US Army Corps
of Engineers
St. Paul District

MINNESOTA RIVER 9-FOOT CHANNEL PROJECT

DREDGED MATERIAL MANAGEMENT PLAN/ ENVIRONMENTAL ASSESSMENT

MINNESOTA RIVER

ABOVE I-35W BRIDGE

Minnesota River
Scott, Hennepin, and Dakota Counties, Minnesota

March 2007

DREDGED MATERIAL MANAGEMENT PLAN
MINNESOTA RIVER
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1.0 INTRODUCTION

It is the policy of the Corps of Engineers to develop and implement Dredged Material Management Plans (DMMP) that satisfy the long-term placement needs for Corps navigation projects. Several issues surfaced in 1998 concerning the Minnesota River including lack of capacity at a historically used placement site, lack of adequate placement sites for privately owned terminal dredged material, and complaints from the navigation industry on channel conditions. The Corps was concerned with these issues and initiated development of a comprehensive DMMP for the Minnesota River to address all dredging requirements, both private and Federal. The intent of this DMMP is to address existing problems and not to revisit areas having adequate plans in place. The Corps took the lead in the planning process with active participation from the Lower Minnesota River Watershed District, terminal operators, and other interested groups.

The objective of the DMMP is to prepare a coordinated, long-term plan for managing dredging and placement site requirements on the Minnesota River. Existing plans or placement sites form the baseline condition. This DMMP emphasizes full implementation of the existing placement sites and focuses on selecting additional placement sites required for placement of all material projected for the planning period.

Dredging to maintain the barge terminals by private companies is essential for continued operations. It is more cost effective to combine efforts and develop sites that can accommodate both Federal and private dredging requirements versus identifying sites strictly for Corps channel maintenance material and then letting the private companies locate and acquire sites for their material.

During the development of this DMMP, several problems were encountered while evaluating sites below (downstream from) the I-35W Bridge. These problems were related to cultural resources, contamination, and restrictions on use of sites. This led to several of the sites being dropped from consideration. This DMMP will address only the area above (upstream from) the I-35W Bridge. Work will continue on the area below the I-35W Bridge and a supplemental DMMP will be furnished when completed. Supporting environmental documentation for this DMMP is included in Section 10.0 and Appendix A.

1.1 Authorization and Responsibilities

The original project on the Minnesota River was authorized in 1867, which provided for the removal of snags and boulders between its mouth and the mouth of the Yellow River at mile 237.0. In 1892, the River and Harbor Act authorized the maintenance of a 4-foot navigation channel from the mouth to mile 25.6. The existing 9-foot navigation channel on the Minnesota River was authorized by the River and Harbor Act of 1958, Public Law 85-500, in accordance with Senate Document 144, 84th Congress, 2nd Session. The project consists of a 9-foot navigation channel on the Minnesota River extending from its mouth to Mile 14.7. The authorized width is 100 feet with suitable widening at the bends and passing points. To assure that the 9-foot depth is available, the dredging process is generally initiated when water depths less than 10.5 feet are observed encroaching into the navigable channel. This allows for the possibility of additional shoaling to occur and a reasonable lead time to schedule and execute

the dredging. Dredging is normally conducted to a depth of 12 feet, but has varied between 11 and 13 feet.

The enabling legislation required local interest contributions including provision of sites for placement of dredged material. The Lower Minnesota River Watershed District (LMRWD) was created to act as the local sponsor. In 1962, the LMRWD Board of Managers passed a resolution of Assurances of Local Cooperation. Construction of the 9-foot channel was initiated in 1966 and was completed in 1968.

Land Acquisition – The Senate Document referenced above requires the local sponsor to furnish "without cost to the United States all lands, easements, and rights-of-way necessary for the construction of the project and for subsequent maintenance when and as required." The LMRWD is obligated to provide dredged material placement sites for the life of the project. The Corps' position is that providing the initial real estate for dredged material placement does not relieve the LMRWD from the continuing need when individual site capacity is exhausted. Therefore, they have an interest in removing material from placement sites as it affects the need for additional placement sites. The Corps' position is that as a site becomes filled, the LMRWD must furnish a new site or remove material from the existing site to maintain capacity.

Clean Water Act – All proposed placement operations including the discharge of an effluent into navigable waters or adjacent wetlands are required by section 404(b) of the Clean Water Act to undergo a detailed impact analysis. If an evaluation finds that a site complies with guidelines, the site may be used. Section 404(t) of the act requires that the Corps comply with state regulatory requirements when placing material below the ordinary high water mark or discharging an effluent. The Minnesota Department of Natural Resources (MDNR) has a long-term permit and Memorandum of Understanding (MOU) that provide details on complying with Section 404(t) for the placement of material. Use of some sites on the Minnesota River has been approved by the MDNR (Cargill East, Kraemer, NSP, and Hwy. 77 Bridge). New sites identified in this report will require coordination with the MDNR and may require an amendment to the permit and MOU. The Corps also has a long-term agreement with the Minnesota Pollution Control Agency (MPCA) for water quality certification when material or effluent is discharged below the ordinary high water mark. If this report recommends a new site, it is subject to approval by the MPCA. Since the Corps controls the type of equipment used for a particular dredging job and controls the effluent when hydraulic dredging is required, the Corps is responsible for acquiring water quality certification from the MPCA for the placement site areas.

Cultural Resources – According to section 106 of the National Historic Preservation Act, the Corps will determine if a cultural resource exists at a proposed site. The Corps will survey all new sites not previously surveyed or not severely disturbed prior to use. When archaeological or historical resources are found, use of the site will be avoided if possible. If that is not possible, the LMRWD will be responsible for any mitigation required.

Endangered Species – The Corps will coordinate all proposed actions at placement sites with the U.S. Fish and Wildlife Service (FWS) in accordance with the Endangered Species Act.

If a determination is made that the proposed plan will have a negative impact on endangered or threatened species, the proposal will not be allowed until operating procedures can be altered to avoid the impact.

National Environmental Policy Act (NEPA) – The Corps will evaluate all actions as to their effects on the environment. To be in compliance with NEPA, all Corps activities must be addressed by an Environmental Impact Statement (EIS) or an Environmental Assessment (EA). An EIS is completed with the signing of a Record of Decision and an EA is completed with the signing of a Finding of No Significant Impact, which gives details on why an EIS was not necessary. The Corps completed an EIS for the Channel Maintenance Management Plan (CMMP) in 1997 finding that it met the best purpose and needs of the Corps for maintenance of the 9-foot channel project. The CMMP included the selection of four sites on the Minnesota River. This planning document recommends implementation of sites other than those considered in the CMMP. Therefore, the Corps has completed an EA for those actions (see Section 10.0).

Wetland Conservation Act (WCA) - This Act is intended to promote no net loss of wetlands and is administered by Local Government Units (LGUs). The WCA regulates draining and filling activities in all wetlands not covered by MDNR Protected Waters Permit. The LMRWD will follow a process to fulfill WCA requirements prior to placement of dredged material. If placement at a wetland site cannot be avoided, the LMRWD will be responsible for wetland replacement as required by law. The Corps has delineated wetlands at alternative sites for the LMRWD.

Local Regulations – The LMRWD will provide real estate for a proposed site and comply with all local and regional regulations. Local and regional regulatory programs include shoreland and floodplain ordinance, watershed plans and regulations, municipal zoning ordinances, and wetland ordinances. The LMRWD will enter into a joint resolution/agreement with each local unit of government that will outline the water management responsibilities of the LMRWD and the local unit of government. This agreement will also set forth the LGU responsible for administering the WCA for that portion of the community within the LMRWD. Most local units of government within the LMRWD have adopted MDNR-approved floodplain ordinances using guidelines, rules, and regulations established in the enabling legislation ("Flood Plain Management Act" - M.S.104). The MDNR is responsible to ensure local units of government comply with the requirements of the act. State law generally allows floodplain encroachment to a limit of .5 feet of flood stage increase if the area is removed from the floodway. Some of the alternatives identified are within the floodway. There can be no stage increase unless a local unit of government agrees on a plan to remove the site from the floodway. Local units of government can issue conditional use permits for temporary placement within the floodway. Conditions of the permit would likely require the applicant to insure removal of material to a certain extent prior to annual spring flooding. The LMRWD will be responsible to work with the local units of government to develop and agree on appropriate plans that would remove designated sites from the floodway, or acquire conditional use permits for temporary placement.

Site Preparations – The Corps is responsible for the construction of dikes to contain dredged material if hydraulic dredging is required since the dikes are essential to dredging for maintenance of the channel. The LMRWD is responsible for insuring that the site is usable and that the Corps has adequate access. This includes but is not limited to installation of culverts for pipeline access or drainage from a site and planting vegetation to screen a site if required to improve aesthetics.

Private Use of LMRWD Acquired Sites – The LMRWD has reviewed the State law and believes that it is not clear as to their authority to obtain dredged material sites for the benefit of private industry. They intend on amending the statute to clarify the authority and to insure that there is an appropriate mechanism for them to charge private industry for acquisition and management of privately used sites.

1.2 Economic Evaluation

The Minnesota River is a significant branch of the inland navigation system. Several of the world's largest grain marketing companies operate terminals on the river. These terminals serve as important nodes in the flow of grain from the Upper Midwest to domestic and foreign markets. In addition to grain, other miscellaneous commodities move through Minnesota River terminals and docks. Table 1-1 lists the terminals located on the Minnesota River. In addition to the terminals listed below, six fleeting areas exist on the river to serve the terminals with a total capacity of 90 barges.

Table 1-1 Terminals on the Minnesota River

Name	River Mile	Purpose
Cargill Co.	14.7 (R)	Ship grain; receive salt, fertilizer
Harvest States Coop	14.6 (R)	Ship grain
Bunge Corp.	14.5 (R)	Ship grain
Richards / Shiely Dock	14.4 (R)	Receive asphalt (Richards), sand, gravel, limestone (Shiely)
Port Cargill		
Molasses Dock	13.3 (R)	Receive molasses
Fertilizer Dock	13.1 (R)	Receive dry fertilizer, salt, limestone, etc.
General Dock	13.0 (R)	Receive general cargo (metal products and lumber)
Elevator C Dock	12.9 (R)	Ship grain
U.S. Salt	11.1 (R)	Receipt and transfer of salt, coal, stone, etc.
Northern States Power	8.6 (R)	Coal unloading dock (no longer used)

Source: Port Series No. 69, Port of Minneapolis - St. Paul, MN and Ports on Upper Mississippi River (Miles 300 to 860 AOR), Revised 1994, NDC 94-P-6, U.S. Army Corps of Engineers

Since 1990, the traffic level on the river has averaged over 4 million tons. The primary commodities moved on the river are farm products (wheat, corn, soybeans, oats and barley) bound for Gulf of Mexico ports. These account for approximately 85 percent of total traffic on the river. Other commodities include dry fertilizer, salt, sand and gravel, metal products, and other miscellaneous commodities. Table 1-2 presents Minnesota River traffic data for recent years.

Table 1-2 Minnesota River Freight Traffic – 1994 to 1996 (Tons x 1,000)

Commodity	1994	1995	1996	Average	% of Total
Food and Farm Products					
Grain (wheat, corn, oats, barley)	2,529	2,354	2,801	2,561	61.1%
Soybeans	689	803	1,237	910	21.7%
Other	83	71	67	74	1.8%
Fertilizers	215	219	223	219	5.2%
Crude materials	577	465	179	407	9.7%
Primary manufactured products	20	19	23	21	0.5%
Total	4,113	3,931	4,530	4,191	100.0%
Source: Waterborne Commerce Statistics					

The grain terminals on the Minnesota River serve as the access point to foreign markets for grain producers in Minnesota and the Dakotas. Producers rely on this route as an important option in the marketing of their grain. This route is often the least cost alternative compared with other marketing outlets: the Pacific Northwest, the Great Lakes through Duluth, the Gulf via rail, or domestic markets. Therefore, maintaining navigability of the Minnesota River is crucial in allowing producers to get the best price for their grain. Without this option, grain will move along other, more costly routes. The higher costs are passed on to the producer in the form of lower prices offered by the grain companies.

