



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, May 20, 2020

Agenda Item

Item 6. H. - Project Reviews

Prepared By

Linda Loomis, Administrator

Summary

i. **Peterson Farms, LLC Road Maintenance Review (Permit No. 2020_100)**

The LMRWD received an application to make a repair to access to fields located in the MN River floodplain. Staff has reviewed the application and recommends approval of the repairs. A technical memorandum is attached for Board review.

Attachments

Peterson Farms Technical Memorandum, dated May 15, 2020

Recommended Action

Motion to approve Permit No. 2020_100 allowing access road repairs within the MN River floodplain

ii. **Hennepin County Regional Rail Authority (HCRRA) Trail Repair**

This project is to repair the Minnesota River Bluffs Regional Trail that washed out during the summer of 2014. LMRWD staff has been working with the Hennepin County and Barr Engineering (the County's consultant) for approval of this project. A technical memorandum, dated January 6, 2020, has been attached to this summary along with the most recent technical memorandum dated April 13, 2020. The LMRWD asked for a maintenance agreement for the storm sewer facilities. A maintenance agreement was drafted for LMRWD review. Legal Counsel for the LMRWD reviewed the maintenance agreement and staff is recommending approval of the project and to authorize execution of the maintenance agreement.

Attachments

MN River Bluffs Regional Trails Technical Memorandum, dated April 13, 2020

MN River Bluffs Regional Trails Technical Memorandum, dated January 6, 2020

Agreement for Maintenance of Stormwater Facilities between the LMRWD and HCRRA

Recommended Action

Motion to approve MN River Bluffs Regional Trail repair and authorize execution of the maintenance agreement

iii. **565 Lakota Lane, Chanhassen - variance request**

The LMRWD received notice of a request for a variance from city ordinance for the property at 565 Lakota Lane in Chanhassen. The variance requested is to allow for placement of a separate sanitary sewer system. If the septic system was placed as required by city ordinance, the septic tank would be located in the face of the bluff behind the home. The homeowner is therefore requesting the system be placed on the northwest corner of the property.

A technical memorandum prepared for this project is attached. Staff is not able to recommend approval until the location of the septic tanks has been verified.

Attachments

565 Lakota Lane Variance Request Technical Memorandum, dated May 15, 2020

Recommended Action

No action recommended

iv. Structures, Inc., Chaska

The city of Chaska provided details of this project to the LMRWD. The LMRWD was first made aware of this project in 2019 when Brian Field of Anderson Engineering contacted the LMRWD for information regarding requirements of the LMRWD. At that time LMRWD staff was working on rules. Now that the project is before the LMRWD, rules have been adopted. The applicant has been informed that the LMRWD will issue a permit, since the City has not yet applied for a municipal permit. LMRWD staff completed a technical review of the information submitted, but needs additional information before approval can be recommended.

Attachments

Structure, Inc. Technical Memorandum, dated May 15, 2020

Recommended Action

No action recommended

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

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

Date: May 15, 2020

Re: Peterson Farms, LLC Road Maintenance Review (Permit No. 2020_100)

Mr. Bert Notermann requested a review of his proposed maintenance project from the Lower Minnesota River Watershed District (District). The project, located along Flying Cloud Drive (County Road 61) and shown in **Figure 1**, is to maintain an existing access road on his property that is used for farm operations as well as inspections by the Minnesota Department of Natural Resources and US Department of Agriculture. The proposed project is not in a high value resource or steep slope overlay districts; however, it is located in the 100-year floodplain, triggering a review of compliance with the District's Rule C.

Summary

<u>Project Name:</u>	Peterson Farms, LLC Road Maintenance
<u>Purpose:</u>	Perform routine maintenance activities on access road for farming operations and inspections
<u>Project Size:</u>	0.25 acres
<u>Location:</u>	Parcel ID 250020200, Flying Cloud Drive, Chanhassen, MN
<u>Applicable LMRWD Rules:</u>	Rule C
<u>Recommended Board Action:</u>	Approval

Discussion

Rule B—Erosion and Sediment Control

In his project, Mr. Notermann proposes maintenance activities necessary to restore the farm access road to its previous condition. The proposed disturbance affects 0.25 acres, which is less than the one-acre land disturbance threshold required to trigger Rule B.

Rule C—Floodplain and Drainage Alteration

The project is located in the 100-year FEMA floodplain and floodway, and a District permit is required for land alteration or placement of fill below the floodplain. The project proposes restoring the existing roadbed to its previous condition and does not include any new fill or other land alterations; thus, the project is not expected to unduly restrict flood flows or increase flood elevation levels.

Rule D—Stormwater Management

The District requires stormwater management for projects that create more than one acre of new impervious surfaces. This project does not propose creating any impervious areas as part of the maintenance repair work; therefore, Rule D is not applicable.

