within the capacity of the MCES Metro Plant.

MCES owns and operates the system of sewer interceptors that conveys wastewater across City boundaries to regional treatment facilities. The site connects to the MCES system at the MCES Woodbury Interceptor (I-MW-410). The connection point is located at junction of Lower Afton Road east and Century Ave S. The MCES Metro Plant currently serves 1.8 million people and has the capacity to treat 251 million gallons per day. Treated water is then discharged to the Mississippi River ([Metropolitan Council](#)).

- 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.*

Wastewater will not be discharged to a subsurface sewage treatment system.

- 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.*

Wastewater will be treated at the MCES Metro Plant in St. Paul which discharges treated water into the Mississippi River.

- 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.*

Runoff

Eastern Minnesota climate trends project less precipitation, and more variable and extreme conditions, such as more variable precipitation that could lead to more drought periods. It is expected that more precipitation will be delivered in both large quantities in intense storm events,



accompanied with periods of long drought conditions. This has the effect of creating more flood events, increased runoff, and potentially, less infiltration of precipitation into the groundwater. Due to the nature of the site, most runoff will remain on-site by traveling to the wetlands or into the constructed stormwater ponds which will be connected to a storm sewer line in the north, along Afton Rd.

Pre-Construction Site Runoff

The existing runoff from the project site likely contains sediments typical of an area dominated by grasses and brush. Stormwater runoff drains into incidental wetlands that act as stormwater ponds. Runoff also drains to wetlands and waterbodies on site and the surrounding area. Ultimately, the combined runoff drains to the Mississippi River.

Construction Site Runoff

During construction, there will likely be an increase in suspended solids in the stormwater runoff, along with a possible increase in oil/grease. Stormwater and erosion control BMPs will be installed on the project site prior to construction to reduce erosion and sediment loading into stormwater runoff. Spill kits and drip trays are used to minimize oil/grease during construction vehicle fueling and maintenance operations. See details on these BMPs that will be used on site below.

Stormwater and Erosion Control BMPs

The entire 92 acres of the project site will be altered by grading. Prior to construction, the project proposer will submit an application to the MPCA for coverage under the NPDES/SDS General Permit. Best management practices (BMPs) will be installed prior to and maintained throughout construction to reduce erosion and sediment loading into stormwater runoff. This will ensure that potential adverse effects from construction-related sediment and erosion will be reduced in the surrounding area. To confirm that the BMPs are effectively reducing erosion and sediment loading, the BMPs will be inspected once a week or within 24 hours after each rainfall event that exceeds 0.5 inches. Some of the main BMPs that will be implemented on the construction site include:

- Installation and maintenance of silt fence and other perimeter controls prior to initiation of earthwork. These BMPs filter and slow construction stormwater and stay in place until ground cover has been established on exposed areas.
- Periodic street cleaning and installation of a rock construction entrance to reduce tracking of dirt onto public streets.
- Stabilization of exposed soils within the time limits specified in the General NPDES permit.
- Inlet protection around any stormwater inlets on site.
- Energy dissipation, such as riprap, installed at storm sewer outfalls.
- Use of cover crops, native seed mixes, sod, and landscaping to stabilize exposed surface soils after final grading.
- Use of drip trays and spill kits during construction vehicle fueling and maintenance operations.

A complete list of BMPs will be described in the Storm Water Pollution Prevention Plan (SWPPP) prepared for this project as part of the NPDES permit.

Post-Construction Site Runoff

The primary land use of the project site will change from brush/grassland to residential use. After construction, stormwater runoff from the site may contain fertilizers and chemicals from residential lawns. Runoff onsite will drain to the multiple wetlands onsite and to the incidental wetlands that will be converted to stormwater ponds. All Wetland Conservation Act, WCA, regulated wetlands will have



a natural buffer to filter runoff from impervious surfaces and residential lawns. The natural wetlands and stormwater ponds will provide a mechanism to filter some of those chemical constituents onsite, thus reducing movement of pollutants to downstream waters.

Development of the site will create approximately 5 acres of new roads and driveways. To mitigate for the increase of impervious surface, approximately 43 acres of disturbed soils around wetlands, ponds, and natural areas will be stabilized with native vegetation.

The stormwater basins were sized using the precipitation models in Atlas 14, which incorporates increased rainfall density due to projected climate change. The principle used in project design is to provide adequate freeboard space to floors or grade adjacent to the building of a minimum of 1 foot above the outlet elevation of the stormwater basins and at least 2 feet above any pond's 100-year water level, whichever is greater. For this site, the stormwater basins designed meet the stormwater requirements of the City of Maplewood, Ramsey Washington Metro Watershed District, and the MPCA.

Since the proposed project will include stormwater ponds, it is expected that peak stormwater flows off site will decrease in favor of more gradual flows from basin overflow points to wetlands since these features will slow and store water allowing for groundwater infiltration. The majority of the previous golf course site drained directly into the existing wetlands with no stormwater pretreatment.

Stormwater runoff quality and quantity will be designed to meet the City of Maplewood, Ramsey Washington Metro Watershed District, and the MPCA's National Pollutant Discharge and State Disposal System (NPDES/SDS).

- 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.*

Water Appropriation

Temporary groundwater appropriation may be necessary during construction for mass grading and to install utilities. Temporary construction dewatering greater than 10,000 gallons per day or 1 million gallons per year and less than 50 million gallons per year will require authorization under DNR General Permit 1997-0005.

Well Abandonment

Based on MDH's Minnesota County Well Index, there was one irrigation well found on site with an ID of 668484. Thus, there will be need for well abandonment. It is recommended that any wells be sealed prior to redevelopment and a survey of the property, prior to redevelopment, to identify any undocumented wells. If unidentified wells are found, the Department of Health Well division will be notified and determine if the well is in service or not. Wells will be sealed per the MDH well sealing requirements by a licensed well driller.

Connection to Existing Municipal Water Supply



Century Ponds will be connected to St. Paul Regional Water Services. Saint Paul Regional Water Services (SPRWS) currently uses the Mississippi River as its primary source water. As a secondary source of drinking water, SPRWS operates ten groundwater wells. These wells are available for pumping in an emergency where the surface water supply is not available. Groundwater can be pulled from the Prairie Du Chien—Jordan Aquifer at well depths ranging from 420-465 feet below the ground. To protect the groundwater supply from contamination, SPRWS has developed a wellhead protection (WHP) plan.