The analysis presented here uses data obtained for the current Upper Mississippi River - Illinois Waterway Navigation Study. Transportation costs were estimated for a sample of commodity movements using the UMR-IWW navigation system and for alternate routings and destinations that would bypass the system. Among the many movements evaluated were grain shipments from the Minnesota River to various destinations for domestic use and export. Transportation costs were estimated for moving grain from the producer to the market using the water-based route through the Minnesota River terminals and using alternate routings. Rate savings range from $1.40 to $20 per ton and average $12 per ton. Average savings for the other commodities range from $2 to $13 per ton and average $9 per ton.

Applying the savings of $12 per ton to approximately 3.5 million tons in annual grain tonnage from Minnesota River terminals results in benefits of $42 million per year. For the other commodities, moving an average of 650,000 tons at a savings of $9 per ton results in transportation cost savings benefits of $5,850,000. Total annual savings for traffic moving on the Minnesota River are estimated at $47,850,000.

Dredging needs on the Minnesota River fluctuate from year to year. During the 5-year period from 1994 through 1998 annual dredging volume ranged from zero cubic yards in 1995 to 48,000 cubic yards in 1996. The average volume dredged per year was 23,900 cubic yards and average cost was $116,000.

2.0 PROJECT AREA

2.1 Recreation

Most of the riparian land along the 9-foot navigation section of the Minnesota River is either within the Minnesota Valley National Wildlife Refuge or the Fort Snelling State Park. Fort Snelling State Park occupies most of the shoreline from the mouth of the river up to the Highway 77 Bridge at Mile 7.2. Above that, the Minnesota Valley National Wildlife Refuge maintains public shoreline in the natural state. Some of the recreational activities offered within the State Park include interpretive programs, picnicking, swimming, boating, wildlife observation, and an extensive trail system. Few public roads access the river in this reach. There are boat ramps available at Miles 1.5 (left), 7.2 (right), and 10.8 (left). The river in this reach is narrow and winding, giving very few locations for boat beaching and meeting barge traffic can be hazardous. Fishing is a typical recreational activity from boats and from shore.

The Mississippi National River and Recreation Area, a unit of the National Park Service includes four miles of the Minnesota River and adjacent land upstream from its confluence with the Mississippi. The area overlaps with Fort Snelling State Park from the mouth of the Minnesota River to the I-494 Bridge. The National Park Service does not own land in this portion of the corridor, but works in partnership to protect and enhance the area's natural, cultural, scenic, recreational, and economic resources.

2.2 Commercial Navigation

After construction of the 9-foot channel, the standard practice for moving barges from the Minnesota River terminals to St. Paul was to take only 4 barges (2 wide by 2 long). In the early 1980’s, 6-barge tows (2 wide by 3 long) were used more frequently and that is currently the standard. Towing companies also began moving 8 barge tows (2 wide by 4 long) more frequently since the mid-1990’s. River stage and flow conditions need to be just right to take any more than 6 barges. Empty barges can be moved in three wide configurations but loaded barges are only moved in two wide configurations.

Traffic depends on the market. During the fall of 1998, terminals were only loading 16 barges per day because of low market demands. In most years, that number is usually around 30-40 barges per day during the fall. The only towing service operating on the Minnesota River at this time, Upper River Services (URS), has 2-3 boats that make the trip from the head of navigation to the fleeting areas at St. Paul on a daily basis. They have 7 boats that run around the clock. When they can’t get everything out with their own boats, they get assistance

from others. When this happens, there is a risk that the pilots do not have experience navigating on the Minnesota River. In addition to the lack of experience, the boats that help usually draft more than the URS boats giving them more of a chance to run aground. In the past there have been several towing services operating in any given year.

Using the current towing services, the average time for a trip from the head of navigation to St. Paul is approximately 3 hours. The time decreases if river stages and flows are up and increases if they are down. In 1998 when river stages and flows were low, the same trip took 4 to 4 1/2 hours.

The worst area to navigate is between miles 11.6-12.7 (Peterson's Bar). Pilots continuously complain about conditions being shallow and narrow through that reach. Perception is that the area has become much worse in the past 5 years. Other problem areas are at miles 13.3, 10.5, 9.6, 4.0, and 1.0.

When the demand for loading barges is high, fleeting becomes a problem. There are no permitted fleeting areas wider than two barges. Most of the time, barges are fleeted 2 wide. However, when terminals begin loading 30-40 barges per day, barges are temporarily fleeted 3-4 wide at some locations.

2.3 Cultural Resources

The Minnesota River Valley near its confluence with the Mississippi River is rich in Native American and Euro-American history. This area reveals evidence in the form of archaeological village and mound and burial site remains from the last several millennia. It is the historic homeland of the Dakota people, and is important in the early settlement of the area during the Fort Snelling era. Any dredged material placement site selected will require cultural resources review and coordination with the Minnesota State Historic Preservation Office (SHPO).

2.4 Natural Resources

The Minnesota River provides a greenspace within the urban industrialized landscape. The 9-foot navigation channel discussed in this study lies within the Minnesota Valley National Wildlife Refuge. The refuge, established in 1976, stretches from the mouth of the Minnesota River to Jordan, Minnesota (32 miles). The refuge holds very diverse natural resource habitats, including river bluffs, floodplain forest, native prairie, savanna, and a wide variety of wetlands. Wildlife using the refuge includes over 250 species of birds, approximately 90 species of fish, at least 50 species of mammals, and about 30 species of reptiles and amphibians. With this habitat available the Minnesota River has been used by the Bald Eagle (threatened). Higgin's Eye Pearly mussel has historically been recorded from the Minnesota River, but not in recent times.

3.0 MINNESOTA RIVER MAINTENANCE

3.1 Corps Snag Removal

The Corps' authorization to maintain the navigation channel includes the removal of snags that impede or adversely affect navigation. This authorization requires the removal of snags on the 9-foot and the 4-foot channels up to mile 25.6. Removal of snagged trees in the navigation channel is required frequently on the Minnesota River. It is estimated that 10-15 snags are removed from 7-8 locations every two years. Because the snags do provide aquatic habitat, they are removed only when they present a problem to navigation or their movement into the navigation channel is imminent. Snags on the Minnesota River are removed from the channel and placed on the riverbank out of the water. They are either left on the bank or hauled to a collection point for disposal such as burning or landfill.

3.2 Dredging

Table 3-1 identifies the dredging locations and projected quantities used in the evaluation of placement sites during this study. Both Corps and private dredging requirements are considered. Projecting future dredging requirements is difficult because of the many variables and unknowns that influence channel maintenance. Actual future dredging quantities may be significantly different from the projections, which could either lengthen or shorten the life expectancy of the preferred plan.

Table 3-1 Projected Dredging Quantities for Minnesota River Study : 1999-2025

Cut #	Cut Name	Location	Avg./Job	Frequency	Number of Events	27-Year Projection
1	Mouth of the MN River	0.0-1.1	18,000	11%	3	54,000
2	4-Mile Cut-off	3.4-4.4	9,000	11%	3	27,000
3	Peterson's Bar	11.3-12.4	27,000	55%	15	405,000
4	Cargill	12.5-13.6	7,200	11%	3	21,600
5	Savage Br.	14.3-14.7	20,250	31%	8	162,000
S1	Cargill East Slip	12.7	14,400	55%	15	216,000
S2	Richards Asphalt Slip	14.4	0	0%	0	0
S3	Bunge Slip	14.5	4,500	44%	12	54,000
S4	Harvest States Slip	14.6	5,800	53%	14	81,200
S5	Cargill West Slip	14.7	11,300	43%	12	135,600
					Total 27-Year Projection =	1,156,400

The following sections provide information regarding how the projections were made and how the material is characterized.

3.2.1 Corps Dredging

To arrive at the projected quantities, comparisons were made between the projections used during the GREAT Study and historic dredging data collected between 1976 and 1998. Adjustments were made to the average quantities per year using judgements based on historic records and experiences during recent years (See Table 3-2).

Table 3-2 Evaluation of Corps Dredging Quantities

MPFWG (Most Probable Future with GREAT) Projections from GREAT				
Cut #	Cut Name	40-Year Projection	Avg/Yr 2001-2025	27 Yr. DMMP Qty.
1	Mouth of the MN River	117,500	2,900	78,300
2	4-Mile Cut-off	80,000	2,000	54,000
3	Peterson's Bar	387,500	9,500	256,500
4	Cargill	35,500	800	21,600
5	Savage Br.	101,500	2,500	67,500
	Total Projections	722,000	17,700	477,900
Adjusted Projections				
Cut #	Cut Name	Actual Avg 76-98	Adjusted Avg/Yr	27 Yr. DMMP Qty.
1	Mouth of the MN River	1,409	2,000	54,000
2	4-Mile Cut-off	191	1,000	27,000
3	Peterson's Bar	10,381	15,000	405,000
4	Cargill	665	800	21,600
5	Savage Br.	6,901	6,000	162,000
	Total Projections	19,547	24,800	669,600

Dredging at Cut 1 has been deferred for several years. Therefore, the average annual quantity for Cut 1 was adjusted higher than the actual average but not as high as the GREAT projection. Dredging at Cut 2 was adjusted higher than the actual average because of recent complaints from industry that more attention should be given to the area. Dredging at cut 3 was also adjusted higher. In recent years, only minimum dredging was accomplished at Cut 3 because of capacity problems at the Kraemer placement site. The increase at this cut is significant when compared to the GREAT projection. The GREAT projection was used for Cut 4 because the actual dredging at Cut 4 was close to the GREAT projection. Actual dredging at Cut 5 is significantly higher than the GREAT projection. The quantity was adjusted close to the annual average.

Sediment characteristics vary from location to location and from year to year. In general, the sediment from the main channel dredging on the Minnesota River can be characterized as predominantly sand, containing an average of 1% to 4% silt and clays, depending on the dredge cut. This is based on analysis of sediment samples from historic dredging locations.

3.2.2 Private Dredging

To arrive at the projected quantities, historic dredging data was collected from the companies operating the barge slips. This data was used to compute an average annual quantity and a dredging frequency. Follow-up conversations with the companies resulted in adjustments to the annual average. Using the adjusted annual average and the dredging frequency, a preliminary projection and number of dredging events were calculated for the 27-year planning period. From this information, a projected average job quantity was calculated and multiplied by the number of events to establish the final projected quantity for the 27-year planning period (See Table 3-3).

Table 3-3 Evaluation of Private Dredging Quantities

Slip 1 - Cargill East

Year	Qty.	Average/Year	8,945
1998	7,156	Adjusted Avg.	8,000
1997	2,852	Preliminary Projection	216,000
1996	10,718	Frequency	55%
1994	30,543	# of Events	15
1992	20,460	Projection/Events=	
1988	26,667	Projected Avg./Job	14,400
Total	98,396	Final Projection	216,000

Slip 2 - Richards Asphalt

No maintenance projected in the future.

Slip 3 - Bunge

Year	Qty.	Average/Year	2,073
1998	3,790	Adjusted Avg	2,000
1996	3,150	Preliminary Projection	54,000
1995	7,210	Frequency	44%
1992	4,410	# of Events	12
1988	3,900	Projection/Events=	
1987	7,200	Projected Avg./Job	4,500
1983	3,500	Final Projection	54,000
Total	33,160		

Slip 4 - Harvest States

Year	Qty.	Average/Year	3,733
1998	6,000	Adjusted Avg	3,000
1997	6,400	Preliminary Projection	81,000
1996	6,000	Frequency	53%
1995	6,000	# of Events	14
1994	10,000	Projection/Events=	
1992	6,328	Projected Avg./Job	5,800
1988	12,268	Final Projection	81,200
1984	3,000		
Total	55,996		

Slip 5 - Cargill West

Year	Qty.	Average/Year	5,890
1998	11,313	Adjusted Avg	5,000
1997	10,000	Preliminary Projection	135,000
1996	12,124	Frequency	43%
1995	250	# of Events	12
1993	18,000	Projection/Events=	
1989	18,000	Projected Avg./Job	11,300
1985	18,000	Final Projection	135,600
1981	18,000		
1978	18,000		
Total	123,687		

1995-1998 Data is from L&S records.
1978-1993 Data is from Cargill West
(Data was adjusted according to a statement that pre-1993, they dredged hydraulically at approx. 20,000 CY per event every three to four years for a total of 90,000 CY.)

Sediment characteristics vary from location to location and from year to year. In general, the sediment from the private slips on the Minnesota River can be characterized

as approximately 70% sand and 30% silt and clays. This is based on observations and some sediment analysis data from the Harvest States slip. Dredging at private slips with hydraulic equipment is not anticipated because of the fine nature of the material and therefore was not evaluated in this DMMP.

