



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, June 17, 2020

Agenda Item

Item 6. I. -Project Reviews

Prepared By

Linda Loomis, Administrator

Summary

i. **Prairie Heights, Eden Prairie**

This is a new application. Norton Homes is planning a residential subdivision in Eden Prairie that falls partly in the LMRWD and partly in the RPBCWD. Eden Prairie does not have an approved Municipal Permit with the District. The applicant therefore needs to receive a permit from the District prior to construction.

LMRWD staff has reviewed the plans and shared comments with RPBCWD, the City of Eden Prairie and Norton Homes. A copy of LMRWD comments is attached. Staff requests Board approval of the permit.

ii. **565 Lakota Lane, Chanhassen, variance request**

Staff is still waiting to hear from the city on this project. The Board may remember at the last meeting this project was discussed. It is a request for a variance from the city's ordinances. The LMRWD agrees with providing a variance from the city code. The concern the LMRWD has is the location of the septic tanks in relation to the steep slope on the property.

iii. **Structures, Inc., Chaska**

The owner of this project has withdrawn the project from consideration

Attachments

Prairie Heights Preliminary review dated June 11, 2020

Recommended Action

Motion to approve permit 2020-103, Prairie Heights, Norton Homes developer, with conditions listed in preliminary review.

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Katy Thompson, PE, CFM
Della Schall Young, CPESC, PMP

Date: June 11, 2020

Re: Prairie Heights Preliminary Review (Permit No. 2020-103)

Norton Homes has applied for an Individual Project Permit with the Lower Minnesota River Watershed District (District or LMRWD) for Prairie Heights, a 24-lot, single-family home subdivision in Eden Prairie, Minnesota. The proposed project is not in the High Value Resource Area overlay district or in the Steep Slope overlay district. The applicant has also applied for a preliminary plat approval from the City of Eden Prairie and provided these documents to the District for review.

The Prairie Heights project spans the boundary between the District and the Riley-Purgatory-Bluff Creek Watershed District (RPBCWD). The extension of Surrey Street and construction of six single-family homes comprise the extent of the proposed improvements within the District. The portion of the Prairie Heights project within the District flows into RPBCWD under both existing and proposed conditions, and all proposed stormwater best management practices (BMPs) are located within the RPBCWD boundary ([Figure 1](#)).

Summary

<u>Project Name:</u>	Prairie Heights
<u>Purpose:</u>	Construction of a 24-lot, single-family, detached home subdivision by Norton Homes
<u>Project Size:</u>	10.71 acres platted, 9.63 acres of disturbance (2.48

acres in the District), 0.38 acres of existing impervious, and 2.78 acres of new impervious surface (1.1 acres in the District)

Location: Southwest of Pioneer Trail and Yorkshire Lane, Eden Prairie, MN (Parcel IDs 2711622140035 and 2611622230005)

Applicable LMRWD Rules: Rule B—Erosion and Sediment Control
Rule D—Stormwater Management

Recommended Board Action: Conditional approval, pending approval by RPBCWD

Discussion

Norton Homes is proposing to construct a new subdivision comprising 24 single-family detached home lots southwest of the intersection of Pioneer Trail and Yorkshire Lane in Eden Prairie, Minnesota (Hennepin County Parcel IDs: 2711622140035 in LMRWD and 2611622230005 in RPBCWD). The District was provided with the following documents for review:

- Storm Water Management Plan for Prairie Heights Preliminary Plat, dated May 18, 2020, by Alliant Engineering, Inc.
- Preliminary Plat Plans, dated May 18, 2020, by Alliant Engineering, Inc.

The proposed project is located in the City of Eden Prairie and would normally be subject to municipal review; however, the City of Eden Prairie does not have an approved Municipal Permit with the District, and as such, the applicant must receive a District permit prior to construction.

Rule B—Erosion and Sediment Control

The District regulates land-disturbing activities that affect one acre or more outside the High Value Resource Area Overlay District under Rule B. The proposed project disturbs a total of 9.63 acres, which includes 2.48 acres and approximately 1 acre of new impervious surfaces within the District boundary. Norton Homes has provided a preliminary erosion and sediment control plan and a Stormwater Pollution Prevention Plan with the preliminary plat submittal. The Storm Water Management Plan states that there will not be a homeowners association. The applicant may need to enter into a stormwater maintenance agreement with the City of Eden Prairie and/or the RPBCWD to ensure proper long-term maintenance of the proposed stormwater facilities.