As of 2023, SPRWS serves approximately 450,000 customers, second only to Minneapolis as the largest water utility in the state. In order to meet this demand for reliable, high-quality drinking water, an average of about 39 million gallons of water per day is pumped through the distribution system. The distribution system is composed of more than 1,100 miles of water main, 10,000 hydrants, and 95,000 service lines (SPRWS, 2023). The city of Maplewood is projected to grow from 17,000 households in 2020 to 18,900 in 2030 (City of Maplewood, 2019). At this rate of growth, the SPRWS will be able to adequately accommodate new customers, such as the future residence of Century Ponds.

Water quality is an ongoing issue for SPRWS, though is not affected by the project. SPRWS tests water for more than 100 regulated contaminants. Some of the more notable contaminants are lead and PFAS. In 2018, SPRWS found higher than the maximum 15 parts per billion levels of lead in 2 out of 50 homes. Water coming treated by SPRWS treatment is below the regulated safe levels for lead. The problem comes from aging infrastructure and plumbing. With new infrastructure being put in place, this issue will not impact residents of Century Ponds. The project is expecting to increase water usage by 58,995 gallons per day.

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.*

Wetlands within the project site area are regulated at the state level by the Wetland Conservation Act (WCA) which is administered by the Minnesota Board of Water and Soil Resources (BWSR). The Ramsey Washington Metro Watershed District aides in the administration of WCA where the project site is located. At the federal level, wetlands are regulated under Section 404 of the Clean Water Act (CWA) that is administered by the U.S. Army Corps of Engineers (COE) if these features are determined jurisdictional. There is one MN DNR public waters wetland within the project site. However, there is no planned work that will take place below the ordinary high water mark of the wetland. Thus, an MN DNR public waters permit will not be necessary for this project.

Impacts to Wetlands on Site

Based on the concept design for the site, it is not anticipated that the proposed residential development will impact any WCA regulated wetlands on site. WCA incidental wetlands will be filled and graded for residential purposes or repurposed into stormwater ponds. The WCA incidental wetlands are wetlands that have been created in historic upland areas to create ponding areas for the golf course.



Additionally, the wetlands on site are not likely regulated by the COE since there is no continuous surface water connection to regulated waters of the U.S. A COE approved jurisdictional determination will be obtained to confirm the regulatory status of these wetlands.

Wetland Buffer

Wetlands that will be preserved on site will need to comply with the City of Maplewood's buffer requirements. The City of Maplewood classifies wetlands into three categories, Manage A, Manage B, and Manage C, based on the quality of the wetland. Based on the wetland classification, the City of Maplewood has buffer requirements associated with each wetland category. The WCA regulated wetlands on site include both Manage B and Manage C wetlands. Manage B wetlands require a minimum buffer width of 50 feet and Manage C wetlands require a minimum buffer width of 75 feet (Code of Ordinances City of Maplewood, Minnesota, 2024).

- 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 lakes, streams, intermittent channels, or county/judicial ditches were identified on the project site from the wetland delineation (Appendix A, Figure 6).

Surface water flow paths will be created through use of new curb and gutter construction, stormwater drains, and stormwater ponds. As discussed above, stormwater ponds are sized to accommodate anticipated rainfalls projected by Atlas 14.

13. 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 Minnesota Pollution Control Agency’s (MPCA) “What’s in my Neighborhood” (WIMN) search indicated that there is one known or documented existing contamination hazard in the project site boundaries – an active and permitted hazardous waste generator, very small quantity, though the business (The Ponds Golf Course) is no longer active. The generator will be removed prior to the construction grading and disposed of at an approved waste facility. Within 0.5 miles of the project, there are 41 known or documented contamination hazards. See information on these sites below in Table 11.

Table 11. What’s in My Neighborhood Sites within 0.5 Miles of the Project Site

Site ID	Type	Name	Status	Within Project Site
120546	Hazardous Waste, Very small quantity generator	Ponds at Battle Creek	Active	Yes
124641	Construction Stormwater	Ramsey County Correctional Facility	Inactive	No
49903	Hazardous Waste, Minimal quantity generator	HealthEast Woodbury Clinic-Nurse Midwifery	Active	No
121067	Hazardous Waste, Very small quantity generator	Minnesota Urology Cornerstone Medical	Active	No
2699	Construction Stormwater	Woodwinds Health Campus	Inactive	No
157789	Hazardous Waste	HealthPartners Woodbury Plastics	Active	No
59328	Hazardous Waste	Central Regional Pathology Lab Corp	Active	No
139866	Hazardous Waste	Metro OB GYN - Woodbury	Active	No
258253	Construction Stormwater	M Health Woodwinds Hospital MRI Replacement	Active	No
90368	Construction Stormwater	Valley View Estates	Inactive	No
124776	Hazardous Waste, Very small quantity generator	Midwest Surgery Center	Active	No
224752	Construction Stormwater	Aris Pediatric Health Services	Active	No
61343	Multiple Activities	HealthEast Woodwinds Health Campus	Active	No
7397	Construction Stormwater	Carver Lake Business Park	Inactive	No
193769	Integrated Remediation	Williams Pipeline Spill	Active	No
137150	Hazardous Waste, Very small quantity generator	Twin Cities Orthopedics	Active	No