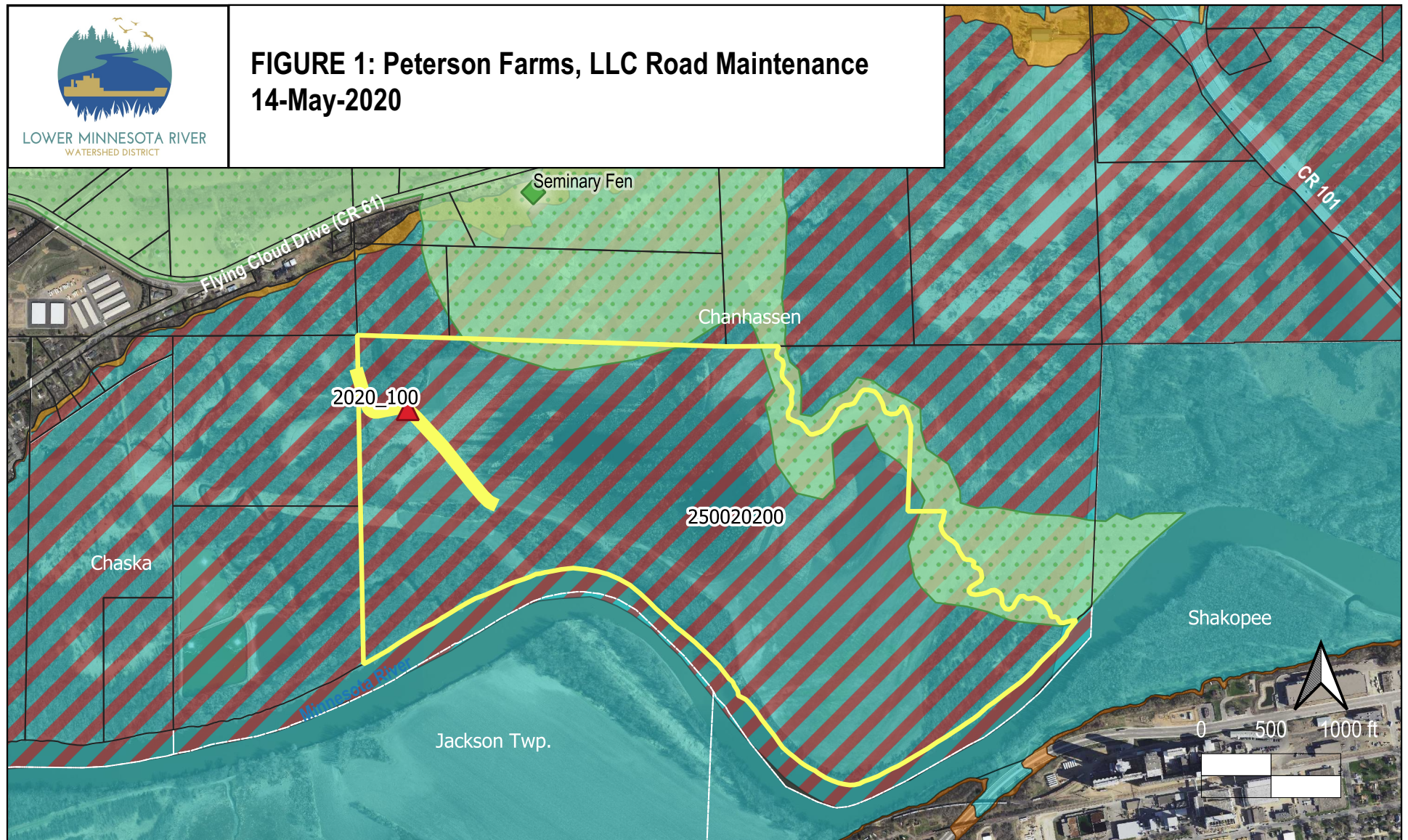
Recommendations

While it is located in the 100-year floodplain, the project is not expected to increase flood elevations or reduce flood storage capacity; thus, staff recommends that the proposed road maintenance project at Flying Cloud Drive be approved. If the proposal changes significantly, Mr. Notermann must provide the District with a narrative summarizing the changes and showing the project's compliance with Rule C or other rules it may trigger.



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

**FIGURE 1: Peterson Farms, LLC Road Maintenance
14-May-2020**



LEGEND

LMRWD_Boundary

Approximate Project Location

Calcareous Fens

High Value Resource Area Overlay District

Carver Co. Parcel Data

Carver County Parcels

Peterson Farms, LLC Parcel

FEMA Floodplain

100-yr Floodway

100-yr Floodplain

500-yr Floodplain



LOWER MINNESOTA RIVER WATERSHED DISTRICT PROJECT REVIEW

Project ID	2020_0100	Authorization Agent	Bert Notermann
Project Name	Peterson Farms Road Maintenance	Email Address	bbnoter1@aol.com
Organization	Peterson Farms	Phone Number	9522402515
Notes	5/6/2020 - Received application thru website		

Project Summary

Anticipated start date	5/25/2020	Date received	5/6/2020
Project location	Co. Rd 61, Chanhassen, MN	Project map included?	<input type="checkbox"/>
Project acres	0.25	Is the project in an unincorporated area?	<input type="checkbox"/>
Total disturbed acres	0.25	Is it located in a High Value Resource Area	<input checked="" type="checkbox"/>
New impervious acres	0	Is it located in a Steep Slope Overlay District	<input type="checkbox"/>
Local Partners	n/a	Other Sensitive Areas	Applicant self identified project is located in the floodplain

Project Description

Maintain farm road. This road needs to be maintained for the DNR and US Dept of Agriculture for inspections and also for farming operations.

Additional Notes

5/6/20 - received application via website

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 rule does not apply.

Triggers

Disturbs one acre plus ☐

Located within the HVRA
Overlay District ☐

Meets the HVRA threshold ☐

Criteria

Erosion and Sediment Control Plan ☐

Inspection and maintenance addressed ☐

NPDES/SDS General Construction
Permit documentation ☐

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

Additional Notes

5/6/20 - maintenance activities on existing farm road - portions of the parcel are located in the HVRA, but the project limits are outside.

Floodplain Drainage Alteration

This rule does not apply.

Triggers

Changes in water surface elevation of
floodplain ☐

If yes,

Compensatory storage equal
or greater than volume of fill ☐

If no,

No-rise certification by a
professional engineer ☐

Calculations by a professional engineer
demonstrating no decrease to
conveyance ☐

Conveyance capacity decrease below
100yr high water elevation ☐

Temporary placement of fill ☐

Criteria

Net decrease of storage capacity OR
increase in 100yr elevation ☐

Will floodplain storage be created ☐

Adverse impacts to water quality,
habitat, or fisheries ☐

New structures have 2ft+ between
lowest enclosed area's floor and 100yr
high water elevation ☐

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

Additional Notes

5/6/20 - maintenance activities on existing farm road along Minnesota River. The applicant is requesting to restore the road to its previously constructed conditions and will not be placing additional fill in the floodway.

Stormwater Managment

This rule does not apply.

Type of project Linear

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

☐

Project will result in a net decrease of TP and TSS

☐

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

☐

Volume control requirements sufficiently addressed

☐

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

☐

Alternative Infiltration Measures

Additional Notes

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

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Della Schall Young, CPESC, PMP

Date: April 13, 2020

Re: Minnesota Bluffs LRT Regional Trail Repair – Final Project Review

CC: John Kolb, Attorney
Rinke Noonan

Young Environmental Consulting Group, LLC (Young Environmental), as requested by the Lower Minnesota River Watershed District (LMRWD or District), completed the preliminary review of the Minnesota Bluffs LRT Regional Trail Repair Project (the Project). The attached January 6, 2020, memo highlights the outstanding items below, which were conveyed to both Hennepin County Regional Rail Authority (HCCRA, the project's owner) and Barr Engineering Company (Barr, the project's design engineering company):

