Memorandum

BURNS McDONNELL

Date: February 15, 2017

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Eric Watruba, PE, PG
Project Manager

Della Schall Young, PMP, CPESC, ENV SP
Young Environmental Consulting Group, LLC

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

Introduction

The Lower Minnesota River Watershed District (District) intends to request Minnesota legislative support for the operation and management of the Cargill East River (MN – 14.2 RMP) Dredge Material Site (Site) located on the Minnesota River in Savage, Minnesota. For this request, the District requested a cost analysis be completed to estimate the probable costs for operating and managing the Site over a 10-year period and a 25-year period. A team consisting of Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell), Young Environmental Consulting Group, LLC, and Berrini & Associates, LLC completed the cost analysis.

This Technical Memorandum (Tech Memo) provides a summary of the cost analysis completed for the District. This Tech Memo also includes a summary of the Site's background information, a description of the scope and approach used to develop the cost analysis, and a summary of potential regulatory changes that may impact the future management of the Site and the beneficial uses of the dredge material placed at the Site.

Background

The Site is located between Port Richards to the west, the Minnesota River to the north and east, and natural area to the south. According to the City of Savage's 2006 conditional use permit (CUP), the District acquired 19.42 acres. However, only 11 acres of the Site is used for dredge material placement.

The District serves as the local sponsor, responsible for providing placement site(s) for the U.S. Army Corps of Engineers (COE) to place dredge material from the Minnesota River to maintain a 9-foot-deep river channel. The District owns and operates the Site where the COE temporarily stores dredge material from the river where the material dries out prior to being taken offsite. The COE material is mainly sand and is currently sold by the District to Rachel Contracting, Inc. to be beneficially reused for various construction projects.

In 2014, the District entered into agreements with Cargill, Inc., CHS, Inc., and Riverland Ag Corp. to provide an area at the Site for temporary storage of dredge material from their private slips located on the Minnesota River. Currently, LS Marine, Inc. provides the dredging services for the private slips and each private slip owner pays the District a fee for temporary storage of the dredge material at the Site. The dredge material from the private slips consists of mainly fine-grained material (silt and clay) and is temporarily stored at the Site where it dewaters and consolidates prior to being taken offsite. Also in 2014, the District entered into an agreement with LS Marine to operate the Site and once the agreement with Rachel Contracting expires, to find end users for the COE material. Currently, the private dredge material is disposed of at a local landfill.

The COE and private slip owners maintain dredge and water works permits with the Minnesota Pollution Control Agency (MPCA) and Minnesota Department of Natural Resources (DNR), respectively.

Cost Analysis

Scope

The purpose of this cost analysis was to develop budgetary estimates for potential capital improvement projects at the Site and for the operation and management of the Site over a 10-year period and a 25-year period. Capital improvement project costs were distinguished between costs associated with the private dredge material area only and costs that would be equally shared between the private dredge material area and the COE dredge material area (i.e., costs that would be incurred by the District). Total annual operation and management (O&M) costs associated with the entire Site and would be incurred by the District for each year were also determined.

The following capital improvement projects were included as part of this cost analysis:

- Private dredge material area only projects:
    - Implementing the conceptual Site improvements originally provided by Burns & McDonnell to the District in July 2016 and slightly modified for this cost analysis. The modifications generally included revisions to the overall Site layout and containment berm dimensions. The conceptual Site improvements used for this cost analysis are shown on Figure 1 and include the following:
        - Reconfiguring the private dredge material area from one cell to two cells to maintain adequate segregation of the sandy COE material and the fine-grained private dredge material. In addition, this reconfiguration should optimize the dewatering and consolidation potential of the private dredge material and provide over 50,000 cubic yards (cy) of storage capacity for the private dredge material.

          Moreover, although the Site is considered a "temporary" storage facility since material is removed from the Site within 12 months, the conceptual design generally follows the “permanent” storage facility design requirements 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. Incorporating this requirement into the conceptual Site design used for this cost analysis resulted in an increased overall footprint of the private dredge containment area to provide adequate material storage volume.

        - Reconfiguring the COE dredge material area as a result of the increased footprint of the private dredge material area and to provide over 75,000 cy of storage capacity for the COE material.
        - Installing one water control structure in each of the two private dredge material cells to optimize the dewatering and consolidation potential of the private dredge material.

- Moving the Minnesota River private dredge material Site access point approximately 75 feet to the east of its current location to allow for more efficient unloading/stockpiling of private dredge material and also Site operations for the private dredge material area.

- Shared private dredge material area and COE dredge material area projects:
  - Removing and replacing one existing culvert at the Site entrance in Year 10 (2026).
  - Upgrading approximately 2/3 mile of Vernon Avenue (from Highway 13 to the Site entrance) to allow for increased truck traffic. American Engineering Testing, Inc. (AET) prepared a report in June 2015 titled, "Report of Pavement Evaluation Services, Vernon Avenue," which recommended reclaiming the existing bituminous and aggregate base as a new base to a depth of 4 inches, surfacing with 3 inches of MNDOT Class 1 surface aggregate, and stripping existing vegetation along roadway prior to reclaiming.

The following Site O&M items were included in this cost analysis:

- On-site management of dredge materials which included:
  - Annual site operating costs for LS Marine.
  - Costs associated with a one-time placement of 25,000 cy of COE dredge material from below Interstate 35W in Year 5 (2021).
  - Revenue from the sale of the COE sand to Rachel Contracting, Inc. currently, and possibly others after 2017 for beneficial reuse.
  - Revenue from Cargill, Inc., CHS, Inc., and Riverland Ag Corp. for accepting their dredge material at the Site. Based on historical dredging data and input from the District, the volume of private dredge material to be placed at the Site in future years is estimated to be 30,000 cy per year.
- Routine maintenance of Site infrastructure. This included the following items:
  - An allowance for completing maintenance work every 5 years to maintain adequate draft depth at the COE river access point.
  - Performing routine erosion control and general maintenance at the Site on an annual basis.
  - Cleaning out the existing culvert at the Site entrance on an annual basis.
  - Maintaining Vernon Avenue on an annual basis.
  - Completing general Site repairs following Minnesota River flooding events. Additional details regarding flooding events are provided below.
- Loading, transportation, and offsite disposal of COE dredge materials at the Allied Waste/Republic Services Pine Bend Landfill in Rosemount, Minnesota. This included the following landfill disposal scenarios:
  - Disposal of one years' worth of COE dredge material once every three years to maintain COE storage volume in the event that the COE material cannot be beneficially reused. Based on

historical dredging data and input from the District, the volume of COE dredge material to be placed at the Site is estimated to be 25,000 cy per year.

- Disposal of 25,000 cy of COE dredge material from below Interstate 35W in Year 5 (2021). 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.

It should be noted that the costs associated with landfill disposal of private dredge material were assumed to be incurred by the private slip owners. Therefore, these costs were not included in this cost analysis. It should also be noted that the District's agreements with Cargill, Inc., CHS, Inc., and Riverland Ag Corp. require these entities to carry Financial Assurance in the event that the dredged material is not removed from the Site.

In addition to evaluating the costs associated with the major items described above, the District also requested Burns & McDonnell to evaluate regulatory changes and the potential impact(s) they may have on Site management, beneficial uses of the COE dredge material, and ultimately, additional long-term financial obligations that may be incurred by the District.

Approach

As part of developing the cost analysis, a Site visit was completed on October 4, 2016, by staff from Burns & McDonnell (Eric Watruba) and Young Environmental Consulting Group, LLC (Della Young) to observe current Site conditions. Existing documents for the Site provided by the District were also reviewed and a coordination meeting with the District was also completed on October 11, 2016 to obtain concurrence on the cost analysis scope and key assumptions. A list of the documents reviewed as part of this cost analysis is provided in Attachment 1. Key assumptions used are provided in Attachment 2.

Costs were developed at a planning level utilizing Site-specific data as much as possible. Any designs, plans, etc., used to estimate costs were highly conceptual in nature. If Site-specific data were not available, costs were estimated utilizing generally conservative assumptions, historical cost data from comparable environmental projects, and/or RS Means 2016 Cost Database. Costs were based on 2016 US dollars and were conservatively inflated at a rate of 2.5 percent based on typical industry experience for cost estimating and the average inflation rate over the last 10 years, which can be found at http://www.usinflationcalculator.com/.

It should be noted that this cost analysis was based upon the information provided by the District, current site conditions, and our understanding of the scope of work. The information gathered from the background data review was used mainly to develop the cost analysis and not necessarily to determine if the Site was being operated and managed in accordance with existing permits, approvals, management plans, etc. for the Site.

Costs are summarized in the tables included in Attachment 2. Back-up cost estimating information is included in Attachment 3.

Regulatory Changes Evaluation

As the District considers the long-term financial obligation associated with managing the Site, the potential impact of regulatory changes continues to emerge as a concern. In recent years, proposed changes to soil reference values (SRV) by the Minnesota Pollution Control Agency (MPCA) have left both the COE and the District concerned about maintaining navigation on the Minnesota River. Other concerns include implications on beneficial use and stockpiled dredge material disposal at the Site. The following presents a summary of the District's potential financial responsibility resulting from regulatory changes associated with floodplains, historic properties, navigable waters, threatened and endangered species, water quality, and wetlands. Importantly, the COE and private slip owners hold operational permits (MPCA Dredging Permits and Minnesota Department of Natural Resources Waters Work Permits) except for the CUP, which minimizes the District's financial responsibility in the event of regulatory change(s).

Floodplains

Per the Federal Emergency Management Agency (FEMA), the Site is located within the Minnesota River floodway portion of the floodplain. The floodway, as defined by the FEMA, is the channel of a river or other watercourse and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation by more than a designated height. The FEMA delegated administration of floodplain regulation to the states. In Minnesota, that authority is facilitated by the DNR and administered by the local government units. Permits associated with work on the Site, which is in the floodway, are administered locally by the City of Savage.

The District was issued a CUP by the City of Savage in 2006 which included language requiring the District to remove dredge material from the Site prior to a flood event. The CUP was amended in 2014 to address increased truck traffic associated with reducing stockpiled material on the Site and the amended CUP left out the language requiring the District to remove dredge material from the Site in the event of flooding. The omission significantly reduced the District's financial burden of clearing the Site in the event of a flood. The 2006 and 2014 CUPs are included in Attachment 4.

The CUP is up for review in 2017, and it is reasonable to assume the previously omitted language regarding Site preparation before a flood event will be included. The inclusion of that language would potentially require the Site to be cleared of all dredge material prior to a flood event. This could result in the District incurring disposal costs for the COE material on the order of approximately $1,000,000 to $4,000,000 per event depending on how much material is onsite prior to the flood event. Costs could be even higher than this amount since this work may need to occur in a relatively short amount of time, which may add additional loading/hauling and disposal costs.

It is recommended, if the City of Savage includes language regarding removal of dredge material prior to flood events in its Draft CUP, that the District engage with the City of Savage to fully understand the City's perspective on the need to remove material prior to a flood event. The logistical aspects, costs, and technical merit should be thoroughly evaluated prior to the District agreeing to a modified CUP.

Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) (16 USC 470) requires federal agencies to consider their effects on historic properties (i.e., districts, sites, buildings, structures, and objects included in, or eligible for, the national register of historic places [NRHP]).

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 affected by the operations at the Site, changes to the NHPA will likely have no financial effect on the District.

Navigable Waters

Under Section 10 of the Rivers and Harbors Appropriation Act of 1899, the building of any wharfs, piers, jetties, and other structures is prohibited without congressional approval, and excavation or fill within navigable waters requires the approval by the COE Chief of Engineers. The River and Harbors Appropriation Act of 1958 authorized the 9-foot-deep channel excavation of the Minnesota River for maintenance by the COE.

The District is neither responsible for, nor does it participate in activities related to dredging (excavating) material from the Minnesota River. The COE does not issue themselves permits as noted in the communication included in Attachment 4 (Linda Loomis, personal communication, January 20, 2017). As such, potential changes to the Section 10 permit will have no direct effect on the District. An indirect effect would be navigational designated removal from the Minnesota River. This would end the dredging activities and release the District from its obligation to maintain the Site as the local sponsor. However, the commercial reliance on the Minnesota River makes the elimination of navigation unlikely.

Threatened and Endangered Species

The Endangered Species Act (ESA) passed by Congress in 1973 requires protection of federally-listed threatened and endangered (T&E) species and any habitat designated as essential to the maintenance or recovery of a listed species (critical habitat). Critical habitats are areas designated by United States Fish and Wildlife Service (USFWS) as areas important for the preservation of listed species. Section 7 of the ESA requires federal agencies to consult with USFWS to ensure that actions they fund, authorize, or permit will not jeopardize the continued existence of any listed species, or adversely modify designated critical habitat. The State of Minnesota's Endangered Species Law (MS 84.0895) and associated rules (Chapters 6212.1800, 6212.2300, and 6134) impose a variety of restrictions, a permit program, and several exemptions pertaining to species designated as T&E. Administered by the Minnesota Department of Natural Resources (DNR), the law and rules prohibit taking, purchasing, importing, possessing, transporting, or selling T&E plants or animals, including their parts or seeds, without a permit. For animals, *taking* includes pursuing, capturing, or killing.

During the study of the Site completed as part of the COE-sponsored Dredge Material Management Plan (DMMP), the USFWS concurred with the findings that the Site and proposed operations would not adversely affect federally listed T&E species. No such concurrence was documented from the DNR. Given the ongoing listing and delisting of T&E species on a federal and state level, it is important for the District to conduct a T&E survey every 10 years. The cost would range from approximately $5,000 to $10,000 per survey.

Wetlands

The Clean Water Act (CWA) Section 404 (33 USC 1344) establishes a program to regulate the discharge of dredged and fill material into US waters, including wetlands. The COE and the Environmental Protection Agency (EPA) share responsibility for administering and enforcing Section 404 of the Clean Water Act. At the state level, the Board of Water and Soil Resources (BWSR) administers the Wetland Conservation Act (WCA). The WCA requires project proposers to avoid, minimize or replace any lost wetland acres, functions, and values.

Adjacent to the Site, there is a wetland between Port Richards and Vernon Avenue in the northwestern corner of the Site. When the Site was acquired, construction of the Site access from Vernon Avenue resulted in the 0.04-acre impact to the wetland. Approved by BWSR and the COE, the wetland impact was mitigated on-site. Given the close proximity of the wetland to the Site, before Site alterations or major upgrades, potential for wetland impact must be evaluated. The cost for a wetland evaluation, to be completed as part of the Site reconfiguration, would be approximately $10,000.

Water Quality

Section 401 of the CWA requires applicants for Section 404 permits to receive 401 certification from the appropriate COE agency. Issuance of a certification means the MPCA anticipates that the project will comply with applicable federal or state effluent limitations, water quality standards, and other aquatic resource protection requirements under the authority of the MPCA. The 401 certification can cover both the construction and operation of the project.

As noted above, future upgrades to the Site resulting in impacts to the wetland are not anticipated. Also, as documented by Bonestroo in the 2006 application for the CUP, the COE has a long-term agreement with the MPCA for 401 certification when material or effluent is discharged below the ordinary high water mark. The COE's MPCA permit is included in Attachment 4.

Cost Analysis Summary

Capital Costs

The costs for the capital improvement projects described in this Tech Memo are summarized below. The capital improvement project costs were distinguished between costs associated with the private dredge material area only and costs that would be equally shared between the private dredge material area and the COE dredge material area (i.e., costs that would be incurred by the District).

Item	Total Cost	Private Cost	District Cost
Reconfiguration of Site	$1,586,000	$1,586,000	$0
Culvert Replacement (in 2026)	$103,000	$51,500	$51,500
Vernon Avenue Upgrade	$125,000	$62,500	$62,500
Total	**$1,814,000**	**$1,700,000**	**$114,000**

Reconfiguration of Site

Reconfiguring the private dredge material area from one cells to two cells may cost approximately $1,586,000. This was considered a private dredge material area project and the entire cost of the work was considered a private cost.

A large portion of the reconfiguration cost (over $400,000) was from the assumption that approximately 25 percent of the material needed to construct the containment berms will need to be imported from an offsite source. This is an appropriate assumption during this planning-level cost estimate.

It is recommended that the District engage with the City of Savage to fully understand any potential floodway design requirements that may be included in the CUP (which is up for review in 2017) prior to implementing any significant Site modifications. It is also recommended that the District obtain the applicable engineering designs, permits, approvals, etc., as necessary, prior to any significant Site modifications.

Culvert Replacement

The culvert replacement cost in 2026 is estimated at approximately $103,000. This is considered a shared cost between the private dredge material area and the COE dredge material area. Therefore, the District's portion was considered to be 50 percent of the total cost (or $51,500).

It is recommended that the District continue to monitor the performance of the existing culvert and complete maintenance on the culvert, as required.

Vernon Avenue Upgrade

Costs for upgrading Vernon Avenue to allow for increased truck traffic, and as recommended by AET in their June 2015 report, are approximately $125,000. This is also considered a shared cost between the private dredge material area and the COE dredge material area. Therefore, the District's portion was considered to be 50 percent of the total cost (or $62,500).

It is recommended that the District implement the Vernon Avenue upgrades as recommended by AET due to the increased truck traffic from the Site.

Site O&M Items

Based on the cost analysis and considering Site O&M expenses and revenues, the costs that may be incurred by the District over a 10-year period and a 25-year period are shown below.

Item	Total Cost Over 10-Year Period	Total Cost Over 25-Year Period
Hauling/Disposal of COE Material	$3,451,000	$9,312,000
All Other Site O&M Items	$1,198,000	$3,724,000
Revenues	-$429,000	-$1,307,000
Total Cost	**$4,220,000**	**$11,729,000**

Of the Site O&M items included in this cost analysis, the largest costs are those associated with loading, hauling, and landfill disposal of COE dredge material in the event that the material cannot be beneficially reused.

Another cost could be Site repairs following a flood event. This cost analysis included an allowance of $50,000 (in 2016 US dollars) for general Site repairs following a flood event although the actual costs could be significantly higher. The allowance for flood repairs should be evaluated by the District and increased if necessary.