3.3 Alternatives to Reduce Dredging

Dredging trends were examined to predict future dredging requirements on the Minnesota River. Evaluating measures to reduce dredging requirements was a complex process since many factors are involved.

A single representative discharge can be identified that defines stable channel geometry. "The bankfull stage corresponds to the discharge at which channel maintenance is the most effective, that is, the discharge at which moving sediment, forming or removing bars, forming or changing bends and meanders, and generally doing the work that results in the average morphologic characteristics of channels."(Dunne and Leopold, 1978) Typically the bankfull discharge corresponds to a 1.5-year flood event. The 1.5-year flood discharge of 9800 cfs was determined using a frequency curve at the USGS gage near Jordan, MN. Since the drainage areas are 16,200 sq. mi. and 16,550 sq. mi. at Jordan and the mouth of the Minnesota River respectively, this discharge was used for the entire reach from the mouth of the Minnesota River to the USGS gage at Jordan, MN.

The reach of the Minnesota River from the mouth to the USGS gage at Jordan, MN was modeled using HEC-2. Starting water surface elevations were obtained from running an HEC-2 model for Pool 2 of the Mississippi River. A 1.5-year flood event was assumed to be coincident on the Mississippi River. The Mississippi River modeling was started at the USGS gage at the Robert St. Bridge in St. Paul, MN. The modeling was verified using the rating curve at Jordan, MN. The model also helped verify the original assumption that the 1.5-year flood was a bankfull discharge. Water Surface profiles were plotted for this reach of the Minnesota River.

Sediment transport in a river is affected by the sediment type and size, velocity, slope, and cross-sectional area. If there is a decrease in slope without a decrease in cross-sectional area, deposition will occur. For this analysis, the sediment was assumed to be uniform and would not affect the sediment transport regime.

The water surface profile could be broken down into 3 distinct reaches based on the slope. The first reach, from river miles 1.3 to 29.3, had a slope of 0.379 ft/mi. The middle reach, from river miles 29.3 to 51.4, had a slope of 0.462 ft/mi. The last reach, from river miles 51.4 to 64.0, had a slope of 0.878 ft/mi. The slope of the first reach was expected to be lower because of backwater effects from the Mississippi River. The navigable part of the Minnesota River, river miles 0.0 to 14.7, all fell within the first reach. The flatter slope in this first reach verifies the need for dredging on the Minnesota River.

In looking at measures to reduce dredging requirements, we have to look at all factors affecting the sediment transport regime. Therefore, since the water surface profile slope and sediment are uniform within the navigable portion of the Minnesota River, the factors to look at changing are channel velocity and cross-sectional area.

Channel width and depth were obtained from hydrographic surveys and channel velocity and cross-sectional area were obtained from the HEC-2 model. This data was tabulated by river mile to look at possible measures to reduce dredging requirements. Dredge cuts are usually laid out at 100 feet wide and when the depth is reduced to 10.5 feet or less. The tabulated data was examined for instances when the channel was less than 150 feet wide at channel depths of at least 10 feet and when bank to bank channel widths approached 400 feet or more with corresponding velocities less than 1.7 feet/second. If the channel width is reduced in these areas, the channel velocity will increase and sediment will be moved along the river instead of depositing in the current dredging locations. The average bank to bank width of the navigable portion of the Minnesota River is 337 feet.

The following locations met this criteria, river miles 0.8 to 1.0, 3.9 to 4.1, and most importantly 11.7 to 12.7. Options to reduce dredging requirements at these locations include channel reshaping or construction of wingdams. The use of sediment traps is not recommended since they are inefficient for channel maintenance and cause degradation problems downstream. It should be noted that if the sediment were transported downstream it would probably end up being deposited out in another location, which may or may not be an easy dredging location. There are two other locations that fit the criteria used above, but it doesn't seem realistic to do any channel work there since the locations are near barge slips, river miles 13.3 to 13.6 and 14.0 to 14.2.

The Corps has a Channel Management Planning (CMP) process established to guide in the planning, scheduling, prioritizing and budgeting non-dredging channel maintenance related work. Since there are areas on the Minnesota River that might warrant further investigation, this area will be added to the CMP schedule. It will be prioritized and studied further as appropriate. The schedule of current CMP studies can be found in TAB 7 of the Corps Channel Maintenance Management Plan.

4.0 BENEFICIAL USE

The program of channel maintenance, as mandated by federal law and carried out by the U.S. Army Corps of Engineers, has historically produced a large amount of sand dredged from the Minnesota River. Sand from the Minnesota River serves as excellent fill material, and has potential for other uses such as ice control on roadways during winter months, asphalt as a filler and cover, mortar sand, soil conditioning, landscape purposes, use in ready mix, landfill cover, and so on. Placing dredged material at locations where it would be used or could be used beneficially was a primary objective of the GREAT I Study and is an objective of the Corps of Engineers. Results of marketing studies conducted during the GREAT I Study were used to determine a projected beneficial use for selected sites. The Corps completed a follow-up marketing study in 1998 through the use of a questionnaire to contractors and agencies near the Minnesota River and the surrounding metropolitan

area. The Corps believes beneficial use will be 100% and bases this decision on the results of the 1998 marketing study and Corps of Engineers experience with past beneficial use. If beneficial use is not successful, the LMRWD needs to acquire a new site. Most locations are untested and actual demands for material are generally unknown. The average annual dredging quantity for the entire MN River reach is estimated to be 24,800 cubic yards. Add this to the projected 17,700 cubic yards per year from private dredging and you have a total of 42,500 cubic yards per year. Once a site is established and access is provided, it is likely that most material would be removed at each site on an annual basis. Fine material should be segregated from the sand material as some responses in the 1998 marketing study indicated sand material had more desirable beneficial uses than the fines.

5.0 OTHER PLANNING EFFORTS

5.1 GREAT I Study

The Great River Environmental Action Team I (GREAT I) Study was completed in 1980. GREAT I recommended five placement sites to accommodate the 722,000 cubic yards of dredged material from cuts 1-5 on the Minnesota River. GREAT I recommended that 117,500 cubic yards of dredged material from cut 1 be taken to a commercial sand and gravel stockpile site (GREAT I Site 2.18) located on the right bank upstream from the I-35E Bridge (CMMP Site 2-843.3-RMP). GREAT I estimated that all material placed at this site would be removed for beneficial use.

GREAT I recommended that 80,000 cubic yards of dredged material from cut 2 be taken to an 18 acre area on an island (GREAT I Site MN.28) created by a cutoff channel at Mile 4.5 (CMMP Site MN-4.5-RMP). The island was used in the past for dredged material placement and those areas have revegetated with grasses and pioneering shrubs and trees. The remainder of the island is bottomland hardwood habitat. No removal for beneficial use was projected from this site.

GREAT I recommended that 387,500 cubic yards of dredged material from cut 3 be taken to a 65 acre active limestone quarry (GREAT I Site MN.30) located approximately 5,000 feet south of the right bank of the Minnesota River at Mile 11.4 (CMMP Site MN-11.4-RMP). The entire 65 acres would not be required for the projected amount of material. No removal for beneficial use was projected from this site. GREAT I also recommended a backup site for material from cut 3 in the event that the primary site could not be implemented. The backup site (GREAT I Site MN.06) was a 24 acre low-lying meadow, previously disturbed by adjacent mining operations (CMMP Site MN-12.0-RMP). No removal for beneficial use was projected from this site.

GREAT I recommended that 137,000 cubic yards of dredged material from cuts 4 and 5 be taken to a 7 acre wetland site (GREAT I Site MN.03) located approximately 6000 feet south of the right bank of the Minnesota River at Mile 13.5 (CMMP Site MN-13.5-RMP). No removal for beneficial use was projected from this site.

5.2 Minnesota River Engineering Report

The Lower Minnesota River Watershed District (LMRWD) is responsible for furnishing placement sites for channel maintenance dredging performed by the Corps of Engineers or its contractors. In 1978, the LMRWD completed an engineering report to give details for a basic water management project to provide areas suitable for accepting dredged materials from the Minnesota River 9-foot navigation channel. The report was initiated by a petition of the City of Savage requesting development of permanent sites for placement of dredged materials.

The report identified six placement sites. Site WD#1 is a 10-acre wetland site recommended for material from cuts 4 and 5 and is evaluated as the Cargill East site in this DMMP. Site WD#2 is a 7-acre landfill site recommended for material from cut 3 and is evaluated as the Kraemer site in this DMMP. Site WD#3 is a 7-acre wetland site recommended for material from cut 3 and is evaluated as the NSP site in this DMMP. Site WD#4 is a 7-acre island site recommended for material from cut 2 and is described in Section 6.0. It was created by a cutoff channel located on the left bank at Mile 6.2. The island is bottomland hardwood habitat. No removal for beneficial use was projected from this site. Site WD#5 is a 7-acre island site recommended for material from cut 2 and is described in Section 6.0. Site WD#6 is a 1.8 acre site recommended for material from cut 1 and is evaluated as the WD#6 site in this DMMP.

Since the completion of the report, the LMRWD has acquired real estate agreements for sites WD#1, WD#2, and WD#3.

5.3 Channel Maintenance Management Plan (CMMP)

The CMMP was completed in 1996. It is the result of subsequent planning for implementation of the plan recommended by the GREAT I Study. The CMMP recommended five placement sites to accommodate the 722,000 cubic yards of dredged material from cuts 1-5 on the Minnesota River. The CMMP estimated that all of the dredged material placed at each site would be removed for beneficial use.

The Highbridge site in Pool 2 (CMMP Site 2-840.4-RMP), was recommended to receive 117,500 cubic yards of dredged material from cut 1. This 4-acre site is provided by the City of St. Paul for placement of material from the St. Paul Small Boat Harbor. The CMMP recommended that 80,000 cubic yards of dredged material from cut 2 be taken to the Highway 77 Bridge site (CMMP Site MN-7.3-RMP) and 39,000 cubic yards from cut 3, 4, and 5 to the NSP site (CMMP Site MN-10.1-RMP). The Kramer site (CMMP Site MN-12.1-RMP) has been used extensively in the past and was recommended to receive 348,500 cubic yards of dredged material from cuts 3, 4, and 5. The CMMP also recommended that 137,000 cubic yards of material from cuts 4 and 5 be taken to the Cargill East site (CMMP Site MN-13.5-RMP).

6.0 ALTERNATIVES NOT INCLUDED IN THE ALTERNATIVE ASSESSMENT

The Corps developed a list of alternative dredged material placement sites following a workshop to discuss alternative sites and subsequent meetings. The following alternative sites were evaluated in the DMMP for Above I-35W Bridge.

Sites Identified at Workshop
Cargill West Field (MN-14.8-RMP)
Cargill West (MN-14.7-RMP)
Port Richards (MN-14.4-RMP)
Cargill East River (MN-14.1-RMP)
Cargill East (MN-13.5-RMP)
Below Cargill (MN-12.4-RMP)
Kraemer (MN-12.1-RMP)
Gravel Pit (MN-11.2-RMP)
NSP (MN-10.1-RMP)
NSP Loading Dock (MN-8.5-RMP)
Transportation to sites in Pools 2, 3, and 4

All sites identified were considered. Specific concerns regarding use of some sites make using them not practical or they are better represented by similar alternatives. The following paragraphs identify sites not considered for detailed evaluation and explain the reasons why they were not.

Cargill West Site (MN-14.7-RMP): This site is located between the Cargill West facility (formerly Continental Grain) and the barge slip (see plate 1). It is approximately 3.5 acres in size and has been used for placement of material dredged from the barge slip. It is difficult to get fine material to the site and it is too small to be a long-term solution in this area. The Cargill East River site represents a better alternative because it has more area available and it is adjacent to the shoreline.

Port Richards (MN-14.4-RMP): A total of 11 acres is available, which includes approximately 8 acres east of the barge slip plus the 3-acre barge slip (see plate 1). The area east of the slip was used in the past for mechanical and hydraulic placement of material dredged from the Port Richards slip. The most recent use was approximately 15 years ago. Most of the area would be considered wetland. The landowner (Richards Asphalt) recently cleared trees from the site except for along the shoreline. The landowner has no plans to use the barge slip in the future and is considering filling it in. They have a conditional permit to use the area west of the slip for stockpiling material or setting up temporary operations. This site is better represented by the Cargill East River site, which is comparable but does not contain wetlands.