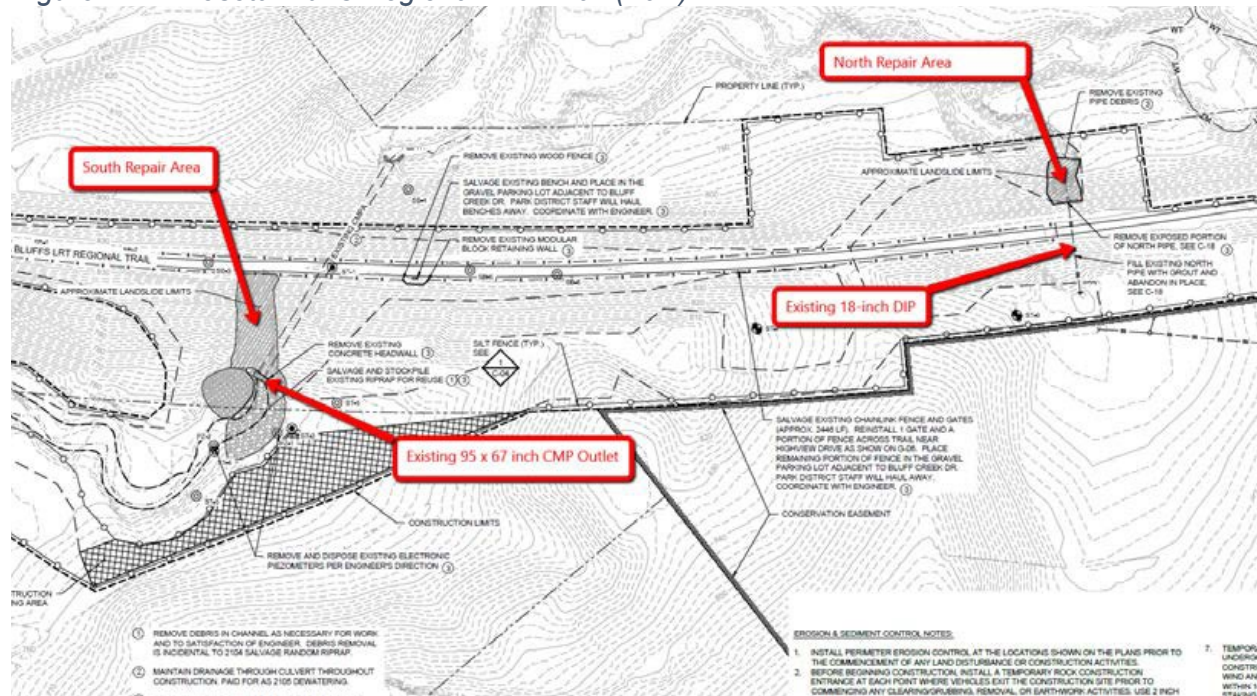
- Drainage calculations reflecting the effects of the Project on existing hydrology and drainage patterns.
- Long-term operation and maintenance agreement for the permanent stormwater management system.
- Final plans with the engineer's seal and signature, signifying the engineer on record certifies the suitability of the slopes for the proposed construction.

HCCRA and Barr have addressed the outstanding items as follows:

- *Drainage Calculations:* On January 21, 2020, Barr provided the Project's Hydraulic Design Summary Memorandum (Memo). The Memo provides the reasons for the changes to the existing conditions hydrology and hydraulics, as well as a summary of the design basis for the hydraulic structures implemented

(see Figure 1). Specifically, to fortify the existing drainage channel in the south repair area, the stream channel was armored with riprap, boulder cross-vanes, and a stilling basin to help mitigate future erosion. The modifications in the south repair area do not include the creation of new discharge points along the steep slopes. However, the proposed stream channel design represents a change to the existing hydrology. In the north repair area, the existing 18-inch culvert was abandoned and replaced with a channel and a new 24-inch culvert. Barr's analysis shows that water stored upstream of the proposed culvert will not cause flooding problems because enough storage is provided. Barr has provided satisfactory justification for the modifications to the hydrology, as they represent efforts to stabilize the slopes and accompanying drainage channels.

Figure 1: Minnesota Bluffs Regional LRT Trail (Barr)



- **Long-term Maintenance Agreement:** On April 8, 2020, HCRRA emailed the final draft agreement for maintenance. The agreement was been submitted to John Kolb, District Legal Counsel, for review.
- **Final Seal Plans:** On April 8, 2020, HCRRA provided the 100 percent plans. However, the engineer's name, signature, date, and license number are missing.

Recommendations

We recommend approval of the Project, conditioned on receiving the final executed Long-Term Maintenance Agreement addressing any comments generated by Legal Counsel and receipt of the final signed plans. If the Project significantly changes before or during construction, a narrative summarizing the proposed changes and how the

Project maintains compliance with District standards must be submitted to Linda Loomis, District Administrator.

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Shane Soukup, Water Resources Scientist
Della Schall Young, CPESC, PMP

Date: January 6, 2020

Re: Minnesota Bluffs LRT Regional Trail Repair – Project Review

Barr Engineering Co. (the Company) provided the Lower Minnesota River Watershed District (LMRWD or District) with plan sheets, including the stormwater pollution prevention plan (SWPPP), for the Minnesota Bluffs LRT Regional Trail Repair Project (the Project). The Company has asked the District to review the plan sheets to assess compliance with District standards. Young Environmental Consulting Group, LLC (Young Environmental) reviewed the plan sheets on the District's behalf; the findings are presented below.

The Project is located in the City of Chanhassen, on a segment of the Minnesota Bluffs LRT Regional Trail between Flying Cloud Drive and Pioneer Trail. In 2014, landslides and washouts occurred, closing the public's access to this portion of the trail. The Project consists of the repair and regrading of landslide damaged slopes, repair of damaged culverts, installation of storm sewer and manholes, and site restoration to reopen the trail. A new channel is also proposed, as part of the Project. The Project, located within the LMRWD Steep Slopes Overlay District, disturbs 7.22 acres of land and does not create a net change in impervious surface. The Project triggers the District's Erosion and Sediment Control Standard and the Steep Slopes Standard.

Erosion and Sediment Control Standard

The Project is required to comply with the NPDES General Construction Stormwater Permit (the General Permit), which satisfies most of the District's erosion and sediment control requirements. Included in the plans were site-specific erosion and sediment control details and plans and a comprehensive SWPPP. The following should be

included in the SWPPP narrative: Send the District a copy of the Project's General Permit and notify the District 48 hours before the start of construction.

Steep Slopes Standard

The Steep Slopes Standard (found in Appendix K of the District's Watershed Management Plan) requires the Project to comply with the following:

- 1) Land-disturbing activities as regulated in this section may occur within the Steep Slopes Overlay District, provided a qualified professional/professional engineer registered in the state of Minnesota certifies the suitability of the area for the proposed activities, structures, or uses resulting from the activities and the following requirements are addressed:
 - a) Minimum erosion and sediment control best management practices (BMPs) include site stabilization and slope restoration measures to ensure the proposed activity will not result in:
 - i) Adverse impacts to adjacent and/or downstream properties or water bodies;
 - ii) Unstable slopes conditions; and
 - iii) Degradation of water quality due to erosion, sedimentation, flooding, and other damage.
 - b) Preservation of existing hydrology and drainage patterns. Land-disturbing activities may not result in any new water discharge points on steep slopes or along the bluff.