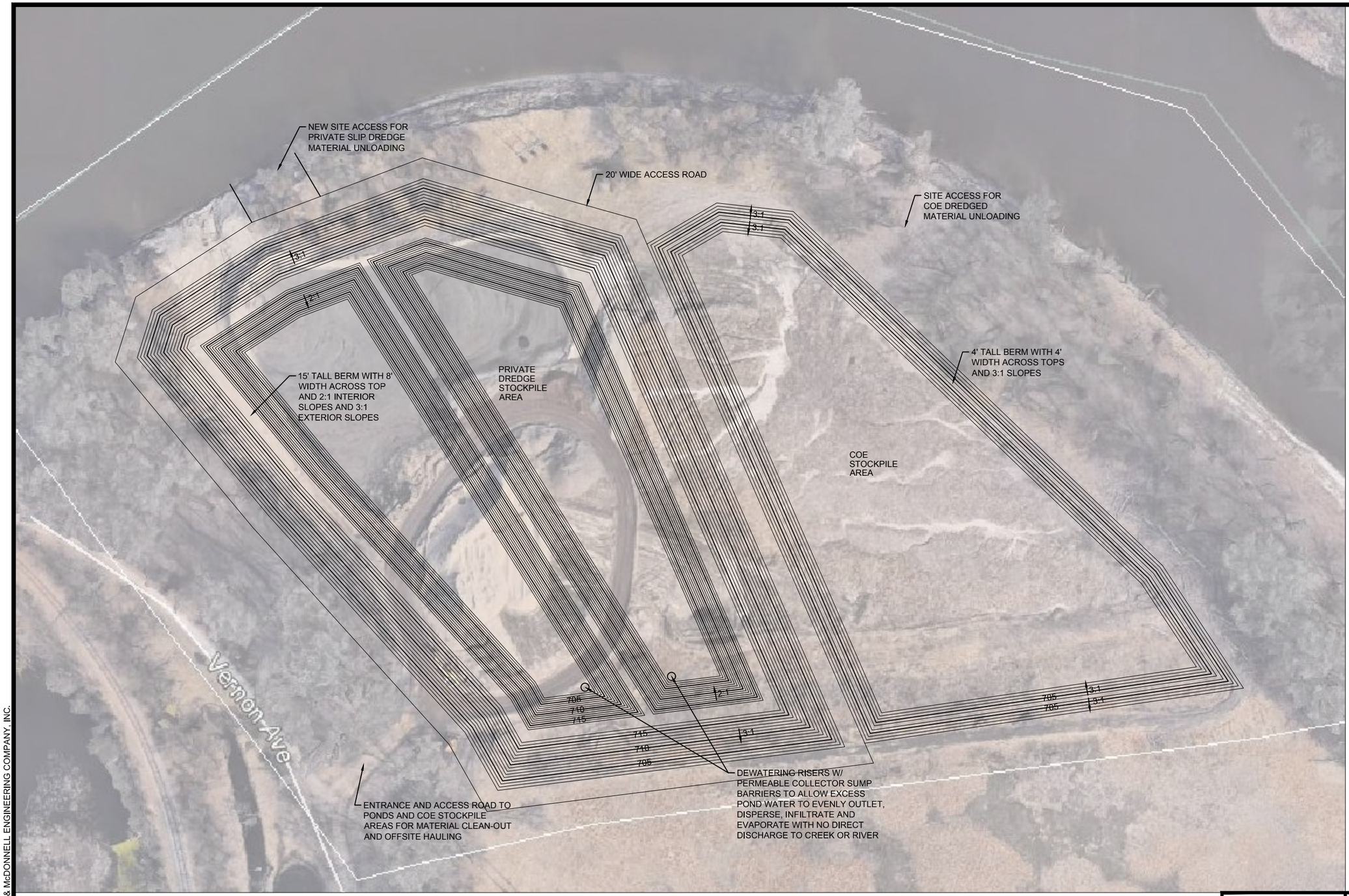
The costs presented above do not include disposal costs of COE dredge material prior to a flood event discussed in the regulatory section.

Overall

Based on the cost analysis, total costs (including capital improvement costs and Site O&M items) that may be incurred by the District over a 10-year period and a 25-year period are as follows:

Item	Total Cost Over 10-Year Period	Total Cost Over 25-Year Period
Capital Improvements	$114,000	$114,000
Site O&M Items	$4,220,000	$11,729,000
Total Cost	**$4,334,000**	**$11,843,000**

FIGURES



NORTH

0 50' 100'
SCALE IN FEET

BURNS McDONNELL

Figure 1

Lower Minnesota River Watershed District

CONCEPTUAL SITE PLAN

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ATTACHMENT 1 – LIST OF DOCUMENTS REVIEWED

List of Document Reviewed:

Author/Provided By	Document	Date
American Engineering Testing, Inc.	Report of Pavement Evaluation Services, Vernon Avenue	June 25, 2015
Bonestroo	Project Manual for Dredge Spoil Site Access Road	May 2010
Burns & McDonnell	Technical Memorandum regarding "Cargill East Dredge Site – Drainage Improvement Project Update	July 18, 2016
City of Savage	Conditional Use Permit	July 7, 2014
HDR	Cargill East River (MN – 14.2 RMP) Dredge Material Site Management Plan	January 2013
LS Marine, Inc.	Cargill East River (MN – 14.2RMP) Placement Site Dredge Materials Management Manual (Draft)	September 1, 2015
LMRWD	Letter from LMRWD to the City of Savage regarding "Removal of dredge material from 12025 Vernon Avenue"	February 17, 2016
LMRWD	Agreement for Sale of Dredge Material between LMRWD and Rachel Contracting, Inc.	November 19, 2014
LMRWD	Property Management Agreement between LMRWD and LS Marine, Inc.	October 9, 2014
LMRWD	First Amendment to Non-Exclusive License Agreement between LMRWD, Cargill Inc., Riverland Ag Corp., and CHS, Inc.	August 15, 2014
LMRWD	Non-Exclusive License Agreement between LMRWD and Cargill Inc.	August 8, 2014
LMRWD	Operational Manual for Material Management at LMRWD Dredge Disposal Site R.M. 14.2 (Draft)	2012
LMRWD	Letter from LMRWD to Minnesota Department of Transportation regarding "Port Development Assistance Program, R.M. 14.2 Dredge Access Road, Lower Minnesota River Watershed District"	November 29, 2010
LMRWD	Untitled document regarding "background material on dredge site"	Undated
MPCA	Managing Dredge Materials in the State of Minnesota	April 2014
MPCA	Best Management Practices for the Management of Dredged Material, Guidance Document wq-gen2-02	March 2014
MPCA	MPCA NPDES/SDS Permit MN0069035 for Riverland Ag Corporation, Savage Riverport Dredge	June 19, 2012
MPCA	MPCA NPDES/SDS Permit MN0054445 for Cargill AgHorizons – East Elevator Dredge	April 4, 2012
MPCA	MPCA NPDES/SDS Permit MN0062201 for Cargill AgHorizons – West Elevator Dredge	April 4, 2012
MN DNR	MN DNR Amended Public Waters Work Permit for Riverland Ag Corporation (Permit Number 1972-1144)	April 21, 2014
MN DNR	MN DNR Amended Public Waters Work Permit for CHS, Inc. (Permit Number 1973-1101)	April 21, 2014
MN DNR	MN DNR Amended Public Waters Work Permit for Cargill East and West (Permit Number 1973-1128)	April 4, 2014
Rachel Contracting, Inc.	Invoice from Rachel Contracting, Inc. to Naiad Consulting, LLC regarding culver cleanout	July 18, 2016
USCOE	Minnesota River 9-Foot Channel Project, Dredged Material Management Plan/Environmental Assessment, Minnesota River, Above I-35W Bridge	March 2007
USCOE	USCOE River Dredging Permit, Permit #: MN0050580	Undated

ATTACHMENT 2 – COST ESTIMATING TABLES AND KEY ASSUMPTIONS

LMRWD ProForma

Item	Year 1 2017	2 2018	3 2019	4 2020	5 2021	6 2022	7 2023	8 2024	9 2025	10 2026	11 2027	12 2028
Private CIP	$ (1,648,721)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (51,688)	$ -	$ -
Private Dredge Area Subtotal	***$ (1,648,721)***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ (51,688)***	***$ -***	***$ -***
Private/COE Dredge Area Cumulative Total	***$ (1,648,721)***	***$ (1,648,721)***	***$ (1,648,721)***	***$ (1,648,721)***	***$ (1,648,721)***	***$ (1,648,721)***	***$ (1,648,721)***	***$ (1,648,721)***	***$ (1,648,721)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***
Private/COE CIP	$ (62,356)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (51,688)	$ -	$ -
Private/COE O&M Expenses	$ (80,463)	$ (87,727)	$ (894,896)	$ (92,168)	$ (1,030,713)	$ (1,091,960)	$ (99,255)	$ (101,737)	$ (1,037,805)	$ (132,489)	$ (254,668)	$ (1,117,603)
Private/COE Revenues	$ 38,267	$ 39,223	$ 40,204	$ 41,209	$ 42,239	$ 43,295	$ 44,378	$ 45,487	$ 46,624	$ 47,790	$ 48,985	$ 50,209
Private/COE Dredge Area Annual Total	***$ (104,552)***	***$ (48,504)***	***$ (854,692)***	***$ (50,959)***	***$ (988,474)***	***$ (1,048,665)***	***$ (54,878)***	***$ (56,250)***	***$ (991,181)***	***$ (136,386)***	***$ (205,684)***	***$ (1,067,393)***
Private/COE Dredge Area Cumulative Total	***$ (104,552)***	***$ (153,056)***	***$ (1,007,748)***	***$ (1,058,707)***	***$ (2,047,181)***	***$ (3,095,846)***	***$ (3,150,724)***	***$ (3,206,973)***	***$ (4,198,154)***	***$ (4,334,541)***	***$ (4,540,224)***	***$ (5,607,618)***

10-Year Period Total	$ (4,334,541)
25-Year Period Total	$ (11,842,857)

=Private Dredge
=Private/COE Dredge

LMRWD ProForma

Item	Year 13 2029	14 2030	15 2031	16 2032	17 2033	18 2034	19 2035	20 2036	21 2037	22 2038	23 2039	24 2040	25 2041
Private CIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Private Dredge Area Subtotal	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
Private/COE Dredge Area Cumulative Total	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***	***$ (1,700,408)***
Private/COE CIP	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Private/COE O&M Expenses	$ (115,106)	$ (117,983)	$ (1,218,019)	$ (288,134)	$ (127,055)	$ (1,296,076)	$ (133,487)	$ (169,597)	$ (1,581,484)	$ (143,751)	$ (147,345)	$ (1,503,051)	$ (173,344)
Private/COE Revenues	$ 51,464	$ 52,751	$ 54,070	$ 55,422	$ 56,807	$ 58,227	$ 59,683	$ 61,175	$ 62,704	$ 64,272	$ 65,879	$ 67,526	$ 69,214
Private/COE Dredge Area Annual Total	***$ (63,641)***	***$ (65,232)***	***$ (1,163,949)***	***$ (232,712)***	***$ (70,248)***	***$ (1,237,849)***	***$ (73,804)***	***$ (108,422)***	***$ (1,518,780)***	***$ (79,479)***	***$ (81,466)***	***$ (1,435,525)***	***$ (104,130)***
Private/COE Dredge Area Cumulative Total	***$ (5,671,259)***	***$ (5,736,491)***	***$ (6,900,440)***	***$ (7,133,153)***	***$ (7,203,401)***	***$ (8,441,250)***	***$ (8,515,054)***	***$ (8,623,476)***	***$ (10,142,256)***	***$ (10,221,735)***	***$ (10,303,201)***	***$ (11,738,727)***	***$ (11,842,857)***

=Private Dredge
=Private/COE Dredge

LMRWD Capital Improvement Schedule

Inflation =		2.50%	Year											
Task	**Cost 2016**		**1 2017**	**2 2018**	**3 2019**	**4 2020**	**5 2021**	**6 2022**	**7 2023**	**8 2024**	**9 2025**	**10 2026**	**11 2027**	**12 2028**
Reconfiguration of Site														
Construction	$	*1,044,107*	$ 1,070,210											
Engineering/Design/Permitting (10%)	$	*104,411*	$ 107,021											
Site Topographical Survey	$	*12,000*	$ 12,300											
Geotechnical Investigation	$	*20,000*	$ 20,500											
Wetland Investigation	$	*10,000*	$ 10,250											
Contingency (30%)	$	*357,155*	$ 366,084											
		Subtotal	***$ 1,586,365***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
	TOTAL CIP Private		**$ 1,586,365**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Culvert Replacement														
Construction	$	*56,473*										$ 72,290		
Engineering/Design/Permitting (10%)	$	*5,647*										$ 7,229		
Contingency (30%)	$	*18,636*										$ 23,856		
		Subtotal	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ 103,375***	***$ -***	***$ -***
Vernon Avenue Upgrade														
Construction	$	*85,084*	$ 87,211											
Engineering/Design/Permitting (10%)	$	*8,508*	$ 8,721											
Contingency (30%)	$	*28,078*	$ 28,780											
		Subtotal	***$ 124,712***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
	TOTAL CIP Private/COE		**$ 124,712**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 103,375**	**$ -**	**$ -**
PRIVATE COST FOR SHARED CIP Private/COE (50% of Total)			**$ 62,356**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 51,688**	**$ -**	**$ -**
DISTRICT COST FOR SHARED CIP Private/COE (50% of Total)			**$ 62,356**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 51,688**	**$ -**	**$ -**

=Private Dredge
=Private/COE Dredge

LMRWD Capital Improvement Schedule

Inflation =	2.50%	Year												
Task	**Cost 2016**	**13 2029**	**14 2030**	**15 2031**	**16 2032**	**17 2033**	**18 2034**	**19 2035**	**20 2036**	**21 2037**	**22 2038**	**23 2039**	**24 2040**	**25 2041**
Reconfiguration of Site														
Construction	*$ 1,044,107*													
Engineering/Design/Permitting (10%)	*$ 104,411*													
Site Topographical Survey	*$ 12,000*													
Geotechnical Investigation	*$ 20,000*													
Wetland Investigation	*$ 10,000*													
Contingency (30%)	*$ 357,155*													
Subtotal		*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
TOTAL CIP Private		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Culvert Replacement														
Construction	*$ 56,473*													
Engineering/Design/Permitting (10%)	*$ 5,647*													
Contingency (30%)	*$ 18,636*													
Subtotal		*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Vernon Avenue Upgrade														
Construction	*$ 85,084*													
Engineering/Design/Permitting (10%)	*$ 8,508*													
Contingency (30%)	*$ 28,078*													
Subtotal		*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
TOTAL CIP Private/COE		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
PRIVATE COST FOR SHARED CIP Private/COE (50% of Total)		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
DISTRICT COST FOR SHARED CIP Private/COE (50% of Total)		**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

=Private Dredge

=Private/COE Dredge

LMRWD O&M Expenses and Revenues

Inflation =	2.50%	Year											
Description	**Cost 2016**	**1 2017**	**2 2018**	**3 2019**	**4 2020**	**5 2021**	**6 2022**	**7 2023**	**8 2024**	**9 2025**	**10 2026**	**11 2027**	**12 2028**
On-Site Management of Dredge Materials													
COE Dredge Material below I-35W	*$ 70,000*	$ -	$ -	$ -	$ -	$ 79,199	$ -	$ -	$ -	$ -	$ -	$ -	$ -
LS Marine Site Operating Costs	*$ 12,500*	$ 12,813	$ 13,133	$ 13,461	$ 13,798	$ 14,143	$ 14,496	$ 14,859	$ 15,230	$ 15,611	$ 16,001	$ 16,401	$ 16,811
Routine Maintenance of Site Infrastructure													
COE River Access	*$ 10,000*	$ -	$ -	$ -	$ -	$ 11,314	$ -	$ -	$ -	$ -	$ 12,801	$ -	$ -
Erosion Control and General Site Maintenance	*$ 30,000*	$ 30,750	$ 31,519	$ 32,307	$ 33,114	$ 33,942	$ 34,791	$ 35,661	$ 36,552	$ 37,466	$ 38,403	$ 39,363	$ 40,347
Clean Out of Culvert	*$ 3,000*	$ 3,075	$ 3,152	$ 3,231	$ 3,311	$ 3,394	$ 3,479	$ 3,566	$ 3,655	$ 3,747	$ 3,840	$ 3,936	$ 4,035
Vernon Avenue Maintenance (Major)	*$ 65,594*	$ -	$ -	$ -	$ -	$ -	$ 76,069	$ -	$ -	$ -	$ -	$ 86,065	$ -
Vernon Avenue Maintenance (Routine)	*$ 5,000*	$ -	$ 5,253	$ 5,384	$ 5,519	$ 5,657	$ -	$ 5,943	$ 6,092	$ 6,244	$ 6,400	$ -	$ 6,724
General Repairs After Flood Event	*$ 50,000*	$ -	$ -	$ -	$ -	$ -	$ 57,985	$ -	$ -	$ -	$ -	$ 65,604	$ -
Regulatory Changes													
T&E Species Survey	*$ 10,000*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,801	$ -	$ -
Annual Engineering/Design/Permitting Support													
Annual Engineering/Design/Permitting Support	*$ 25,000*	$ 25,625	$ 26,266	$ 26,922	$ 27,595	$ 28,285	$ 28,992	$ 29,717	$ 30,460	$ 31,222	$ 32,002	$ 32,802	$ 33,622
Annual Survey	*$ 8,000*	$ 8,200	$ 8,405	$ 8,615	$ 8,831	$ 9,051	$ 9,278	$ 9,509	$ 9,747	$ 9,991	$ 10,241	$ 10,497	$ 10,759
O&M Expense Private/COE		***$ 80,463***	***$ 87,727***	***$ 89,920***	***$ 92,168***	***$ 184,985***	***$ 225,090***	***$ 99,255***	***$ 101,737***	***$ 104,280***	***$ 132,489***	***$ 254,668***	***$ 112,298***
Cummulative O&M Expense Private/COE		***$ 80,463***	***$ 168,190***	***$ 258,110***	***$ 350,278***	***$ 535,264***	***$ 760,353***	***$ 859,609***	***$ 961,345***	***$ 1,065,625***	***$ 1,198,114***	***$ 1,452,782***	***$ 1,565,081***
Loading, Transportation and Offsite Disposal													
Quantity - Cubic Yards	-	-	-	*25,000*	-	*25,000*	*25,000*	-	-	*25,000*	-	-	*25,000*
Loading/Hauling Costs per CY	*$ 26.90*	*$ 27.57*	*$ 28.26*	*$ 28.97*	*$ 29.69*	*$ 30.43*	*$ 31.20*	*$ 31.98*	*$ 32.78*	*$ 33.59*	*$ 34.43*	*$ 35.30*	*$ 36.18*
COE Dredge Loading/Hauling	$ -	$ -	$ -	$ 724,209	$ -	$ 760,872	$ 779,894	$ -	$ -	$ 839,860	$ -	$ -	$ 904,438
Disposal Costs per CY	*$ 3.00*	*$ 3.08*	*$ 3.15*	*$ 3.23*	*$ 3.31*	*$ 3.39*	*$ 3.48*	*$ 3.57*	*$ 3.66*	*$ 3.75*	*$ 3.84*	*$ 3.94*	*$ 4.03*
COE Material Landfill Disposal	$ -	$ -	$ -	$ 80,767	$ -	$ 84,856	$ 86,977	$ -	$ -	$ 93,665	$ -	$ -	$ 100,867
Hauling/Disposal Expense Private/COE		***$ -***	***$ -***	***$ 804,976***	***$ -***	***$ 845,728***	***$ 866,871***	***$ -***	***$ -***	***$ 933,525***	***$ -***	***$ -***	***$ 1,005,304***
Cummulative Hauling/Disposal Expense Private/COE		***$ -***	***$ -***	***$ 804,976***	***$ 804,976***	***$ 1,650,703***	***$ 2,517,574***	***$ 2,517,574***	***$ 2,517,574***	***$ 3,451,099***	***$ 3,451,099***	***$ 3,451,099***	***$ 4,456,404***
TOTAL O&M and Hauling/Disposal Expense Private/COE		***$ 80,463***	***$ 87,727***	***$ 894,896***	***$ 92,168***	***$ 1,030,713***	***$ 1,091,960***	***$ 99,255***	***$ 101,737***	***$ 1,037,805***	***$ 132,489***	***$ 254,668***	***$ 1,117,603***
Cumm. TOTAL O&M and Hauling/Disposal Expense Private/COE		***$ 80,463***	***$ 168,190***	***$ 1,063,086***	***$ 1,155,254***	***$ 2,185,967***	***$ 3,277,928***	***$ 3,377,183***	***$ 3,478,919***	***$ 4,516,725***	***$ 4,649,213***	***$ 4,903,882***	***$ 6,021,484***
On-Site Management of Dredge Materials													
Private Dredge Material Rate per CY	*$ 1.00*	*$ 1.03*	*$ 1.05*	*$ 1.08*	*$ 1.10*	*$ 1.13*	*$ 1.16*	*$ 1.19*	*$ 1.22*	*$ 1.25*	*$ 1.28*	*$ 1.31*	*$ 1.34*
Private Dredge Material Revenue	$ -	$ 30,750	$ 31,519	$ 32,307	$ 33,114	$ 33,942	$ 34,791	$ 35,661	$ 36,552	$ 37,466	$ 38,403	$ 39,363	$ 40,347
COE Material Rate per CY	*$ 0.44*	*$ 0.45*	*$ 0.46*	*$ 0.47*	*$ 0.49*	*$ 0.50*	*$ 0.51*	*$ 0.52*	*$ 0.54*	*$ 0.55*	*$ 0.56*	*$ 0.58*	*$ 0.59*
COE Material Beneficial Reuse Revenue	$ -	$ 7,517	$ 7,705	$ 7,897	$ 8,095	$ 8,297	$ 8,504	$ 8,717	$ 8,935	$ 9,158	$ 9,387	$ 9,622	$ 9,863
TOTAL Revenue Private/COE		***$ 38,267***	***$ 39,223***	***$ 40,204***	***$ 41,209***	***$ 42,239***	***$ 43,295***	***$ 44,378***	***$ 45,487***	***$ 46,624***	***$ 47,790***	***$ 48,985***	***$ 50,209***
Cummulative TOTAL Revenue Private/COE		***$ 38,267***	***$ 77,490***	***$ 117,694***	***$ 158,903***	***$ 201,142***	***$ 244,437***	***$ 288,815***	***$ 334,302***	***$ 380,926***	***$ 428,716***	***$ 477,701***	***$ 527,910***