Gravel Pit Site (MN-11.2-RMP): This site is located just upstream from the I-35W Bridge (see plate 2). Part of the area is a closed landfill. When discussing this site at the Alternative Site Workshop, several individuals stated that plans had already been created for development in this area.

NSP Loading Dock (MN-8.5-RMP): This site is 6 acres in size and is located approximately 1 mile upstream from the Cedar Avenue Bridge (see plate 3). This site is owned by NSP and is adjacent to their Black Dog Power Plant. The area considered for placement of dredged material is where coal had been previously stored. This area is no longer required for storage of coal. The NSP Loading Dock site would require unloading material from barges into trucks and hauling it across Black Dog Road to the site. This site is better represented by the Kraemer or the Below Cargill sites, which are adjacent to the Peterson's Bar dredge cut.

Transportation to sites in Pools 2, 3, and 4: Consideration was given to transporting material from the Minnesota River to sites in Pools 2, 3, and 4. The Corps agrees that incorporating dredged material containing fines into the side slopes of sites would promote revegetation. However, the costs associated with transporting the material would be extremely high and prohibitive.

7.0 ALTERNATIVE PLACEMENT PLANS AND EVALUATIONS

Previous planning efforts by the St. Paul District used a matrix to evaluate dredged material placement alternatives. The matrix used index values to score the placement site alternatives in different categories and then multiplied the scores by a weight factor. Scores were then totaled to rank the alternatives. For this plan, a decision was made to evaluate the alternatives differently. There are several reasons for this decision. A great deal of coordination regarding dredged material placement plans has already taken place and the LMRWD has identified and/or acquired several sites. Some of these sites will work and simply need implementation plans developed. It was clear that other sites needed to be adjusted to accommodate private dredged material or be substituted for alternative sites. The extensive evaluations used for the matrix were not considered necessary. When the Corps initiated this study effort, it maintained that the purpose was not to revisit areas with adequate plans in place. Previous plans were used as a starting point for alternative comparisons.

Placement sites were designed to accommodate the average job size for the largest cut going to the site plus a contingency of 75%. If two or more cuts going to a site had high frequencies (50% or higher), they were combined to identify the target quantity for design. The contingency was added to insure that capacity is available in the event that material is not removed prior to the next job or the job size exceeds the average.

Alternatives were compared using general criteria and an assessment was made on whether the alternative would have positive, negative, or no effects on the criteria. The following list of criteria was used:

1) Impacts on fish and wildlife resources
2) Impacts on water quality
3) Impacts on the floodplain
4) Impacts on recreation
5) Impacts on cultural resources
6) Social impacts

7) Impacts on aesthetics
8) Beneficial use removal
9) Dredging costs
10) Cost for implementation/site preparation

Once evaluated, the alternatives were compared and ranked in order of preference for implementation. Implementation plans for each of the sites include conditions necessary for development.

7.1 Alternative Placement Sites

The following paragraphs describe the alternative placement sites considered in this report. They make up the placement site alternatives, which were evaluated in greater detail. The size of the alternative sites may vary depending on the alternative plan. Corps of Engineers Regulatory staff completed wetland delineations for each of the sites following methods outlined in the 1987 Corps Wetland Delineation Manual.

Cargill West Field Site (MN-14.8-RMP): This is an 11-acre field site located upstream and adjacent to the Cargill West facility (formerly Continental Grain - see plates 1 and 8). It has been used for placement of Corps and private dredged material in the past and is now owned by the Cargill Company. It is on a bend in the river and within the floodway. The Corps issued a permit in 1994 to fill 3 acres of wetlands by Cargill Company. Three acres at this site were restored by planting trees and shrubs to mitigate for those impacts. A perpetual deed restriction, such as a covenant or easement, on the compensation site was also required. The compensation site covers the eastern quarter of the Cargill West Field site. Use of this site would be contingent upon the LMRWD mitigating for impacts to the compensation area. A wetland delineation has been completed and is available upon request. The wetland delineation identified the area as non-wetland. Soils are predominately alluvial, except for the remnant material from past dredged material placement. Common herbaceous plants noted on the site included foxtail (*Setaria sp*), reed canary grass (*Phalaris arundinacea*), daisy fleebane (*Erigeron annus*), and canada thistle (*Cirsium arvense*). Young box elder (*Acer negunda*), silver maple (*Acer saccharium*) and american elm (*Ulmus americana*) are also present. The site is listed on the FWS's Refuge acquisition plan. No cultural resources surveys were completed for this site.

Cargill East River (MN-14.1-RMP): This is an 11-acre site located along the shoreline just downstream from the Port Richards slip (see plates 1 and 9). This site was suggested by resource agencies as an alternative to the Cargill East site. A wetland delineation has been completed and is available upon request. The wetland delineation identified the area as non-wetland. An access road would need to be constructed to allow for beneficial use removal. Types 1, 2 and 6 wetlands are present along the existing road ditch that the access road would connect to. An estimated 0.04 acres of this wetland would be impacted. Culverts would be placed in the new access road to maintain existing hydrology. The area is located in the floodway. The soils of the site are classified as Dorchester silty clay loam, a non-hydric soil with seasonal water depth highs being 2 to 6 feet below the surface. It has been tilled in

the past but is now fallow. Most of the area is dominated by a variety of grasses, including big bluestem (*Andropogon gerardii*). Young box elder and american elm are also present. The area is part of a fairly large wetland/upland complex. No cultural material was found in shovel tests of the area, aside from modern materials in the recently deposited soils. The area is below the 700 foot contour line above which other sites in this area occur, and is frequently flooded, providing no stable surface suitable for past human habitation.

Cargill East (MN-13.5-RMP): This is a 7-acre site located just downstream from the Port Richards slip (see plates 1 and 10). It was acquired by the LMRWD for the placement of channel maintenance dredged material but has not been used. Easements have been acquired and a culvert installed under railroad tracks for pipeline access. A wetland delineation has been completed and is available upon request. The wetland delineation characterized most of the site as Type 1-2 wetland. The dominant vegetation consists of smartweed (*Polygonium sp.*), sedges (*Carex sp.*), foxtail (*Alopecurus sp.*)and big bluestem. The soils are classified as Faxon silty clay loam, a hydric soil type. The designated site is a patch within a fairly large wetland/upland complex, as a result, the wildlife value is fairly high. An access road would need to be constructed to allow for beneficial use removal. Types 1, 2 and 6 wetlands are present along the existing road ditch that the access road would connect to. Around 0.5 acres of this wetland would be impacted. Culverts would be placed in the new access road to maintain existing hydrology. The Cargill East site is considered to have an extremely low potential for cultural resources since it is a wetland. Effluent from hydraulic placement would likely be routed north through the ditch along the access road and back to the river.

Below Cargill (MN-12.4-RMP): An area of 16 acres exists along the shoreline just downstream from the Cargill slip (see plates 1 and 11). The Cargill Company owns this site. Some of this area has been used for mechanical placement of material dredged at private barge slips. This site is adjacent to the landfill site owned by USA Waste. USA Waste has indicated that they would use the material to cap their landfill. A wetland delineation has been completed and is available upon request. The wetland delineation identified the area as non-wetland. The soils are classified as Minneiska loam, with occasional, brief flooding and seasonal high water at 3 to 6 feet. The habitat type is upland meadow and early upland successional forest. Common herbaceous vegetation include reed canary grass, dropseed (*Muhlenbergia frondosa*), water-horehound (*Lycopus virginicus*) riverbank grape (*Vitus riparia*), canada bluegrass (*Poa compressa*), and daisy fleabane (*Erigeron strigosus*). The young tree species present include cottonwood (*Populus deltoides*), boxelder, willows (*Salix sp*), silver maple, green ash (*Fraximus pennsylvanica*) and american elm. If current road access to this site across Kraemer property were not acquired, a new access road would have to be constructed. The new road would cross a wetland area impacting around 1.0 acre of types 1, 2, and 6 wetlands. The site is located in the floodway. The Below Cargill site is also below the 700-foot contour line, and thus has low potential for containing archaeological deposits. The easternmost portion of the Below Cargill site has already been impacted by the placement of dredged material (ca. 2 meters thick). No cultural materials were found in shovel tests.

Kraemer (MN-12.1-RMP): This site is identified as 5 acres in the Corps' Channel Maintenance Management Plan. This plan requires that the site be increased to 8, 12, or 13

acres depending on the alternative. It is located adjacent to the shoreline and north of the USA Waste landfill (see plates 1 and 12). This has been the only placement site used by the Corps for dredging upstream from the 35W bridge since 1983. A wetland delineation has been completed and is available upon request. The wetland delineation identified the area as non-wetland. The habitat type is recently deposited sand. Fish and wildlife habitat value is low, because of the disturbed nature of the site. This site is currently owned by Edward Kraemer & Sons and Cargill Inc.

NSP (MN-10.1-RMP): This site is 7 acres in size and is located northwest of Black Dog Road approximately 1.5 miles upstream from the NSP Power Plant (see plates 2 and 13). A wetland delineation has been completed and is available upon request. The wetland delineation characterized most of the site as Type 1/2/6 wetland. Vegetation consists of almost a complete mono-typic stand of reed canary grass. Small pockets of willows are also present. Some larger trees do exist along the higher bank along the Minnesota Rivers. The area is isolated from adjacent wetlands by urban development, roads, or the bank of the Minnesota River. Because of the dominance by reed canary grass and the isolated nature, the fish and wildlife value of the area is very limited. The land is owned by NSP and leased to the LMRWD for placement of dredged material. It is also leased to the FWS for Refuge management.

7.2 Alternative Plans for Above I-35W Bridge

When the development of alternative plans began, it soon became apparent that the planning could be separated into two groups. The river was divided at the I-35W Bridge. One group would address dredging required downstream (below) from the bridge and one group would address dredging required upstream (above) from the bridge. Dredging above I-35W includes main channel cuts 3-5 and private dredging at 4 barge slips. Cuts 3-5 (Peterson's Bar, Cargill, and Savage Bridge) begin upstream from the I-35W Bridge and continue up to the head of the 9-foot channel project limit. The private barge slips include Cargill East Slip (S1), Bunge Slip (S3), Harvest States Slip (S4), and Cargill West Slip (S5). The alternative plans for this reach are described in the following sections and summarized in Table 7-1.

7.2.1 Alternative 2A

This alternative involves use of the Below Cargill (MN-12.4-RMP) and the Cargill East (MN-13.5-RMP) placement sites. See Plate 1 for site locations and Plates 11 and 10 for the Below Cargill and the Cargill East site plans respectively. A total of 891,800 cubic yards of dredged material would be placed at the Below Cargill site and 183,600 cubic yards of dredged material would be placed at the Cargill East site.

At the Below Cargill site, two areas are required because the material from the barge slips has too many fines to push it into piles once it is placed. The main channel material has enough sand in it to allow shaping once placed. For the main channel material, an area of 8 acres would be required to accommodate a job of 47,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area

of 5 acres would be required to accommodate a job of 35,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Below Cargill site to have a 13 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 3 could be placed into the site mechanically or hydraulically. Material from cuts S1, S3, S4, and S5 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. An access road for removal does exist. However, another party owns it and the LMRWD would need to acquire agreements for access. If no agreements for use of the current access can be reached, a permanent access road would need to be constructed. The new access road would require some wetland fill, which the LMRWD would need to mitigate. The adjacent property is used for a landfill and the owner is interested in taking the material for cover. With improved access, beneficial use of all material placed at this site is expected. Real estate agreements or acquisition would be required by the LMRWD.

At the Cargill East site, an area of 7 acres would be required to accommodate a job of 35,500 cubic yards with material stockpiled to a depth of 15 feet. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cuts 4 and 5 could be placed into the site mechanically or hydraulically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. A barge unloading area connecting to the abandoned road would be constructed to allow mechanical placement. Material would be unloaded into trucks or conveyed using other mechanical methods and transported to the site. A good access road from the main highway does exist for beneficial use removal. A driveway into the site from the access road would be required. The driveway would require some wetland fill, which the LMRWD would need to mitigate. Beneficial use of all material placed at this site is expected. The LMRWD has real estate agreements in place for the use of this site. They may need to acquire additional agreements to allow for mechanical placement.

Current habitat at the Below Cargill site is disturbed terrestrial. Delineation by the Corps confirmed that no wetland areas exist. Part of the area has been used for placement of dredged material. The habitat at the Cargill East site is considered Type 1/2 wetland. A portion of the site had been tilled years ago but is now fallow and contains a variety of grasses, sedges, herbs, and brush.