Findings:

- The Project is intended to repair damage caused by landslides that occurred in 2014 and to regrade the slopes to improve trail safety and the suitability of the slopes.
- The plans include site-specific erosion and sediment control BMPs utilized for steep slopes, including erosion control blankets, seeding, horizontal slope grading, and terracing.
- A storm sewer and drainage channel are being constructed on the southern side of the trail using a turf reinforcement mat. An existing culvert, which crosses the trail on the northern edge of the Project, will be plugged. The new storm sewer runs parallel to the trail on the southern edge and serves to replace the drainage needs of the plugged culvert. The proposed storm sewer will drain into the newly constructed drainage channel, which outlets into a preexisting outlet for a culvert on the southern edge of the Project. Although the proposed alterations will not create a new discharge point along the steep slope, drainage calculations were not provided to determine the effects of the Project on existing hydrology and drainage patterns. In addition, Hennepin County Regional Railroad Authority's

long-term operation and maintenance plan for the permanent stormwater management system was not provided.

- The final plan documents must include the engineer's seal and signature, signifying the engineer on record certifies the suitability of the slopes for the proposed construction.

Recommendations

The information provided on the Project generally addresses the needs of the District's Erosion and Sediment Control Standard. However, there are several items associated with the Steep Slopes Standard that must be addressed before we can recommend approval of the Project. The Project proposer is encouraged to contact Della Schall Young at (651) 249-6974 or della@youngecg.com to discuss and address the outstanding requirements expeditiously. Otherwise, the Company should submit the final complete Project documents four weeks before a District Board meeting, which generally takes place on the third Wednesday of each month.

Enclosure: LMRWD 2019_085 Project Review Output



LOWER MINNESOTA RIVER WATERSHED DISTRICT PROJECT REVIEW

Project ID	2019_085	Authorization Agent	Sarah Johnson
Project Name	Minnesota Bluffs LRT Regional Trail Repair	Email Address	sjohnson@barr.com
Organization	Hennepin County Regional Railroad Authority	Phone Number	2182608025

Notes

Project Summary

Anticipated start date	12/16/2019 10:06:09 AM	Date received	12/12/2019
Project location	Chanhassen	Project map included?	<input checked="" type="checkbox"/>
Project acres	7.22	Is the project in an unincorporated area?	<input type="checkbox"/>
Total disturbed acres	7.22	Is it located in a High Value Resource Area	<input type="checkbox"/>
New impervious acres	0	Is it located in a Steep Slope Overlay District	<input checked="" type="checkbox"/>
Local Partners		Other Sensitive Area	

Project Description

This project involves erosion control, repair and regrading of landslide damaged slopes, repair of damaged culverts, installation of storm sewer and manholes and site restoration.

Additional Notes

Review Status

- | | |
|--|-------------------------------------|
| Is this a preliminary review? | <input checked="" type="checkbox"/> |
| Is this a permit review? | <input type="checkbox"/> |
| Does this project require a technical review | <input checked="" type="checkbox"/> |

Project Status

- | | |
|---------------------------|-------------------------------------|
| Project is pending | <input checked="" type="checkbox"/> |
| Project is active | <input type="checkbox"/> |
| Project has been archived | <input type="checkbox"/> |

Erosion and Sediment Control Standard

This project triggers one or more thresholds for this standard.

Triggers

- | | |
|--|-------------------------------------|
| Disturbs one acre plus | <input checked="" type="checkbox"/> |
| Located within the HVRA Overlay District | <input type="checkbox"/> |
| Meets the HVRA threshold | <input type="checkbox"/> |

Criteria

- | | |
|---|-------------------------------------|
| Erosion and Sediment Control Plan | <input checked="" type="checkbox"/> |
| Inspection and maintenance addressed | <input checked="" type="checkbox"/> |
| NPDES/SDS General Construction Permit documentation | <input type="checkbox"/> |

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

Additional Notes

12/18/19 - Initial review of the project completed. District requests:

- Send the District a copy of the Project's NPDES General Permit and notify the District 48 hours before the start of construction.

Floodplain Drainage Alteration Standard

This standard does not apply.

Triggers

- | | |
|--|--------------------------|
| Changes in water surface elevation of floodplain | <input type="checkbox"/> |
| <i>If yes,</i> Compensatory storage equal or greater than volume of fill | <input type="checkbox"/> |
| <i>If no,</i> No-rise certification by a professional engineer | <input type="checkbox"/> |

Criteria

- | | |
|---|--------------------------|
| Net decrease of storage capacity OR increase in 100yr elevation | <input type="checkbox"/> |
| Will floodplain storage be created | <input type="checkbox"/> |

- | | |
|--|--------------------------|
| Calculations by a professional engineer demonstrating no decrease to conveyance | <input type="checkbox"/> |
| Conveyance capacity decrease below 100yr high water elevation | <input type="checkbox"/> |
| Temporary placement of fill | <input type="checkbox"/> |
| Adverse impacts to water quality, habitat, or fisheries | <input type="checkbox"/> |
| New structures have 2ft+ between lowest enclosed area's floor and 100yr high water elevation | <input type="checkbox"/> |

Additional Notes

Stormwater Management Standard

This standard does not apply.

Type of project

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

☐

Is maintenance adequately addressed

☐

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

☐

Project will result in a net decrease of TP and TSS

☐

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

☐

Volume control requirements sufficiently addressed

☐

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

☐

Alternative Infiltration Measures

Additional Notes

Shoreline and Streambank Alteration Standard

This standard does not apply.

Triggers

Work or alternation below the ordinary high-water mark ☐

Work within the bankfull height of a watercourse ☐

Addition of new material or structural changes to the shoreline or streambank ☐

Criteria

Obtained a DNR permit ☐

Is a copy of the permit included ☐

Shoreline stabilized with minimal encroachment/interference of flow or navigation ☐

Are retaining walls used ☐

Is there a demonstrated need for the wall(s) ☐

Has a registered engineer certified the wall design ☐

Will riprap be placed and sized appropriately ☐

Will transitional layers meet requirements ☐

Will riprap meet height requirements ☐

Will shoreline erosion protection account for soils, wave energy, and ice pressure/movement ☐

Additional Notes

Steep Slopes Standard

This project triggers one or more thresholds for this standard.

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 ☐

The submission included the required documentation for this standard.

Additional Notes

12/18/19 - Initial District Review

- A storm sewer and drainage channel are being constructed on the southern side of the trail using a turf reinforcement mat. An existing culvert, which crosses the trail on the northern edge of the

Project, will be plugged. The new storm sewer runs parallel to the trail on the southern edge and serves to replace the drainage needs of the plugged culvert. The proposed storm sewer will drain into the newly constructed drainage channel, which outlets into a preexisting outlet for a culvert on the southern edge of the Project. Although the proposed alterations will not create a new discharge point along the steep slope, drainage calculations were not provided to determine the effects of the Project on existing hydrology and drainage patterns. In addition, Hennepin County Regional Railroad Authority's long-term operation and maintenance plan for the permanent stormwater management system was not provided.