=Private Dredge
=Private/COE Dredge

LMRWD O&M Expenses and Revenues

Inflation =	2.50%	Year												
Description	**Cost 2016**	**13 2029**	**14 2030**	**15 2031**	**16 2032**	**17 2033**	**18 2034**	**19 2035**	**20 2036**	**21 2037**	**22 2038**	**23 2039**	**24 2040**	**25 2041**
On-Site Management of Dredge Materials														
COE Dredge Material below I-35W	*$ 70,000*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
LS Marine Site Operating Costs	*$ 12,500*	$ 17,231	$ 17,662	$ 18,104	$ 18,556	$ 19,020	$ 19,496	$ 19,983	$ 20,483	$ 20,995	$ 21,520	$ 22,058	$ 22,609	$ 23,174
Routine Maintenance of Site Infrastructure														
COE River Access	*$ 10,000*	$ -	$ -	$ 14,483	$ -	$ -	$ -	$ -	$ 16,386	$ -	$ -	$ -	$ -	$ 18,539
Erosion Control and General Site Maintenance	*$ 30,000*	$ 41,355	$ 42,389	$ 43,449	$ 44,535	$ 45,649	$ 46,790	$ 47,960	$ 49,158	$ 50,387	$ 51,647	$ 52,938	$ 54,262	$ 55,618
Clean Out of Culvert	*$ 3,000*	$ 4,136	$ 4,239	$ 4,345	$ 4,454	$ 4,565	$ 4,679	$ 4,796	$ 4,916	$ 5,039	$ 5,165	$ 5,294	$ 5,426	$ 5,562
Vernon Avenue Maintenance (Major)	*$ 65,594*	$ -	$ -	$ -	$ 97,375	$ -	$ -	$ -	$ -	$ 110,171	$ -	$ -	$ -	$ -
Vernon Avenue Maintenance (Routine)	*$ 5,000*	$ 6,893	$ 7,065	$ 7,241	$ -	$ 7,608	$ 7,798	$ 7,993	$ 8,193	$ -	$ 8,608	$ 8,823	$ 9,044	$ 9,270
General Repairs After Flood Event	*$ 50,000*	$ -	$ -	$ -	$ 74,225	$ -	$ -	$ -	$ -	$ 83,979	$ -	$ -	$ -	$ -
Regulatory Changes														
T&E Species Survey	*$ 10,000*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,386	$ -	$ -	$ -	$ -	$ -
Annual Engineering/Design/Permitting Support														
Annual Engineering/Design/Permitting Support	*$ 25,000*	$ 34,463	$ 35,324	$ 36,207	$ 37,113	$ 38,040	$ 38,991	$ 39,966	$ 40,965	$ 41,990	$ 43,039	$ 44,115	$ 45,218	$ 46,349
Annual Survey	*$ 8,000*	$ 11,028	$ 11,304	$ 11,586	$ 11,876	$ 12,173	$ 12,477	$ 12,789	$ 13,109	$ 13,437	$ 13,773	$ 14,117	$ 14,470	$ 14,832
O&M Expense Private/COE		***$ 115,106***	***$ 117,983***	***$ 135,416***	***$ 288,134***	***$ 127,055***	***$ 130,232***	***$ 133,487***	***$ 169,597***	***$ 325,997***	***$ 143,751***	***$ 147,345***	***$ 151,029***	***$ 173,344***
Cummulative O&M Expense Private/COE		***$ 1,680,186***	***$ 1,798,170***	***$ 1,933,585***	***$ 2,221,719***	***$ 2,348,774***	***$ 2,479,006***	***$ 2,612,493***	***$ 2,782,090***	***$ 3,108,087***	***$ 3,251,838***	***$ 3,399,183***	***$ 3,550,212***	***$ 3,723,555***
Loading, Transportation and Offsite Disposal														
Quantity - Cubic Yards	-	-	-	*25,000*	-	-	*25,000*	-	-	*25,000*	-	-	*25,000*	-
Loading/Hauling Costs per CY	*$ 26.90*	*$ 37.08*	*$ 38.01*	*$ 38.96*	*$ 39.93*	*$ 40.93*	*$ 41.95*	*$ 43.00*	*$ 44.08*	*$ 45.18*	*$ 46.31*	*$ 47.47*	*$ 48.65*	*$ 49.87*
COE Dredge Loading/Hauling	$ -	$ -	$ -	$ 973,981	$ -	$ -	$ 1,048,870	$ -	$ -	$ 1,129,519	$ -	$ -	$ 1,216,368	$ -
Disposal Costs per CY	*$ 3.00*	*$ 4.14*	*$ 4.24*	*$ 4.34*	*$ 4.45*	*$ 4.56*	*$ 4.68*	*$ 4.80*	*$ 4.92*	*$ 5.04*	*$ 5.16*	*$ 5.29*	*$ 5.43*	*$ 5.56*
COE Material Landfill Disposal	$ -	$ -	$ -	$ 108,622	$ -	$ -	$ 116,974	$ -	$ -	$ 125,969	$ -	$ -	$ 135,654	$ -
Hauling/Disposal Expense Private/COE		***$ -***	***$ -***	***$ 1,082,603***	***$ -***	***$ -***	***$ 1,165,845***	***$ -***	***$ -***	***$ 1,255,487***	***$ -***	***$ -***	***$ 1,352,023***	***$ -***
Cummulative Hauling/Disposal Expense Private/COE		***$ 4,456,404***	***$ 4,456,404***	***$ 5,539,007***	***$ 5,539,007***	***$ 5,539,007***	***$ 6,704,851***	***$ 6,704,851***	***$ 6,704,851***	***$ 7,960,339***	***$ 7,960,339***	***$ 7,960,339***	***$ 9,312,362***	***$ 9,312,362***
TOTAL O&M and Hauling/Disposal Expense Private/COE		***$ 115,106***	***$ 117,983***	***$ 1,218,019***	***$ 288,134***	***$ 127,055***	***$ 1,296,076***	***$ 133,487***	***$ 169,597***	***$ 1,581,484***	***$ 143,751***	***$ 147,345***	***$ 1,503,051***	***$ 173,344***
Cumm. TOTAL O&M and Hauling/Disposal Expense Private/COE		***$ 6,136,590***	***$ 6,254,573***	***$ 7,472,592***	***$ 7,760,726***	***$ 7,887,781***	***$ 9,183,857***	***$ 9,317,345***	***$ 9,486,941***	***$ 11,068,426***	***$ 11,212,177***	***$ 11,359,522***	***$ 12,862,573***	***$ 13,035,917***
On-Site Management of Dredge Materials														
Private Dredge Material Rate per CY	*$ 1.00*	*$ 1.38*	*$ 1.41*	*$ 1.45*	*$ 1.48*	*$ 1.52*	*$ 1.56*	*$ 1.60*	*$ 1.64*	*$ 1.68*	*$ 1.72*	*$ 1.76*	*$ 1.81*	*$ 1.85*
Private Dredge Material Revenue	$ -	$ 41,355	$ 42,389	$ 43,449	$ 44,535	$ 45,649	$ 46,790	$ 47,960	$ 49,158	$ 50,387	$ 51,647	$ 52,938	$ 54,262	$ 55,618
COE Material Rate per CY	*$ 0.44*	*$ 0.61*	*$ 0.62*	*$ 0.64*	*$ 0.65*	*$ 0.67*	*$ 0.69*	*$ 0.70*	*$ 0.72*	*$ 0.74*	*$ 0.76*	*$ 0.78*	*$ 0.80*	*$ 0.82*
COE Material Beneficial Reuse Revenue	$ -	$ 10,109	$ 10,362	$ 10,621	$ 10,886	$ 11,159	$ 11,437	$ 11,723	$ 12,017	$ 12,317	$ 12,625	$ 12,940	$ 13,264	$ 13,596
TOTAL Revenue Private/COE		***$ 51,464***	***$ 52,751***	***$ 54,070***	***$ 55,422***	***$ 56,807***	***$ 58,227***	***$ 59,683***	***$ 61,175***	***$ 62,704***	***$ 64,272***	***$ 65,879***	***$ 67,526***	***$ 69,214***
Cummulative TOTAL Revenue Private/COE		***$ 579,374***	***$ 632,125***	***$ 686,195***	***$ 741,617***	***$ 798,424***	***$ 856,651***	***$ 916,334***	***$ 977,509***	***$ 1,040,213***	***$ 1,104,485***	***$ 1,170,364***	***$ 1,237,890***	***$ 1,307,104***

=Private Dredge
=Private/COE Dredge

Key Assumptions:
Major Capital Improvement Projects

General

1. Construction costs based on Burns & McDonnell construction estimating utilizing generally conservative assumptions, historical data from comparable environmental projects, and/or RS Means 2016 Cost Database, unless noted.
2. Engineering costs are estimated at 10% of construction costs (typical for planning level estimating).
3. Contingency of 30% applied to each capital improvement project (typical for planning level estimating).
4. Costs are based on 2016 US dollars and are conservatively inflated at a rate of 2.5 percent based on typical industry experience for cost estimating and the average inflation rate over the last 10 years, which can be found at http://www.usinflationcalculator.com/.

Reconfiguration of Site

1. Design for cost estimating is generally based upon conceptual site design originally provided to District by Burns & McDonnell in July 2016 to optimize drying potential of private dredge material. Conceptual design used for this cost analysis was slightly modified from the July 2016 version. Modifications generally include revisions to the overall Site layout and containment berm dimensions.
2. Although the Site is considered a "temporary" storage facility since material will be removed from the Site within 12 months, Site design for cost estimating generally follows “permanent” storage facility design requirements in the MPCA's "Managing Dredge Materials in the State of Minnesota."
3. Floodplain design requirements are not known at this time and were not included as part of the design. Floodplain design requirements should be confirmed by the District with the COE, City of Savage, and any other applicable regulatory agencies prior to additional detailed Site design.
4. Costs for site topographical survey, geotechnical investigation, and wetland evaluation are estimated based on Burns & McDonnell experience with other comparable projects.
5. Private dredge area has a storage volume of approx. 51,114 cy. Incoming volume of future private dredge material estimated at 30,000 cy per year (approx. 1.7 yrs of storage capacity).
6. COE dredge area has a storage volume of approx. 81,048 cy. Incoming volume of future COE dredge material estimated at 25,000 cy per year (approx. 3 yrs of storage capacity).
7. Assumes prior to reconfiguring site, private dredge material within existing containment will be disposed of at landfill (currently estimated at 18,000 cy). Disposal costs are assumed to be incurred by the private slip owners and are not included in this cost analysis.
8. Grading plan assumes approximately 60,455 cy of fill will be needed to construct berms and 75% of the fill material will come from onsite and 25% of the fill material will need to be imported. This is a conservative assumption since additional onsite material may be available to construct berms and will be confirmed following geotechnical investigation, a topographical survey to document existing conditions, and more detailed Site design.
9. Berms to be constructed in 1-foot-thick compacted lifts. Assumes 6-inch-thick topsoil layer, erosion control blanket, and seed will be installed on berm exteriors. Berm dimensions are provided on Site figure.
10. Site access road around private dredge area is 20-ft-wide, 12-in-thick, and constructed of MNDOT Class 5 aggregate and underlain by a 10 oz. non-woven geotextile.
11. Water control structures in private dredge cells (two water control structures total) consist of a 12-in-diameter slotted riser pipe, surrounded by a circular 8-ft-diameter corrugated metal pipe (CMP) section on a concrete pad. Discharge is through a 12-in-diameter CMP culvert through the berms.
12. Relocation of the private dredge river access point approximately 75 ft to the east consists of clearing/grubbing and grading of new location (estimated area of approx. 75 ft x 50 ft) and re-vegetation of existing river access point.

Culvert Replacement

1. 2010 as-built costs provided by the District for existing culvert installation were used to supplement Burns & McDonnell cost estimating.
2. Assume culvert will be replaced in Year 10 (2026) with culvert of same dimensions as existing culvert (105 lineal ft, 48-in-diameter).

Vernon Avenue Upgrade

1. Assumes upgrading existing 20-ft-wide road from Highway 13 to Site entrance is 3,600 ft in length.
2. Upgrade scope of work based on recommendations provided in 2015 AET report provided by District. Report recommends reclaiming existing bituminous and aggregate base as a new base to a depth of 4 inches, surfacing with 3 inches of MNDOT Class 1 surface aggregate, and stripping existing vegetation along roadway prior to reclaiming.

Key Assumptions:
Site O&M Expenses and Revenues

Routine Maintenance of Site Infrastructure

1. COE river access costs assume an allowance of $10,000 (in 2016 US dollars) every 5 yrs to maintain draft depth of COE river access point.
2. Costs for "Erosion Control and General Site Maintenance" are estimated and assumed to occur every year.
3. Costs for "Clean Out of Culvert" are based on actual costs provided by the District for cleaning of culvert in 2016. Assume culvert needs to be cleaned out every year.
4. Costs for "Vernon Avenue Maintenance (Major)" are based on Burns & McDonnell construction estimating and assume blading road and adding a 1-in-thick layer of MNDOT Class 1 material to roadway every 5 years.
5. Costs for "Vernon Avenue Maintenance (Routine)" assume an allowance of $5,000 (in 2016 US dollars) for minor pothole repairs for each year when the "Major" Vernon Avenue maintenance is NOT occurring.
6. Costs for "General Repairs After Flood Event" are estimated and are assumed to occur only after flood events. Four flood events are assumed to occur over the 25-year period.

Loading, Transportation and Offsite Disposal

1. Material loading and hauling costs are based on Burns & McDonnell construction estimating and assumes material disposal at Allied Waste/Republic Services Pine Bend Landfill in Rosemount, MN, (the landfill currently being used for private dredge material disposal).
2. Disposal cost for COE sand is assumed to be $3/cy based on disposal at Allied Waste/Republic Services Pine Bend Landfill and quote provided by Michael Tocko of Republic Services. Disposal costs are highly dependent on level of contamination of soil and if the material can be used by the landfill for daily cover soil and/or other onsite uses at the time of disposal. Disposal costs for this analysis assumes COE material is "clean" (i.e., non-detect for VOCs, SVOCs, and DRO and meets the MPCA's definition of "Unregulated Fill") and can be used by the landfill for onsite uses. If material is "contaminated," disposal could be $24/ton.

On-Site Management of Dredge Materials

1. Costs for COE dredge material below I-35W are based on costs provided by the District for taking COE dredge material below I-35W (estimated at 25,000 cy) in Year 5 (2021). Subsequently assumes 25,000 cy of COE material will be disposed of at landfill in Year 5 (2021).
2. LS Marine site operating costs of $12,500/yr (in 2016 US dollars) are from agreement between District and LS Marine.
3. Private dredge material revenue of $1/cy placed at the Site (in 2016 US dollars) is from agreement between District and Cargill.
4. COE material beneficial reuse revenue of $0.44/cy (in 2016 US dollars) is from agreement between District and Rachel Contracting.

Regulatory Changes

1. Removal of Material Prior to Flood event assumes balance of COE material onsite that would be disposed of prior to flood event. Four flood events are assumed for the 25-year period.
2. Costs for "T&E Species Survey" are estimated based on historical data from comparable sites.

Annual Engineering/Design/Permitting Support

1. Engineering and annual survey costs are estimated based on experience with comparable sites.

Material Flow

1. Private dredge current volume of 18,000 cy estimated based on current Site conditions. Future private dredge incoming/outgoing volume estimated at 30,000 cy/yr based on historical data and input from the District and LS Marine. Assume previous years' incoming volume goes to landfill and the cost is incurred by the private slip owners (not included in this cost analysis). Potential volume reduction due to material dewatering was not considered in volume estimates.
2. COE dredge current volume of 50,000 cy estimated based on survey completed by Rachel Contracting in April 2015 (provided by District) and actual incoming/outgoing volume in 2015 (provided by District) and estimated incoming/outgoing volume in 2016 (based on historical data). Future COE dredge incoming/outgoing volume estimated at 25,000 cy/yr based on historical data and input from the District. Every year, assume 2/3 of incoming COE volume is beneficially reused (16,667 cy/yr). Every 3 years, 1 years' worth of material (25,000 cy) will need to be disposed of at the landfill to maintain COE Site capacity. Potential volume reduction due to material dewatering was not considered in volume estimates.

