



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday November 20, 2019

Agenda Item

Item 6. C - Dredge Management

Prepared By

Linda Loomis, Administrator

Summary

i. Funding for dredge material management

The grant agreement for the State funding of the dredge project was approved under the consent agenda.

ii. Vernon Avenue Dredge Material Management site

The USACE was not able to complete its planned dredging of the navigation channel. Dredging was begun, but crews were pulled off the river because of high water. There are no plans to complete any dredging this year.

This is perfect timing for construction. Staff has the construction specifications ready to publish the request for bids. A review of the construction plans and stormwater management plan is attached. A pre-bid meeting is scheduled for Thursday, November 21 at 10:00am at Barr Engineering. Bids will be opened December 3rd, allowing staff time to evaluate bids and make a recommendation to the Board at the December meeting.

Staff has reviewed the plans and SWPPP (Storm Water Pollution Prevention Plan). Comments are attached.

iii. Private Dredge Material Placement

No dredging of Private slips occurred this summer because of the continued high elevation of water in the river. Because no material was placed on the site this year, there will be no license income for the LMRWD this year.

Attachments

Dredge Site Project Review

Recommended Action

Motion to order project

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

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

Date: November 13, 2019

Re: Dredge Site Project Review

The Lower Minnesota River Watershed District (District) owns and manages the Cargill East River Dredge Site (Site) as required by the local sponsorship agreement with the US Army Corps of Engineers (USACE). The Site, located partially within the Minnesota River floodplain and floodway, is within the City of Savage (City) between Port Richards to the west, the Minnesota River to the north and east, and the natural area and County Road 13 (Hwy 13) to the south. The total area owned by the District is 19.42 acres, and the area storing dredged material accounts for 12 acres of the Site.

The District proposed a project to modify the Site, to maintain separation between the USACE's sandy materials and the fine-grained materials from private facilities, optimize dewatering and consolidation of the private material, and design structurally sound berms around the storage piles. The Project will disturb 10.9 acres and involve fill placement within the floodplain of the Minnesota River. As such, the Project triggers the District's Erosion and Sediment Control and Floodplain and Drainage Alteration Standards.

As an in-house project, the District used its technical consulting team composed of Young Environmental Consulting Group, LLC (Young Environmental), and Barr Engineering Co. (Barr) to complete the design, permitting, preconstruction, and construction administration. Barr designed and provided the construction drawings and specification. Young Environmental reviewed the drawings for compliance with the District's standards. Below are our findings.

Erosion and Sediment Control Standard

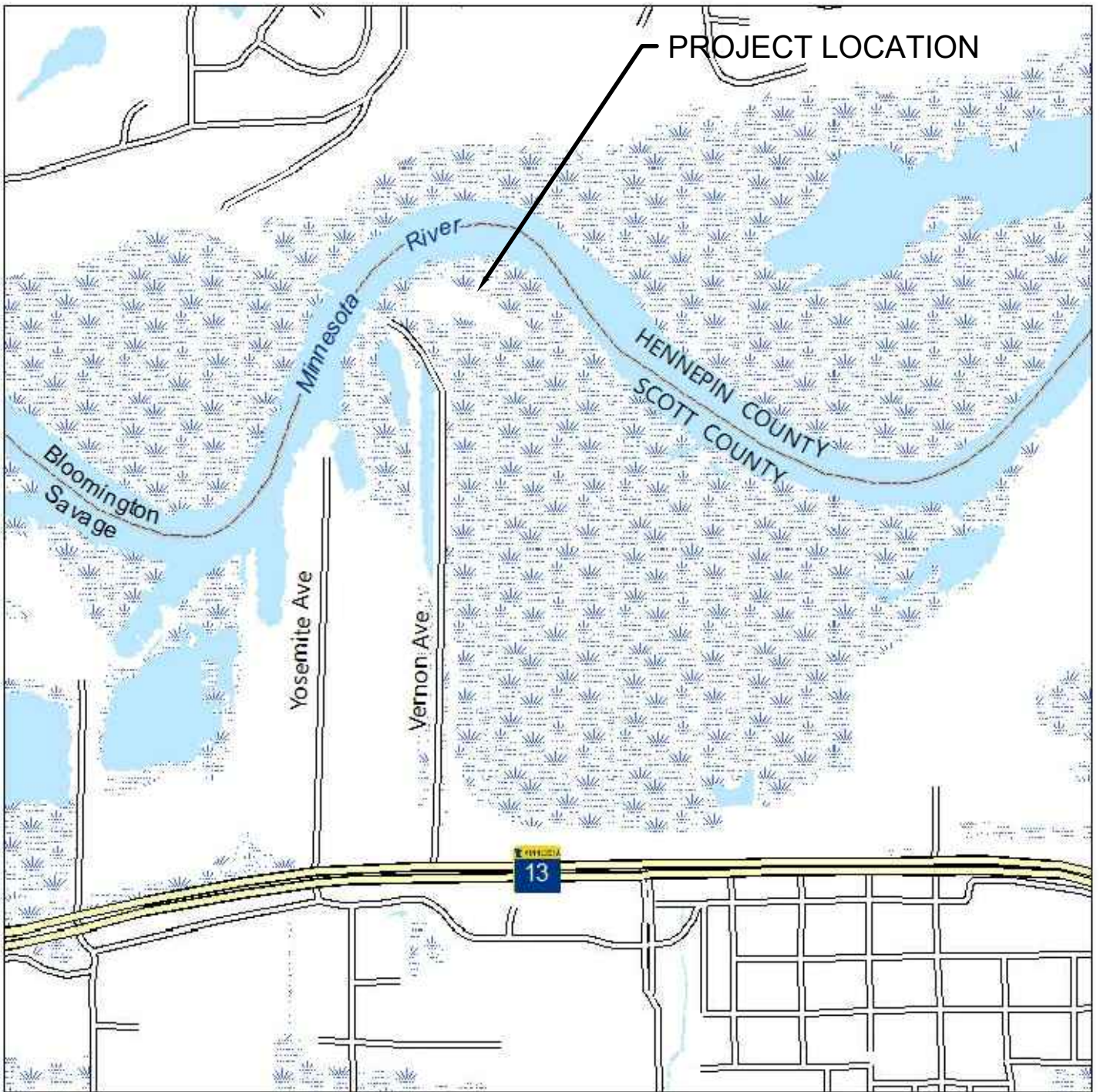
The information Barr provided for the Project contains a Stormwater Pollution Prevention Plan (SWPPP) that complies with the District's Erosion and Sediment Control Standard.