- The final plan documents must include the engineer's seal and signature signifying the engineer on record certifies the suitability of the slopes for the proposed construction.

Water Appropriations Standard

This standard does not apply.

Triggers

Is the project in the HVRA Overlay District ☐

Did the project apply for a DNR Water Appropriations Permit ☐

Will the project withdrawal more than 10,000 gallons per day ☐

Is a copy of the DNR Water Appropriations Permit included with the submission documents ☐

Will the project withdrawal more than 1 million gallons per year ☐

Has the LMRWD reviewed the DNR Water Appropriations Permit ☐

Criteria

Have documents demonstrated no net change in groundwater levels to adjacent fens ☐

Discharge management plan ☐

Has the plan been reviewed AND accepted by the LMRWD ☐

Additional Notes

Water Crossings Standard

This standard does not apply.

Triggers

Horizontal drilling under a road, highway, utility, bridge, boardwalk or associated structure that is in contact with the bed/bank of a waterbody ☐

Placement of a road, highway, utility, bridge, boardwalk or associated structure in contact with the bed/bank of a waterbody ☐

Altering a waterbody to enclose it within a pipe or culvert ☐

Construction timed to avoid spawning ☐

Aquatic/upland wildlife passages preserved ☐

Hydraulic and navigation capacity retained ☐

Analysis of the effects of the project on the stream/waterway by a qualified professional ☐

Designated trout stream, or contain endangered or threatened species ☐

Status of additional consultation with LMRWD

Criteria

Is the DNR manual "Best Practices for Meeting DNR General Public Waters Work Permit GP 2004-0001" followed ☐

Maintenance agreement ☐

Additional Notes

**AGREEMENT FOR MAINTENANCE OF STORMWATER FACILITIES
BETWEEN LOWER MINNESOTA RIVER WATERSHED DISTRICT AND
HENNEPIN COUNTY REGIONAL RAILROAD AUTHORITY**

This Agreement for the Maintenance of Stormwater Facilities (“**Maintenance Agreement**”) is made by and between the Lower Minnesota River Watershed District, a political subdivision and special-purpose local government unit of the State of Minnesota (“**LMRWD**”), and Hennepin County Regional Railroad Authority, a political subdivision and local government unit of the State of Minnesota (“**HCRRA**”). LMRWD and HCRRA are referred to collectively herein as the **Parties**.

RECITALS

WHEREAS, LMRWD has the purposes and powers set forth in Minnesota Statutes Chapters 103B and 103D; and

WHEREAS, pursuant to Minnesota Statutes § 103D.335, the LMRWD adopted and enforces standards for improvements that may impact water resources, and which regulate the design, construction, and maintenance of drainage systems or facilities within its jurisdiction; and

WHEREAS, HCRRA owns property it intends to improve for the purpose of repairing the Minnesota Bluffs LRT Regional Trail (“**Property**”); and

WHEREAS, the Property is described and depicted in Exhibit A, attached hereto and incorporated herein; and

WHEREAS, LMRWD adopted and enforces the Stormwater Management Standard, regulating the improvements that HCRRA wishes to make to the existing drainage and stormwater management system or facilities located on the Property in Carver County, Minnesota (“**Facilities**”), as shown in the site plan in Exhibit B, attached hereto and incorporated herein; and

WHEREAS, the Facilities require ongoing inspection and maintenance; and

WHEREAS, the Maintenance and Easement section of the Stormwater Management Standard requires a private landowner to record in the recorder's office where its drainage and stormwater system or facilities are located, a maintenance agreement which memorializes a plan and a perpetual obligation to inspect and maintain its stormwater system and/or facilities; and

WHEREAS, a public landowner may meet the aforementioned recording requirement by entering a written agreement with the LMRWD which memorializes a plan and a perpetual obligation to inspect and maintain its drainage and stormwater system or facilities; and

WHEREAS, in accordance with the LMRWD rules and regulations, and as a condition precedent to LMRWD's grant of approval on _____, _____. 2020 of HCRRA's plans to improve the Facilities, the HCRRA must enter a written agreement with LMRWD which memorializes its plan and its perpetual obligation to inspect and maintain the Facilities; and

WHEREAS, the Parties executed this Maintenance Agreement to satisfy the condition precedent to LMRWD's grant of approval on approval on __, _____. 2020 of HCRRA's plans to improve the Facilities.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual and reciprocal promises, LMRWD and HCRRA hereby agree as follows:

1. **Recitals.** All of the Recitals set forth above are incorporated herein.
2. **Stormwater Management Standard.** LMRWD hereby agrees that this Maintenance Agreement fully satisfies LMRWD's inspection, maintenance, reporting, and property transfer requirements.
3. **Facilities.** (a) The HCRRA, at its sole cost, shall inspect and maintain the Facilities in perpetuity as follows:

(1) **Raingardens, infiltration basins and filtration basins.** Infiltration basins and filtration basins shall be inspected annually to ensure continued live storage capacity at or above the design volume. Invasive vegetation, excess sediment and debris shall be removed as needed, and healthy plant growth shall be maintained to ensure that the Facilities remain in a condition that continues to accomplish the purposes for which they were designed, constructed and permitted.

(2) **Grit chambers, sump catch basins and sump manholes.** Grit chambers, sump catch basins, and sump manholes shall be inspected in the spring, summer and fall of each year. All sediment and debris shall be removed as needed to ensure that the Facilities operate as designed and constructed, and in a condition that continues to accomplish the purposes for which they were designed, constructed and permitted.

3. **Reporting.** By January 31 of each year, HCRRA shall submit a brief, annual report to LWMRD that describes the inspection and maintenance activities performed to the Facilities under this Maintenance Agreement in the preceding calendar year. The report shall include the dates and locations of any inspections and maintenance activities performed to the Facilities.
4. **Property Transfer.** (a) If the HCRRA conveys a fee interest in any portion of the Property to a private rather than a public owner ("**Private Purchaser**"), then the HCRRA shall require as a condition of that purchase and sale agreement, and shall enforce the following condition:

(1) The Private Purchaser must record with in the Carver County Recorder's Office, a declaration on the Property that incorporates the maintenance requirements of this Maintenance Agreement; and

(2) Said recording required under Section 4(a)(1) of this Maintenance Agreement must occur either before any other encumbrance is recorded on the Property or, if after, only as accompanied by a subordination and consent executed by the encumbrance holder ensuring that the declaration will run with the land in

perpetuity.

(b) If the HCRRA conveys a fee interest in any portion of the Property that has become subject to this Maintenance Agreement to a public rather than private owner, ("**Public Purchaser**"), then the HCRRA shall require as part of that conveyance that the Public Purchaser accept an assignment of all obligations of HCRRA under this Maintenance Agreement.