Site ID	Type	Name	Status	Within Project Site
8254	Construction Stormwater	Lakeview Townhomes 2nd Addition	Inactive	No
185994	Petroleum Remediation, Leak Site	Ramsey Co Workhouse	Active	No
137523	Hazardous Waste, Very small quantity generator	Summit Orthopedics - Woodbury	Active	No
223234	Hazardous Waste, Very small quantity generator	Metropolitan Obstetrics & Gynecology	Active	No
133562	Construction Stormwater	Woodwinds Campus North Phase I	Inactive	No
147520	Hazardous Waste, Very small quantity generator	Saint Paul Eye Clinic Woodbury PA	Active	No
251600	Solid Waste	Maplewood Fire Station 4	Active	No
37122	Hazardous Waste, Very small quantity generator	Nsp - Maplewood Propane Plant	Active	No
124598	Hazardous Waste, Very small quantity generator	MN Oncology Hematology - Lake Rd	Active	No
84277	Hazardous Waste	MN Oncology Hematology PA - Woodbury	Inactive	No
136435	Hazardous Waste	RocheFord Plastic Surgery	Active	No
157461	Hazardous Waste	Red Rock Senior Living	Active	No
136942	Hazardous Waste, Small quantity generator	Midwest ENT Specialists	Active	No
103040	Industrial Stormwater	Ramsey County Corrections Site	Inactive	No
213329	Hazardous Waste, Very small quantity generator	HealthEast Clinics-Woodwinds	Active	No
119782	Hazardous Waste, Very small quantity generator	Center for Diagnostic Imaging & CDI ASC	Active	No
125813	Construction Stormwater	Ramsey Co. Corrections Dr	Inactive	No
141418	Construction Stormwater	Edgewood Vista	Active	No
249811	Multiple Activities	Lower Afton Apartments	Active	No
232233	Construction Stormwater	Wooddale Office Flex Space	Active	No
155351	Construction Stormwater	Oak Center Expansion and Remodel	Active	No
194632	Petroleum Remediation, Leak Site	Blasjo Residence	Active	No
250749	Construction Stormwater	Lower Afton Apartments	Active	No
97927	Hazardous Waste, Very small quantity generator	Reproductive Med & Infert Association	Active	No
236450	Hazardous Waste, Very small quantity generator	ResCare	Active	No

Source: MPCA's "What's in My Neighborhood" Database
<https://pca-gis02.pca.state.mn.us/wimn2/index.html>

- 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.*

The proposed project is a residential subdivision. Waste material and debris associated with construction will be contained on site and disposed of in a manner consistent with State Laws and City of Maplewood Ordinances. Once constructed, the project should only generate municipal solid waste and household hazardous waste.

Construction debris will be stored in dumpsters on site that will be hauled to a permitted MPCA solid waste facility. Where practical, construction debris will be recycled to avoid and minimize adverse effects from the generation/storage of solid waste. Trees and brush cut down prior to construction will likely be chipped, composted, and/or reused. Any regulated construction materials will be properly disposed of in accordance with MPCA and Minnesota Department of Health (MDH) regulatory requirements. It is anticipated that the site grading will balance cut/fill of soil on site and avoid the need for excess soil disposal.

Once constructed, the project will generate municipal solid waste and very small quantities of hazardous waste. Most solid waste is expected to include organics, paper, other waste, and plastic. Residents will follow a routine disposal plan using solid waste haulers licensed by the City of Maplewood, contracted individually.

The Ramsey County Solid Waste Management Plan estimated that 762,506 tons of Municipal Solid waste was generated in 2016. (Ramsey County, 2017). Dividing this value by the population of 533,677 in 2015 and converting to lbs., the value of 8.6 lbs. of municipal waste generated per person per day was found (US Census Bureau, n.d). The following analysis provides a calculation based on the number of units as established in the site plan:

Land Use	Residential Units	Rate (lbs/person/day)	Rate (tons/person/yr)	Persons per household	Total (tons/yr)
Low, Medium, Density Residential	207	8.6	1.4	2.41	698

- 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.*

During construction, the proposer will follow the MPCA's (National Pollutant Discharge Elimination System) NPDES permit requirements and City ordinances to avoid and minimize effects from the use or storage of hazardous materials/chemicals. Refueling of construction equipment will follow best management practices such as using drip trays when possible and having a spill kit on hand. The contractor will be required to clean up all fuel spills and report spills of over 5 gallons to the Minnesota State Duty Officer. The contractor will also contain any washout operations (including concrete, paint, etc.) The containment area will be posted with signs and inspected so that it does not generate any contaminated runoff.

- 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*

During construction, the project will follow the NPDES permit requirements and city ordinances to avoid and minimize effects from the storage of hazardous waste. Generation of small quantities of household hazardous waste will occur when residents are living on the property. Ramsey County provides free recycling and disposal of hazardous wastes at the Household Hazardous Waste Facility located in the nearby city of Saint Paul.

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 habitats and vegetation present on site are primarily brush/grassland and wetlands with no mapped Minnesota Biological Survey (MBS) sites or Minnesota DNR Native Plant Communities (NPC). In addition to brush/grassland and wetlands, some native and non-native flowering plants are located near the abandoned clubhouse, around wetlands, and sporadically throughout the entire site. There are some trees located along the western and southeastern boundary of the project site.

The mature trees could provide roosting habitat for bats and birds. Due to the presence of native and non-native flowering plants, the site can be classified as a suitable habitat for various small mammals and pollinating insects. The presence of small fish within the wetlands is unknown at this time.

- 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 (N/A) and/or correspondence number (MCE-2025-00184) 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.*

State

A MN DNR Natural Heritage Information System (NHIS) database request was sent through the Minnesota Conservation Explorer to determine whether known locations of state rare plant, animal species, or other significant features are known to occur within a one-mile radius of the project site (MnDNR, 2023d.) Additionally, a natural resource study was conducted by Midwest Natural Resources on behalf of Ramsey County in 2021. The MN DNR issued an NHIS review letter stating their findings (Appendix D). Their findings are summarized below:

- Henslow's sparrows (*Centronyx henslowii*) are a state-listed endangered bird and were documented by Midwest Natural Resources north of the project site in 2021. Suitable nesting habitat for this species includes uncultivated and unmowed grasslands and old fields with standing, dead vegetation, and a substantial litter layer.
- Sullivan's milkweed (*Asclepias sullivantii*) is a state-listed threatened plant species and was documented within the project area by Midwest Natural Resources in 2021 as likely having been planted.
- Several plant species of special concern were documented by Midwest Natural Resources in 2021 and include white wild indigo (*Baptisia lactea var. lactea*), rattlesnake master (*Eryngium yuccifolium*), Kentucky coffee tree (*Gymnocladus dioica*), creeping juniper (*Juniperus horizontalis*), and swamp white oak (*Quercus bicolor*). These were identified as occurring in the sporadic native plantings throughout the site.
- During the active season (approximately April-November), bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying

roosting habitat, especially during pup rearing season when females are forming maternity roosting colonies and pups cannot fly yet.