ATTACHMENT 3 – BACK-UP COST INFORMATION

PROJECT CLIENT: **LMRWD**
PROJECT DESC: **DREDGE SITE COST ANALYSIS -**
PROJECT # : **95102**

SUMMARY
CIVIL

EST LEVEL: **STUDY**
ESTIMATE DUE DATE: **11/1/2016**
ESTIMATOR: **SRH**

DESCRIPTION	LABOR MH	LABOR COST	MATERIAL COST	SUBCON COST	EQUIPMENT RENT / STS	**TOTAL COST**
P 3 MAJOR CAPITAL IMPROVEMENTS	4,108	470,326	470,366	137,106	450,541	**1,528,339**
P 4 MAJOR CAPITAL IMPROVEMENTS	425	48,679	54,978	7,034	30,867	**141,558**
P 5 ROUTINE MAINTENANCE OF SITE INFRASTRUCTURE	132	15,114	18,480		16,863	**50,457**
P 6 LOAD / TRANSPORT / DISPOSE OF DREDGED MAT'L	6,820	780,873			564,218	**1,345,090**
ESTIMATE TOTALS	**11,485**	**$1,314,991**	**$543,824**	**$144,140**	**$1,062,489**	**$3,065,444**

PROJECT CLIENT: **LMRWD**
PROJECT DESC: **DREDGE SITE COST ANALYSIS -**
PROJECT # **95102**

ESTIMATE DETAIL
CIVIL

EST LEVEL: **STUDY**
ESTIMATE DATE: **11/1/2016**
ESTIMATOR: **SRH**

DESCRIPTION	QTY.	UNIT	LABOR				MATERIAL		SUBCONTRACT		EQUIPMENT RENT		UNIT COST	TOTAL COST
			U MH	MH	RATE $/MH	L TTL COST	UNIT COST	M TTL COST	UNIT COST	S TTL COST	UNIT COST	ER TTL COST		
MAJOR CAPITAL IMPROVEMENTS														
Mobilization/Demobilization	1	ls							55825	55,825			55825.00	**55,825**
Reconfigure Area from One to Two Cells														
Clean Out & Dispose of Dredge Material														
- Load Material	18000	cy	0.0484	871	114.50	99,750					3.20	57,588	8.74	**157,338**
- Haul Material to Landfill (32 miles roundtrip)	18000	cy	0.088	1,584	114.50	181,364					8.09	145,530	18.16	**326,894**
Cut/Fill Estimate														
- Cut/Fill w/ Compaction using On Site Material	45342	cy	0.0187	848	114.50	97,082					3.79	171,774	5.93	**268,856**
- Cut/Fill w/ Compaction using Imported Material	15114	cy	0.0187	283	114.50	32,361	20.79	314,220			3.79	57,258	26.72	**403,839**
- 6" Topsoil Layer at Berms	2525	cy	0.066	167	114.50	19,081	25.41	64,160			2.19	5,541	35.16	**88,782**
- Erosion Control Blanket	15150	sy	0.011	167	114.50	19,081	1.73	26,247			0.12	1,750	3.11	**47,078**
- Seeding	3.5	ac							3908	13,677			3907.75	**13,677**
Site Access Roads														
- Grading	4743	sy	0.011	52	114.50	5,974					0.58	2,739	1.84	**8,713**
- 12" Aggregate	4743	sy	0.0165	78	114.50	8,961	12.71	60,260			1.33	6,300	15.92	**75,520**
- Geotextile	4743	sy	0.0044	21	114.50	2,389	1.16	5,478			0.07	329	1.73	**8,196**
Install Water Control Structure	2	ea							33495	66,990			33495.00	**66,990**
Move Dredge Access Point														
- Clear and Grub	0.1	AC	264	26	114.50	3,023					11550.00	1,155	41777.33	**4,178**
- Grading	417	sy	0.0264	11	114.50	1,260					1.39	578	4.41	**1,838**
- Re-vegetate area	0.1	AC							6141	614			6140.75	**614**
				4,108		470,326		470,366		137,106		450,541		**1,528,339**

PROJECT CLIENT: **LMRWD**
PROJECT DESC: **DREDGE SITE COST ANALYSIS -**
PROJECT # **95102**

ESTIMATE DETAIL
CIVIL

EST LEVEL: **STUDY**
ESTIMATE DATE: **11/1/2016**
ESTIMATOR: **SRH**

DESCRIPTION	QTY.	UNIT	LABOR				MATERIAL		SUBCONTRACT		EQUIPMENT RENT		UNIT COST	**TOTAL COST**
			U MH	MH	RATE $/MH	L TTL COST	UNIT COST	M TTL COST	UNIT COST	S TTL COST	UNIT COST	ER TTL COST		
MAJOR CAPITAL IMPROVEMENTS														
Remove & Replace Culvert														
- Remove Existing 48" Culvert	105	lf	0.33	35	114.50	3,967			22	2,345	5.78	606	65.89	**6,918**
- Install New 48" Culvert	105	lf	0.66	69	114.50	7,935	69.30	7,277	45	4,689	11.55	1,213	201.08	**21,113**
- End Sections	2	ea	6.6	13	114.50	1,511	2310.00	4,620			86.63	173	3152.31	**6,305**
- Misc Associated Work	1	ls	26.4	26	114.50	3,023	5775.00	5,775			277.20	277	9074.93	**9,075**
- Mob/Clearing/Repair/Erosion Control	1	ls	35.2	35	114.50	4,030	8662.50	8,663			369.60	370	13062.41	**13,062**
Upgrade Vernon Road														
- Reclaim Existing Bituminous & Aggregate as New Base	8000	sy	0.0154	123	114.50	14,106					2.00	15,985	3.76	**30,091**
- New 3" Aggregate Surface	8000	sy	0.011	88	114.50	10,076	3.58	28,644			0.92	7,392	5.76	**46,112**
- Strip Vegetation at Roadway Edge	4000	sy	0.0088	35	114.50	4,030					1.21	4,851	2.22	**8,881**
				425		48,679		54,978		7,034		30,867		**141,558**

PROJECT CLIENT: **LMRWD**

PROJECT DESC: **DREDGE SITE COST ANALYSIS -**

PROJECT # **95102**

ESTIMATE DETAIL
CIVIL

EST LEVEL: **STUDY**

ESTIMATE DATE: **11/1/2016**

ESTIMATOR: **SRH**

DESCRIPTION	QTY.	UNIT	LABOR				MATERIAL		SUBCONTRACT		EQUIPMENT RENT		UNIT COST	TOTAL COST
			U MH	MH	RATE $/MH	L TTL COST	UNIT COST	M TTL COST	UNIT COST	S TTL COST	UNIT COST	ER TTL COST		
ROUTINE MAINTENANCE OF SITE INFRASTRUCTURE														
Vernon Road														
- Regrade Existing Road	8000	sy	0.0055	44	114.50	5,038					0.58	4,620	1.21	**9,658**
- New 1" Aggregate Surface	8000	sy	0.0066	53	114.50	6,045	2.31	18,480			0.92	7,392	3.99	**31,917**
- Strip Vegetation at Roadway Edge	4000	sy	0.0088	35	114.50	4,030					1.21	4,851	2.22	**8,881**
				132		15,114		18,480				16,863		**50,457**

PROJECT CLIENT: **LMRWD**

PROJECT DESC: **DREDGE SITE COST ANALYSIS -**

PROJECT # **95102**

ESTIMATE DETAIL
CIVIL

EST LEVEL: **STUDY**

ESTIMATE DATE: **11/1/2016**

ESTIMATOR: **SRH**

DESCRIPTION	QTY.	UNIT	LABOR				MATERIAL		SUBCONTRACT		EQUIPMENT RENT		UNIT COST	**TOTAL COST**
			U MH	MH	RATE $/MH	L TTL COST	UNIT COST	M TTL COST	UNIT COST	S TTL COST	UNIT COST	ER TTL COST		
LOAD / TRANSPORT / DISPOSE OF DREDGED MAT'L														
Private Dredge Material Costs														
- Load Material	25000	cy	0.0484	1,210	114.50	138,542					3.20	79,984	8.74	**218,526**
- Haul Material to Landfill (32 miles roundtrip)	25000	cy	0.088	2,200	114.50	251,894					8.09	202,125	18.16	**454,019**
COE Dredge Material Costs														
- Load Material	25000	cy	0.0484	1,210	114.50	138,542					3.20	79,984	8.74	**218,526**
- Haul Material to Landfill (32 miles roundtrip)	25000	cy	0.088	2,200	114.50	251,894					8.09	202,125	18.16	**454,019**
				6,820		780,873						564,218		**1,345,090**

Attachment 4 – Regulatory Documents

2006 City of Savage CUP

City Offices
6000 McColl Drive, Savage, MN 55378-2464 Telephone: 952-882-2660 Fax: 952-882-2656

July 13, 2006

Terry Schwalbe
Lower Minnesota River Watershed District
1600 Bavaria Road
Chaska, Minn. 55318

Dear M. Schwalbe:

This is to confirm that the Savage City Council, during the meeting of Monday, July 10, granted a conditional use permit to allow for fill of dredge materials within the Floodway District, within Port Cargill, as requested by the Lower Minnesota River Watershed District. A photocopy of related Resolution R-06-82 is enclosed.

For your record.

Sincerely,

Janis E. Saarela
City Clerk

RESOLUTION NO. R-06-82

RESOLUTION GRANTING CONDITIONAL USE PERMIT FOR DREDGING AND FILL WITHIN THE FLOODWAY DISTRICT LOWER MINNESOTA RIVER WATERSHED DISTRICT

WHEREAS, the Lower Minnesota River Watershed District, Chaska, Minnesota, has applied to the City of Savage for a conditional use permit, as required by Section 9-19-4-B(4) of the Savage Zoning Ordinance, to allow for the fill of earthen materials upon a property located in a Floodway District; and

WHEREAS, the applicant has proposed the removal of dredge materials from the Minnesota River, the deposit of such materials upon adjacent property and (when the material has dried) the transport of the material to off-site locations; and

WHEREAS, the subject property, owned by Cargill, Inc., is legally described as follows:

> Lots 5 and 6, Auditor's Subdivision No. 1, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota and that part of Lot 1, Auditor's Subdivision No. 3, Savage, Minn., a duly recorded plat, Scott County, Minnesota lying northerly of the following described line and its westerly extension: Commencing at the northeast corner of Section 9, Township 115 North, Range 21 West, Scott County, Minnesota; thence South 00 degrees 03 minutes 13 seconds West, assumed bearing, along the westerly lineof said Lot 1 a distance of 55.48 feet; thence southeasterly 237.76 feet along the westerly line of said Lot 1 and along a non tangential curve concave to the southwest having a radius of 647.97 feet and a central angle of 21 degrees 01 minutes 26 seconds, the chord of said curve is 236.43 feet in length and bears South 23 degrees 11 minutes 54 seconds East to the point of beginning of the line to be described; thence North 87 degrees 20 minutes 18 seconds East 1322 feet more or less to the shoreline of the Minnesota River, said shoreline also being the northeasterly line of said Lot 1, and said line there terminating..

WHEREAS, the LMRWD, which already owns 1.2 acres along the northeasterly boundary of the river, has entered into a purchase agreement with Cargill for the purchase of an additional 18.3 acres to store the dredge material; and

WHEREAS, the LMRWD will build an access driveway from Vernon Avenue east to the dredge site, which will impact about .25 acres of wetland; and

WHEREAS, said impact area is, in fact, mostly floodplain forest with no standing water, cattails or normal wetland vegetation; and

WHEREAS, the dredge storage area will encompass a 12-acre portion of the 19.42 acre site, and low berms measuring 3-4 feet in height will be constructed to reduce erosion and sedimentation; and

WHEREAS, analyses indicate that the dredge material consists of a higher portion of fine sand (less silts and clay) and samples indicate no presence of pesticides or PCB's; and

WHEREAS, THE LMRWD is in the process of receiving necessary approvals to allow a portion of wetland to be filled; and

WHEREAS, in the event of flooding, the dredge material must be removed so as not to impede the natural drainage or contribute to flooding upstream; and

WHEREAS, the application was reviewed by the staff Development Review Committee, by the Planning Commission during a duly authorized public hearing of June 22, 2006, and by the City Council during the meeting of July 10, 2006; and

WHEREAS, the following was determined: the project is necessary for maintenance of a 9-foot navigational channel to accommodate barge travel on the Minnesota River; it is the express duty of the LMRWD to implement a dredged material management plan; the proposed dredge site is not visible from public view and is well screened with existing vegetation and trees; the dredge operation will not produce offensive odors; increased traffic (maximum 15 loads per day) will not cause adverse conditions on Highway 13; the request meets criteria for a conditional use permit as set forth by Section 9-2-7 of the Zoning Ordinance.

NOW THEREFORE, BE IT RESOLVED that the Mayor and Council of the City of Savage, Scott County, Minnesota hereby grant a conditional use permit to the Lower Minnesota River Watershed District, to allow for the placement of dredge materials upon the above described parcel of land, conditioned upon the following:

1. Approval is subject to Engineering Department review and approval of all site, grading, construction and storm water management plans and erosion control plans.

2. The site shall be developed according to those plans submitted by the District. Any changes to such plans shall be brought back to the City for further consideration and approval.

3. No grading shall be allowed within required wetland buffers and vegetation must remain as natural wetland grasses.

4. Wetland delineation and mitigation plans shall be approved by the Savage City Council.

5. Once the dredging operation has ended, the District shall be responsible to remove the material and restore the site to a height not to exceed 720 feet and seed the site with native vegetative species approved by the Natural Resources Coordinator.

6. The City will not be responsible for the upkeep and ongoing maintenance of Vernon Avenue unless the City chooses at some point in the future to do so. If the District decides it needs such upkeep and ongoing maintenance of Vernon Avenue, the District will provide such upkeep and ongoing maintenance at its expense.

7. The City shall be provided with the correct key for the access gage.

8. The conditional use permit shall be recorded with the Scott County Recorder's Office.

Adopted by the Mayor and Council of the City of Savage, Scott County, Minnesota this tenth day of July, 2006.

Thomas M. Brennan, Mayor

Attest:

Barry A. Stock
City Administrator

Motion by Williams

Second by McColl

Brennan	aye	Victorey	aye
Williams	aye	McColl	aye
Abbott	aye		

2014 City of Savage CUP

Receipt# 511538

CUP $46.00

Return to:
G-SAVAGE CITY
6000 MCCOLL DR
SAVAGE MN 55378

T229710

Cert # 31773

Certified Filed and/or recorded on:
7/15/2014 8:56 AM
Office of the Registrar of Titles
Scott County, Minnesota
James L. Hentges, Registrar of Titles

Certification

STATE OF MINNESOTA)

COUNTY OF SCOTT)

CITY OF SAVAGE)

I, the undersigned, being the duly qualified city clerk of the City of Savage, Minnesota, hereby certify that the attached and foregoing is a true and correct photocopy of Resolution No. R-14-83, a resolution approving an amendment to a conditional use permit to allow dredging and fill within the floodway district at 12025 Vernon Avenue, the original of which is on file and of record at the Savage City Hall, 6000 McColl Drive, Savage, Minnesota.

Dated this 8th day of July, 2014.

Ellen Classen
City Clerk

Attest:

Notary Public

BARRY ARTHUR STOCK
NOTARY PUBLIC - MINNESOTA
MY COMMISSION EXPIRES
01/31/2019

Receipt# 511538

CUP $46.00

Return to:
G-SAVAGE CITY
6000 MCCOLL DR
SAVAGE MN 55378

A961453

Certified Filed and/or recorded on:
7/15/2014 8:56 AM
Office of the County Recorder
Scott County, Minnesota
James L Hentges, County Recorder

RESOLUTION NO. R-14-83

RESOLUTION APPROVING AMENDMENT TO CONDITIONAL USE PERMIT
ALLOWING DREDGING AND FILL WITHIN THE FLOODWAY DISTRICT
LOWER MINNESOTA RIVER WATERSHED DISTRICT
12025 VERNON AVENUE

WHEREAS, the Lower Minnesota River Watershed District (LMRWD) has applied to the City of Savage for an amendment to their original conditional use permit (CUP) granted by Resolution No. 06-82 on July 10, 2006 that allowed for the placement of dredging materials within the Floodway District on the following legally described property: T 26-266-005-0 (L5)
T A A -006-0 (L6)

Lots 5 and 6, Auditor's Subdivision No. 1, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota and that part of Lot 1, Auditor's Subdivision No. 3, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota lying northerly of the following described line and its westerly extension: Commencing at the northeast corner of Section 9, Township 115, North , Range 21 West, Scott County, Minnesota; thence South 00 degrees 03 minutes 13 seconds west, assumed bearing, along the westerly line of said Lot 1 a distance of 55.48 feet; thence southeasterly 237.76 feet along the westerly line of said Lot 1 and along a non tangential curve concave to the southwest having a radius of 647.97 feet and a central angle of 21 degrees 01 minutes 26 seconds, the chord of said curve is 236.43 feet in length and bears South 23 degrees 11 minutes 54 seconds east to the point of beginning of the line to be described; thence north 87 degrees 20 minutes 18 seconds east 1322 feet more or less to the shoreline of the Minnesota River, said shoreline also being the northeasterly line of said Lot 1, and said line there terminating.

A 26-297-001-1 (P/O L5)

WHEREAS, the US Army Corps of Engineers dredges accumulated sediment the Minnesota River to keep open the 9-foot navigational channel to allow for barge transportation and the LMRWD is required to provide and manage a placement site for the dredge materials; and

WHEREAS, in 2006, the LMRWD purchased 18 acres and was granted a CUP for a placement site located along on the east side of Vernon Avenue and due to recent difficulties in finding uses for the dredge material, the stockpile had grown to approximately 110,000 cubic yards from dredging operation occurring from 2008 through 2011; and

WHEREAS, recent soil boring tests has found the dredge materials contains more sand than originally thought and the LMRWD has found a contractor, Rachel Contracting, willing to purchase the material to be used for soil corrections in construction projects; and

WHEREAS, the 2006 CUP conditions limited truck traffic to 15 trucks per day; and

WHEREAS, the truck traffic limitation does not allow the removal process to be cost-effective for a contractor to utilize the stockpile for construction projects due to the large volume of material needed and short time frames allowed for construction projects; and

WHEREAS, the LMRWD proposes to reduce the stockpile to a more manageable size by removing the 110,000 cubic yards over the next three construction seasons in addition to approximately 20,000 to 30,000 cubic yards of new dredge material the US Army Corps of Engineers will need to place per year; and

WHEREAS, approximately 38,000 cubic yards need to be removed per season to downsize the stockpile which results in approximately 20 hauling days with up to 300 truck loads hauled per day; and

WHEREAS, after the stockpile has been reduced to a manageable level, it is anticipated that approximately 10 hauling days per year will be need to remove the dredge materials each season; and

WHEREAS, the Vernon Avenue access from TH 13 is a right-in/right-out only turning movement and the City required the applicant to submit a Traffic Impact Study to evaluate truck traffic circulation and proposed impact on TH 13 traffic volumes; and

WHEREAS, staff worked with the applicant on truck traffic routes that would have the least impact to local roadways; and

WHEREAS, the Minnesota River provides barge navigation for several of the world's largest grain marketing companies who operate terminals along the river and the need to remove dredge materials to allow continual dredging of the river to move barge traffic is critical to the economic vitality of these industries; and

WHEREAS, the request was reviewed by the Development Review Committee and new conditions of approval have been included to achieve the goal of reducing the dredge stockpile to a manageable level with the least amount of impact; and

WHEREAS, the following findings are hereby adopted in accordance with Section 152.031 of the Zoning Ordinance:

1. **The conditional use will not be detrimental to or endanger the public health, safety, comfort, convenience, or general welfare.**
   The City required the applicant to conduct a traffic impact study to provide an analysis of the potential impacts the increased hauling operations will have. The study completed by SEH did not indicate any factors that would be detrimental or endanger public health and conditions are being applied to prohibit certain traffic movements.

2. **The conditional use will not be injurious to the use and enjoyment of other property in the vicinity and will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.**
   TH 13 already experiences large truck traffic due to the type of industries located along the roadway. The proposed hauling operation is not creating a use that does not already exist in the area and is keeping with the normal and orderly development of surrounding properties.

3. **The conditional use will be designed, constructed, operated, and maintained in a manner that is compatible in appearance with the existing or intended character of the surrounding area.**
   The area along the Minnesota River is comprised of river related industries of which some already have their own private dredging sites. The proposal is very similar and comparable to the existing businesses in the surrounding area and will not change the intended character of the surrounding area.

4. **The conditional use will not impose hazards or disturbing influences on neighboring properties.**
   The proposed dredging operation and increase in truck traffic won't impose any hazards or disturbing influences on the surrounding area because commercial truck traffic already exists along the TH 13 corridor.