Rule D—Stormwater Management

The District requires stormwater management for projects that propose to create more than one acre of new impervious surface. Although the project is proposing approximately 1.1 acres of impervious area within the District boundaries, it will be treated in stormwater basins located with the RPBCWD.

Rate Control

Section 4.4.1 of Rule D requires that applicants demonstrate no increase in proposed runoff rates when compared to existing conditions. Although the proposed impervious within the District is treated outside the District limits in Basin A, the rate control requirement for the proposed development is met. A summary of the provided results appears in **Table 1** below.

Table 1. Prairie Heights West Outlet (Basin A) Rate Control Summary

EVENT	EXISTING (CFS)	PROPOSED (CFS)	Δ (CFS)
2-YR 24-HR	3.52	2.39	-1.13
10-YR 24-HR	10.49	10.04	-0.45
100-YR 24-HR	31.5	22.75	-8.75
100-YR 10-DAY (SNOW)	7.5	5.6	-1.9

Volume Reduction

Section 4.4.2 of Rule D requires volume reduction for post-construction stormwater runoff volume for projects that create more than one acre of impervious surface. Based on the Storm Water Management Plan provided, Norton Homes proposes to excavate in situ soils and backfill with amended soils due to clay soils and filtrate rather than infiltrate to meet the volume reduction/abstraction credit for the District and RPBCWD. The applicant is proposing to filter the stormwater runoff in excess of the 1.1-inch requirement imposed by RPBCWD.

Water Quality

Section 4.4.3 of Rule D requires projects that create more than one acre of impervious surface to provide evidence that no net increase in total phosphorus (TP) or total suspended solids (TSS) in the receiving waters will result from the project.

The applicant has provided P8 modeling to demonstrate an overall reduction in TP and TSS, exceeding the District requirements.

Recommendations

Although the project is located in both the Lower Minnesota River Watershed District and RPBCWD, the applicant has proposed a design that attempts to meet both districts' requirements. From our review of the preliminary plat submittal, the project as presented meets the Lower Minnesota River Watershed District criteria for both Rules B and D. We recommend it be conditionally approved, pending the following:

- Approval of the project by the Riley-Purgatory-Bluff Creek Watershed District
- Revision of the narrative and a final review of final plans should changes be made at the request of the Riley-Purgatory-Bluff Creek Watershed District
- Submission of a copy of the NPDES permit
- Submission of a copy of the final RPBCWD permit and executed maintenance agreement with the RPBCWD permit

Attachments:

Figure 1. Proposed Prairie Heights Project Location Map

LMRWD Permit Review Checklist



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

Figure 1: Prairie Heights Preliminary Review Eden Prairie, MN 09-June-2020



LEGEND

- LMRWD Boundary
- Proposed Project Area
- Proposed Impervious
- Proposed Stormwater Basins
- Hennepin Co. Parcels
- Hennepin Co. Floodplain
 - 100-yr Floodplain
 - 500-yr Floodplain
 - Floodway
- Calcareous Fen Locations
- HVRA Overlay District
- Steep Slopes Overlay District



Young Environmental Consulting
Group, LLC



LOWER MINNESOTA RIVER WATERSHED DISTRICT PROJECT REVIEW

Project ID	<input type="text" value="2020_0103"/>	Authorization Agent	<input type="text" value="Patrick Hiller"/>
Project Name	<input type="text" value="Prairie Heights Development"/>	Email Address	<input type="text" value="path@nortonhomes.com"/>
Organization	<input type="text" value="Norton Homes"/>	Phone Number	<input type="text" value="7635592991"/>
Notes	<input type="text" value="5/27/2020 - Rcvd application"/>		

Project Summary

Anticipated start date	<input type="text" value="7/13/2020"/>	Date received	<input type="text" value="5/27/2020"/>
Project location	<input type="text" value="12701 Pioneer Tr"/>	Project map included?	<input checked="" type="checkbox"/>
Project acres	<input type="text" value="9.63"/>	Is the project in an unincorporated area?	<input type="checkbox"/>
Total disturbed acres	<input type="text" value="9.63"/>	Is it located in a High Value Resource Area	<input type="checkbox"/>
New impervious acres	<input type="text" value="2.78"/>	Is it located in a Steep Slope Overlay Distric	<input type="checkbox"/>
Local Partners	<input type="text" value="n/a"/>	Other Sensitive Area	<input type="text" value="Th proposed project straddles the LMRWD and Riley-Purgatory-Bluff Creek Watershed District boundary"/>

Project Description

Additional Notes

Review Status

- Is this a preliminary review?
- Is this a permit review?
- Does this project require a technical review?