Federal

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool was used to obtain information on federally listed threatened and endangered species habitat areas that overlap with the project site (USFWS, 2025a). The species from the IPaC tool are listed below in Table 12. Additionally, there is one critical habitat listed to occur throughout the project site.

Table 12. Federal Rare Wildlife and Plant Species Potentially in the Project Vicinity

Common Name	Scientific Name	Status		Key Habitats	Potential Suitable Habitat ²
		Federal ¹	State		
Mammals					
Northern long-eared bat	<i>Myotis septentrionalis</i>	E	SC	Forests during spring and summer, caves and mines during winter	Roosting location in trees located on the west boundary of project site
Birds					
Whooping crane	<i>Grus americana</i>	EXPN	NE	Migrating birds may stop in wetlands, along lakes, meadows, swales, pastures, or agricultural fields	Migrating birds may stop at wetlands throughout the project site
Clams					
Higgins Eye	<i>Lampsilis higginsii</i>	E	--	Large rivers, usually found in areas with deep water and moderate currents	N
Salamander Mussel	<i>Simpsonaias ambigua</i>	PE	--	Rivers, streams, and in some lakes with natural flow regimes	N
Insects					
Monarch butterfly	<i>Danaus plexippus</i>	PT	W	Fields and parks where milkweed and native plants are common	Pockets of suitable habitat located around wetland areas and near the abandoned clubhouse
Rusty patched bumble bee	<i>Bombus affinis</i>	E	SC	Grasslands and tallgrass prairie, flowering plants	Documented sightings in 2019 and 2021 in southern portion of site. Additional documented sighting in July 2024 in the northwestern pond area.
Critical Habitat					
Rusty patched bumble bee	<i>Bombus affinis</i>	E	SC	Grasslands and tallgrass prairie, flowering plants	Project site overlaps the critical habitat.

¹ Federal and State Status Codes: E = Endangered; T = Threatened; PE = Proposed endangered; PT = Proposed threatened; C = Candidate; SC = Special Concern; EXPN = Experimental Population, Non-Essential; W = Watchlist

²Habitat Codes: N = No, no records of species within project site and no suitable habitat is present

Northern long-eared bat: The northern long-eared bat hibernates in caves and mines during the winter and spends the summer roosting in cavities and crevices of both live trees and snags (dead trees). At dusk, the bats usually fly through the understory of forested areas and feed on a variety of

insect species (USFWS, 2020). As of February 2025, MN DNR does not show documented maternity roost trees or hibernacula entrances of northern long-eared bats occurring within the project or within the immediate project vicinity (MN DNR & USFWS, 2025).

Whooping cranes: The whooping crane breeds, migrates, winters, and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, pastures and agricultural fields (USFWS). The USFWS notes that any whooping cranes that would be present are part of an experimental, non-essential population. This means a population that has been established within its historical range to aid recovery of the species. As such those individuals are not protected under the Federal Endangered Species Act.

Monarch butterfly: The monarch butterfly prefers field and park habitat where milkweed (*Asclepias*) and native plants are common. This is a common insect in Minnesota that is seen throughout the summer (MN DNR, 2022).

Rusty patched bumble bee: The USFWS Rusty Patched Bumble Bee Map indicates that the project site falls within the High Potential Zone. The high potential zones are areas the bumble bee will likely be present. The rusty patched bumble bee occupies grassland and tallgrass prairie areas and feeds on a variety of flowering plants throughout the spring to fall until it goes into hibernation in the winter (USFWS, 2017). In 2019 and 2021, the rusty patched bumble bee was observed on the southwestern portion of the site. Additionally, in July 2024, the Friends of Maplewood Nature documented the presence of the rusty patched bumble bee in the northwestern pond area.

Critical habitat: The project site overlaps the critical habitat of the rusty patched bumble bee. The rusty patched bumble bee can be found in a variety of habitats. They require nectar and pollen from diverse and abundant flowers. There have been several documented sights of the rusty patched bumble bee on site.

- 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.*

Impacts to protected or sensitive resources may occur where there is suitable habitat present on the project site.

- There is some potential suitable habitat for the Henslow's sparrow when the site is unmowed and not maintained. Since the golf course closed in 2021, Ramsey County mows the curb areas along Century Ave, Lower Afton Rd, and Linwood Ave every week and the entire site twice a year. During the unmaintained durations, there may be suitable habitat for the Henslow's sparrow.
- Sullivant's milkweed, a state listed threatened plant species, may potentially be impacted as part of the development. As stated in the 2021 Ramsey County Natural Resources Report, Sullivant's milkweed was found in the native plantings on site and was likely planted instead of occurring naturally.
- Plant species of special concern including white wild indigo, rattlesnake master, Kentucky coffee tree, creeping juniper, and swamp white oak habitats may be impacted by the development through ground disturbance and tree clearing activities.

- There are no known maternity roosts or hibernacula for the northern long eared bat in the project vicinity (MN DNR & USFWS, 2021). Construction of the project will result in the removal of approximately 169 trees that may be used by bats and migratory birds. The loss of tree habitat will result in migratory birds, bald/golden eagles, and any potential bat species to relocate to nearby adjacent habitat. Tree clearing is not expected to substantially impact NLEB behavioral patterns such as breeding, feeding, or sheltering.
- The whooping crane would only be a rare mobile visitor to the site during migration. They would likely be deterred by the project construction activities and mobilize to other suitable habitat in the surrounding area.
- In the existing native planting areas on site predominately near the wetland areas, there are some pockets of milkweed habitat for the monarch butterfly.
- The rusty patched bumble bee will likely be encountered during construction in areas around wetlands and near the abandoned clubhouse where there is suitable foraging habitat present. Since the existing trees are mostly small landscape trees and not a large contiguous patch of trees, there is likely minimal overwintering habitat for the rusty patched bumble bee on site.