5. **The conditional use will not substantially diminish the value of neighboring properties.**
   The proposed dredging operation and hauling of material will not affect the value of neighboring properties as the use has already been in existence since 2006 without any negative impacts on property values.

6. **The site is served adequately by essential public facilities and services, including utilities, access roads, drainage, police and fire protection and schools or will be served adequately as a result of improvements proposed as part of the conditional use.**
   The site is adequately served for the proposed dredging operation needs and will not create a burden for the city to provide any additional public services. Hauling of the dredge material

will not require public utilities; it will not generate students that would affect the capacity of area schools; and would not require any additional police or fire services.

7. **Adequate measures have been or will be taken to minimize traffic congestion in the public streets and to provide for adequate on-site circulation of traffic.**
   The traffic impact study provided an analysis for staff to apply limitations and conditions regarding allowable hours of operation for truck traffic and limiting certain traffic movements to minimize traffic congestion and provide adequate circulation of traffic on public streets.

8. **The conditional use is consistent with the applicable policies and recommendations of the City's Comprehensive Plan or other adopted land use studies.**
   The CUP is consistent with the policies and goals of the 2030 Comprehensive Plan by allowing the Lower Minnesota River Watershed District to continue their dredging operation that keeps the waterway channels open for navigation for the river related industries located along the Minnesota River.

9. **The conditional use, in all other respects, conforms to the applicable regulations of the district in which it is located.**
   The conditional use complies with the all of the requirements within the Savage Zoning Ordinance.

WHEREAS, the application was reviewed by the Development Review Committee and by the Planning Commission during a duly authorized public hearing on June 19, 2014 whereby it was determined the request met the required findings for a conditional use permit as set forth in Section 152.031 of the Savage Zoning Ordinance;

NOW THEREFORE, BE IT RESOLVED that the recitals set forth above are incorporated herein; and

NOW THEREFORE, BE IT RESOLVED that the Mayor and Council of the City of Savage, Scott County, Minnesota, hereby amend the conditional use permit for the Lower Minnesota River Watershed District, subject to the following conditions:

1. Approval is subject to Engineering Department review and approval of all site, grading, construction, and storm water management plans and erosion control plans

2. No grading shall be allowed within required wetland buffers and vegetation must remain as natural wetland grasses.

3. Once the dredging operation has ended, the District shall be responsible to remove the material and restore the site to a height not to exceed 720 feet and seed the site with native vegetative species approved by the Natural Resources Coordinator.

4. The District shall be responsible for the upkeep and on-going maintenance of Vernon Avenue, including any plowing and the road shall be left in equal to or better condition after the 3rd hauling season is completed in 2017. The road's existing condition shall be documented before hauling begins and a meeting on-site with city staff shall be required to determine what restoration is needed to bring the road to the original condition. Final restoration, at a minimum, will include patching with bituminous.

5. The City shall be provided with 24 hour notification of hauling days.

6. There shall be no U turns allowed on TH 13. At no time shall any trucks stack onto TH 13 or any other roadways except Vernon Avenue. Trucks shall be prohibited from blocking railroad tracks.

7. Truck hauling during peak periods shall be limited to the hours of 7 am – 5 pm Monday through Friday. Hauling during nights and weekends shall be with permission only from the City Engineer/Public Works Director.

8. Truck traffic on local roadways shall only be limited to: 1.) empty eastbound trucks returning to the site shall use the south frontage road to Quentin Avenue where they may travel north to the Quentin Avenue stoplight to go eastbound on TH 13 to Vernon Avenue and 2.) loaded trucks exiting the site that need to travel eastbound shall turn left at Dakota Avenue after exiting onto westbound TH 13 and travel east along the south frontage road to Yosemite Avenue to exit onto eastbound TH 13. No other local truck traffic shall be allowed on local roadways.

9. Vernon Avenue shall remain open for two-way truck traffic up to the existing gate at the railroad tracks and may be reduced to one-lane truck traffic north of the gate. The shoulders of Vernon Avenue shall be adequate to handle large size trucks and their turning movements.

10. A monthly report shall be submitted to the City for any month in the calendar year that incurs removal of dredge material. The report shall provide detailed information of the amounts removed, number of trucks hauled, contractor removing material, truck accidents and any other miscellaneous information that may be pertinent to the hauling operation. Information regarding the addition of new dredge material added to the stock pile site shall be provided to the City as they become available.

11. Sediment deposit on public streets as a result of such hauling shall be removed and streets cleaned as required by City staff.

12. The CUP will be formally reviewed by the Planning Commission and City Council after the first hauling season is completed to address any issue that may arise and to possibly add additional conditions regarding the truck hauling operations.

Adopted by the Mayor and Council of the City of Savage, Scott County, Minnesota, this 7th day of July 2014.

Janet Williams, Mayor

ATTEST:

Barry A. Stock
City Administrator

Motion by: Abbott

Second by: McColl

	Aye	Nay
Williams	X	
McColl	X	
Victorey	X	
Abbott	X	
Kelly	X	

COE MPCA Permit

STATE OF MINNESOTA

Minnesota Pollution Control Agency

Industrial Division

State Disposal System (SDS) Permit MN0050580

PERMITTEE: St. Paul District, U.S. Army Corps of Engineers
PROJECT NAME: Navigation channel maintenance on the Minnesota, Mississippi and St. Croix Rivers

RECEIVING WATERS: Minnesota and Mississippi Rivers

CITIES: From Savage on the Minnesota River, from Stillwater on the St. Croix River, and from Minneapolis on the Mississippi River to Brownsville

COUNTIES: Scott, Hennepin, Ramsey, Dakota, Washington, Goodhue, Wabasha, Winona, and Houston

ISSUANCE DATE: August 6, 2012 EXPIRATION DATE: July 31, 2017

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to operate dredged material placement sites for the project named above, in accordance with the requirements of this permit.

The goal of this permit is to protect water quality in accordance with Minnesota and US statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7050, 7053, 7060, 7090.3000 through 7090.3080, and the U.S. Clean Water Act.

This permit is effective on the issuance date identified above, and supersedes the previous permit that was issued for this facility on May 8, 1985. This permit expires at midnight on the expiration date identified above.

Signature: _____

Jeff Udd, P.E.
Supervisor, Water Quality Permit Unit
Water Section
Industrial Division

for The Minnesota Pollution Control Agency

Submit WQ Reports to:
Attention: WQ Submittals Center
Minnesota Pollution Control Agency
520 Lafayette Rd N
St Paul, MN 55155-4194

Questions on this permit?
For specific permit requirements or permit compliance status, contact:
Emily Schnick (651) 757-2699
Chandi McCracken (651) 757-2232

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Chapter 1. Facility Description and Location

1. Facility Description

1.1 In the Rivers and Harbors Act of 1930, Congress authorized the 9-foot Navigation Channel project on the upper Mississippi River. In that Act, the 9-foot channel was to be achieved by the construction of a series of locks and dams and supplemented by dredging. Included in the project area are the lower reaches of the St. Croix, Minnesota, and Black (at LaCrosse, WI) Rivers. With the exception of the upper lock at St. Anthony Falls, which was completed in 1963, the majority of the locks and dams were completed in the 1930s. As part of the operation and maintenance of the navigation channels, the Permittee annually performs maintenance dredging of the navigation channels to remove accumulated sediments that prevent safe vessel passage.

1.2 The St. Paul District of the U.S. Army Corps of Engineers' (COE) responsibility for navigation-related activity extends from:
River Mile 14.7 on the Minnesota River,
River Mile 24.5 on the St. Croix River, and
the Upper Harbor at Minneapolis, MN (River Mile 857.6)
to Lock and Dam 10 at Guttenberg, IA (River Mile 614.0) on the Mississippi River.

1.3 Dredging Method:

Hydraulic and mechanical (both government-owned and contractor). The COE's William L. Goetz and the Dubuque are 20-inch and 12-inch hydraulic dredges, respectively. While the COE has two crane barges that are used for some dredging projects or emergencies, most of the mechanical dredging is done by a contractor. Contractor equipment includes a variety of mechanical and hydraulic dredges up to 24 inches. A more detailed description of equipment availability and capability is contained in the General Information section of the COE's Channel Maintenance Management Plan (CMMP), which was developed in 1996 and is updated annually. The CMMP can be found at: http://www.mvp.usace.army.mil/navigation/default.asp?pageid=167&subpageid=321.

1.4 Type of Material to be Dredged:

Mississippi and St. Croix Rivers -- primarily coarse to medium grained sand

Minnesota River, Pool 2 of the Mississippi River (the river pool upstream of Lock and Dam 2 at Hastings, MN), and the small boat and commercial harbors on the Mississippi River -- finer grained sediments

Chapter 1. Facility Description and Location

1. Facility Description

1.5 Volume of Material Dredged in the COE's Jurisdiction:
Historic
1937 -- over 4.2 million cubic yards (cy)
1938 -- nearly 5 million cy
1938 to 1955 -- an annual average of 2.3 million cy
1956 to 1972 -- an annual average of 1.5 million cy
1975 to 1995 -- an annual average of ~ 720,000 cy, which ranged from a low of 206,303 cy in 1977 to a high of ~1,417,000 cy in 1995

Recent
1996 to 2010 -- an annual average volume of ~898,092 cy, which ranged from a low of 577,001 cy in 2004 to a high of 1,258,883 cy in 1998.

Volume of Material Placed in MN:
Historic
1975 to 1995 -- an annual average volume of ~361,950 cy, which ranged from a low of 84,900 cy in 1980 to a high of 798,208 cy in 1995.

Recent
1996 to 2010 -- an annual average volume of 431,935 cy, which ranged from a low of 196,627 cy in 2007 to a high of 764,491 cy in 2001.

(The patterns of the volume of material dredged in the COE's jurisdiction and the volume of material placed in MN do not always match as placement sites in Wisconsin or Iowa may be in closer proximity to where the dredging activity is conducted.)

1.6 Duration:
Dredging generally takes place between the months of May and November.

The duration of dredging in the individual dredge cuts varies by the equipment used and the volume of material to be dredged.

1.7 Beneficial Use:

From 1985 through 1994 80% of all material dredged was placed at beneficial use locations.

From 1995 through 2011 the beneficial use of dredged material averaged 92% with eight of the last nine years having 100% beneficial use of the material.

Historic and current beneficial uses include: aggregate in construction products; winter road ice control; fill for development; fill for construction projects; environmental enhancement projects such as Wabasha Prairie; island restoration and/or creation; and recreational beach development and maintenance.

Chapter 2. Dredged Material Management

1. Authorization

1.1 The Permittee is authorized to temporarily store, permanently place and/or beneficially use material dredged from the navigation channel and small boat and commercial harbors from the dredge cuts listed in the Permittee's CMMP in accordance with the provisions of this permit as of the issuance date of this permit.

This permit only applies to those dredged material placement sites within Minnesota's borders and does not authorize activities at other sites used for dredged material placement, in the COE's jurisdiction, that lie in Wisconsin and Iowa. The list of approved Minnesota placement sites is contained in the Appendix, attached hereto and incorporated herein by reference. Although this list is based on placement sites contained in the Permittee's CMMP, some of the sites in the CMMP have been filled and/or are no longer used. (As of the issuance date of this permit, there is no tab (e.g. Tab 8 Location Maps) in the CMMP for "retired"/closed placement sites.)

Approval for new placement sites is contingent on the submission and approval of the information required in part 4.5 of this permit. Approval of these placement sites does not expand or restrict the obligation of the Federal government regarding compliance with any local, State, or Federal laws or property rights.

1.2 The Permittee is authorized to discharge only dredged material conveyance and pore water return flows from the placement sites listed in the Appendix in accordance with Regional General Permit (RGP) RGP-003-MN, which applies to the placement sites that have a discreet discharge point (e.g. pipe outlet), and with other Best Management Practices (BMPs), listed throughout this permit, for placement sites with diffuse discharges.

1.3 This permit authorizes the discharge of stormwater originating from outside of the placement sites' permitted boundaries as well as incidental discharges associated with transportation, off-loading, and/or rehandling activities when managed in accordance with parts 3.1 through 3.6 of this chapter.

1.4 The following activities are not authorized by this permit:
a. The discharge of:
1) Sediment to surface waters from temporary storage, permanent placement and/or beneficial use sites, including, but not limited to: placement methods such as unconfined placement, beach nourishment, placement in wetlands, or other in-water placement. Such activities require separate approval from the MPCA. (Even though they are included in the Permittee's CMMP, the St. Paul Barge Terminal and Weaver Bottoms placement sites are not authorized under this permit as they involve in-water placement of dredged material.);
2) Floating solids or visible foam in other than trace amounts;
3) Oil or other substances in amounts that create a visible color film; and/or
4) Sewage, wash water, scrubber water, spills, oil, hazardous substances, or equipment/vehicle cleaning and maintenance wastewaters to ditches, wetlands or other waters of the state.
b. The hydraulic transfer of dredged material from a Temporary (e.g. emergency or transfer) site to a Permanent or new placement site (a.k.a. placement site unloading). Such activities require a separate approval from the MPCA given the short time frame over which large volumes of material are transferred and carriage water can be discharged.
c. The routing of pollutants from the dredging activity or temporary storage, permanent placement and/or beneficial use sites to a municipal wastewater treatment system. Such authorization can only be obtained from the local unit of government that operates and maintains the sanitary sewer system and treatment works.
d. Sites for which Environmental Assessment Worksheets or Environmental Impact Statements are required, in accordance with Minn. R. ch. 4410, until that environmental review has been completed and a Finding of No Significant Impact or a Negative Declaration has been issued.

1.5 Nothing in this permit constitutes a waiver of sovereign immunity by the United States of America or affects the right of the United States or the COE to assert any defense, including that of sovereign immunity. Nothing in this permit shall grant to the State any jurisdiction over the Corps of Engineers' dredged material placement operations except to the extent such jurisdiction has been granted the State by Acts of Congress and has been exercised pursuant to the laws of the State.

Chapter 2. Dredged Material Management

1. Authorization

1.6 Compliance with the terms and conditions of this permit releases the Permittee from the requirement to obtain a separate a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Stormwater Permit (Permit) for construction activities at the temporary storage, permanent placement and/or beneficial use sites covered by this permit that would otherwise require a NPDES/SDS Permit in accordance with the Clean Water Act and Minnesota rules. Where placement of dredged material occurs at a location separate from the activities covered by this permit, it may require a separate NPDES/SDS General Stormwater Permit. The Permittee's activities are currently exempt from the requirement to obtain a NPDES/SDS Permit for industrial stormwater.

1.7 Compliance with the terms and conditions of the final permit is required upon the date of its issuance.

2. Dredge Activity

2.1 Although the majority of dredged material is granular, fine material that can be resuspended and increase turbidity during dredging may be present. Therefore, due to water quality concerns associated with the dredging activity itself, the dredging activity is subject to the water quality standards specified in Minn. R. chs. 7050.

Approval for Dredged Material Placement from New Dredge Cuts

2.2 The Permittee shall submit the information below to the Commissioner for approval for dredged material placement from each new dredge cut as the need arises:

a. the Pool location;
b. the designated dredge cut name;
c. the beginning and ending River Miles;
d. the estimated initial volume to be dredged to establish the dredge cut;
e. the anticipated volume of material from maintenance dredging;
f. the anticipated frequency of maintenance dredging;
g. the anticipated placement site(s) for the dredged material; and
h. the results of sediment grain size characterization and chemical analyses.

Submittal to the Commissioner shall be made at least thirty (30) days prior to the scheduled dredging activity to allow review of the proposed new dredge cut and placement plan. No placement from dredging at the new cut shall commence until the Permittee has received written approval from the Commissioner. The thirty (30) day review period may be waived at the discretion of the Commissioner.

Chapter 2. Dredged Material Management

2. Dredge Activity

Dredged Material Placement from Normal (Routine) Channel Maintenance

2.3 At least one week prior to conducting dredging activity from which placement covered by this permit may take place, the Permittee shall provide a Dredge Notice for each dredging event to the Commissioner identifying sites where dredging and placement are going to occur as soon as that information is available. At a minimum, the Permittee shall submit the following information:
a. Dredge Notice date;
b. Dredging Category;
c. The exact location of the dredge site (e.g. Dredge Cut Name, River Mile, etc.);
d. The frequency of dredging in this location;
e. The full date last dredged;
f. Average quantity per job;
g. The survey data for the dredge location (i.e. date surveyed, water surface elevation, etc.);
h. The width and probable depth of the proposed dredge cut;
i. The estimated volume of material to be dredged;
j. The equipment to be used;
k. The proposed start date and duration of dredging;
l. The location and nature of the proposed placement site, including an estimate of the volume available at the site and any changes in placement site design if different than noted in the CMMP;
m. Any minor additional work necessary to prepare the site for placement including reshaping, repair or upgrading of existing structures and the location of outfall structures; and
n. Information regarding the potential beneficial use of the material and, when applicable, a justification for not utilizing the beneficial use sites.

2.4 The Permittee shall submit the data above as quickly as possible for the purpose of obtaining approval for the placement of the dredged material.

If the Commissioner has previously approved the placement site, including the approval of GREAT and/or the RRF, and adequate capacity exists at the placement site, then the Dredge Notice will be considered adequate notice and dredging and placement may commence on the date stated on the Dredge Notice if the Commissioner has not responded to the Permittee to the contrary.

Chapter 2. Dredged Material Management

2. Dredge Activity

Dredged Material Placement from Emergency and Imminent Closure Dredging

2.5 In order to avoid the potential for adverse impacts to water quality from vessel groundings and/or "bump and go" situations, this provision recognizes the need for emergency dredging to avoid closures of the navigation channel that were not reasonably foreseeable. This provision is to be strictly interpreted and is not intended to circumvent the normal scheduling of dredging and placement activity.

The advance planning outlined in the CMMP should minimize the need to place dredged material in emergency placement sites not already contained in the Permittee's CMMP. However, emergency and imminent closure classifications may be necessary for unpredictable situations.

2.6 Placement of material dredged to prevent channel closure is authorized pursuant to the following:

a. When the most recent detailed survey indicates the actual water depth from the surface to the bottom is projected to be 10 feet or less within 14 days or less and the channel is less than 85% of the normally maintained width;

b. Projections of water surface shall be made in writing by qualified personnel and shall be based on normal precipitation for the period of the projection. Predictions of depth and sediment transport or shoaling shall utilize the 1D and 2D models developed by the GREAT program when these models are available; and

c. The Permittee will notify the Commissioner of any existing or imminent channel closure and the need to dredge to rectify the situation as soon as that condition becomes known to the Permittee. The Permittee shall obtain the approval of the Commissioner prior to engaging in dredged material placement under this provision. If the Permittee has made a reasonable effort but has been unable to contact the Commissioner, the Permittee may proceed without such approval. The Commissioner shall respond as soon as reasonably possible after receiving notice from the Permittee of closure or an imminent closure projection.

2.7 Before beginning emergency or imminent closure dredging, the Permittee shall take an additional depth measurement at the site prior to dredging. If this later measurement indicates that the channel has stabilized at a depth of 10 feet or greater, no emergency or imminent closure dredging and placement shall be undertaken pursuant to this section.

The Permittee shall take all reasonable mitigative measures to avoid environmental harm when dredging pursuant to this provision, including to the extent possible, measures to assure environmentally sound on-land or confined on-land placement of the material.

