

# Memorandum



Date: February 15, 2017

To: Linda Loomis, Administrator  
Lower Minnesota River Watershed District

From: Eric Watruba, PE, PG  
Project Manager

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Subject: Estimate of Probable Cost – Responses to Comments  
Cargill East River (MN – 14.2 RMP) Dredge Material Site

Below are responses to comments received on the Draft Estimate of Probable Cost Technical Memorandum (Tech Memo) from Ron Harnack. These comments and initial responses were discussed with Ron during a conference on December 19, 2016.

## **Introduction**

Comment: The introduction may not appear to consider the handling of the disposal from the I-35 site, however the text of the report does. Overall the considered elements and the costs related to those seem to make sense.

Response: Noted. Although not specifically discussed in the Introduction section of the Tech Memo, costs associated with a one-time placement of 25,000 cubic yards of COE dredge material from below Interstate 35W in Year 5 (2021) are included in the cost analysis.

## **Background**

Comment: It might be of value to include in the addendum copies of the current CUP from the City of Savage as well as any current DNR; MPCA; COE agreements/permits that are relevant to the site. In addition, indicating if any of the permits or agreements have expiration or renewal dates.

Response: Noted. The conditional use permits from the City of Savage, the Minnesota Pollution Control Agency Permit with the COE and the COE's response to the Section 10 permit inquiry will be attached to the Tech Memo.

## **Cost Analysis:**

Comment: A couple of things pop out that seem to be missing in cost analysis.

1. On-going dredge spoil quality monitoring (which is included in the spread sheet cost).
2. The potential for upgrading of the interchange at TH13 and Vernon to manage access and egress.

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3. The dredge material amount to be managed appears to be static using 25,000 cy/yr however continues to increase. Without a comprehensive MN River Basin strategy to reduce flows and sediment, clearly the amount of dredging will continue to increase and that estimate should be included.
4. The potential for complete reconstruction of the site after a flood. Flood frequency and duration seem to be increasing which increases the risk of expanded O & M.
5. The probability that there is no demand for all the material that is deposited will also increase the Districts costs. These elements can have a significant impact on the costs as well as the viability of the site to continue to be operated.

## Response:

1. The cost analysis does not specifically include costs for on-going dredge material quality monitoring. The COE is required to complete this testing for their dredge material per their MPCA SDS Permit MN0050580. LS Marine is required to complete this testing for their private dredge material per their agreement with the District. However, if the District were to request any confirmatory sampling and analysis, the annual \$25,000 allowance included in the cost analysis for “Engineering/Design/Permitting Support” could be used to cover this work.
2. Potential upgrades to County Hwy 13 are solely the responsibility of Scott County and the Minnesota Department of Transportation. The estimate includes maintenance costs associated with the upkeep of Vernon Avenue.
3. The COE dredge material volume of 25,000 cy per year was based on the following:
  - o Multiple conversations with the District during project planning/scoping and input from LS Marine.
  - o Historical dredging records from 2008 through 2015
    - Amounts ranged from 0 cy in 2012 and 2014 to 47,169 cy in 2011. The average annual amount over this period was 19,897 cy per year.
  - o Information provided in the District’s January 2013 Dredge Material Site Management Plan prepared by HDR and the COE’s 2007 Dredge Material Management Plan.
    - As summarized in Sections 2.3 and 2.4 of the 2013 Dredge Material Site Management Plan, the COE estimated long term (27 year period) annual dredging volume of 21,800 cy per year.

Although the dredge material volume used in the cost analysis was based on current regulations and historical dredging records, the District acknowledges that the amount of material required to be dredged from the river is generally increasing (as are costs to manage the dredge material). While the District is actively working to reduce the amount of sediment coming down the river, much of the sediment loading is beyond the District’s control.

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4. See the Floodplain section for additional information.
5. Noted. Costs associated with landfill disposal of the COE dredge material once every three years are included in the cost analysis.

## **Regulatory Changes Evaluations**

Comment: It may be appropriate to include the consideration that the COE permit from the DNR may have conditions that impact the disposal of the dredge material and therefore the responsibilities of the District. In addition the DNR does have oversight relating to the City of Savage CUP for floodplains which could influence CUP permitting. It may be appropriate to have those active permits as addendums to this report as a base of reference.

Response: Noted. The DNR's involvement with floodplain regulations will be addressed and the CUPs will be included.

## **FLOODPLAINS:**

Comment: There is a reference to FEMA but not to DNR (MN floodplain statute and rule authority that directs local floodplain regulations). Should be noted that the MN rules are more restrictive than the feds in many respects and the City is obligated to the State Floodplain rules. Does the current CUP have a reference to a particular flood event or frequency for removal of the material? If so what? Later on the report references a 25 year flood. The report indicates that the current CUP does not require removal, but may when renewed. If the material needs to be removed then why not the dikes that contain the dredge material? If there has not been a detailed hydraulic assessment of the impact of the disposal site on flood levels then that will likely need to be done as part of the CUP. Stage increases due to floodway encroachment typically cannot exceed 0.5 feet considering the accumulative impacts of all floodway encroachments. Is this needed? If so, how is the cost shared by the COE; privates and the District.

Response: See previous comment.

- Per the Minnesota DNR, landowners should work with their local government for floodplain-related development. The Minnesota DNR offers assistance to local floodplain administrators.
- Per the City of Savage Floodplain ordinance, dredge fill is permitted within the floodway with the development and use of a long term maintenance plan which includes erosion control.