During construction, the mobile wildlife present on the project site will likely disperse to adjacent and/or similar habitats. However, less mobile species may likely experience more adverse effects from construction. During the final stages of the proposed project, graded soils will be stabilized with turf grass, planted trees, and native vegetation. Areas previously designated with native and non-native flowering plants may be disturbed during construction, but additional areas containing native herbaceous plants will be planted throughout the site which will provide suitable habitat and resources for small birds, mammals, and insects, including pollinators. The native seed mixtures in the wetland buffers and native enhancement areas will include BWSR-developed native seed mixtures appropriate for those areas. These seed mixtures will provide a diversity of native grasses and forbs that will create habitat for small birds, mammals, and insects. The establishment of these native seed mixtures will create perennial vegetation that is adapted to the regional climate and will likely be resilient to changes in the climate. Although a small portion of the preexisting plant habitat will be removed during construction, the proposed project will replace approximately three times the amount of plant habitat.

BMPs consisting of erosion control measures, listed under Item ii in the Water Resources section, will be installed on the project site prior to construction to control invasive species and weeds to the extent practicable. Since the project site is currently in an abandoned golf course, most of the site has been manipulated to reduce weedy and invasive species. After construction and grading are complete, the exposed soil will be planted with turf grass (for residential units) or approved native seed mixes designed to establish desirable vegetation to mitigate for the risk of invasive 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.*

The project proposer is aware of the following guidelines for the protected species listed above. These guidelines will ensure that impacts to protected species are avoided or minimized to the extent possible.

- Henslow's sparrow: Based on the MN DNR's guidance for the site, initial disturbance of the site in areas with suitable nesting habitat should be avoided during the breeding season between May 15 and July 15 per MN DNR guidance. If avoidance during the breeding

season is not feasible, areas that will be disturbed that contain suitable nesting habitat will first need to be surveyed for active nests.

- Sullivant's milkweed: Per the MN DNR's guidance, if the project is planning to avoid the Sullivant's milkweed, documentation of avoidance will be sent to the DNR. If the project cannot avoid impacts to Sullivant's milkweed, a permit to take with mitigation will be provided to the DNR.
- Northern long-eared bat: The project proposer is aware of the USFWS recommended winter tree clearing timeframe of November 15th to March 31st. Additionally, the project is aware of the pup rearing season and the recommended MN DNR tree removal avoidance dates of June 1st to August 15th.

In addition to the guidelines outlined above, the project proposer has identified measures to avoid, minimize, and mitigate impacts to protected species found on site.

- Rusty patched bumble bee and monarch butterfly: The development will include 21 acres of enhancement areas throughout the site. These areas will be seeded with native seed mix and provide a larger contiguous area of native foraging habitat for wildlife and pollinator species. The site will minimize the use of herbicides throughout these native planting areas and avoid the application of insecticides and fungicides.
 - The USFWS has been contacted throughout the planning stages of this project. The USFWS has stated that since the project does not have a federal nexus, the project proposer is not federally subject to the Endangered Species Act requirements. The USFWS is aware that the rusty patched bumble bee has been seen on the site and recommended that voluntary foraging enhancement on the site could help mitigate potential impacts to pollinator species. Additionally, though the rusty patched bumble bee is not a MN DNR protected species, the MN DNR did recommend reseeded disturbed soils with native species of grasses and forbs using BWSR Seed Mixes and MnDOT Seed Mixes. As stated above, the project is committed to enhancing a large contiguous area of native habitat to provide an abundance of foraging and nesting habitat for pollinator and wildlife species.
- Plant species of special concern:
 - 8 swamp white oaks will be removed and 4 swamp white oaks will be preserved. The proposed project intends to plant an additional 20 swamp white oaks throughout the property.
 - One Kentucky coffee tree was documented on the project site and will remain undisturbed.
 - White wild indigo, rattlesnake master, and creeping juniper are present in the sporadic native plantings on site. Impacts to some of these sporadic plantings will occur; however, other native plantings will be preserved and included in a larger contiguous native planting area.
- Impacts to natural wetlands and their surrounding buffers will be avoided. The wetland buffers will be enhanced with native vegetation.
- Any slopes requiring erosion control blanket will use biodegradable fabrics (natural netting) to mitigate impacts to wildlife.
- Trees that will be cleared during construction will be replaced throughout the site per the City's tree ordinance.

- There is minimal available overwintering habitat for the rusty patched bumble bee since the majority of the trees on site are landscaped trees. The planted and preserved trees will provide similar overwintering habitat to what is currently available for the bee today.

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.

An environmental review was requested from the Minnesota State Historic Preservation Office (SHPO) on March 1, 2025, to determine if there were any historical or archaeological sites identified on site. SHPO states that project reviews are currently taking between 45-60 days to complete. A public review was completed on 4/16/2025, using the Statewide Historic Inventory Portal (MnSHIP). MnSHIP is an inventory of more than 120,000 historic and architectural properties that is maintained by SHPO (MnSHIP, 2025). MnSHIP was reviewed for potential historic resources present on or near the project site. There were no resources identified on the project site. The closest MnSHIP point is located about 0.75 miles southeast of the project site and is a bridge along I-494.

In addition to MnSHIP, the Office of the State Archaeologist (OSA) maintains official archaeological site inventory for Minnesota. The inventory contains archaeological sites and Minnesota Indian Affairs Council areas of interest. OSA was reviewed for potential archaeological sites and Minnesota Indians Affairs Council (MIAC). There is one MIAC site located 0.75 miles to the west (Figure 7), and four OSA sites located 0.75 miles to the west and one OSA site located 0.5 miles to the northeast (Figure 8).

At this time, there are no anticipated effects to historic properties that are within a mile of the project site.

Review of historic aerials (ranging from 1937-1964) from the University of Minnesota's John R. Borchert Map Library has shown the northern portion of the site was used for agricultural purposes. Based on aerials between 1937 and 1953 the southwest portion of the site was also used for agriculture with a small farmstead property located in this area. An aerial from 1964 shows that the farmstead had decreased in size and land cover in the southwest portion no longer resembling that of Agriculture, which implies that agricultural activity ceased in this area.

On April 23, 2025, the SHPO response was received (Appendix F). It was determined that there are no properties listed in the National or State Registers of Historic Places, or within the Historic Sites Network, located within the proposed project area. Additionally, a Phase I archeological survey was recommended due to archaeological sites being in the vicinity, but the survey is not required.

16. Visual

- a. *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 views from the site include brush and grassland, wetlands the St. Paul Police Training Facility and lower density residential to the west and south, Lower Afton Road and the Ramsey County Correctional Facility to the north, and Century Avenue & high-density residential uses within Woodbury city limits to the east. Unique scenic views include several natural wetlands with native vegetation and wildlife on site.