(c) If the HCRRA transfers any ownership or responsibilities under this Maintenance Agreement to a Private Purchaser or to a Public Purchaser, then the HCRRA must notify the LMRWD of the details of that transfer.

4. **Assignment of Rights and Obligations.** The HCRRA may assign and transfer any rights and obligations under this Maintenance Agreement to Carver County without the written approval of LMRWD. Carver County may subsequently assign and transfer any rights and obligations under this Maintenance Agreement that it accepts from HCRRA to the Carver County Regional Railroad Authority without the written approval of LMRWD. Any other assignment or transfer of any rights or obligations under this Maintenance Agreement requires the written permission of LMRWD.
5. **Effective Date.** This Maintenance Agreement shall be effective when executed by all of the Parties.
6. **Amendments and Termination.** This Maintenance Agreement may be amended and terminated only in a writing signed by the Parties.

[SIGNATURE PAGE FOLLOWS]

LOWER MINNESOTA RIVER WATERSHED DISTRICT AUTHORIZATION

IN WITNESS THEREOF, the Lower Minnesota River Watershed District has caused this Maintenance Agreement to be executed by its _____ and by its _____, pursuant to the authority of its _____, its governing body, on this _____ day of _____, _____.

SIGNED: _____ DATE: _____

Print Name and Position

SIGNED: _____ DATE: _____

Print Name and Position

IN WITNESS THEREOF, the HCRRA has caused this Maintenance Agreement to be executed by its Chair and Executive Director, pursuant to the authority of the Hennepin County Board of Commissioners, its governing body, on this _____ day of _____, _____.

Reviewed by the County
Attorney's Office

Date: _____

HENNEPIN COUNTY REGIONAL
RAILROAD AUTHORITY
STATE OF MINNESOTA

By: _____
Chair of Its Board
Date: _____

ATTEST: _____
Deputy/Clerk of County Board
Date: _____

HCRRA AUTHORIZATION

By: _____
Executive Director
Date: _____

By: _____
Deputy Executive Director
Date: _____

Recommended for Approval:

Director, Community Works
Date: _____

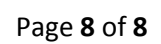
EXHIBIT A

(Property Description and Depiction)

(Legal Description of Property)

All that part of a variable width strip of land in Sections 36 and 25, Township 116, Range 23, Carver County, Minnesota, being former railroad right of way as shown on HENNEPIN COUNTY REGIONAL RAILROAD AUTHORITY PROPERTY MAP NO.'s 15 and 16, according to the recorded Maps thereof, said Carver County, lying easterly of the east line of the 66.00 foot wide strip depicted and labelled as "STATE HIGHWAY NO 101" in said Property Map No. 15.

(Site Plan of Facilities)



Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

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

Date: May 15, 2020

Re: 565 Lakota Lane Septic Variance Request Review (Permit No. 2020_101)

The City of Chanhassen (City) provided the Lower Minnesota River Watershed District (LMRWD or District) with a project review request for 565 Lakota Lane (Parcel ID 251300010). The landowner is installing a new mound septic system on the northwest corner of their property (**Figure 1**), and the City has requested agency review of the project. The project is not in a high value resource area overlay district. However, it may be in the District's Steep Slopes Overlay District, triggering review of the project for required compliance with the District's Rule F—Steep Slopes Rule. Rule B—Erosion and Sediment Control—and Rule D—Stormwater Management—may apply, and therefore, compliance with those requirements were also checked.

Summary

<u>Project Name:</u>	565 Lakota Lane Septic Variance
<u>Purpose:</u>	Construction of new septic system at 565 Lakota Lane
<u>Project Size:</u>	2.57-acre parcel, ~2,500 square feet of disturbance, no new impervious surface
<u>Location:</u>	Parcel ID 250020200, Flying Cloud Drive, Chanhassen, MN

<u>Applicable LMRWD Rules:</u>	565 Lakota Lane, Chanhassen, MN
<u>Recommended Board Action:</u>	No action, incomplete application/additional information required.

Discussion

The District has been provided the following documents for our review:

- Agency Review Request from City of Chanhassen, dated May 4, 2020
- Percolation Tests, Soil Borings, and Septic Design by Bohn Well Drilling Co., dated April 8, 2020
- Certificates of Survey by Pioneer Engineering, dated March 10, 2020, and April 2, 2020
- Application for Development Review, dated May 1, 2020
- Fee Breakdown
- Letter from Landowners, dated April 20, 2020
- Notice of Public Hearing, to be published in the *Chanhassen Villager* on May 21, 2020
- Property Card, dated April 27, 2020

Rule B—Erosion and Sediment Control

The project proposes minor grading activities necessary to install a mound septic system to serve the residence at 565 Lakota Lane. The District's Rule B applies to activities that disturb one or more acres of land; as such, this rule does not apply.

Rule D—Stormwater Management

The District requires stormwater management for projects that propose to create more than one acre of new impervious surfaces. This project does not include any new impervious area as part of the construction of the septic system; therefore, Rule D does not apply.

Rule F—Steep Slopes Rule

The District regulates land disturbing activities within the Steep Slopes Overlay District (SSOD) and requires a permit for activities that involve the excavation of 50 cubic yards or more of earth or the displacement or removal of 5,000 square feet or more of surface area or vegetation within the overlay area. Based on the information provided, the proposed septic mound is located outside of the SSOD; however, the proposed tanks may be located on or within that boundary. We will need additional information provided demonstrating the construction of the tanks will be in compliance with the District's Rule

F or is outside of the SSOD and therefore not applicable.

Recommendations

Because of the uncertainty of the location of the tanks, we recommend authorizing staff to collect additional information from the applicant confirming their location. District Staff would ask the applicant to provide evidence that the entire project is located outside of the SSOD. Following receipt of the information, we will update our recommendations.

Attachments:





Figure 1—Proposed Project Location Map

LMRWD Permit Review Checklist

FIGURE 1: 565 Lakota Lane Variance Request 14-May-2020



LEGEND

- | | |
|---|---|
| Carver Co. Parcel Data |  Proposed Septic Mound and Tanks |
|  565 Lakota Lane |  Steep Slopes Overlay District |
|  Carver County Parcels | |



LOWER MINNESOTA RIVER WATERSHED DISTRICT PROJECT REVIEW

Project ID	2020_0101	Authorization Agent	Heather Silva
Project Name	565 Lakota Ln Septic Variance	Email Address	heather.lynn.silva@gmail.com
Organization	Private Resident	Phone Number	9524849366

Notes 5/4/20 - Received agency review request from City of Chanhassen

Project Summary

Anticipated start date	5/12/2020 10:06:33 AM	Date received	5/4/2020
Project location	565 Lakota Ln, Chaska, MN	Project map included?	<input type="checkbox"/>
Project acres	0	Is the project in an unincorporated area?	<input type="checkbox"/>
Total disturbed acres	0	Is it located in a High Value Resource Area	<input type="checkbox"/>
New impervious acres	0	Is it located in a Steep Slope Overlay District	<input checked="" type="checkbox"/>
Local Partners	n/a	Other Sensitive Area	

Project Description

Consider a request for setback variances to install a septic system in the NW corner of property located at 565 Lakota Lane.