The effluent from material placed at both sites would contain some suspended particulates that would settle out soon after reaching the river. Because the site is adjacent to the main channel, effects on water quality would be short term and localized with no appreciable impact.

A cultural resources survey was completed at the Below Cargill site and nothing significant was found. The Cargill East site has a very low potential for cultural resources impacts and no further testing is required. Coordination of both sites with the State Historic Preservation Office (SHPO) has been completed.

This alternative will have very minor social impacts. Both sites are located in industrial areas. Material removed for beneficial use would have some minor impacts to transportation.

This alternative ranks negative for impacts on fish and wildlife and cost for implementation/site preparation, positive on floodplain, cultural resources, and beneficial use, and neutral on all other criteria (see Table 7-2). The reason for the negative rank on fish and wildlife impacts is that there would be wetland impacts at the Cargill East site and could be some wetland impacts at the Below Cargill site. Cost for implementation/site preparation ranked negative because implementation of this alternative would involve mitigation for the Cargill East site and for an access road to the Below Cargill site if necessary. The reason for the positive rank on floodplain is that the Cargill East site is out of the floodway and would have no impacts. Cultural resources ranked positive because an investigation showed no effect on historic properties and coordination with SHPO has been completed. Beneficial use ranked positive because the Below Cargill site is adjacent to a landfill operation with a demand for material.

7.2.2 Alternative 2B

This alternative involves use of the Kraemer (MN-12.1-RMP) and the Cargill East (MN-13.5-RMP) placement sites. See Plate 1 for site locations and Plates 12 and 10 for the Kraemer and the Cargill East site plans respectively. A total of 891,800 cubic yards of dredged material would be placed at the Kraemer site and 183,600 cubic yards of dredged material would be placed at the Cargill East site.

At the Kraemer site, two areas are required because the material from the barge slips has too many fines to push it into piles once it is placed. The main channel material has enough sand in it to allow shaping once placed. For the main channel material, an area of 8 acres would be required to accommodate a job of 47,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 5 acres would be required to accommodate a job of 35,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Kraemer site to have a 13 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 3 could be placed into the site mechanically or hydraulically. Material from cuts S1, S3, S4, and S5 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. An access road for removal does exist. The adjacent property is

used for a landfill and the owner is interested in taking the material for cover. Beneficial use of all material placed at this site is expected. Real estate agreements or acquisition would be required by the LMRWD.

At the Cargill East site, an area of 7 acres would be required to accommodate a job of 35,500 cubic yards with material stockpiled to a depth of 15 feet. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cuts 4 and 5 could be placed into the site mechanically or hydraulically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. A barge unloading area connecting to the abandoned road would be constructed to allow mechanical placement. Material would be unloaded into trucks or conveyed using other mechanical methods and transported to the site. A good access road from the main highway does exist for beneficial use removal. A driveway into the site from the access road would be required. The driveway would require some wetland fill, which the LMRWD would need to mitigate. Beneficial use of all material placed at this site is expected. The LMRWD has real estate agreements in place for the use of this site. They may need to acquire additional agreements to allow for mechanical placement.

Most of the Kraemer site is being used as a dredged material placement site. The remaining area is disturbed terrestrial. Delineation by the Corps confirmed that no wetland areas exist. The habitat at the Cargill East site is considered Type 1/2 wetland. A portion of the site had been tilled years ago but is now fallow and contains a variety of grasses, sedges, herbs, and brush.

The effluent from material placed at both sites would contain some suspended particulates that would settle out soon after reaching the river. Because the site is adjacent to the main channel, effects on water quality would be short term and localized with no appreciable impact.

Because of the very low potential for cultural resources, no further testing will be required for the Kraemer and Cargill East sites. Coordination with the State Historic Preservation Office (SHPO) has been completed.

This alternative will have very minor social impacts. Both sites are located in industrial areas. Material removed for beneficial use would have some minor impacts to transportation.

This alternative ranks negative for impacts on fish and wildlife and cost for implementation/site preparation, positive on floodplain, cultural resources, and beneficial use, and neutral on all other criteria (see Table 7-2). The reason for the negative rank on fish and wildlife impacts is that there would be wetland impacts at the Cargill East site. Cost for implementation/site preparation ranked negative because implementation would involve mitigation for the Cargill East site. The reason for the

positive rank on floodplain is that the Cargill East site is out of the floodway and would have no impacts. Cultural resources ranked positive because an investigation showed no effect on historic properties and coordination with SHPO has been completed. Beneficial use ranked positive because the Kraemer site is adjacent to a landfill operation with a demand for material.

7.2.3 Alternative 2C

This alternative involves use of the Below Cargill (MN-12.4-RMP) and the Cargill East River (MN-14.2-RMP) placement sites. See Plate 1 for site locations and Plates 11 and 9 for the Below Cargill and the Cargill East River site plans respectively. A total of 642,600 cubic yards of dredged material would be placed at the Below Cargill site and 432,800 cubic yards of dredged material would be placed at the Cargill East River site.

At the Below Cargill site, two areas are required because the material from the barge slips has too many fines to push it into piles once it is placed. The main channel material has enough sand in it to allow shaping once placed. For the main channel material, an area of 8 acres would be required to accommodate a job of 47,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 4 acres would be required to accommodate a job of 25,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Below Cargill site to have a 12 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 3 could be placed into the site mechanically or hydraulically. Material from cut S1 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. An access road for removal does exist. However, another party owns it and the LMRWD would need to acquire agreements for access. If no agreements for use of the current access can be reached, a permanent access road would need to be constructed. The new access road would require some wetland fill, which the LMRWD would need to mitigate. The adjacent property is used for a landfill and the owner is interested in taking the material for cover. With improved access, beneficial use of all material placed at this site is expected. Real estate agreements or acquisition would be required by the LMRWD.

Two areas are also required at the Cargill East River site for the reasons stated above. For the main channel material, an area of 7 acres would be required to accommodate a job of 35,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 4 acres would be required to accommodate a job of 20,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Cargill East River site to have an 11 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 5 could be placed into the site mechanically or hydraulically. Material from cuts S3, S4, and S5 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. A good access road from the main highway does exist for beneficial use removal. A driveway into the site from the access road would be required. The driveway would require some wetland fill, which the LMRWD would need to mitigate. Beneficial use of all material placed at this site is expected. The LMRWD would be responsible for real estate agreements to acquire use of the site and access for beneficial use removal.

Current habitat at the Below Cargill and Cargill East River sites is disturbed terrestrial. Delineation by the Corps confirmed that no wetland areas exist at either site. Part of the Below Cargill area has been used for placement of dredged material. The Cargill East River site has been tilled in the past but is now fallow and contains a variety of grasses, sedges, and herbs.

The effluent from material placed at both sites would contain some suspended particulates that would settle out soon after reaching the river. Because the site is adjacent to the main channel, effects on water quality would be short term and localized with no appreciable impact.

A cultural resources survey was completed at the Below Cargill and Cargill East River sites and nothing significant was found. Coordination of both sites with the State Historic Preservation Office (SHPO) has been completed.

This alternative will have very minor social impacts. Both sites are located in industrial areas. Material removed for beneficial use would have some minor impacts to transportation.

This alternative ranks negative for impacts on fish and wildlife and cost for implementation/site preparation, positive on cultural resources, beneficial use and dredging costs, and neutral on all other criteria (see Table 7-2). The reason for the negative rank on fish and wildlife impacts is that there is a very good chance that a new access road would need to be constructed through a wetland area. Cost for implementation/site preparation ranked negative because implementation would likely involve wetland mitigation. The reason for the positive rank on cultural resources is that an investigation showed no effect on historic properties and coordination with SHPO has been completed. Beneficial use ranked positive because the Below Cargill site is adjacent to a landfill operation with a demand for material. The reason for the positive rank on dredging costs is that there are no restrictions on dredging or placement methods. There would be no additional costs associated with placement at any of the sites.

7.2.4 Alternative 2D

This alternative involves use of the Kraemer (MN-12.1-RMP) and the Cargill East River (MN-14.2-RMP) placement sites. See Plate 1 for site locations and Plates 12 and 9 for the Kraemer and the Cargill East River site plans respectively. A total of 642,600 cubic yards of dredged material would be placed at the Kraemer site and 432,800 cubic yards of dredged material would be placed at the Cargill East River site.

At the Kraemer site, two areas are required because the material from the barge slips has too many fines to push it into piles once it is placed. The main channel material has enough sand in it to allow shaping once placed. For the main channel material, an area of 8 acres would be required to accommodate a job of 47,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 4 acres would be required to accommodate a job of 25,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Kraemer site to have a 12 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cuts 3 and 4 could be placed into the site mechanically or hydraulically. Material from cut S1 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. An access road for removal does exist. The adjacent property is used for a landfill and the owner is interested in taking the material for cover. Beneficial use of all material placed at this site is expected. Real estate agreements or acquisition would be required by the LMRWD.

Two areas are also required at the Cargill East River site for the reasons stated above. For the main channel material, an area of 7 acres would be required to accommodate a job of 35,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 4 acres would be required to accommodate a job of 20,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Cargill East River site to have an 11 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 5 could be placed into the site mechanically or hydraulically. Material from cuts S3, S4, and S5 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. A good access road from the main highway does exist for beneficial use removal. A driveway into the site from the access road would be required. The driveway would require some wetland fill, which the LMRWD would need to mitigate. Beneficial use of all material placed at this site is expected. The LMRWD would be responsible for real estate agreements to acquire use of the site and access for beneficial use removal.

Most of the Kraemer site is being used as a dredged material placement site. The remaining area is disturbed terrestrial. Current habitat at the Cargill East River sites is disturbed terrestrial. Delineation by the Corps confirmed that no wetland areas exist at either site. The Cargill East River site has been tilled in the past but is now fallow and contains a variety of grasses, sedges, and herbs.

The effluent from material placed at both sites would contain some suspended particulates that would settle out soon after reaching the river. Because the site is adjacent to the main channel, effects on water quality would be short term and localized with no appreciable impact.

A cultural resources survey was completed at the Cargill East River site and nothing significant was found. Because of the very low potential for cultural resources at the Kraemer site, no further testing is required. Coordination of both sites with the State Historic Preservation Office (SHPO) has been completed.

This alternative will have very minor social impacts. Both sites are located in industrial areas. Material removed for beneficial use would have some minor impacts to transportation.

This alternative ranks negative for impacts on fish and wildlife, positive on cultural resources, beneficial use, and dredging costs and neutral on all other criteria (see Table 7-2). The reason for the negative rank on fish and wildlife impacts is that approximately 0.04 acres of wetlands will be impacted for developing road access to the Cargill East River site. The Kraemer site has been disturbed in the past by dredged material placement and the Cargill East River site was previously agricultural land. Cultural resources ranked positive because an investigation showed no effect on historic properties and coordination with SHPO has been completed. The reason for the positive rank on beneficial use is that the Kraemer site is adjacent to a landfill operation with a demand for material. Dredging costs ranked positive because there are no restrictions on dredging or placement methods. There would be no additional costs associated with placement at any of the sites.

7.2.5 Alternative 2E

This alternative involves use of the Kraemer (MN-12.1-RMP) and the Cargill West Field (MN-14.8-RMP) placement sites. See Plate 1 for site locations and Plates 12 and 8 for the Kraemer and the Cargill West Field site plans respectively. A total of 642,600 cubic yards of dredged material would be placed at the Kraemer site and 432,800 cubic yards of dredged material would be placed at the Cargill West Field site.

At the Kraemer site, two areas are required because the material from the barge slips has too many fines to push it into piles once it is placed. The main channel material has enough sand in it to allow shaping once placed. For the main channel material, an area of 8 acres would be required to accommodate a job of 47,500 cubic

yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 4 acres would be required to accommodate a job of 25,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Kraemer site to have a 12 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 3 could be placed into the site mechanically or hydraulically. Material from cut S1 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. An access road for removal does exist. The adjacent property is used for a landfill and the owner is interested in taking the material for cover. Beneficial use of all material placed at this site is expected. Real estate agreements or acquisition would be required by the LMRWD.