Century Ponds will not create any unusual visual impacts. The visual effect will transition views from predominately open brush and grassland to single family homes, townhomes, public access roads, and stormwater basins. Views near the 43 acres of wetlands and natural area will be preserved.

The project will not include intense lighting that will cause glare that could potentially impacted the vehicular traffic on Century Ave S and Lower Afton Rd. The outdoor lighting along the residential streets will be strategically placed to benefit residents as they navigate the development, and the streetlights will not direct any light towards sensitive areas. Additionally, the development will not produce any vapor plumes that could cause a negative visual impact on the surrounding landscape.

The proposed Century Ponds development includes a plan to protect, enhance and create new native areas. In all, the site will contain about 27 acres of natural areas in addition to the 16 acres of wetlands and ponds. After construction, close to 50% of the site will include native habitat. This conservation of natural areas will create a natural aesthetic for the future residents of Century Ponds to enjoy.

Landscape plantings will be included in the development per the City of Maplewood landscape ordinance. Overstory trees are required at regular intervals along the road to help define the road edge, to buffer pedestrians from vehicles, and to provide shade. The overstory trees shall be located in a planting strip at least five feet wide between curb and sidewalk, or in a planting structure of design acceptable to the city. All areas of land not occupied by buildings, parking, driveways, sidewalks or other hard surface shall be sodded or mulched and landscaped with approved ground cover, flowers, shrubbery, and trees.

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, 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.*

The proposed residential subdivision will generate small sources of stationary source emissions through home through natural gas/electricity used in heating and cooling. This will result in direct and indirect sources of stationary greenhouse gas emissions (GHG) at a small quantity. Emissions are expected to be similar to those of the single-family and multi-family residential units near the site. Mitigation measures are not being considered.

- 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.*

The proposed residential subdivision will generate a small increase in carbon monoxide levels associated with an increase in residential passenger vehicle trips. The project does not require an indirect source permit. No baseline air quality monitoring or modeling is proposed and no measures to mitigate for the increase in vehicle related emissions are being considered.

- 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.*

Dust will be generated during the construction process on the site. The contractors will be required to control dust by using watering trucks. The adjacent single family residential homes, apartment complexes, retirement community, St. Paul Police shooting range, and correctional facility are the nearest receptors of the dust. Mitigation of the short-term dust and odors impacts will be managed through proper coordination and construction planning.

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.*

Greenhouse gases (GHGs) are emitted by multiple sources during the project’s lifetime. These sources include:

- **Construction vehicles:** This emission is from medium- and heavy-duty construction equipment powered by diesel.
- **Land use conversion:** This is an emission due to the changes in carbon fluxes from the conversion of fallow golf course grasses to residential development.
- **Off-site utilities:** Purchased electricity, natural gas, and municipal water are all associated with greenhouse gas emissions.
- **Residential vehicle usage:** This emission is associated with personal vehicle usage of residents of the proposed development. This source directly emits CO₂, CH₄, and N₂O.
- **Off-site waste management:** Solid waste in Maplewood is primarily disposed of through recycling, incineration, and landfill all of which are associated with emissions of greenhouse gases.

The June 2024 “Environmental assessment worksheet (EAW) guidance” document from the EQB guided the process of quantifying the GHG emissions from each of these sources (MN EQB, 2024). Analysis results are below in Table 13. The majority of GHG emissions for the project were associated with the operations project phase. There are no existing GHG emissions.

Table 13. Sources and Quantification of GHG emissions

ID	Category	Scope	Project Phase	Type of Emission	CO ₂ e Emissions (short tons/year)
Source 1	Direct Emissions	Scope 1	Construction	Combustion (mobile source)	10
Source 2	Direct Emissions	Scope 1	Construction	Land Use (area)	22
Source 3	Indirect Emissions	Scope 2	Operations	Off-site utilities (grid-based)	3,102
Source 4	Direct Emissions	Scope 1	Operations	Combustion (mobile source)	2,521
Source 5	Indirect emissions	Scope 3	Operations	Off-site waste management (area)	201
TOTAL					5,856

Note: The total tons CO₂e/year is reported as the sum of unrounded values.

The values in Table 13 were calculated using the procedures described below.

- Source 1: Construction Vehicle Use

Mobile emissions for construction equipment (medium- and heavy-duty vehicles, diesel) were modeled. The project was assumed to have a typical construction season of 30 weeks and schedule of 6 workdays per week. Research on typical construction vehicle usage and emissions is sparse and thus engineering judgement was used to assume there would be an average of 5 medium/heavy duty vehicles per day and that these vehicles would operate for 9 hours/day. Typical fuel usage values were found online for excavators (assumed to represent typical construction equipment) (Caterpillar, 2016). An estimated annual fuel volume of 24,300 gal/year was calculated and then the EPA Simplified GHG Emissions Calculator was used to calculate the yearly emissions (US EPA, 2023a). The calculated yearly emissions were then multiplied by the expected construction period of 2 years and divided by the project lifetime to get an annualized emission. A project lifetime of 50 years was assumed based on common lifetimes used in residential building life cycle assessments (Ghattas et al., 2013). There is uncertainty in this calculation due to the number of assumptions that were used, so it is best to view the reported value as an order of magnitude estimate.

- Source 2: Land Use Conversion

As is specified in the EQB guidance document (MN EQB, 2024), the EPA's *Inventory of Sources and Sinks of Greenhouse Gases* (US EPA, 2024c) was used to calculate the emissions due to land use changes. Table 4 reports the change in cover types for the proposed development. The project can be conceptualized as a change of 92.25 acres of brush/grassland to 92.25 acres of settlements. An emissions factor of 0.24 tons CO₂e/ac was calculated and then used to determine the total emissions due to land use conversion.

- Source 3: Residential Off-Site Utilities

The CoolClimate Network Household Calculator was used to calculate the emissions associated with residential utilities (water, natural gas, electricity) (CoolClimate Network, n.d.). This tool is based on research that used household surveys to develop a national model for average household carbon footprints (Jones & Kammen, 2013).