Project Status

- Project is pending
- Project is active
- Project has been archived

Erosion and Sediment Control

This project triggers one or more thresholds for this rule.

<u>Triggers</u>		<u>Criteria</u>	
Disturbs one acre plus	<input checked="" type="checkbox"/>	Erosion and Sediment Control Plan	<input checked="" type="checkbox"/>
Located within the HVRA Overlay District	<input type="checkbox"/>	Inspection and maintenance addressed	<input type="checkbox"/>
Meets the HVRA threshold	<input type="checkbox"/>	NPDES/SDS General Construction Permit documentation	<input type="checkbox"/>

The documentation requirements for this rule have not been met. A review cannot be completed until all required documentation has been submitted.

Additional Notes

6/8/20 - Prelim SWPPP and ESC provided

Floodplain Drainage Alteration

This rule does not apply.

<u>Triggers</u>			
Changes in water surface elevation of floodplain	<input type="checkbox"/>	Calculations by a professional engineer demonstrating no decrease to conveyance	<input type="checkbox"/>
<i>If yes,</i> Compensatory storage equal or greater than volume of fill	<input type="checkbox"/>	Conveyance capacity decrease below 100yr high water elevation	<input type="checkbox"/>
<i>If no,</i> No-rise certification by a professional engineer	<input type="checkbox"/>	Temporary placement of fill	<input type="checkbox"/>
<u>Criteria</u>		Adverse impacts to water quality, habitat, or fisheries	<input type="checkbox"/>
Net decrease of storage capacity OR increase in 100yr elevation	<input type="checkbox"/>	New structures have 2ft+ between lowest enclosed area's floor and 100yr high water elevation	<input type="checkbox"/>
Will floodplain storage be created	<input type="checkbox"/>		

Additional Notes

Stormwater Management

This project triggers one or more thresholds for this rule.

Type of project Development

Triggers

One acre or more of impervious surface

Are trout streams protected

HVRA Overlay District

Located within the HVRA Overlay District

Rate control exceeded for 1, 2, 10, and 100yr 24-hour event

If yes,

Meets the HVRA threshold

Projects with 1+ acres of new impervious: are MPCA's Construction General Permit

Criteria

Post-construction runoff rates exceed existing rates for 1, 2, 10, and 100yr 24-hour events?

Net increase of TP

Net increase of TSS

New Development: the post-construction runoff volume retained onsite equal 1.1 inches of runoff from impervious surfaces

Is maintenance adequately addressed

Redevelopment: the project will capture and retain onsite 1.1 inches from new/fully reconstructed impervious surface

Project will result in a net decrease of TP and TSS

Linear: the site will capture and retain (a) 0.55 inches of runoff from new/fully reconstructed impervious, or (b) 1.1 inches of runoff from the net increase in impervious area

Volume control requirements sufficiently addressed

The documentation requirements for this rule have not been met. A review cannot be completed until all required documentation has been submitted.

Alternative Infiltration Measures

Infiltration not possible at all basins due to poor soils, filtering stormwater per RPBCWD standards instead.

Additional Notes

6/10/20 - Stormwater runoff to be treated by three infiltration basins located within RPBCWD.

Steep Slopes

This rule does not apply.

Triggers

Is the project in the Steep Slopes Overlay District

Excavation of 50 cubic yards+ of earth

Displacement of 5,000 sq. ft+ of earth

Vegetation removal or displacement

Activities that require LGU permits

Criteria

Has the project been certified by a professional engineer

Adverse impact to waterbodies

Unstable slope conditions

Degradation of water quality

Preservation of existing hydrology

New discharge points along slope

Additional Notes