2.8 When the Permittee determines that emergency dredging is required, equipment will be mobilized as soon as practicable to the site and dredging will be accomplished as expeditiously as possible to restore navigation.

If emergency dredging is required for a location where normal (routine) channel maintenance was previously scheduled for later in the same navigation season, and equipment is available to complete the normal (routine) channel maintenance at the time of the emergency dredging, then the Permittee may dredge to the depths and widths consistent with the 9-foot channel and place that material as stated in the Dredge Notice for the activity at the time the emergency dredging takes place or immediately following the emergency dredging.

However, if normal (routine) channel maintenance is not scheduled for later in the same navigation season, then the emergency dredging will continue only until an adequate channel depth and width, as determined by depth surveys by the U.S. Army Corps of Engineers, is restored to allow vessel passage.

Chapter 2. Dredged Material Management

2. Dredge Activity

2.9 The selection of a placement site for emergency and imminent closure dredging shall be in priority order:
a) CMMP Permanent placement and Transfer sites.
b) CMMP Emergency placement sites.
c) Other sites as determined by the Permittee and will include the use of the On-Site Inspection Team, coordination with regulatory agencies and consideration of environmental values to the extent practical under the existing conditions.

2.10 Material placed at an emergency placement site will be removed and transferred to a permanent placement site or transfer site by the following spring high water or as soon as possible under time and/or equipment limitations but not to exceed two calendar years from the time of the emergency placement and before the placement of any additional material; unless another mutually agreeable plan of action is reached between the Permittee and the Commissioner.

Chapter 2. Dredged Material Management

2. Dredge Activity

Reports on Emergency or Imminent Closure Dredging

2.11 If the dredged material cannot be placed in a CMMP Transfer site or Permanent placement site within 30 days of the occurrence of such emergency or imminent closure dredging, then the Permittee shall submit to the Commissioner, within 30 days of that determination, the following information as available and unless otherwise provided:
a. the nature of the occurrence that caused the emergency or imminent closure dredging;
b. sounding data;
c. projections of water surface elevation and depth;
d. dredging depths;
e. the volume of material dredged;
f. the type(s) of dredging equipment used;
g. the method(s) and location(s) of dredged material placement:
h. the location of the chemical and physical data from the most recent sediment sampling and analyses event;
i. the duration of the actual dredging operation, including the beginning and end dates;
j. alternatives considered, including alternative dredging methods and placement sites; and
k. a discussion of mitigative measures that were considered and utilized at the placement site.

3. Transportation, Off-loading and Rehandling of Dredged Material

3.1 All dredged material shall be handled carefully to insure that pollutants do not find their way into waters of the state. Dredged material shall be managed in a manner so as to minimize the amount of material returned by spillage, erosion or other discharge to waters of the state during transportation, off-loading, and/or rehandling activities. If sediment fallback occurs, including material that has fallen on the barge deck/gunwales, then the Permittee shall recover the material and place it in the placement site. The Permittee must provide water-tight conveyances for the transportation of all liquid, semi-liquid, or saturated soils, which tend to bleed during transportation. Fluid material hauled for placement must be specifically acceptable at the selected placement site.

3.2 The Commissioner of the Minnesota Pollution Control Agency will be notified immediately in the case of the loss or spillage of any pollutant that creates nuisance conditions or contributes to pollution of water.

3.3 Areas for the off-loading and/or rehandling of dredged material shall be sloped away from surface water, or otherwise be designed to prevent sediment discharge from such areas to waters of the state.

3.4 The Permittee shall minimize vehicle tracking of soil or dredged material off-site at locations where vehicles exit such dredging, temporary storage, permanent placement and/or beneficial use sites onto impervious surfaces by Best Management Practices (BMPs) such as stone pads, concrete or steel wash racks, or equivalent systems.

3.5 Tracked soil and/or dredged material shall be removed from impervious surfaces that do not drain back to a temporary storage, permanent placement and/or beneficial use site within 24 hours of discovery, and placed in the temporary storage, permanent placement and/or beneficial use site from which the material came.

3.6 All of the following requirements apply to the temporary storage of dredged material at emergency placement or transfer sites:

a. The quantity of dredged material to be stored at the site shall not exceed the quantity of material authorized for placement at the site;

b. The exterior slopes of dredged material that is stockpiled at emergency placement sites must be inspected following storm events and/or the subsidence of flood events to confirm stability; and

c. Earthen dikes, dredged material berms or silt fences constructed to contain temporary stockpiles of dredged material that will be moved to a permanent placement site or be beneficially used later, shall not be removed until after the last of the dredged material has been completely de-watered and has been removed from the stockpile/temporary storage site.

Chapter 2. Dredged Material Management

4. Permanent Disposal and/or Beneficial Reuse of Dredged Material

4.1 The Permittee shall limit and control the use of materials at the temporary storage, permanent placement and/or beneficial use site that may cause exceedances of ground water standards specified in Minnesota Rules, ch. 7060. These materials include, but are not limited to: detergents and cleaning agents, solvents, chemical dust suppressants, lubricants, fuels, drilling fluids, oils, fertilizers, explosives and blasting agents.

Existing Dredged Material Placement Sites

4.2 The Permittee shall be responsible for maintaining the structural integrity of earthen dikes or dredged material berms at the temporary storage and/or permanent placement sites in order to prevent the return of potentially polluting materials to waters of the state. Any site used for the temporary storage, permanent placement and/or beneficial use of dredged material shall be operated and maintained by the Permittee to control runoff, including stormwater, from the site to prevent the exceedance of water quality standards specified in Minnesota Rules, chs. 7050 and 7060.

4.3 Approval for Existing Placement Sites
The Commissioner has reviewed the dredged material placement site design plans for the temporary storage and permanent placement sites recommended by the GREAT report, as approved or modified by the RRF, and/or the On-Site Inspection Team process, to determine whether those plans enable the Permittee to reasonably comply with the regulations and criteria of the MPCA. Those plans are contained in the Permittee's CMMP and provide the basis for the final permit. Those plans have been approved unless a comment to the contrary has been provided by the Commissioner. This does not include in-water rehandling areas, recreational beach enhancement or other specific projects recommended for purposes other than the temporary storage or permanent placement of dredged material (i.e. the beneficial use of dredged material as a result of placement site unloading).

New Dredged Material Placement Sites

4.4 A new placement site is any site that is not currently contained in the Permittee's CMMP. This includes sites that: are newly proposed sites; have been used but not formally endorsed; have been designated but with substantially different placement procedures; and/or are being expanded beyond the limits identified in the CMMP.

Chapter 2. Dredged Material Management

4. Permanent Disposal and/or Beneficial Reuse of Dredged Material

4.5 Approval for New Placement Sites

To obtain approval for a new site, the Permittee shall submit to the Commissioner:

1) the location by River Mile and designated name;
2) maps and/or aerial and/or satellite photographs of the site;
3) critical and typical cross sections;
4) specifications on the area and placement capacity;
5) diagrams of outfall structures (where applicable);
6) the location and nature of riprap or other erosion protection;
7) the potential for removal of the dredged material for beneficial use; and
8) proposed sediment control measures.

The Permittee shall submit the information cited above to the Commissioner for approval for each new site as the need arises. Submittal to the Commissioner shall be made at least thirty (30) days prior to the scheduled construction or use of the new placement site. No construction or dredged material placement at the new site shall commence until the Permittee has received written approval from the Commissioner. The thirty (30) day review period may be waived at the discretion of the Commissioner.

The Permittee shall provide an opportunity for an on-site inspection of the proposed placement site and any alternative placement site in a manner recommended by GREAT. Any change in the proposed project as a result of any on-site inspection process shall be reported to the Commissioner, for approval, as soon as that information is available.

If the new site has potential for ongoing use, a proposal shall be submitted to the RRF for endorsement and the placement site will be added to the Permittee's CMMP.

4.6 The following requirements apply to proposed new or the expanded portion of dredged material placement sites:

a. Where vegetation will be disturbed and its ability to control erosion will be adversely affected, sediment control measures shall be properly installed on all downgradient perimeters prior to the initiation of any upgradient land-disturbing construction activities at the placement site.

b. Site preparation shall allow for orderly development of the placement site. Initial site preparations shall include: clearing and grubbing; topsoil stripping and stockpiling; fill excavation, if appropriate; drainage control structures; and other design features necessary to construct and operate the placement site.

c. Sediment control practices shall be designed and implemented to minimize sediment from entering surface waters from newly disturbed areas. The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as equipment access. Any short-term activity must be completed as quickly as possible and the sediment control practices must be installed immediately after the activity is completed. However, sediment control practices must be installed at the end of each work day or before the next precipitation event, whichever occurs first, even if the short-term activity is not complete.

Chapter 2. Dredged Material Management

4. Permanent Disposal and/or Beneficial Reuse of Dredged Material

4.7 A site plan will be developed, which may include the establishment of an earthen dike around the perimeter of the dredged material placement site as a dredged material containment structure. If an earthen dike is established as a containment structure, the criteria below will be met.

Earthen slopes and drainage ways shall be designed and managed to prevent erosion of those features. Earthen slopes longer than 200 feet shall be interrupted with slope breaks to prevent the formation of rills or gullies during snowmelt and/or precipitation events.

The exterior slope of all new earthen dikes shall be no steeper than 3 to 1 (horizontal to vertical) and must be seeded and a soil fixative (e.g. mulch, blanket) applied as an erosion control measure within 72 hours of the completion of any grading work on the slopes.

If grading work on new earthen dikes is completed too late in the growing season to seed or plant the desired species, then the Permittee must propagate an annual cover crop that can be dormant seeded or planted and must apply a soil fixative to the site. The Permittee must apply a soil fixative to the exterior slopes of all new earthen dikes prior to the first snowfall.

Surface water runoff shall be diverted around new or the expanded portion of existing dredged material placement sites to prevent erosion, and to protect the structural integrity of exterior embankments from failure.

Nonfunctioning erosion and sediment control measures shall be repaired, replaced or supplemented with functioning erosion and/or sediment control measures within three days of discovery.

All erosion and sediment control measures shall remain in place until final stabilization has been established on new earthen dikes. Permanent seeding and planting must have a uniform perennial vegetative cover of at least 70 percent density to constitute final stabilization.

4.8 To the extent possible, native trees shall be left in place or plantings established around the perimeter to control wind dispersion of dredged material.

4.9 The exterior slopes of berms constructed of dredged material that are meant to be removed when the material in the placement site is transferred to another location (e.g. beneficial use, placement site unloading) shall be at the angle of repose for that material.

Chapter 2. Dredged Material Management

4. Permanent Disposal and/or Beneficial Reuse of Dredged Material

Inspections

4.10 The Permittee shall inspect new and/or the expanded portion of existing placement sites for the first three years following construction or expansion to ensure slope stability and the integrity of the dredged material containment. The Permittee shall record the date of each inspection, any problem identified with the site, and the action(s) taken to correct any identified problem. The Permittee shall keep these inspection records at the Mississippi River Project Office at Fountain City, Wisconsin and provide them to MPCA staff upon request.

At a minimum, the placement site shall be inspected:
a. after the subsidence of flood events;
b. prior to the initial placement of any dredged material in the site;
c. every six hours for hydraulically placed material or at the end of each day that dredged material is mechanically placed in the site; and
d. following the last placement of material of the calendar year.

Where dredging and placement have been suspended due to the end of the navigation season, the inspections and maintenance shall begin prior to resuming dredged material placement in the placement site.

4.11 Earthen dikes constructed to contain hydraulically dredged material and attendant liquid must be inspected annually in the spring for the presence of animal burrows. Animal burrows should be backfilled with compacted material within three days of discovery.

Exceptions

4.12 In situations where it may not be possible for the Permittee to comply with the requirement to use the existing approved placement sites and/or time constraints preclude getting approval for a new placement site prior to its use, the MPCA agrees to consider exceptions to those placement requirements or other conditions required by this permit. Exceptions will be granted only upon a demonstration by the Permittee, to the satisfaction of the Commissioner, that the time constraints to conduct dredging do not allow approval prior to the use of a new placement site pursuant to part 4.5.

Chapter 2. Dredged Material Management

4. Permanent Disposal and/or Beneficial Reuse of Dredged Material

4.13 Exceptions will be considered for approval by the Commissioner, as soon as possible, upon submittal of the following information. The following information shall be submitted no later than twenty (20) days before the proposed dredging:

a. Information required by part 4.5, if not already supplied.

b. Specification of the proposed placement method and consideration of alternative placement methods and placement sites, including on-land and confined on-land placement sites, with an explanation of why they cannot or should not be utilized for this instance.

c. An analysis of mitigation measures to be taken by the Permittee including, but not limited to utilization of directional berms and beneficial uses.

d. An analysis of the potential environmental effects including any analysis carried out pursuant to Section 404(b) of the Clean Water Act if available.

e. A statement of the factors contributing to the need for an exception. Such factors may include, among other things, the unavailability of dredging equipment that could comply with the terms of the permit, and/or the physical impossibility of complying with the general conditions of the permit.

f. To the extent possible, the Permittee shall schedule an on-site inspection so that the recommendations of the On-Site Inspection Team can be provided no later than twenty (20) days before the proposed dredging. However, if this is not possible, the recommendations of the on-site team shall be submitted as soon as they are available, before dredging begins.

g. The Commissioner's action shall be reported to the Permittee as soon as possible after the submittal of all of the information cited above.

Discharges

4.14 The Permittee shall exert its best effort to produce the highest quality discharge of conveyance and/or pore water in order to minimize water quality impacts associated with discharges from each of the confined on-land placement sites where discreet/designed discharge points (i.e. pipe outlets) are present. Such efforts will be determined on a site specific basis within operational and equipment limitations and may include, but are not limited to: construction of baffles, use of drop structures, ponding, moving the discharge pipe to prevent short circuiting, and other best management practices.

Chapter 2. Dredged Material Management

4. Permanent Disposal and/or Beneficial Reuse of Dredged Material

Beneficial Use

4.15 In an effort to prolong the usability of existing, approved placement sites, the Permittee will continue with its cooperative efforts to identify beneficial uses for dredged material. The Permittee will maintain an ongoing program to assure full consideration of such beneficial use in decisions regarding dredged material placement. After confirmation of the need for dredging any cut, the Permittee will notify the appropriate beneficial users of the availability of dredged material at the placement site for that cut. The Permittee will keep the list of beneficial users current. If the dredged material is placed in a permanent placement site, then the Permittee will not be responsible for removing the material if it is not removed by others unless otherwise agreed to by the Permittee and the Commissioner.

4.16 Prior to the beneficial use of a dredged material in Minnesota, the Permittee shall determine the appropriate suitable use category of the dredged material to be used, as described below.

4.17 The suitable beneficial use category of the dredged material is based on the analyzed characteristics of the dredged material and follows the Tiers in the Soil Reference Values (SRVs), which are listed in the Tier I SRV Spreadsheet and Tier II SRV Spreadsheet found by typing Risk-Based Guidance for the Soil-Human Health Pathway into the Search box once in the MPCA's website (http://www.pca.state.mn.us). Each Tier is characterized by a contaminant level that is at or below the respective concentrations listed for any contaminant that can be reasonably expected to be present in the dredged material. Reasonable expectations are based on past and present land use practices in the watershed, past and present industrial discharges, and past monitoring for a contaminant.

a. Tier I material is authorized to be used at/on sites with a residential property use category.

b. Tier 2 material is authorized to be used at/on sites with an industrial or recreational use category.

c. Tier 3 material is NOT authorized to be put to a beneficial use under this permit. Tier 3 material is characterized by a contaminant level that is greater than any respective analyte concentrations listed in the Tier 2 Recreational and Industrial SRV columns.

4.18 The Permittee may place dredged material at a permitted solid waste landfill, through placement or beneficial use, subject to: authorization from the landfill owner; authorization in the landfill's permit; and part 4.17 above.

4.19 Dredged material shall be removed from placement sites in a manner so as to not damage the integrity and effectiveness of the earthen dikes, dredged material berms, outfall structures and/or any other features required for the containment and treatment of the dredged material.

4.20 Dredged material removed from a placement site shall be transported in accordance with parts 3.4 and 3.5 of this chapter.

Placement Site Closure and Post-Closure Requirements

4.21 The Permittee shall prepare and submit a Closure Plan (Plan) for the final closure of a placement site or all placement sites to the MPCA for review and approval when:

a. the Permittee declares a placement site full and/or no longer functional;
b. this permit expires and the Permittee does not apply for renewal of the permit;
c. this permit expires, the Permittee applies for renewal of the permit and is denied;
d. the Agency revokes this permit; and/or
e. the Agency issues an order to cease operations and directs closure.

Chapter 2. Dredged Material Management

4. Permanent Disposal and/or Beneficial Reuse of Dredged Material

4.22 The Closure Plan shall include:

a. the closure option chosen for the placement site (e.g. relocating material to another site and restoring the original site; reshaping, capping and revegetating the site; etc.);
b. notification to the Commissioner at least 30 days before site closure activities begin;
c. the steps needed to close the site at the end of its operating life;
d. measures to prevent run-on and run-off from eroding or otherwise damaging new vegetative cover until it is well-established (at least 70% uniform coverage);
e. measures to restrict access to the facility to prevent further dredged material placement at the site, unless the site's final use allows access;
f. measures to eliminate, minimize, or control the escape of pollutants to ground water or surface waters, to soils, or to the atmosphere until the site is transferred to a new owner; and
g. a schedule for completion.

4.23 The Permittee may revise the Plan at any time prior to the completion of closure activities. The Permittee shall revise the Plan whenever changes in the operation or site design affect the closure procedures needed.

4.24 A copy of the approved Plan and all revisions to the Plan shall be kept at the Mississippi River Project Office at Fountain City, Wisconsin until closure is complete and certified in accordance with part 4.26 of this chapter.

4.25 Within 30 days after receiving approval of the Closure Plan, the Permittee must begin the closure activities outlined in the approved Plan for the placement site. Closure activities must be completed according to the approved Plan.

4.26 When placement site closure is completed, the Permittee shall submit to the Commissioner certification by the Permittee and an engineer registered in Minnesota that the facility has been closed. The certification shall include the steps taken to close the site, if different from those outlined in the Plan, and pictures showing the site following closure.

4.27 The Permittee shall place all information on the closed site, including information about the site during active placement of dredged material, in the Permittee's CMMP in a tab labeled Closed Sites.

5. Annual Report

5.1 In lieu of submitting an annual 'Dredged Material Report', the Permittee shall update Tab 2A Annual Summaries in the Permittee's CMMP by March 31 of each year for the preceding year's dredging and placement activities. The update shall include the following information for each cut dredged:

a. The river pool, dredge cut name, and River Mile of the dredging location;
b. The equipment used;
c. The dates of dredging;
d. The depth of the dredge cut;
e. The quantity of material dredged;
f. The placement site location and type;
g. The beneficial use category; and
h. The dredging type category (e.g. routine, emergency, etc.).

Footnotes shall be included on the annual summaries where any incidents, such as spills, unauthorized sediment discharge and/or other nonconformity with the permit have occurred and/or the MPCA has required additional information of the Permittee pursuant to Minn. R. 7001 and Minn. Stat. chaps. 115 and 116 as amended.

Chapter 2. Dredged Material Management

5. Annual Report

5.2 In addition to the dredging summary in part 5.1, the Permittee shall update Tab 2B Annual Summaries in the CMMP for channel management and placement site activities (e.g. bank stabilization, reshaping, excavation, etc.). The update shall include the following information for each activity:

a. The river pool;
b. Job name/description;
c. The work type;
d. The River Mile location;
e. The work dates;
f. The equipment used;
g. The cubic yards dredged;
h. The amount of rock used;
i. The placement site; and
j. Placement Site/Comments.