Two areas are also required at the Cargill West Field site for the reasons stated above. For the main channel material, an area of 7 acres would be required to accommodate a job of 35,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 4 acres would be required to accommodate a job of 20,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Cargill West Field site to have an 11 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 5 could be placed into the site mechanically or hydraulically. Material from cuts S3, S4, and S5 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. Access to the site would be through the Cargill West facility. Some access improvements would be recommended to facilitate better beneficial use removal. Beneficial use of all material placed at this site is expected. The LMRWD would be responsible for real estate agreements to acquire use of the site and access for beneficial use removal.

Most of the Kraemer site is being used as a dredged material placement site. The remaining area is disturbed terrestrial. Delineation by the Corps confirmed that no wetland areas exist at this site.

The Corps issued a permit in 1994 to fill 3 acres of wetlands by Cargill Company. Three acres at this site were restored by planting trees and shrubs to mitigate for those impacts. A perpetual deed restriction, such as a covenant or easement, on the compensation site was also required. The compensation site covers the eastern quarter of the Cargill West Field site. Use of this site would be contingent upon the LMRWD mitigating for impacts to the compensation area.

The effluent from material placed at both sites would contain some suspended particulates that would settle out soon after reaching the river. Because the site is adjacent to the main channel, effects on water quality would be short term and localized with no appreciable impact.

Because of the very low potential for cultural resources at the Kraemer site, no further testing is required and coordination with the State Historic Preservation Office (SHPO) has been completed. The Cargill West Field site would require a cultural resources survey and coordination with SHPO.

This alternative will have very minor social impacts. Both sites are located in industrial areas. Material removed for beneficial use would have some minor impacts to transportation.

This alternative ranks negative for impacts on fish and wildlife and cost for implementation/site preparation, positive on beneficial use, and dredging costs, and neutral on all other criteria (see Table 7-2). Although no wetlands will be impacted, fish and wildlife impacts received a negative rank because implementation of the Cargill West Field site would disturb a three acre restoration area. The reason for the negative rank on cost for implementation/site preparation is that mitigation will be required for impacts to the three acre restoration area. Beneficial use ranked positive because the Kraemer site is adjacent to a landfill operation with a demand for material. Dredging costs ranked positive because there are no restrictions on dredging or placement methods. There would be no additional costs associated with placement at any of the sites.

7.2.6 Alternative 2F

This alternative involves use of the Below Cargill (MN-12.4-RMP) and the Cargill West Field (MN-14.8-RMP) placement sites. See Plate 1 for site locations and Plates 12 and 8 for the Below Cargill and the Cargill West Field site plans respectively. A total of 642,600 cubic yards of dredged material would be placed at the Below Cargill site and 432,800 cubic yards of dredged material would be placed at the Cargill West Field site.

At the Below Cargill site, two areas are required because the material from the barge slips has too many fines to push it into piles once it is placed. The main channel material has enough sand in it to allow shaping once placed. For the main channel material, an area of 8 acres would be required to accommodate a job of 47,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 4 acres would be required to accommodate a job of 25,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Below Cargill site to have a 12 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 3 could be placed into the site mechanically or hydraulically. Material from cut S1 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. An access road for removal does exist. However, another party owns it and the LMRWD would need to acquire agreements for access. If no agreements for use of the current access can be reached, a permanent access road would need to be constructed. The new access road would require some wetland fill, which the LMRWD would need to mitigate. The adjacent property is used for a landfill and the owner is interested in taking the material for cover. With improved access, beneficial use of all material placed at this site is expected. Real estate agreements or acquisition would be required by the LMRWD.

Two areas are also required at the Cargill West Field site for the reasons stated above. For the main channel material, an area of 7 acres would be required to accommodate a job of 35,500 cubic yards with material stockpiled to a depth of 15 feet. For the barge slip material, an area of 4 acres would be required to accommodate a job of 20,000 cubic yards with material placed to a depth of 10 feet. There is enough area at the Cargill West Field site to have an 11 acre site with a division to separate the sand from the fine placement areas. Other than material required for a containment dike, no permanent on-site storage is planned.

Material from cut 5 could be placed into the site mechanically or hydraulically. Material from cuts S3, S4, and S5 would be placed at the site mechanically. The site would be diked and effluent control structures added to contain material if used for hydraulic placement. Access to the site would be through the Cargill West facility. Some access improvements would be recommended to facilitate better beneficial use removal. Beneficial use of all material placed at this site is expected. The LMRWD would be responsible for real estate agreements to acquire use of the site and access for beneficial use removal.

Most of the habitat at the Below Cargill site is disturbed terrestrial, but some of the area is used for dredged material placement. The Corps issued a permit in 1994 to fill 3 acres of wetlands by Cargill Company. Three acres at the Cargill West Field site were restored by planting trees and shrubs to mitigate for those impacts. A perpetual deed restriction, such as a covenant or easement, on the compensation site was also required. The compensation site covers the eastern quarter of the Cargill West Field site. Use of this site would be contingent upon the LMRWD mitigating for impacts to the compensation area. Delineation by the Corps confirmed that no wetland areas exist at either site.

The effluent from material placed at both sites would contain some suspended particulates that would settle out soon after reaching the river. Because the site is adjacent to the main channel, effects on water quality would be short term and localized with no appreciable impact.

A cultural resources survey was completed at the Below Cargill site. Nothing significant was found and coordination with the State Historic Preservation Office (SHPO) has been completed. The Cargill West Field site would require a cultural resources survey and coordination with SHPO.

This alternative will have very minor social impacts. Both sites are located in industrial areas. Material removed for beneficial use would have some minor impacts to transportation.

This alternative ranks negative for impacts on fish and wildlife and cost for implementation/site preparation, positive on beneficial use, and dredging costs, and neutral on all other criteria (see Table 7-2). The reason for the negative rank on fish and wildlife impacts is that there is a very good chance that a new access road would need to be constructed through a wetland area. Another reason for the negative rank is that although no wetlands will be impacted, implementation of the Cargill West Field site would disturb a three acre restoration area. The reason for the negative rank on cost for implementation/site preparation is that implementation of the Below Cargill site would likely involve wetland mitigation and mitigation will be required for impacts to the three acre restoration area at the Cargill West Field site. Beneficial use ranked positive because the Below Cargill site is adjacent to a landfill operation with a demand for material. Dredging costs ranked positive because there are no restrictions on dredging or placement methods. There would be no additional costs associated with placement at any of the sites.

7.2.7 Alternative 2G

This alternative involves use of the NSP (MN-10.1-RMP), Kraemer (MN-12.1-RMP), and Cargill East (MN-13.5-RMP) placement sites. See Plate 1 for site locations of the Kraemer and Cargill East sites and Plate 2 for site location of the NSP site. Plates 13, 12, and 10 show the NSP, Kraemer, and Cargill East site plans respectively. A total of 405,000 cubic yards of material would be placed at the Kraemer site, 183,600 cubic yards at the Cargill East site, and 486,800 cubic yards at the NSP site. This alternative is the same as Alternatives 2A and 2B except that material from the private barge slips is taken to the NSP site rather than the Below Cargill or Kraemer sites.

At the Kraemer site, an area of 8 acres would be required to accommodate a job of 47,500 cubic yards with material stockpiled to a depth of 15 feet. Use of the Cargill East site would require an area of 7 acres to accommodate a job of 35,000 cubic yards with material stockpiled to a depth of 15 feet. The NSP site would require an area of 5 acres to accommodate a job of 35,000 cubic yards with material placed to a depth of 10 feet. Other than material required for a containment dikes, no permanent on-site storage is planned.

Material from cut 3 could be placed into the Kraemer site mechanically or hydraulically. Material from cuts 4 and 5 could be placed into the Cargill East site

mechanically or hydraulically. Cuts S1, S3, S4, and S5 would be placed at the NSP site mechanically. The sites would be diked and effluent control structures added to the Kraemer and Cargill East sites to contain material if used for hydraulic placement. Access improvements are needed at the Cargill East, and NSP sites. The property adjacent to the Kraemer site is used for a landfill and the owner is interested in taking the material for cover. Beneficial use of all material placed at these sites is expected. Real estate agreements or acquisition would be required by the LMRWD.

Most of the Kraemer site is being used as a dredged material placement site. The remaining area is disturbed terrestrial. Delineation by the Corps confirmed that no wetland areas exist. The habitat at the Cargill East site is considered Type 1/2 wetland. A portion of the site had been tilled years ago but is now fallow and contains a variety of grasses, sedges, herbs, and brush. Most of habitat at the NSP site is characterized as Type 1/2/6 wetland with some upland field areas.

The effluent from material placed at the Kraemer and Cargill East sites would contain some suspended particulates that would settle out soon after reaching the river. Because the site is adjacent to main channel, the effects on water quality would be short term and localized with no appreciable impact.

Because of the very low potential for cultural resources, no further testing will be required for the Kraemer and Cargill East sites. Coordination with the State Historic Preservation Office (SHPO) has been completed. The NSP site would require a cultural resources survey and coordination with SHPO prior to use.

This alternative will have some minor social impacts. The potential impacts would include aesthetics, and transportation. The City of Burnsville has drafted a Natural Resources Master Plan, which includes the NSP site as part of their natural resource inventory.

This alternative ranks negative on impacts to fish and wildlife and cost for implementation/site preparation, positive on floodplain, and beneficial use, and neutral on all other criteria (see Table 7-3). The reason for the negative rank on fish and wildlife impacts is that there would be some wetland impacts to the Cargill East and NSP sites. Cost for implementation/site preparation ranked negative because implementation would involve mitigation and some access improvements at the Cargill East and NSP sites. Floodplain impacts ranked positive because the Cargill East site is out of the floodplain. Beneficial use ranked positive because the Kraemer site is adjacent to a landfill operation with a demand for material and all sites have some road access for removal of material.

Table 7-1 Summary of Alternatives (Including Water Surface Elevation Impacts)							
Alt.	Sites	Material to Site (CY)	Acres	Max. Pile Height (ft)	Cuts Going To Site	Cumulative W.S. Increase By Alt. (ft)	W.S. Increase By Site (ft)
2A	Below Cargill	891,800	13	8AC @ 15' & 5AC @ 10'	3, S1-S5	.04	.04
	Cargill East	183,600	7	15'	4-5		0
2B	Kraemer	891,800	13	8AC @ 15' & 5AC @ 10'	3, S1-S5	.04	.04
	Cargill East	183,600	7	15'	4-5		0
2C	Below Cargill	642,600	12	8AC @ 15' & 4AC @ 10'	3-4, S1	.09	.04
	Cargill East River	432,800	11	7AC @ 15' & 4AC @ 10'	5, S3-S5		.06
2D	Kraemer	642,600	12	8AC @ 15' & 4AC @ 10'	3-4, S1	.10	.04
	Cargill East River	432,800	11	7AC @ 15' & 4AC @ 10'	5, S3-S5		.06
2E	Kraemer	642,600	12	8AC @ 15' & 4AC @ 10'	3-4, S1	.10	.04
	Cargill West Field	432,800	11	7AC @ 15' & 4AC @ 10'	5, S3-S5		.08
2F	Below Cargill	642,600	12	8AC @ 15' & 4AC @ 10'	3-4, S1	.10	.04
	Cargill West Field	432,800	11	7AC @ 15' & 4AC @ 10'	5, S3-S5		.08
2G	Kraemer	405,000	8	15'	3	.02	.02
	Cargill East	183,600	7	15'	4-5		0
	NSP	486,800	5	10'	S1-S5		.01

Table 7-2 Minnesota River Placement Site Criteria and Comparisons							
Criteria	Alternatives						
	2A	2B	2C	2D	2E	2F	2G
Impacts on Fish & Wildlife Resources	-	-	-	-	-	-	-
Impacts on Water Quality	0	0	0	0	0	0	0
Impacts on the Floodplain	+	+	0	0	0	0	+
Impacts on Recreation	0	0	0	0	0	0	0
Impacts on Cultural Resources	+	+	+	+	0	0	0
Social Impacts	0	0	0	0	0	0	0
Impacts on Aesthetics	0	0	0	0	0	0	0
Beneficial Use Removal	+	+	+	+	+	+	+
Dredging Costs	0	0	+	+	+	+	0
Cost for Implementation/Site Prep.	-	-	-	0	-	-	-

O – No effect
- minor adverse -- substantial adverse --- significant adverse
+ minor beneficial ++ substantial beneficial +++ significant beneficial

7.3 Comparison of Alternatives

This comparison matches alternatives head to head. Similar alternatives were compared first and then the remaining alternatives were compared. The alternatives were then listed in

order of preference. Floodplain impacts were considered for the head to head comparisons. The floodplain impacts of the dredged material disposal sites were analyzed using the flood insurance study model for the Lower Minnesota River. A base model was used with the addition of extra cross sections at the dredge material disposal sites. Other models were created by copying the base model and adding the specific sites and alternative combinations. The floodplain impacts of the dredge material disposal sites were quantified by examining the differences in water surface elevations between the base model and alternative models.