## **HISTORIC PROPERTIES:**

Comment: It seems the site itself is being addressed. However, are there HP areas in close proximity to the site that would impacted IF the dikes failed and the dredge material deposited on the HP sites?

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Cost of a broader assessment of HP sites near and downstream of the disposal site might be appropriate to include as well as any related cleanup costs or mitigation.

Response: Noted. There are no HP's within close proximity to the Site. If, the dikes were to fail, areas with the highest and most likely potential to receive dredge material will be not HPs (none are near the Site).

## **NAVIGABLE WATERS:**

Comment: It may be appropriate to qualify the "no direct effect" statement by considering that the section 10 waters permit, if needed, does generally contain conditions for the disposal of the material which could in-fact have an impact on the Districts costs of operation.

Response: Noted. Please see the response for inquiry from the COE on the Section 10 permit.

## **THREATENED & ENDANGERED SPECIES**

Comment See comments on Historic Properties. Same may apply here.

Response: Noted. In 2000, Minnesota's State Historic Preservation Office (SHPO) reviewed the Site and concluded that no properties eligible for or listed on the NRHP will be affected by proposed operations at the Site. Since no properties are (...*were or will be*) affected by the operations (*proposed*) at the Site, changes to the National Historic Preservation Act (NHPA) will likely have no financial effect on the District.

## **WETLANDS:**

Comment The assessment seems appropriate. Also has the District implemented on-going monitoring of the 0.04 acre mitigation on site? If not it may be appropriate as part of the wetland assessment to look at the mitigation and feel comfortable that the wetland mitigation site is still a viable wetland consistent with the original intent. If it does not there may be additional requirements to consider. Review with BWSR would be appropriate.

Response: Noted. The District does not conduct on-going monitoring on the wetland. The obligations/requirements of the WCA permit were implemented and executed. During the proposed Site improvement project, if there are impacts to the wetland requiring mitigation, WCA requirements will be implemented and executed per permit requirements.

## **WATER QUALITY:**

Comment The reference to material discharged below the ordinary high water mark only refers to the MPCA 401 certification. It should also consider referencing, either here or elsewhere that the DNR requires a permit for any activities that change the course, current or cross-section of public waters below the OHW. That may not be relevant on the site but would be for the

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docking/unloading area for the site. I understand that the District does sample and monitor the sediment and so does MPCA. I would expect that over time it can be anticipated that water quality rules and rules that would allow for the use of the dredge material may be more restrictive. Based on history that is likely to happen. The probability of such rules impacting the cost and use of the disposal site should be considered (25 - 50% range might be close over the next several years).

Response: Unloading activities are managed and executed by the COE and private slip owners. The District only manages the material once it has been placed on the dredge site.

## **COST ANALYSIS SUMMARY**

### **Capital Costs:**

Comment I do not see any cost for the District in the reconfiguration of the site, yet from the conceptual site plan it seems that, to some degree, the sites are not that independent. Therefore some of the costs would seem to be the District's. Also discussion with DNR and BWSR as well as the City of Savage would be appropriate to ensure that the CUP process addresses all the wetland and floodplain issues at one time. The costs, depending on some of the wetland assessments and the need for H&H modeling for floodplain impacts, may be more than currently estimated.

Response: The main purposes of reconfiguring the Site were to:

- Maintain adequate segregation of the sandy COE material and the fine-grained private dredge material.
- Optimize the dewatering and consolidation potential of the private dredge material.
- Incorporate “permanent” storage facility design requirements for the private dredge material area that are outlined in the MPCA's "Managing Dredge Materials in the State of Minnesota" guidance document. The MPCA's permanent storage facility requirements include a maximum exterior sideslope of 3H:1V.

Since reconfiguring the Site is to improve the private dredge material area, and the reconfigured private dredge area encroaches on the existing COE area, costs for the reconfiguration were considered purely private dredge costs. Moreover, although the existing COE area may need some improvements (e.g., improved erosion control), the annual \$30,000 allowance included in the cost analysis for “Erosion Control and General Site Maintenance” could be used to cover this work.

### **Culvert Replacement:**

Comment No additional comments.

Response: Noted.

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## **Vernon Avenue Upgrade:**

Comment        The biggest issue I see missing here is the need to have discussions with the DOT and the City of Savage regarding the potential for there to be some significant improvements needed at the interchange of TH13 and Vernon Ave in the future. There seems to be no mention of this. If dredge material is going to increase and more traffic is going to occur there seems to be a strong potential for access and egress changes. Who would bear the costs of such changes?

Response:       See previous comment.

## **SITE O & M ITEMS:**

Comment        It may be appropriate to list some of the "other" O&M items that are included in the estimate ie roads, culverts, dikes, monitoring, etc. It would also be appropriate to have an estimated cost of removal of the material prior to a flood event of various frequencies like a 10 year; a 25 year; a 50 year etc. This was included in a previous CUP but not in the current, however, there seems to be real potential of this being a condition of permitting and it would be a significant cost to understand.

Response:       A list of the specific O&M items included in the cost analysis is provided on page 3 of the Tech Memo.

An order of magnitude cost for removing and disposing COE material prior to a flood event is provided on page 5 of the Tech Memo.

Comment        One last thought relates to the potential for any new river development that would require use of the navigational channel. With the closing of the terminal areas in Mpls there could be interest in locating on the MN River navigational channel. Maybe looking at site availability and local zoning there could be a statement that new commercial river transportation is not envisioned.

Response:       Noted.