Additional Notes

5/4/20 - Received agency review request from City of Chanhassen

Review Status

- | | |
|---|-------------------------------------|
| Is this a preliminary review? | <input type="checkbox"/> |
| Is this a permit review? | <input checked="" type="checkbox"/> |
| Does this project require a technical review? | <input type="checkbox"/> |

Project Status

- | | |
|---------------------------|-------------------------------------|
| Project is pending | <input checked="" type="checkbox"/> |
| Project is active | <input type="checkbox"/> |
| Project has been archived | <input type="checkbox"/> |

Erosion and Sediment Control

This rule does not apply.

Triggers

Disturbs one acre plus ☐

Located within the HVRA
Overlay District ☐

Meets the HVRA threshold ☐

Criteria

Erosion and Sediment Control Plan ☐

Inspection and maintenance addressed ☐

NPDES/SDS General Construction
Permit documentation ☐

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

Additional Notes

5/12/20 - total land disturbance not provided, however assumed to fall under "minor" category

Floodplain Drainage Alteration

This rule does not apply.

Triggers

Changes in water surface elevation of
floodplain ☐

If yes,

Compensatory storage equal
or greater than volume of fill ☐

If no,

No-rise certification by a
professional engineer ☐

Calculations by a professional engineer
demonstrating no decrease to
conveyance ☐

Conveyance capacity decrease below
100yr high water elevation ☐

Temporary placement of fill ☐

Criteria

Net decrease of storage capacity OR
increase in 100yr elevation ☐

Will floodplain storage be created ☐

Adverse impacts to water quality,
habitat, or fisheries ☐

New structures have 2ft+ between
lowest enclosed area's floor and 100yr
high water elevation ☐

Additional Notes

5/12/20 - no floodplain on property

Stormwater Managment

This rule does not apply.

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

☐

Project will result in a net decrease of TP and TSS

☐

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

☐

Volume control requirements sufficiently addressed

☐

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

☐

Alternative Infiltration Measures

Additional Notes

5/12/20 - stormwater rule does not apply

Steep Slopes

This project triggers one or more thresholds for this rule.

Triggers

Is the project in the Steep Slopes Overlay District	<input checked="" type="checkbox"/>
Excavation of 50 cubic yards+ of earth	<input checked="" type="checkbox"/>
Displacement of 5,000 sq. ft+ of earth	<input checked="" type="checkbox"/>
Vegetation removal or displacement	<input checked="" type="checkbox"/>
Activities that require LGU permits	<input checked="" type="checkbox"/>

Criteria

Has the project been certified by a professional engineer	<input type="checkbox"/>
Adverse impact to waterbodies	<input type="checkbox"/>
Unstable slope conditions	<input type="checkbox"/>
Degradation of water quality	<input type="checkbox"/>
Preservation of existing hydrology	<input type="checkbox"/>
New discharge points along slope	<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

5/12/20 - project proposes a new septic system for 565 Lakota Lane, only feasible location is NW corner, avoiding the steep slopes overlay district. Agree with proposed placement.

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

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

Date: May 15, 2020

Re: Structures, Inc., Initial Project Review (Permit No. 2020_102)

The City of Chaska provided the Lower Minnesota River Watershed District (District) with the Stormwater Management Plan for the Structures, Inc., proposed development (Project). HGA Architects and Anderson Engineering of Minnesota, LLC, are proposing to develop the parcel for industrial purposes and expand the existing stormwater pond to provide treatment for the new development. The proposed Project is not in a high value resource area overlay district or a steep slope overlay district.

Summary

<u>Project Name:</u>	Structures, Inc.
<u>Purpose:</u>	Construction of new office/warehouse, parking lot, and storage yard for Structures, Inc.
<u>Project Size:</u>	5.25-acre parcel, 4.94 acres of disturbance, 1.521 acres of new impervious surface
<u>Location:</u>	Southwest corner of Arbor Drive and Old Audubon Road, Chaska, MN (Parcel ID 301460020)
<u>Applicable LMRWD Rules:</u>	Rule B—Erosion and Sediment Control, Rule D—Stormwater Management

Recommended Board Action: No action, incomplete application

Discussion

HGA Architects and Anderson Engineering of Minnesota, LLC, are proposing to construct a new office and warehouse building, parking lot, and storage yard located in the southwest corner of Arbor Drive and Old Audubon Street in Chaska, Minnesota (Carver County Parcel ID: 301460020, Out-lot A of the East Creek Carriage Homes Subdivision). The District has been provided with the following documents for our review:

- Storm Water Management Plan, dated March 27, 2019, revised April 29, 2020, by Anderson Engineering of MN, LLC
- City of Chaska's Stormwater Review of Structures, Inc., Memo, dated May 12, 2020, by Stantec
- The proposed project is located in the City of Chaska and normally would be subject to municipal review; however, the City of Chaska does not have an approved Municipal Permit with the District. 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 (HVRA) Overlay District under Rule B. The proposed project disturbs 4.94 acres. The applicant provided an erosion and sediment control plan, but to complete our review, the applicant must also submit the following:

- Stormwater Pollution Prevention Plan
- Stormwater Maintenance Agreement

Rule D—Stormwater Management

The District requires stormwater management for projects that propose to create more than one acre of new impervious surfaces. The stormwater management for the project must meet District criteria for rate control, volume reduction, and water quality. Below is a summary of our review of how those criteria are met by the project.

Rate Control

Section 4.4.1 of Rule D requires that applicants demonstrate no increase in proposed runoff rates when compared to existing conditions. The rate control requirement for the proposed development is met by a proposed expansion of an

existing stormwater pond currently serving the East Creek Carriage Homes subdivision. A summary of the provided results appears in **Table 1** below.

Table 1. Structures, Inc., Rate Control Summary

EVENT	EXISTING (CFS)	PROPOSED (CFS)	Δ (CFS)
2-YR 24-HR	2.23	2.05	-0.18
10-YR 24-HR	3.02	2.85	-0.17
100-YR 24-HR	6.99	4.85	-2.14
100-YR 10-DAY (SNOW)	3.86	3.52	-0.34

It should be noted that the HydroCAD modeling contains an error; some of the catchments (1S, 2S, 3S, 10S, and 20S) are using a Type B hydrologic soil group, while the soil borings indicate clay, and peat deposits cover much of the site. Please revise the existing and proposed models to reflect the soil boring information.