Alternative 2A vs. Alternative 2B - These alternatives are similar because they both use the Cargill East site identically. They also use 13 acres at a second site, which will be used the same way for dredge cuts 3 and S1-S5. The real comparison for these alternatives is between use of the Below Cargill (Alternative 2A) and Kraemer (Alternative 2B) sites. Alternative 2B has fewer impacts on fish and wildlife resources because it involves use of an existing dredged material placement site and Alternative 2A will require some wetland fill to gain permanent access to the Below Cargill site. Fish and wildlife impacts at the Cargill East site would be the same for both alternatives. Floodplain impacts for Alternative 2B are slightly less than Alternative 2A (see Table 7-1). Costs for implementation/site preparation would be less for Alternative 2B because Alternative 2A requires construction of a permanent access road through a wetland. There will be costs associated with the construction and with the wetland mitigation. The conclusion is that the reduced fish and wildlife impacts, lower floodplain impacts, and less cost for implementation/site preparation make Alternative 2B the preferred alternative.

Alternative 2C vs. Alternative 2D - These alternatives are similar because they both use the Cargill East River site identically. They also use 12 acres at a second site, which will be used the same way for dredge cuts 3-4 and S1. The real comparison for these alternatives is between use of the Below Cargill (Alternative 2C) and Kraemer (Alternative 2D) sites. Alternative 2D has fewer impacts on fish and wildlife resources because it involves use of an existing dredged material placement site and Alternative 2C will require some wetland fill to gain permanent access to the Below Cargill site. Fish and wildlife impacts at the Cargill East River site would be the same for both alternatives. Floodplain impacts at the Kraemer site are slightly less than at the Below Cargill site. However, cumulative impacts for both alternatives are the same (see Table 7-1). Costs for implementation/site preparation would be less for Alternative 2D because Alternative 2C requires construction of a permanent access road through a wetland. There will be costs associated with the construction and with the wetland mitigation. The conclusion is that the reduced fish and wildlife impacts and less cost for implementation/site preparation make Alternative 2D the preferred alternative.

Alternative 2E vs. Alternative 2F - These alternatives are similar because they both use the Cargill West Field site identically. They also use 12 acres at a second site, which will be used the same way for dredge cuts 3-4 and S1. The real comparison for these alternatives is between use of the Below Cargill (Alternative 2F) and Kraemer (Alternative 2E) sites. Alternative 2E has fewer impacts on fish and wildlife resources because it involves use of an existing dredged material placement site and Alternative 2F will require some wetland fill to gain permanent access to the Below Cargill site. Fish and wildlife impacts at the Cargill West

Field site would be the same for both alternatives. Floodplain impacts at the Kraemer site are slightly less than at the Below Cargill site. However, cumulative impacts for both alternatives are the same (see Table 7-1). Costs for implementation/site preparation would be less for Alternative 2E because Alternative 2F requires construction of a permanent access road through a wetland. There will be costs associated with the construction and with the wetland mitigation. The conclusion is that the reduced fish and wildlife impacts and less cost for implementation/site preparation make Alternative 2E the preferred alternative.

Alternative 2B vs. Alternative 2G - These alternatives are similar because they both use the Kraemer and Cargill East sites. However each of those sites are used differently and Alternative 2G also uses the NSP site. Alternative 2B has fewer impacts on fish and wildlife resources because Alternative 2G involves use of additional wetland acres at the NSP site. Fish and wildlife impacts at the Kraemer and Cargill East sites would be the same for both alternatives. Floodplain impacts for Alternative 2G are slightly less than Alternative 2B (see Table 7-1). Alternative 2B does not impact cultural resources and has been coordinated with the State Historic Preservation Office (SHPO). Alternative 2G requires a cultural resources survey of the NSP site and future coordination with SHPO. Alternative 2G would have more social and aesthetic impacts because the NSP site is located adjacent to Black Dog Road. Proper site planning and vegetative screening would reduce those impacts. The City of Burnsville has drafted a Natural Resources Master Plan, which includes the NSP site as part of their natural resource inventory. Dredging costs for Alternative 2G would be higher because material from cuts S3-S5 are beyond 4 miles from the placement site. It would be reasonable to expect additional transportation charges for barging material beyond 4 miles. Costs for implementation/site preparation would be less for Alternative 2B because Alternative 2G requires construction of a permanent access road at the NSP site. The conclusion is that the reduced fish and wildlife, cultural, social, and aesthetic impacts and less cost for dredging and implementation/site preparation make Alternative 2B the preferred alternative.

Alternative 2D vs. Alternative 2E - Alternative 2D has fewer impacts on fish and wildlife resources because Alternative 2E involves impacts to a 3 acre restoration area at the Cargill West Field site compared to Alternative 2D involving impacts to 0.04 acres of wetland for road access to the Cargill East River site. Floodplain impacts for Alternative 2D are slightly less than Alternative 2E (see Table 7-1). Alternative 2D does not impact cultural resources and has been coordinated with the State Historic Preservation Office (SHPO). Alternative 2E requires a cultural resources survey of the Cargill West Field site and future coordination with SHPO. Costs for implementation/site preparation would be less for Alternative 2D because Alternative 2E requires mitigation for impacts to the three acre restoration area at the Cargill West Field site. The conclusion is that the reduced fish and wildlife, floodplain, and cultural impacts and less cost for implementation/site preparation make Alternative 2D the preferred alternative.

Alternative 2B vs. Alternative 2D - Alternative 2D has fewer impacts on fish and wildlife resources because Alternative 2B involves impacts to 7 acres of wetlands at the Cargill East site compared to Alternative 2D involving impacts to 0.04 acres of wetland for road access to the Cargill East River site. Floodplain impacts for Alternative 2B are less than Alternative

2D (see Table 7-1) because the Cargill East site is out of the floodway. Alternative 2D has fewer costs for dredging. The Cargill East and Cargill East River sites can both be used for hydraulic placement. However, most dredging on the Minnesota River is done mechanically and for that type of operation, material must be loaded onto trucks and hauled to the Cargill East site. Costs for implementation/site preparation would be less for Alternative 2D because Alternative 2B requires mitigation for wetland impacts at the Cargill East site. The reduced fish and wildlife impacts and less cost for dredging and implementation/site preparation of Alternative 2D outweighs the reduced floodplain impacts of Alternative 2B. Active beneficial use removal from the placement sites is anticipated, which should reduce floodplain impacts for all sites. The conclusion is that Alternative 2D is the preferred alternative.

Alternative 2B vs. Alternative 2E - Alternative 2E has fewer impacts on fish and wildlife resources because Alternative 2B involves impacts to 7 acres of wetlands at the Cargill East site. Floodplain impacts for Alternative 2B are less than Alternative 2E (see Table 7-1) because the Cargill East site is out of the floodway. Alternative 2B does not impact cultural resources and has been coordinated with the State Historic Preservation Office (SHPO). Alternative 2E requires a cultural resources survey of the Cargill West Field site and future coordination with SHPO. Alternative 2E has fewer costs for dredging. The Cargill East and Cargill West Field sites can both be used for hydraulic placement. However, most dredging on the Minnesota River is done mechanically and for that type of operation, material must be loaded onto trucks and hauled to the Cargill East site. Costs for implementation/site preparation would be less for Alternative 2E because Alternative 2B requires mitigation for 7 acres of wetland impacts at the Cargill East site, while Alternative 2E requires mitigation for a 3 acre restoration area at the Cargill West Field site. The reduced fish and wildlife impacts and less cost for dredging and implementation/site preparation of Alternative 2E outweighs the reduced floodplain, and potential cultural resources impacts of Alternative 2B. Active beneficial use removal from the placement sites is anticipated, which should reduce floodplain impacts for all sites. The conclusion is that Alternative 2E is the preferred alternative.

Alternative 2C vs. Alternative 2E - Alternative 2C has fewer impacts on fish and wildlife resources. Alternative 2C will involve some wetland fill for permanent road access, but Alternative 2E will involve disturbance of a 3 acre area restored to mitigate actions of another project. Floodplain impacts for Alternative 2E are slightly less than Alternative 2C (see Table 7-1). Alternative 2C does not impact cultural resources and has been coordinated with the State Historic Preservation Office (SHPO). Alternative 2E requires a cultural resources survey of the Cargill West Field site and future coordination with SHPO. Costs for implementation/site preparation would be about the same for both alternatives. Alternative 2C involves construction of a permanent access road to the Below Cargill site and mitigation for wetland impacts. Alternative 2E involves access road improvements and mitigation for impacts to a 3 acre restoration area at the Cargill West Field site. The reduced fish and wildlife and cultural resources impacts of Alternative 2C outweigh the reduced floodplain impacts of Alternative 2E. Active beneficial use removal from the placement sites is anticipated, which should reduce floodplain impacts for all sites. The conclusion is that Alternative 2C is the preferred alternative.

Alternative 2B vs. Alternative 2F - Alternative 2F has fewer impacts on fish and wildlife resources. Alternative 2B involves impacts to 7 acres of wetlands at the Cargill East site compared to 1-2 acres of wetlands at the Below Cargill site and 3 acres of previously restored area at the Cargill West Field site for Alternative 2F. Floodplain impacts for Alternative 2B are less than Alternative 2F (see Table 7-1) because the Cargill East site is out of the floodway. Alternative 2B does not impact cultural resources and has been coordinated with the State Historic Preservation Office (SHPO). Alternative 2F requires a cultural resources survey of the Cargill West Field site and future coordination with SHPO. Alternative 2F has fewer costs for dredging. The Cargill East and Cargill West Field sites can both be used for hydraulic placement. However, most dredging on the Minnesota River is done mechanically and for that type of operation, material must be loaded onto trucks and hauled to the Cargill East site. Costs for implementation/site preparation would be slightly less for Alternative 2F. Alternative 2B requires mitigation for 7 acres of wetland impacts at the Cargill East site, while Alternative 2F requires mitigation for a 3 acre restoration area at the Cargill West Field site and a 1-2 acre area for access road construction at the Below Cargill site. The reduced fish and wildlife impacts and less cost for dredging and implementation/site preparation of Alternative 2F outweigh the reduced floodplain, and potential cultural resources impacts of Alternative 2B. Active beneficial use removal from the placement sites is anticipated, which should reduce floodplain impacts for all sites. The conclusion is that Alternative 2F is the preferred alternative.

Alternative 2A vs. Alternative 2G - Alternative 2A has fewer impacts on fish and wildlife resources. Both alternatives involve wetland impacts to 7 acres at the Cargill East site. However, Alternative 2A involves wetland impacts to 1-2 acres for access road construction at the Below Cargill site, while Alternative 2G involves wetland impacts to 5 acres at the NSP site. Floodplain impacts for Alternative 2G are slightly less than Alternative 2A (see Table 7-1). Alternative 2A does not impact cultural resources and has been coordinated with the State Historic Preservation Office (SHPO). Alternative 2G requires a cultural resources survey of the NSP site and future coordination with SHPO. Alternative 2G would have more social and aesthetic impacts because the NSP site is located adjacent to Black Dog Road. Proper site planning and vegetative screening would reduce those impacts. The City of Burnsville has drafted a Natural Resources Master Plan, which includes the NSP site as part of their natural resource inventory. Dredging costs for Alternative 2G would be higher because material from cuts S3-S5 are beyond 4 miles from the placement site. It would be reasonable to expect additional transportation charges for barging material beyond 4 miles. Costs for implementation/site preparation would be similar for both alternatives. The conclusion is that the reduced fish and wildlife, cultural, social, and aesthetic impacts and less cost for dredging make Alternative 2A the preferred alternative.

7.3.1 Summary of Alternative Comparisons

Table 7-3 provides a summary of the alternative comparisons for the Above I-35W Bridge study area. The conclusion of this process is that the preferred order of implementation is Alternative 2D, 2C, 2E, 2F, 2B, 2A, and 2G.