The tool was run for a zip code of 55119. Census data for Maplewood, MN found an average of 2.59 people per household and median household income of \$88,534 (US Census Bureau, n.d). The Household Calculator only takes inputs of rounded values, so the tool was run for a household of 2.5 people with an annual income of \$40,000. The resulting values of electricity, natural gas, and water emissions were summed together. This sum was multiplied by the proposed number of housing units to find the total emissions from off-site utilities, which was then converted from metric tons to short tons.

- Source 4: Residential Vehicle Use

The Cool Climate Network’s Household Calculator (see Source 3) also provided an estimate of emissions due to car fuel. Census data found that the average number of cars per household in Maplewood was 2 (US Census Bureau, n.d.). The calculated value was multiplied by the number of households to determine the total annual emissions due to residential vehicles.

- Source 5: Residential Off-site Waste Management

A yearly rate of solid waste generation was calculated in Section 13b. of this document. The Ramsey County Solid Waste Master plan reported a recycling rate of 55% in 2016 (Ramsey County, 2024). The EPA’s CCL Emission Factor Hub was used to find the emissions factors for recycling Mixed Recyclables, combusting Mixed MSW, and Landfill Mixed MSW (US EPA, 2025b).

There are additional sources of emissions that were outside of the scope of the analysis. These sources include:

- Construction solid waste: Management of construction solid waste would be a Scope 3, indirect emission. There is not a composite value reported in the CCL Emission Factor Hub (US EPA, 2023b) for construction waste. The complexity of accurately estimating the composition and quantity of construction solid waste is outside of the scope of this analysis since the expected quantity of construction solid waste would be significantly less than the waste produced by operational use, particularly when reported as an annualized value.
- Construction materials: The emissions due to construction materials would be a Scope 2, indirect emission. A literature review of Life Cycle Assessments for residential buildings reported a range of values for embodied energy and noted that results were often specific to geography and building design (Ghattas et al., 2013). There was not a methodology for calculating the embodied energy (which would be associated with emissions) for this project that was readily available and specific enough to the geography/building design to be reasonably accurate.
- Consumer choices: The emissions calculations in Table 13 did not account for the emissions due to consumer choices such as air travel, food, goods, and services. As is calculated by the CoolClimate Network’s Household Calculator (n.d.), the combined emission from these categories is 21.1 short tons CO₂e/year per household, corresponding to a total emissions rate of approximately 4347 short tons CO₂e/year for the development. This value was not included in Table 13 because it is largely outside the influence of the developer.

b. *GHG Assessment*

i. *Describe any mitigation considered to reduce the project’s GHG emissions.*

Mitigation measures can help reduce the project’s GHG emissions and should be considered where feasible. The following measures that may be incorporated into the design of the development include:

- Use energy efficient building materials that reduce needs to heating and cooling
- Low or no VOC paints, adhesives, and solvents
- Reduce and recycle construction waste
- Use environmentally friendly flooring products

- Utilize native species and water efficient landscape irrigation
- Efficient heating, ventilation, and air conditioning (HVAC) systems
- Reduce lighting power density
- Water sense showerheads
- Programmable thermostats
- Encourage residents to sign up for utility-sponsored renewable energy programs
- Pre-wired electric vehicle charging stations and or/battery storage.

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

The proposed mitigation measures described in Item 18.b.i. includes best management practices for new residential construction to implement in order to help offset GHG emissions from the project. However, since no specific mitigation is being proposed during the construction of the project, these mitigation measures were not quantified as part of this analysis.

- 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 proposed projects predicted net lifetime GHG emissions is 288,300 short tons of CO₂e with the assumption of a 50-year lifecycle for the single and multi-family homes. This includes both the construction and operation phases.

The Next Generation Energy Act requires the state to reduce greenhouse gas emissions by 80% between 2005 and 2050, while supporting clean energy, energy efficiency, and supplementing other renewable energy standards in Minnesota. In the Greenhouse gas emissions in Minnesota 2005-2020 Biennial report, relative to 2005, net emissions from the residential sector rose by 14%, but in recent years, it has begun to experience some emission reductions (MPCA, 2023). The biggest emission sources in the residential section include:

- Fossil-fuel combustion for heating and in-home appliances, such as furnaces that run on natural gas
- Home-product use
- Food additives
- Refrigerant leakage from air conditions and refrigerators
- Fertilizer use

If the development is able to implement some of the measures stated above in 18.b.i, this will allow the development to help achieve the goals outlined for residential developments in the Next Generation Energy Act.



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.

The existing noise levels and sources in the area are roadway noise and the St. Paul Police Outdoor shooting range. The nearest receptors to the site are single family residential homes, apartment complexes, a retirement community, and a correctional facility. These nearest noise receptors will experience noise levels during construction that are elevated in comparison to existing noise levels. Grading and excavation activities on site will require heavy construction equipment.

Noise levels will temporarily increase during construction of the site then stay consistent with the residential development adjacent to the property when construction is completed. Noise levels on site will vary during construction depending on where construction is occurring on site, time of operation, and distance between receptors and construction equipment.

Construction noise can be mitigated by restricting construction work to daytime hours. Contractors will be required to minimize noise impacts by maintaining equipment properly, including noise controls as specified by manufacturers. The project will adhere to the Maplewood noise rules and standards that indicates noise should occur within specified levels depending on land use and time of day.

After construction, noise levels are expected to be at or near existing levels for a typical residential development. A combination of berms and landscaping will be used to provide noise mitigation for the surrounding single family residential homes, apartment complexes, a retirement community, and correctional facility. Similar to construction noise, the residential use of the property will adhere to the City's noise rules and standards. The St. Paul gun range will continue to be a source of noise once construction is completed. Based on a sound study performed on site, it was recommended that windows on townhomes on the south side of the site, facing the range, be doubled paned to mitigate noise.