By expanding the existing East Creek Carriage Homes' stormwater pond, the proposed development is able to meet the District's rate control requirements without reducing the freeboard of the pond.

Volume Reduction

Section 4.4.2 of Rule D requires volume reduction for postconstruction stormwater runoff volumes for projects that create more than one acre of impervious surface. No information has been provided.

Water Quality

Section 4.4.3 of Rule D requires that projects that create more than one acre of impervious surface provide evidence that no net increase will result from the project in total phosphorus (TP) or total suspended solids (TSS) in the receiving waters. The Structures, Inc., project proposes to use an existing stormwater pond to meet the required water quality control requirement; the applicant must demonstrate that the modification of the East Creek Carriage Homes' stormwater pond will not result in an overall net reduction in water quality benefits. They must ensure that the existing pond will continue to provide the water quality treatment originally intended, as well as provide the required water quality benefits for the proposed Structures, Inc., development.

The District also requires applicants to develop and adhere to a stormwater maintenance plan for the project, including acquisition of any necessary easements.

Recommendations

We are unable to complete our review of the Structures, Inc., development because the required submittals for Rule B—Erosion and Sediment Control and Rule D—Stormwater Management were not provided. The applicant must provide the following for us to complete our review:

- Stormwater Pollution Prevention Plan
- Stormwater Maintenance Agreement
- Stormwater volume reduction calculations
- Stormwater water quality calculations and demonstration of the following:
 - The proposed modifications to the existing East Creek Carriage Homes' stormwater pond will not reduce the water quality treatment currently provided for the pond for the subdivision.
 - The proposed modifications are sufficient to meet the District's water quality criteria for the proposed Structures, Inc., development.

We recommend that the current application be deemed incomplete and that the Board direct District staff to work with the applicant. We also recommend that the applicant submit a permit application through the new LMRWD Rules website.

Attachments:

Figure 1—Proposed Project Location Map

LMRWD Permit Review Checklist



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

FIGURE 1: Structures, Inc. Development Review 15-May-2020



LEGEND

- | | | |
|------------------------|-----------------------|-------------------------------|
| LMRWD Boundary | Carver Co. Floodplain | Steep Slopes Overlay District |
| Carver Co. Parcel Data | 100-yr Floodway | HVRA Overlay District |
| Structures, Inc. | 100-yr Floodplain | |
| Carver County Parcels | 500-yr Floodplain | |



LOWER MINNESOTA RIVER WATERSHED DISTRICT PROJECT REVIEW

Project ID	2020_0102	Authorization Agent	Brian Field
Project Name	Structures, Inc.	Email Address	
Organization	HTG Architects	Phone Number	7634124090

Notes

Project Summary

Anticipated start date	5/13/2020 10:44:38 AM	Date received	5/4/2020
Project location	Chaska, MN	Project map included?	<input checked="" type="checkbox"/>
Project acres	5.25	Is the project in an unincorporated area?	<input type="checkbox"/>
Total disturbed acres	4.94	Is it located in a High Value Resource Area	<input type="checkbox"/>
New impervious acres	1.521	Is it located in a Steep Slope Overlay District	<input type="checkbox"/>
Local Partners	Other Sensitive Areas		
n/a			

Project Description

The project includes site clearing and demolishing of an existing agricultural field, construction of a new office/warehouse building and parking lot, and excavation and reconfiguration of the existing stormwater pond on the south side of the property. Water will be conveyed around the new building via swales and a new storm sewer system.

Additional Notes

5/4/2020 - Received application
5/13/2020 - Received City of Chaska review

Review Status

Is this a preliminary review?	<input checked="" type="checkbox"/>
Is this a permit review?	<input checked="" type="checkbox"/>
Does this project require a technical review	<input checked="" type="checkbox"/>

Project Status

Project is pending	<input checked="" type="checkbox"/>
Project is active	<input type="checkbox"/>
Project has been archived	<input type="checkbox"/>

Erosion and Sediment Control

This project triggers one or more thresholds for this rule.

Triggers

- | | |
|--|-------------------------------------|
| Disturbs one acre plus | <input checked="" type="checkbox"/> |
| Located within the HVRA Overlay District | <input type="checkbox"/> |
| Meets the HVRA threshold | <input type="checkbox"/> |

Criteria

- | | |
|---|-------------------------------------|
| Erosion and Sediment Control Plan | <input checked="" type="checkbox"/> |
| Inspection and maintenance addressed | <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

5/5/2020 - ESC and partial SWPPP provided; inspection & maintenance agreement not included

Floodplain Drainage Alteration

This rule does not apply.

Triggers

Changes in water surface elevation of floodplain ☐

If yes,

Compensatory storage equal or greater than volume of fill ☐

If no,

No-rise certification by a professional engineer ☐

Calculations by a professional engineer demonstrating no decrease to conveyance ☐

Conveyance capacity decrease below 100yr high water elevation ☐

Temporary placement of fill ☐

Criteria

Net decrease of storage capacity OR increase in 100yr elevation ☐

Will floodplain storage be created ☐

Adverse impacts to water quality, habitat, or fisheries ☐

New structures have 2ft+ between lowest enclosed area's floor and 100yr high water elevation ☐

Additional Notes

Stormwater Managment

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



Is maintenance adequately addressed



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



Project will result in a net decrease of TP and TSS



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



Volume control requirements sufficiently addressed



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



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

Additional Notes

5/13/2020:

1. Soil borings & SWMP state that soils are clay (Type D), existing conditions and offsite drainage areas in HydroCAD are using Type B soils - please revise.
2. Infiltration not feasible due to high groundwater and clay soils.
3. 1-yr 24-hr HydroCAD models not provided, but 2-year 24-hr design storm is sufficient.
4. Per Section 4.4.3 of Rule D, projects with more than 1 acre of new impervious surface must demonstrate no net increase in TP and TSS will result from the project. Proposed reduction in TP

and TSS loading calculations were not provided.
5. Stormwater maintenance plan and agreement were not provided.

Steep Slopes

This rule does not apply.

<u>Triggers</u>		<u>Criteria</u>	
Is the project in the Steep Slopes Overlay District	<input type="checkbox"/>	Has the project been certified by a professional engineer	<input type="checkbox"/>
Excavation of 50 cubic yards+ of earth	<input type="checkbox"/>	Adverse impact to waterbodies	<input type="checkbox"/>
Displacement of 5,000 sq. ft+ of earth	<input type="checkbox"/>	Unstable slope conditions	<input type="checkbox"/>
Vegetation removal or displacement	<input type="checkbox"/>	Degradation of water quality	<input type="checkbox"/>
Activities that require LGU permits	<input type="checkbox"/>	Preservation of existing hydrology	<input type="checkbox"/>
		New discharge points along slope	<input type="checkbox"/>

Additional Notes