Floodplain and Drainage Alteration Standard

Placement of fill within the floodway is a regulated activity according to the District's standards, and as such requires technical analysis by a licensed professional engineer to ensure the fill will not increase the 100-year high-water elevation nor decrease the storage capacity below the 100-year elevation of a waterbody. Barr completed the required analysis. In addition, on August 5, 2019, the city council approved the District Conditional Use Permit (CUP) amendment request. The completion of the no-rise certification and the City approved CUP satisfies the District's Floodplain and Drainage Alteration Standard.

Recommendations

Based on the documentation provided and the applicable Project permits, Young Environmental recommends approval of the Project. We also recommend following up with the successful bidder to obtain documentation that the NPDES Construction Stormwater Permit has been applied for and obtained.



PROJECT LOCATION

VICINITY MAP



LOWER MINNESOTA RIVER WATERSHED DISTRICT PROJECT REVIEW

| | | | |
|--------------|---|---------------------|--|
| Project ID | <input type="text" value="2019_084"/> | Authorization Agent | <input type="text" value="Linda Loomis"/> |
| Project Name | <input type="text" value="Dredge Site"/> | Email Address | <input type="text" value="naiadconsulting@gmail.com"/> |
| Organization | <input type="text" value="Lower Minnesota River Watershed District"/> | Phone Number | <input type="text" value="(763) 545-4659"/> |

Notes

Project Summary

| | | | |
|------------------------|---|---|---|
| Anticipated start date | <input type="text" value="11/13/2019 11:36:03 AM"/> | Date received | <input type="text" value="10/23/2019"/> |
| Project location | <input type="text" value="Savage, MN"/> | Project map included? | <input checked="" type="checkbox"/> |
| Project acres | <input type="text" value="10.9"/> | Is the project in an unincorporated area? | <input type="checkbox"/> |
| Total disturbed acres | <input type="text" value="10.9"/> | Is it located in a High Value Resource Area | <input type="checkbox"/> |
| New impervious acres | <input type="text" value="0"/> | Is it located in a Steep Slope Overlay District | <input type="checkbox"/> |
| Local Partners | Other Sensitive Area <input type="text" value="Minnesota River Floodway"/> | | |

Project Description

The District proposes to modify the existing Dredge Site to optimize dewatering and condolidation of the private material, and to incorporate structurally sound berms separating private and U.S. Army Corps of Eng. storage piles.

Additional Notes

Review Status

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

Project Status

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

Erosion and Sediment Control Standard

This project triggers one or more thresholds for this standard.

| <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 checked="" type="checkbox"/> |
| Meets the HVRA threshold | <input type="checkbox"/> | NPDES/SDS General Construction Permit documentation | <input checked="" type="checkbox"/> |

The submission included the required documentation for this standard.

Additional Notes

Floodplain Drainage Alteration Standard

This project triggers one or more thresholds for this standard.

| <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 checked="" type="checkbox"/> | Temporary placement of fill | <input checked="" type="checkbox"/> |
| | | Adverse impacts to water quality, habitat, or fisheries | <input type="checkbox"/> |
| <u>Criteria</u> | | | |
| 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

Technical analysis was completed by Barr resulting in a no-rise certification which satisfies the District's Floodplain and Drainage Alteration requirement.

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

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

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 standard 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

Water Appropriations Standard

This standard does not apply.

Triggers

Is the project in the HVRA Overlay District

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

Will the project withdrawal more than 1 million gallons per year

Did the project apply for a DNR Water Appropriations Permit

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

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