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 alternativetransportation modes.*
- The proposed Century Ponds residential development is located on a 92.25-acre site, formerly The Ponds at Battle Creek Town golf course in Maplewood, Minnesota. The proposed development consists of 134 detached single-family homes and 73 attached single-family homes (townhomes) for a total of 207 dwelling units.
 - Each proposed dwelling unit will have off-street parking. In addition to off-street parking, 28 additional parking stalls are included throughout the 73 townhomes for guest parking.
 - Results of the trip generation estimates indicate that the current development plan is expected to generate approximately 129 a.m. peak hour, 168 p.m. peak hour, and 1,790 daily trips. These estimates did not include internal capture or pass-by trip reductions.
 - The maximum peak hour traffic for the development is 168 trips, which would occur during a single hour between 4:00 and 6:00 p.m.
 - The ITE Trip Generation Manual, 11th Edition was utilized to generate trip generation rates for the various land uses. Applicable land uses were determined to be 210: Single-Family Detached Housing and 215: Single-Family Attached Housing.
 - Local bus route 323 passes through the project area along Century Avenue between Pouliot Parkway and Lower Afton Road/Valley Creek Road with stops at the intersection of Lower Afton Road/Valley Creek Road (EB and WB) and at Parkwood Drive (NB only). Route 323 runs between the Sun Ray Transit Center at I-94 and McKnight Road and the City of Woodbury (near Queens Drive and Currell Boulevard). The Sun Ray Transit Center offers transfers to several other transit lines.
 - An existing multi-use trail along the north side of Lower Afton Road/Valley Creek Drive provides several multimodal connections, including to the Battle Creek Bike Trail and facilities along Hwy 10, McKnight Road, and Century Avenue.
- 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*
- Based on the traffic operations analysis of existing conditions, all study intersections operate adequately under existing AM and PM peak hours. The signalized intersections (Century Avenue and Lower Afton Road/Valley Creek Road, Century Avenue/Lake Road and Century Avenue/Apartments) operate at overall intersection LOS B or better. Through/stop intersections (Century Avenue with Parkwood Drive, Pouliot Parkway, and Linwood Avenue) operate acceptably with overall intersection LOS A and minimal

- side-street delay (LOS A).
- Overall, the proposed development is expected to have minimal impact to the existing transportation system. All unsignalized intersections, including the proposed access locations, are expected to continue operating at LOS A with minimal side-street delay under the Build scenario. The signalized intersection at Century Avenue/Lake Road and Century Avenue/Apartments is expected to operate at LOS B in the AM and PM peak hours with side-street LOS B. The signalized intersection at Century Avenue and Lower Afton Road/Valley Creek Road is expected to operate acceptably with LOS B and LOS C in the AM and PM peak hours, respectively.
- c. *Identify measures that will be taken to minimize or mitigate project related transportation effects.*
- Although the existing transportation network is expected to operate acceptably with the new development trips, turn lane recommendations were made based upon a review of Ramsey County, Washington County, and MnDOT Access Management policies. No modifications are recommended at the signalized intersections. A summary of the turn lane evaluation and any recommendations are listed below:
 - Lower Afton Road Access
 - A westbound left-turn lane is recommended based on conversations with Ramsey County staff. Modifications to the westbound taper/merge area and shifting the lane drop location further west may be sufficient in lieu of a dedicated left-turn lane and require less widening, however, this was not the preference of the County even on a short-term basis.
 - An eastbound right-turn lane was not recommended. Conversations with Ramsey County staff did not indicate one would be needed at this time.
 - Century Avenue S (North) & Parkwood Drive Access
 - Only a northbound left-turn lane is recommended, which is consistent with other unsignalized intersections along the corridor and would follow the Washington County Development Code and input from Washington County staff.
 - Linwood Avenue E Access
 - A westbound right-turn lane could be considered but is not formally recommended at this time, with or without a secondary connection to Century Avenue (considered in a previous site plan iteration but removed in the current site plan).

21. Cumulative Potential Effects

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

Potential effects are addressed under the applicable EAW items.

- b. *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.*

There are no other developments in the area in the foreseeable future.

- c. *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 potential cumulative effects on public infrastructure would include municipal water supply systems, sanitary sewer conveyance and treatment systems, stormwater management systems, traffic and transportation systems. The development will be connected to the watermain, which is proposed to be extended from the existing service stubs on Lower Afton Road, Mailand Road right-of-way and Linwood Avenue to create a looped system. Sanitary sewer is proposed to be connected to the existing stub in the northwest corner of the property to serve the entire site. An additional option being explored is connecting into the City of Woodbury's sanitary stub located in the southeast corner (off Century Ave) to serve the townhomes. It is the client's understanding that these utilities have capacity and pressure adequate to meet the needs of the developer. This southern service area would drain to the same Metropolitan Council treatment facility in Saint Paul as the rest of the project drains to.

Stormwater runoff from projects within the City of Maplewood will ultimately drain into the Mississippi River. The federal, state, and local stormwater regulations for development projects combined with the implementation of BMPs to control erosion and sedimentation during construction are anticipated to minimize cumulative effects of pre- and post-development runoff into downstream surface waters.

The effects on traffic and transportation for this project include three entry points to the site: one on Century Ave S, one on lower Afton Rd, and one Linwood Ave E. These changes will allow access to the site, while having no significant impact on traffic flow of the surrounding area. The city of Maplewood has the capacity to support the public infrastructure needed to support this project; cumulative effects on public infrastructure are not anticipated.

The cumulative effects of suburban development can affect natural resources such as groundwater, and waterbodies. It can also result in loss of wetlands and fragmentation of wildlife habitat. For the proposed project, drinking water will be supplied from the Mississippi River via the Saint Paul Water Utility. Individual lots within the development have minor potential to affect groundwater through building foundations. State, watershed and city rules require infiltration of the first inch of water falling on new impervious surfaces. This will mitigate most of the groundwater recharge loss when converting the land use from golf course to residential.

Eight wetlands were delineated in November 2023. These could be affected by construction stormwater discharges and will be protected with perimeter controls and vegetated buffers per the NPDES construction stormwater from the MPCA. None of the delineated wetlands will be impacted, but seven incidental wetlands consisting of golf course water features will be converted to residential or stormwater uses. The proposed project resides on unmaintained golf course grasses that includes fragmented wildlife habitat and low-quality wetland habitat. Therefore, it is unlikely that significant changes to existing natural resource habitat will occur as a result of this development. Overall, the cumulative effects on natural resources are expected to be minimal.

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.

All potential effects have been addressed in Items 1 through 21. No other additional environmental effects are anticipated from this development.

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

Danette Parr

Date June 23, 2025

Title Community Development Director

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