5.3 Where a release and/or other nonconformity with the permit occurred during the previous calendar year, a copy of the report generated or information submitted in accordance with part 1.27 of Chapter 3. Total Facility Requirements shall be submitted to the MPCA 20 days after the incident and shall be included in the annual update of the CMMP.

6. Special Requirements

6.1 The Permittee shall require all dredge contractors and/or others performing work for the Permittee to comply with the terms and conditions of this permit.

6.2 No provision in this permit shall be interpreted to require the obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Sec. 1341, or other federal law. The Corps agrees to use its best efforts to notify the MPCA in the event it anticipates a funding shortfall that will preclude it from the timely fulfillment of its obligations under this permit. The Corps of Engineers understands that its lack of adequate funding or appropriations cannot be used as an excuse for noncompliance with otherwise applicable Federal, State, or other local laws or regulations. The MPCA understands that a lack of funding by the Corps of Engineers may necessitate modification of the reporting requirements or other terms or conditions of this permit.

6.3 The Permittee shall update the sediment quality database as outlined in Section 3.0 Sediment Sampling Protocol in Appendix C of the Permittee's CMMP, from sampling locations within the historic dredge cuts, and submit the analytical results to the MPCA. The schedule for updating the database must be flexible enough to allow sediment sampling and analyses after floods of record and as contaminants of potential concern are identified (i.e. PFOs). The database update shall follow Section 2.0 Testing Approach in Appendix C of the Permittee's CMMP.

The Permittee shall submit a Scope of Work or Study Plan to the MPCA for review and comment at least one month prior to collecting sediment samples for the database update.

The results from all tiers of analysis shall be included in Tab 5 of the Permittee's CMMP. If any of the chemical analytical results is found to be above the MPCA's Tier 2 Recreational and Industrial Soil Reference Value for that parameter, then the Permittee shall notify the MPCA prior to dredging and placement of material from that location.

7. Definitions

7.1 "Act" means the federal Clean Water Act, as amended, 33 U.S. Code 1251 et seq.

7.2 "Agency" means the Minnesota Pollution Control Agency (MPCA). (Minn. Stat. ch. 115.01, subd. 2)

Chapter 2. Dredged Material Management

7. Definitions

7.3 "Angle of Repose" means the maximum slope at which a heap of any loose or fragmented solid material will stand without sliding or come to rest when poured or dumped in a pile or on a slope. (Dictionary of Mining, Mineral, and Related Terms, Hacettepe University Department of Mining Engineering)

7.4 "Beach Nourishment" means the placement of dredged material on the beaches or in the water waterward starting at or above the Ordinary High Water Level (OHWL) for the purpose of adding to, replenishing, or preventing the erosion of, beach material.

7.5 "Beneficial Use" means the use of dredged material, after the material has been dewatered, in projects such as, but not limited to: road base, building base or pad, etc.

7.6 "Best Management Practices (BMPs)" means practices to prevent or reduce the pollution of the waters of the state, including schedules of activities, prohibitions of practices, and other management practice, and also includes treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage. (Minn. R. 7090.0080, subp. 2)

7.7 "Carriage, or Conveyance, Water" means the water portion of a slurry that is pumped from a dredging location to a placement site.

7.8 "Channel Maintenance Management Plan (CMMP)", which was endorsed by the RRF in August 1996, is the comprehensive long-term plan for channel and harbor maintenance related activities for the St. Paul District of the U.S. Army Corps of Engineers. It describes designated dredged material placement sites, a strategy for placement site planning, alternative channel maintenance techniques, and it documents policies and procedures. (http://www.mvp.usace.army.mil/navigation/default.asp?pageid=167&subpageid=321)

7.9 "Chemical Additive" includes processing reagents, water treatment products, cooling water additives, freeze conditioning agents, chemical dust suppressants, detergents and solvent cleaners used for equipment and maintenance cleaning, among other materials.

7.10 "Commissioner" means the Commissioner of the Minnesota Pollution Control Agency or the Commissioner's designee. (Minn. R. 7050.0130, subp. 4)

7.11 "Confined On-Land Placement" means the placement of dredged material in an enclosed diked or bermed area that may have a discreet discharge from some portion of the area.

7.12 "Construction Activity" means a disturbance to the land that results in a change: in the topography; existing soil cover (both vegetative and non-vegetative); or the existing soil topography that may result in accelerated stormwater runoff, leading to soil erosion and movement of sediment into waters of the state. Examples may include clearing, grading, filling and excavating.

7.13 "Discharge of Dredged Material" means any addition of dredged material into waters of the state including beach nourishment. Material resuspended during normal dredging operations is considered de minimus and is not a dredged material discharge.

7.14 "Disposal System" means a system for disposing of sewage, industrial waste and other wastes, and includes sewer systems and treatment works. (Minn. Stat. ch. 115.01, subd. 5)

7.15 "Dredged Material" means any material removed from the bed of any waterway by dredging.

7.16 "Dredging" means any part of the process of the removal of material from the beds of waterways; transport of the material to a rehandling facility or placement site; treatment of the material; discharge of carriage or interstitial water; and placement of the material.

7.17 "Emergency Placement Site" means those sites designated for use only when an emergency condition or imminent closure condition exists in the channel and the necessary equipment or time is not available to place material at a transfer or permanent placement site.

Chapter 2. Dredged Material Management

7. Definitions

7.18 "Emergency Dredging" means dredging required to free a grounded vessel or remove shoals in the channel as a result of a vessel freeing itself.

7.19 "Energy Dissipation" means methods employed at pipe outlets to prevent erosion. Examples include, but are not limited to: dispersal pipe ends, discharge below the water line, aprons, riprap, splash pads, and gabions that are designed to prevent erosion.

7.20 "Erosion Control" means methods employed to prevent soil from moving. Examples include, but are not limited to: soil stabilization practices, limited grading, mulch, temporary or permanent cover, and construction phasing.

7.21 "Final Stabilization" means that all soil disturbing activities at the site have been completed, and that a uniform (e.g. evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

7.22 "Flood Event" means that the surface elevation of a waterbody has risen to a level that causes the inundation or submersion of areas normally above the Ordinary High Water Level as established by the Minnesota Department of Natural Resources.

7.23 "Grab" sample type means an individual sample collected at one point in time.

7.24 "Grain Size Analysis" means a method to determine dredged material particle size distribution.

7.25 "GREAT" means the Great River Environmental Action Team. The GREAT was the result of the formation of an interagency team under the leadership of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service to identify and assess problems associated with the multipurpose nature of the Mississippi River and develop recommendations for the improved management of the River.

7.26 "Hazardous Waste" means any refuse, sludge, or other waste material or combinations of refuse, sludge or other waste materials in solid, semisolid, liquid, or contained gaseous form, which, because of its quantity, concentration, or chemical, physical, or infectious characteristics, may: (a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. Categories of hazardous waste materials include, but are not limited to: explosives, flammables, oxidizers, poisons, irritants, and corrosives. Hazardous waste does not include source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended. (Minn. Stat. ch. 116.06, subd. 11)

7.27 "Imminent Closure" means the actual water depth is projected by the U.S. Army Corps of Engineers to be ten feet or less within 14 days or less; or the channel width is less than 85% of the normally maintained width.

7.28 "Impervious Surface" means a constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Examples include: rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt, or gravel roads.

7.29 "Impoundment" means a natural or artificial body of water or sludge confined by a dam, dike, floodgate, or other barrier.

7.30 "Instantaneous" sample type means a measurement, such as flow or temperature, taken at the time of sampling for chemical characteristics.

7.31 "Interstitial, or Pore, Water" means the water that squeezes out of the interstices, or pores, of the dredged material as it dewaters.

7.32 "Maximum" means the greatest sample value recorded during the designated monitoring period.

Chapter 2. Dredged Material Management

7. Definitions

7.33 "Monthly Average" means the arithmetic mean of all samples collected during one calendar month. For fecal coliform, the monthly average means the geometric mean of all samples collected during one calendar month. The arithmetic mean concentration shall be flow-weighted, calculated by: a) multiplying each individual sample concentration times its respective individual flow; b) adding all such calculations for samples taken during the month; and c) dividing by the sum of the respective individual flows.

7.34 "MPCA" means the Minnesota Pollution Control Agency, or Minnesota Pollution Control Agency staff as delegated by the Minnesota Pollution Control Agency.

7.35 "Normal Width" is the authorized project width as noted in the CMMP for straight sections of the river and for river bends normal width shall be considered the interim recommendations of GREAT as noted in Tab 4 of the CMMP.

7.36 "Normal (Routine) Channel Maintenance" means dredging that is scheduled to alleviate shoaling at historic dredging locations, which, if not dredged, have a high potential to become navigational hazards.

7.37 "On-Land Placement" means the placement of dredged material on-land by mechanical or hydraulic means.

7.38 "On-Site Inspection Team (OSIT)" means the team organized during the GREAT study to provide a mechanism for timely coordination of dredging events and channel maintenance activities with field level state and federal resource managers. The OSIT is used for a variety of purposes: notification for routine dredging events with designated placement sites; operational planning for placement site implementation; alternative site identification for long-range dredged material placement planning; coordination and site selection for emergency and imminent closure dredging; and planning and design of channel modification work.

7.39 "Ordinary High-Water Level (OHWL)" means the boundary of waterbasins, watercourses, public waters, and public waters wetlands, and shall be an elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the ordinary high water level is the elevation of the top of the bank of the channel. For reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool. (Minn. Stat. ch. 103G.005, subd. 14 and Minn. R. 6120.2500, subp. 11)

7.40 "Other Wastes" means garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, ashes, offal, oil, tar, chemicals, dredged spoil, solid waste, incinerator residue, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, cellar dirt or municipal or agricultural waste, and all other substances not included within the definitions of sewage and industrial waste set forth in Minnesota Statutes Chapter 115.01 which may pollute or tend to pollute waters of the state. (Minn. Stat. ch. 115.01, subd. 9)

7.41 "Permanent Dike" means a dike constructed to remain in place even after material is removed from the interior of the site.

7.42 "Permanent Placement Site" means placement sites for which the U.S. Army Corps of Engineers is not responsible for the further removal of material. Such sites are generally sites where active removal of material by others for beneficial use is possible. Permanent placement sites may also provide direct benefits to enhance recreational or environmental resources.

7.43 "Permittee" means the entity identified as Permittee on the cover letter authorizing coverage under this permit.

7.44 "Placement Capacity" means the total volume of dredged materials, along with any topsoil, as calculated from final contour and cross-sectional plan sheets that define the areal and vertical extent of the placement site.

7.45 "Placement Site" means a structure, site or area for the placement of dredged material.

7.46 "Pollutant" means any sewage, industrial waste, or other wastes, as defined in Minnesota Statutes 115.01, discharged into a disposal system or to waters of the state. (Minn. Stat. ch. 115.01, subd. 12)

Chapter 2. Dredged Material Management

7. Definitions

7.47 "Pollution of water," "water pollution," or "pollute the water" means: (a) the discharge of any pollutant into any waters of the state or the contamination of any waters of the state so as to create a nuisance or render such waters unclean, or noxious, or impure so as to be actually or potentially harmful or detrimental or injurious to public health, safety or welfare, to domestic, agricultural, commercial, industrial, recreational or other legitimate uses, or to livestock, animals, birds, fish or other aquatic life; or (b) the alteration made or induced by human activity of the chemical, physical, biological, or radiological integrity of waters of the state. (Minn. Stat. ch. 115.01, subd. 13)

7.48 "Rehandling Site" means a temporary storage site used during the transportation of dredged material to a permanent placement site and is generally located between the dredging activity and the permanent placement site.

7.49 "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment which occurred at a point in time or which continues to occur.

Release does not include:

(1) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, watercraft, or pipeline pumping station engine;

(2) release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, under United States Code, title 42, section 2014, if the release is subject to requirements with respect to financial protection established by the federal Nuclear Regulatory Commission under United States Code, title 42, section 2210;

(3) release of source, by-product or special nuclear material from any processing site designated pursuant to the Uranium Mill Tailings Radiation Control Act of 1978, under United States Code, title 42, section 7912(a)(1) or 7942(a); or

(4) any release resulting from the application of fertilizer or agricultural or silvicultural chemicals, or disposal of emptied pesticide containers or residues from a pesticide as defined in section 18B.01, subdivision 18. (Minn. Stat. ch. 115B.02, subd. 15)

7.50 "Return Flow" means the carriage/conveyance or interstitial/pore water that is returned to a receiving water after separation of the dredged material from the water in a rehandling or placement site.

7.51 "River Resources Forum (or RRF)" means the formal body of State and Federal agencies acting as a body in their official capacity as representatives of their state or federal agency for maintenance dredging and related proposals. The RRF is a state and federal agency partnership for addressing resource issues concerning the Upper Mississippi River system within the jurisdiction of the St. Paul District of the U.S. Army Corps of Engineers. Participating agencies include: the Corps of Engineers, the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Coast Guard, the U.S. Environmental Protection Agency, the Natural Resources Conservation Service, the Departments of Natural Resources and Transportation from the states of Minnesota, Wisconsin, and Iowa, and the Minnesota Pollution Control Agency. (The organization began as the Channel Maintenance Forum or CMF in February 1981; the name change was authorized at the December 1990 meeting of the CMF.)

7.52 "Run-off" means any liquid that drains over land from any part of a placement site.

7.53 "Run-on" means any liquid that drains over land onto any part of a placement site.

7.54 "Sediment" means the unconsolidated inorganic and organic material that is suspended in and transported by surface water, or has settled out and has deposited on the bed of the waterbody.

Chapter 2. Dredged Material Management

7. Definitions

7.55 "Sediment Control" means methods employed to prevent sediment from leaving the site. Sediment control practices include silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, storm drain inlet protection, and temporary or permanent sedimentation basins.

7.56 "Stabilized" means the exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, wood fiber blanket, or other material that prevents erosion from occurring. Grass seed by itself is not stabilization.

7.57 "Storm Event" means a precipitation event (rainfall, snowfall, snowmelt, etc.) that results in surface runoff and is independent of the duration and/or volume of precipitation.

7.58 "Storm Water" means precipitation runoff, storm water runoff, snow melt runoff, and any other surface runoff and drainage. (Minn. R. 7077.0105, subp. 41(b))

7.59 "Surface Water" means all streams, lakes, ponds, marshes, wetlands, reservoirs, springs, rivers, drainage systems, waterways, watercourses, and irrigation systems whether natural or artificial, public or private.

7.60 "Temporary Storage Site" means those sites where material is ultimately removed and transferred to a permanent site. Temporary storage sites have been divided into two categories: emergency placement site or transfer site.

7.61 "Transfer Site" means those sites used as an interim holding location until the area is filled and it can be economically removed and transferred to a designated permanent disposal site or beneficial use.

7.62 "Treatment Facility" means a natural or artificial confinement structure, site or area used for the separation of dredged material solids from the carriage/conveyance or interstitial/pore water.

7.63 "Treatment Works" means any plant, disposal field, lagoon, dam, pumping station, constructed drainage ditch or surface water intercepting ditch, incinerator, area devoted to sanitary landfill, or other works not specifically mentioned herein, installed for the purpose of treating, stabilizing or disposing of sewage, industrial waste or other wastes. (Minn. Stat. ch. 115.01, subd. 21)

7.64 "Unconfined Placement" means the deposition of dredged material, in water, on the bed of a waterway (e.g. island creation).

7.65 "Upland Placement" means the placement of dredged materials landward from the Ordinary High Water Level of a waterway or waterbody.

7.66 "Water table" means the surface of the ground water at which the pressure is atmospheric. Generally this is the top of the saturated zone.

7.67 "Waters of the State" means all streams, lakes, ponds, marshes, wetlands, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof. (Minn. Stat. ch. 115.01, subd. 22)

Chapter 2. Dredged Material Management

7. Definitions

7.68 "Wetlands" means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state. Wetlands must have the following attributes:

a. a predominance of hydric soils;

b. inundated or saturated by surface water or groundwater at a frequency and duration to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and

c. under normal circumstances support a prevalence of such vegetation.
(Minn. R. 7050.0186, subp. 1(a.)(B).)

Chapter 3. Total Facility Requirements

1. General Requirements

General Requirements Related to Dredged Material Placement

1.1 Incorporation by Reference. The applicable provisions of the following state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: Minn. R. chs. 7001, 7050, 7053, and 7060; and Minn. Stat. chs. 115 and 116.

1.2 Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the Agency. (Minn. R. 7001.0150, subp. 3(E))

1.3 Toxic Discharges Prohibited. Whether or not this permit includes discharge limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to 40 CFR, sections 400 to 460 and Minnesota Rules 7050, 7053 and any other applicable MPCA rules. (Minn. R. 7001.1090, supb. 1(A))

1.4 Nuisance Conditions Prohibited. The Permittee's discharge shall not cause any nuisance conditions, such as the presence of significant amounts of floating solids, scum, visible oil film, excessive suspended solids, material discoloration, obnoxious odors, gas ebullition, deleterious sludge deposits, undesirable slimes or fungus growths, aquatic habitat degradation, excessive growths of aquatic plants, or other offensive or harmful effects on the receiving water. (Minn. R. 7050.0210, subp. 2)

1.5 Property Rights. This permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3(C))

1.6 Liability Exemption. In issuing this permit, the state of Minnesota and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. (Minn. R. 7001.0150, subp. 3(O))

1.7 The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes. (Minn. R. 7001.0150, subp. 3(D))

1.8 Liabilities. The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3(A))

1.9 The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. (Minn. R. 7001.0150, subp.3(B))

1.10 Severability. The provisions of this permit are severable and, if any provisions of this permit or the application of any provision of this permit to any circumstance are held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

1.11 Compliance with Other Rules and Statutes. The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the dredged material placement sites.

1.12 Inspection and Entry. When authorized by Minn. Stat. Secs. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the Agency, or an authorized employee or agent of the Agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the dredged material placement sites covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the placement sites covered by the permit or pertaining to the activity covered by the permit. (Minn. R. 7001.0150, subp. 3(I))

Chapter 3. Total Facility Requirements

1. General Requirements

1.13 Control Users. The Permittee shall regulate the users of its dredged material placement sites so as to prevent the introduction of pollutants or materials that may result in the inhibition or disruption of the conveyance system or treatment or placement site that would contribute to the violation of the conditions of this permit or any federal, state or local law or regulation.

Discharge Sampling

1.14 Certified Laboratory. A laboratory certified by the Minnesota Department of Health shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall comply with manufacturers' specifications for equipment calibration and use. (Minn. Stat. sec. 144.97 through 144.98 and Minn. R. 4740.2010 and 4740.2050 through .2120)

1.15 Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136.

1.16 Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA. The Permittee shall maintain records for each sample and measurement. The records shall include the following information:

a. The exact place, date, and time of the sample or measurement;

b. The date of analysis;

c. The name of the person(s) who performed the sample collection, measurement, analysis, or calculation;

d. The analytical techniques, procedures and methods used; and

e. The results of the analysis. (Minn. R. 7001.0150, subp. 2(C))

1.17 Incomplete or Incorrect Reports. The Permittee shall immediately submit an amended report to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report. The amended report shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report. (Minn. R. 7001.0150, subp. 3(G))

1.18 Required Signatures. All forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. (Minn. R. 7001.0150, subp. 2(D))

The person or persons that sign the forms, reports or other documents must certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information.

Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, must be certified by a registered professional engineer. (Minn. R. 7001.0540)

Chapter 3. Total Facility Requirements

1. General Requirements

1.19 Detection Level. The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "<" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "<0.1 mg/L." "Non-detected," "undetected," "below detection limit," and "zero" are unacceptable reporting results, and are permit reporting violations.

Where sample values are less than the level of detection and the permit requires reporting of an average, the Permittee shall calculate the average as follows:

a. If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.

b. If all values are below the level of detection, report the averages as "<" the corresponding level of detection. (Minn. R. 7001.0150, subp. 2(B))

1.20 Records. The Permittee shall, when requested by the Agency, submit within a reasonable time frame the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the dredged material placement sites covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3(H))

1.21 Confidential Information. Except for data determined to be confidential according to Minn. Stat. Sec. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee must follow Minn. R. 7000.1300.

Noncompliance and Enforcement

1.22 Subject to Enforcement Action and Penalties. To the extent authorized by applicable waivers of sovereign immunity, noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by state law in Minn. Stat. Sec. 115.071 and 116.072, including monetary penalties, imprisonment, or both. (Minn. R. 7001.1090, subp. 1(B))

1.23 Criminal Activity. The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate, a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by state law. (Minn. R. 7001.0150, subp.3(G), 7001.1090, subps. 1(G and H) and Minn. Stat. ch. 609.671)

1.24 Noncompliance Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

1.25 Discharge Violations. If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately make every effort to verify the violation by collecting additional samples, if appropriate, investigate the cause of the violation, and take action to prevent future violations. Violations that are determined to pose a threat to human health or a drinking water supply, or represent a significant risk to the environment shall be immediately reported to the Minnesota Department of Public Safety Duty Officer at 1(800) 422-0798 (toll free) or (651) 649-5451 (Twin Cities metro area). In addition, you may also contact the MPCA during business hours. Otherwise the violations and the results of any additional sampling shall be recorded on the next appropriate report.

Chapter 3. Total Facility Requirements

1. General Requirements

1.26 Unauthorized Releases Prohibited. Except for conditions specifically described in Minn. R. 7001.1090, subps. 1 (J and K), all unauthorized bypasses, overflows, discharges, spills, or other releases of materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. (Minn. Stat. sec. 115.061)

1.27 Discovery of a unauthorized release. Upon discovery, the Permittee shall:

a. Take all reasonable steps to immediately end the unauthorized release.
b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800) 422-0798 (toll free) or (651) 649-5451 (Twin Cities metro area) immediately upon discovery of the release. In addition, the Permittee may also contact the MPCA during business hours at 1(800) 657-3864.

c. Recover as rapidly and as thoroughly as possible all materials released or immediately take other action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If the released materials or substances cannot be immediately or completely recovered, the Permittee shall contact the MPCA. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies (such as the Minnesota Department of Natural Resources and/or the Wetland Conservation Act authority) for implementation of additional clean-up or remediation activities in wetland or other sensitive areas.

d. Collect representative samples of the release for parameters of concern immediately following discovery of the release. The Permittee may contact the MPCA during business hours to discuss the sampling parameters and protocol. In addition, Fecal Coliform Bacteria samples shall be collected where it is determined by the Permittee that the release contains or may contain sewage. If the release cannot be immediately stopped, the Permittee shall consult with the MPCA regarding additional sampling requirements. Samples shall be collected at least, but not limited to, two times per week for as long as the release continues.

e. Submit the sampling results as directed by the MPCA. At a minimum, the results shall be submitted to the MPCA within 30 days of the release.

Operation and Maintenance

1.28 The Permittee shall at all times properly operate and maintain the placement sites and systems of treatment and control, and the appurtenances related to them that are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible. (Minn. R. 7001.0150, subp. 3(F))

1.29 In the event of a reduction or loss of effective treatment (e.g. settling of solids or fines, etc.) at any of the placement sites as the site fills and detention times are reduced, the Permittee shall control production or curtail its discharges of conveyance and/or pore water to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until effective treatment at the placement site has been restored or until an alternative method of treatment is provided. (Minn. R. 7001.1090, subp. 1(C))

1.30 Scheduled Maintenance. The Permittee shall schedule maintenance of the placement site during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. (Minn. R. 7001.0150, subp. 3(F) and Minn. R. 7001.0150, subp. 2(B))

Changes to Placement Sites or the Permit

Chapter 3. Total Facility Requirements

1. General Requirements

1.31 Permit Modifications. No person required by statute or rule to obtain a permit may construct, install, modify, or operate the placement sites to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the Agency has issued a written permit for the placement site or activity. (Minn. R. 7001.0030)

Permittees that propose to make a change to the placement site or discharge that requires a permit modification must follow Minn. R. 7001.0190. If the Permittee cannot determine whether a permit modification is needed, the Permittee must contact the MPCA prior to any action. It is recommended that the application for permit modification be submitted to the MPCA at least 180 days prior to the planned change.

1.32 Report Changes. The Permittee shall give advance notice as soon as possible to the MPCA of any substantial changes in operational procedures, activities that may alter the nature or frequency of the discharge of conveyance and/or pore water, and/or material factors that may affect compliance with the conditions of this permit. (Minn. R. 7001.0150, subp. 3(M))

1.33 Chemical Additives. The Permittee shall receive prior written approval from the MPCA before using a new chemical additive not authorized by this permit or increasing the use of a chemical additive authorized by this permit in quantities or concentrations that have the potential to change the characteristics, nature and/or quality of the discharge.

The Permittee shall request approval for a new or increased use of a chemical additive at least 60 days, or as soon as possible, before the proposed new or increased use.

This written request shall include at least the following information for the proposed additive:
a. The process for which the additive will be used;
b. Material Safety Data Sheet (MSDS) that shall include aquatic toxicity, human health, and environmental fate information for the proposed additive;
c. A complete product use and instruction label;
d. The commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive. If the MSDS does not include information on chemical composition, including percentages for each ingredient totaling to 100%, the Permittee shall contact the supplier to have this information provided; and
e. The proposed method of application, application frequency, concentration, and daily average and maximum rates of use.

Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require additional information be submitted for consideration. This permit may be modified to restrict the use or discharge of a chemical additive and include additional influent and effluent monitoring requirements.

Approval for the use of an additive shall not justify the exceedance of any discharge limitation nor shall it be used as a defense against pollutant levels in the discharge causing or contributing to the violation of a water quality standard. (Minn. R. 7001.0170)

1.34 MPCA Initiated Permit Modification, Suspension, or Revocation. The MPCA may modify or revoke and reissue this permit pursuant to Minn. R. 7001.0170. The MPCA may revoke without reissuance this permit pursuant to Minn. R. 7001.0180.

1.35 TMDL Impacts. Facilities that discharge to an impaired surface water, watershed or drainage basin may be required to comply with additional permits or permit requirements, including additional restriction or relaxation of limits and monitoring as authorized by CWA 303(d)(4)(A), necessary to ensure consistency with the assumptions and requirements of any applicable US EPA approved wasteload allocations resulting from Total Maximum Daily Load (TMDL) studies.

Chapter 3. Total Facility Requirements

1. General Requirements

1.36 Permit Transfer. The permit is not transferable to any person without the express written approval of the Agency after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. (Minn. R. 7001.0150, subp. 3(N))

1.37 Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for reissuance at least 180 days before permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.

If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):

a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;

b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;

c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies.

Site Name	Site ID	Size	Estimated Total Capacity	Placement Method	Discharge?	Receiving Water Class Designation	County/Nearest Municipality
Cargill East River	MN-14.2-RMP	18.3 acres					Scott/Savage
Cargill	MN-13.5-RMP	7 acres	140,000 cy		Yes, pipe outlet	2C, 3C	Scott/Savage
Below Cargill	MN-12.4-RMP						Scott/Burnsville
Kraemer Site	MN-12.1-RMP	5 acres	140,000 cy	M or H	Yes, pipe outlet	2C, 3C	Scott/Burnsville
NSP - Black Dog	MN-10.1-RMP	7 acres	130,000 cy	M or H			Scott/Burnsville
Hwy 77(Cedar Ave.) bridge	MN-7.3-RMP	4 acres	40,000 cy	M	No		Dakota /Burnsville
USAF (Upper St. Anthony Falls)	U-856.6-RMP	7 acres	200,000 cy	M or H	Yes, pipe outlet	1C, 2Bd, 3B	Hennepin/Minneapolis
Pool 1 Site	1-853.2-LMP	1 acre	70,000 cy	M	No	n/a	Hennepin/Minneapolis
Below Franklin Ave.	1-851.3-LME	5 acres	85,000 cy	H or M	No	n/a	Hennepin/Minneapolis
Below Lake Street	1-849.5-RME	4 acres	60,000 cy	H or M	No	n/a	Hennepin/Minneapolis
High Bridge	2-840.4-RMP	4 acres	100,000 cy	M or H	No	n/a	Ramsey/St. Paul
Southport	2-836.3-RMP	18 acres	200,000 cy	H	No	n/a	Ramsey/St. Paul
Holman Field	2-832.8 RMP	46 acres	400,000 cy	H	No	n/a	Ramsey/St. Paul
Pine Bend	2-823.8-LMT	8 acres	379,500 cy	H or M	Yes, diffuse	2B, 3B, 4A, 4B, 5, 6	Washington/Cottage Grove
C.F. Industries (1)	2-823.8-RMP	6.5 acres	150,000 cy	M	No	n/a	Dakota/Rosemont
C.F. Industries	2-823.8-LMT	1 acres	40,000 cy				Dakota/Rosemont
Shiely Pit (2)	2-822.5-LMP	15 acres	>1,445,500 cy	H	No	n/a	Washington/Cottage Grove
Upper Boulanger	2-821.5-LMT	4 acres	100,000 cy	H or M	Yes, diffuse	2B, 3B, 4A, 4B, 5, 6	Washington/Cottage Grove
Lower Boulanger	2-821.1-LMT	8 acres	355,500 cy	H or M	Yes, pipe outlet	2B, 3B, 4A, 4B, 5, 6	Washington/Cottage Grove
Hastings	3-815.1-RMP	1 acre	17,000 cy	M	No	n/a	Dakota/Hastings
Koch	3-814.7-RMP	7 acres	70,000 cy	M	No	n/a	Dakota/Hastings
Hastings Harbor	3-813.2-RMP	11 acres	175,000 cy	M or H			Dakota/Hastings
Point Douglas	3-811.5-LMP	10 acres	400,000 cy	H	No	n/a	Washington/Prescott, WI
Morgans	3-802.3-RME	3 acres	52,000 cy	M or H	No	n/a	Goodhue/Diamond Bluff, WI
Corps Island	3-799.2-RMT	7 acres	224,000 cy	H or M	Yes, diffuse	2B, 3B, 4A, 4B, 5, 6	Goodhue/Prairie Island
Red Wing Yacht Club	4-794.7-RMP	6 acres	25,000 cy		No	n/a	Goodhue/Red Wing
Red Wing Commercial Harbor	4-791.6-RMP	13 acres	400,000 cy	M	No	n/a	Goodhue/Red Wing
Colvill Park	4-788.5-RMP	5 acres	95,000 cy	M or H	No	n/a	Goodhue/Red Wing
Carrels Pit	4-761.1-RMP	18 acres	706,000 cy	H or M rehandling	No	n/a	Wabasha/Wabasha
Wabasha Gravel Pit	4-761.0-RMP	86 acres	5,890,000 cy	H	No	n/a	Wabasha/Wabasha
West Newton Chute	5-749.8-RMP	39 acres	1,362,000 cy	H	No	n/a	Wabasha/Kellogg
Above West Newton	5-748.0-RMT	14 acres	578,000 cy	H	Yes, pipe outlet	2B, 3B, 4A, 4B, 5, 6	Wabasha/West Newton
Above Fisher Island	5-745.8-RMT	14 acres	782,000 cy	H	Yes, pipe outlet	2B, 3B, 4A, 4B, 5, 6	Wabasha/West Newton
Lock & Dam 5 Site	5A-738.2-RMP	2 acres	35,000 cy	M	No	n/a	Winona/Whitman
Winona Commercial Harbor	6-726.3-RMP	5 acres	150,000 cy	M	No	n/a	Winona/Winona
Winona Small Boat Harbor	6-726.0-LMP	1 acre	9,000 cy	M	No	n/a	Winona/Winona
Homer	6-720.5-RMP	10 acres	150,000 cy	M or H	No	n/a	Winona/Homer
Hot Fish Shop	7-713.1-RMP	3 acres	60,000 cy	M	No	n/a	Winona/Donehoven
Dakota Boat Ramp	7-707.3-RMP	5 acres	90,000 cy	H	Yes, pipe outlet	2B, 3B, 4A, 4B, 5, 6	Winona/Dakota
Dakota Island	7-706.5-RMT	8 acres	160,000 cy	H & M	Yes, diffuse	2B, 3B, 4A, 4B, 5, 6	Winona/Dakota
Brownsville Containment	8-688.7-RMP	36 acres	1,266,500 cy	H & M	Yes, diffuse	2B, 3B, 4A, 4B, 5, 6	Houston/Brownsville

Key to Disposal Site Table:

(1) C.F. Industries has a permit for their own dredged material disposal utilizing the same areas.
Material placed by the Corps of Engineers in the pit site becomes the property of C.F. Industries.

(2) Shiely (now known as Aggregate Industries) has a permit for their own dredged material disposal

n/a = not applicable

Site Identification:

A 3-part alphanumeric code denoting the:

Pool;

River Mile (as measured from the confluence with the Ohio River);

Side of the navigation channel:

R = right descending bank of river,

L = left descending bank of river;

State where the site is located:

M = Minnesota; and

Site type designation:

P = permanent,

T = temporary,

E = emergency.

For example, site **7-714.1-LWP** is located in Pool 7 (the pool behind/upstream of Lock and Dam 7), at river mile 714.1, on the left descending bank of the navigation channel, in the State of Wisconsin, and is a permanent placement site.

Placement Method:

H= Hydraulic

M= Mechanical.

The method listed first is the preferred method for the site.

More detailed descriptions of each of these sites are contained in the St. Paul District of the U.S. Army Corps of Engineers' Channel Maintenance Management Plan.

Linda Loomis January 20, 2017 Personal Communication

From:	Linda Loomis
To:	Della Young; Watruba, Eric
Subject:	Fwd: [EXTERNAL] Section 10 permit for Savage Dredge site
Date:	Friday, January 20, 2017 4:09:45 PM
Attachments:	MPCA-Corps Dredge Final Permit 2012-2017.pdf

I received an answer from the Corps regarding the Section 10 permit and it is what we expected, but now it is writing and we can add it to the file.

I also heard that the MPCA will not be issuing new permits for dredging until the SRV regulations are finalized. I heard from the St. Paul Port Auhtority that the MPCA is planning to administratively extend the expiring permits to a time when the SRVs are complete.

I will try to get this verified, as I notice the Corps permit expires in July 2017.

Linda Loomis
Administrator, Lower Minnesota River Watershed District
Naiad Consulting, LLC
612-306-5802 *Cell*
763-545-4659 *Home/Office*
6677 Olson Memorial Highway
Golden Valley, MN 55427

---------- Forwarded message ----------
From: **Machajewski, Paul R CIV USARMY CEMVP (US)**
<Paul.R.Machajewski@usace.army.mil>
Date: Fri, Jan 20, 2017 at 3:09 PM
Subject: RE: [EXTERNAL] Section 10 permit for Savage Dredge site
To: Linda Loomis <naiadconsulting@gmail.com>
Cc: "Tapp, Steven D CIV USARMY CEMVP (US)" <Steven.D.Tapp@usace.army.mil>

Hi Linda,

Thank you for your inquiry. We very much appreciate the Watershed District being aware of and concerned with its obligations pertaining to the Minnesota River 9-Foot Navigation Channel Project.

Under our regulations, we don't issue a permit (under either §10 of the Rivers & Harbors Act or §404 of the Clean Water Act) to ourselves but we do consider all the things required by §10 and §404 in our analysis of how to conduct project dredging (and dredged material disposal) activities. The gist of those requirements are summarized in the Dredged Material Management Plan (DMMP) for the Minnesota River. A copy of the most recent DMMP is posted on our website and may be accessed at:

http://www.mvp.usace.army.mil/Portals/57/docs/Navigation/River%20Resource%20Forum/MN_River_DMMP_2007_Final.pdf.

In addition to the environmental and navigation considerations flowing from our §10 and our §404 analyses, the DMMP also summarizes the obligations of the Watershed District arising out of the local assurances that it provided for the project in 1962. The Corps has also obtained permits from the Minnesota DNR and the Minnesota Pollution Control Agency addressing dredged material disposal and handling. Those permits may have a bearing on some of the Watershed District's dredged material management activities. A copy of the current MPCA permit is attached. We anticipate that the Minnesota DNR will issue a new permit later this spring and will provide you with a copy when we receive it.

Please feel free to contact us with any other questions. If there are particular issues of immediate concern to you, please let us know as soon as possible. We would be happy to schedule a meeting or teleconference to discuss them with you.

Paul Machajewski

Channel Maintenance Coordinator

St. Paul District, US Army Corps of Engineers

651.290.5866 (o)

651.724.4259 (c)

From: Linda Loomis [mailto:naiadconsulting@gmail.com]
Sent: Tuesday, January 17, 2017 10:28 AM
To: Machajewski, Paul R CIV USARMY CEMVP (US) <Paul.R.Machajewski@usace.army.mil>
Subject: Re: [EXTERNAL] Section 10 permit for Savage Dredge site

Thanks Paul,

Linda Loomis

Administrator, Lower Minnesota River Watershed District

Naiad Consulting, LLC

612-306-5802 *Cell*

763-545-4659 *Home/Office*

6677 Olson Memorial Highway

Golden Valley, MN 55427

On Tue, Jan 17, 2017 at 10:26 AM, Machajewski, Paul R CIV USARMY CEMVP (US) <Paul.R.Machajewski@usace.army.mil> wrote:

> Hi Linda, sorry I have not gotten back to you, I was out of the office since last week Thursday for the long weekend.
>
> I have forwarded your email up my chain-of-command for a response. I will get back to you as soon as I hear something.
>
> Paul Machajewski
> Channel Maintenance Coordinator
> St. Paul District, US Army Corps of Engineers
> 651.290.5866 (o)
> 651.724.4259 (c)
>
> -----Original Message-----
> From: Linda Loomis [mailto:naiadconsulting@gmail.com]
> Sent: Tuesday, January 17, 2017 10:07 AM
> To: Machajewski, Paul R CIV USARMY CEMVP (US) <Paul.R.Machajewski@usace.army.mil>
> Subject: [EXTERNAL] Section 10 permit for Savage Dredge site
>
> Paul,
>
> I hope you are able to answer my question. The Lower Minnesota RIver Watershed District is looking to assemble a comprehensive file regarding the acivitites connected with the dredge material placement site in Savage. I have searched through the District's files and I have not found any evidence of a section permit. Do you know if one was ever granted? or did the Corps do the work and forego a permit?
>
> If a permit was granted, would it be possible for me to a copy of the permit?
>
> Linda Loomis
> Administrator, Lower Minnesota River Watershed District

Naiad Consulting, LLC
612-306-5802 Cell
763-545-4659 Home/Office
6677 Olson Memorial Highway
Golden Valley, MN 55427