Table 7-3 Summary of Above I-35W Bridge Alternative Comparisons		
Alternatives	Preferred Alternative	Implication
2A vs. 2B	2B	Alternative 2A cannot become the #1 preferred plan.
2C vs. 2D	2D	Alternative 2C cannot become the #1 preferred plan.
2E vs. 2F	2E	Alternative 2F cannot become the #1 preferred plan.
2G vs. 2B	2B	Alternative 2G cannot become the #1 preferred plan.
		Alternative 2A cannot become the #2 preferred plan.
2D vs. 2E	2D	Alternative 2E cannot become the #1 preferred plan.
		Alternative 2F cannot become the #2 preferred plan.
2B vs. 2D	2D	Alternative 2D is the #1 preferred plan.
2B vs. 2E	2E	Alternative 2B cannot become the #2 preferred plan.
		Alternative 2G cannot become the #2 preferred plan.
2E vs. 2C	2C	Alternative 2C is the #2 preferred plan.
		Alternative 2E is the #3 preferred plan.
2B vs. 2F	2F	Alternative 2F is the #4 preferred plan.
		Alternative 2B is the #5 preferred plan.
2A vs. 2G	2A	Alternative 2A is the #6 preferred plan.
		Alternative 2G is the #7 preferred plan.

8.0 RECOMMENDATIONS

The recommended alternative for the Above I-35W Bridge reach is Alternative 2D. All material from cuts 3 and 4 will be taken to the Kraemer site using either mechanical or hydraulic dredging methods. All material from cut S1 will be taken to the Kraemer site using mechanical dredging methods. All material from cut 5 will be taken to the Cargill East River site using either mechanical or hydraulic dredging methods. All material from cuts S3, S4, and S5 will be taken to the Cargill East River site using mechanical dredging methods. The Kraemer site will have an 8 acre area for cuts 3 and 4 piled to a height of 15 feet and a 4 acre area for cut S1 piled to a height of 10 feet. The Cargill East River site will have a 7 acre area for cut 5 piled to a height of 15 feet and a 4 acre area for cuts S3, S4, and S5 piled to a height of 10 feet.

If implementation of the recommended alternative is not possible, the implementation will proceed with the next preferred alternative identified in the Summary of Alternative Comparisons (see Table 7-3). However, implementation of any alternatives beyond 2D and 2C will require further coordination with other agencies and necessary endangered species coordination. In addition to this coordination, there may be a need for further NEPA documentation.

9.0 IMPLEMENTATION

Actions necessary to implement the plan will be initiated immediately following the completion of the review and approval process for this report. Section 1.1, Authorization and Responsibilities,

outlines who will be responsible for action items necessary to implement the recommended plan. The following sections will outline issues to address for implementation of the recommended alternatives.

9.1 Implementation for Alternative 2D

The Corps has completed a hydraulic analysis of the Kraemer and Cargill East River sites to measure floodplain impacts. The individual site impacts and the cumulative impacts for the alternative are shown in Table 7-1. The LMRWD must begin discussions with local units of government and the Minnesota Department of Natural Resources to develop and agree on appropriate plans that would remove the sites identified in Alternative 2D from the floodway or acquire Interim Use Permits for temporary placement. If this cannot be accomplished, they must agree on another approach to using the site.

The LMRWD will pursue acquisition of the sites identified. Long-term agreements are preferred and should be pursued. There will be no need for the Cargill East site currently acquired for dredged material placement if all of the Alternative 2D sites can be acquired and implemented. The LMRWD should not execute acquisition of the sites until all regulatory issues are resolved. If any site identified in Alternative 2D cannot be acquired, the LMRWD must provide documentation to show that they made a reasonable effort for acquisition. If this happens, the next preferred alternative (2C) will be pursued.

The Corps has completed cultural resource, NEPA, and endangered species compliance and will be requesting state water quality certification. The Corps will also amend the permit and Memorandum of Understanding with the MDNR.

Following acquisition of the sites the LMRWD will clear them of all trees and construct access roads for beneficial use removal of material. The Corps will then construct containment dikes for those portions of the sites responsible for containment of the Corps dredged material. The private barge terminals will be responsible for constructing containment dikes for those portions of the sites designated to contain their material. The LMRWD will be responsible for any landscaping or vegetative screening necessary to utilize the site.

If implementation of Alternative 2D is not possible for any reason, attention will immediately be turned to the next alternative in order of preference (2C, 2E, 2F, 2B, 2A, and then 2G). Implementation will then proceed as outlined above.

9.2 Beneficial Use Plan

The LMRWD has a continuing role in providing new placement sites or insuring that the placement sites selected in this report have capacity when required for dredged material placement. The LMRWD should act as a site manager, or acquire agreements with local contractors to become placement site managers with the responsibility for insuring that capacity exists at each placement site. Material placed into sites should be removed as soon as practicable. Material with higher concentrations of fines will require a longer period to de-

water and may need to be mixed with coarser sand to provide a more useable product. The Corps will assist the LMRWD in actively promoting the beneficial use of dredged material.

10.0 ENVIRONMENTAL ASSESSMENT

An environmental analysis has been conducted for the proposed action, and a discussion of the impacts follows. As specified by Section 122 of the 1970 Rivers and Harbors Act, the categories of impacts listed in table 10-1 were reviewed and considered in arriving at the final determinations. In accordance with COE regulations (33 CFR 323.4(a)(2)), a Section 404(b)(1) evaluation has been prepared and is contained as attachment 2. State water quality certification, as required by Section 401 of the Clean Water Act, has been obtained from Minnesota.

The Final Environmental Impact Statement (FEIS) for the 9-Foot Navigation Channel Project (COE 1997) discussed the programmatic and site-specific effects of the St. Paul District's channel maintenance management program. The use of the Kramer site was covered in this FEIS and is incorporated by reference. This environmental assessment discusses the effects of proposed modifications to the Channel Maintenance Management Plan for the Minnesota River, above the Highway 35 Bridge. The use of the

10.1 Relationship to Environmental requirements

This assessment was prepared and the proposed work designed to comply with all applicable environmental laws and regulations, including the following: National Environmental Policy Act of 1969; Executive Order 11514, Protection and Enhancement of Environmental Quality (as amended in Executive Order 11991); Executive Order 11593, Protection and Enhancement of the Cultural Environment; Executive Order 11990, Protection of Wetlands; Clean Air Act of 1977; Clean Water Act of 1977; Endangered Species Act of 1973; Fish and Wildlife Coordination Act; National Historic Preservation Act; 40 CFR 1500-1508, Council on Environmental Quality, Regulations for Implementing Procedural Provisions of the National Environmental Policy Act of 1969. The effects of the alternatives are summarized in Table 10-1.

10.2 Natural Resources Effects

10.2.1 Air Quality

The use of heavy equipment for dredging, unloading, and subsequent beneficial-use removal by trucks would generate air emissions from the use of petroleum products to run the equipment. Very localized, minor degradation of air quality would occur during the dredging and subsequent removal.

Table 10-1. Environmental Assessment Matrix for Minnesota River Channel Maintenance Management Plan
Section 122 of the River and Harbor and Flood Control Act of 1970 (P.L. 91-611)

PARAMETER	Preferred	Other alternatives considered					
	2D	2C	2E	2F	2B	2A	2G
A. SOCIAL EFFECTS							
1. Noise Levels	0	0	0	0	0	0	0
2. Aesthetic Values	-	-	-	-	-	-	--
3. Recreational Opportunities	0	0	0	0	0	0	-
4. Transportation	+	+	+	+	+	+	+
5. Public Health and Safety	0	0	0	0	0	0	0
6. Community Cohesion (Sense of Unity)	0	0	0	0	0	0	-
7. Community Growth and Development	0	0	0	0	0	0	0
8. Business and Home Relocations	0	0	0	0	0	0	0
9. Existing/Potential Land Use	0	0	0	0	0	0	-
10. Controversy	0	0	0	0	0	0	-
B. ECONOMIC EFFECTS							
1. Property Values	0	0	0	0	0	0	0
2. Tax Revenue	0	0	0	0	0	0	0
3. Public Facilities and Services	+	+	+	+	+	+	+
4. Regional Growth	0	0	0	0	0	0	0
5. Employment	0	0	0	0	0	0	0
6. Business Activity	0	0	0	0	0	0	0
7. Farmland/Food Supply	-	-	-	-	-	-	0
8. Commercial Navigation	+	+	+	+	+	+	+
9. Floodplain effects	--	--	--	--	-	-	-
10. Energy Needs and Resources	0	0	0	0	0	0	0
C. NATURAL RESOURCE EFFECTS							
1. Air Quality	-	-	-	-	-	-	-
2. Terrestrial Habitat	--	--	--	--	-	--	-
3. Wetlands	-	-	0	-	--	--	--
4. Aquatic Habitat	-	-	-	-	-	-	-
5. Habitat Diversity and Interspersion	-	-	-	-	-	-	-
6. Biological Productivity	-	-	-	-	-	-	-
7. Surface Water Quality	0	0	0	0	0	0	0
8. Water Supply	0	0	0	0	0	0	0
9. Groundwater	0	0	0	0	0	0	0
10. Soils	-	-	-	-	-	-	-
11. Threatened or Endangered Species	0	0	0	0	0	0	0
D. CULTURAL RESOURCE EFFECTS							
1. Historic Architectural Values	0	0	0	0	0	0	0
2. Pre-Historic & Historic Archeological	0	0	0	0	0	0	0

O – No effect

- minor adverse -- substantial adverse --- significant adverse

+ minor beneficial ++ substantial beneficial +++ significant beneficial

10.2.2 Water Quality

See the Section 404(b)(1) evaluation (Appendix A) for a more detailed discussion of the impacts on water resources. Water quality impacts would be essentially the same for the 7 alternatives considered. Mechanical dredging would re-suspend river sediments during the operation. Effluent return from hydraulic placement of channel maintenance and barge slip material into the containment sites would cause elevated turbidity. Elevated turbidity and suspended concentrations and suppressed light penetration would occur in a localized area throughout the construction process. This would cause adverse impacts on filter-feeding benthic organisms and the planktonic community. These communities should recover fairly quickly after each dredging event.

Sediment sampling from the main channel dredge cuts was completed in 1999 (see the 404(b)(1) evaluation - Appendix A and Appendix B). Silts and clay comprised less than 5% of the samples. None of the parameters tested had values exceeding the Ontario Ministry of Environment and Energy lowest effect level sediment criteria. The quality of main channel sediments in the Minnesota River is generally good. Because main channel sediments on the Minnesota River are relatively clean, contaminants are not expected to be released at concentrations that alone or in combination with other contaminants would cause toxic effects on aquatic organisms. Bioaccumulation of contaminants in aquatic organisms is not anticipated to be a problem, because of the low levels of chlorinated hydrocarbons and heavy metals in the sediments.

The quality of the private barge slips was tested from 1996-98 (see reports in appendix B). Many of these slips contain finer-grained sediments (15 to 40% silts and clays). PCB's were not detected. Metals were analyzed using a TCLP extraction process. Most of the metals were not detected in the TCLP. Detectable levels of cadmium and lead were found, but substantially below the TCLP cut-off level. Because the barge slip sediments tend to be finer, greater water quality impacts may occur during dredging of the slips than during main channel dredging.

10.2.3 Habitat

Since the 1960's, approximately 93 acres of main channel habitat has been dredged periodically to maintain the navigation channel. Future main channel dredging would probably continue to disturb a similar number of acres.

The acres of habitat impacted at the placement sites by each of the alternatives are summarized in the table 10-2. Approximately 20 to 24 acres of habitat would be impacted depending on the alternative. The

Lower Minnesota River Watershed District is responsible for developing and implementing a wetland compensation plan for any wetlands impacted with the selected alternative.

Alternative 2D (the preferred alternative). Approximately 0.04 acres of wetlands at the Cargill East River site would be impacted to provide road access. The wetland is located along the existing road ditch. A culvert would be placed in the new road access to provide water exchange in the wetland and reduce impacts on the existing hydrology. The Minnesota River Watershed District will construct a 0.08 acre (3,725 square feet) wetland on-site to compensate for the filling of 0.04 acres of wetland. The Cargill East River was farmed at one time. Presently, a variety of upland meadow grasses and forbes are present, including native prairie species like big bluestem. The Minnesota River bank would need to be excavated at two locations (one for fine material and the other for granular dredge material) to allow the material to be unloaded from barges at the Cargill East River site. The bank at both locations would be cut 80 feet wide. The first 30 feet will have a slope of 1:3, the rest will angle back to elevation 705.0. The side slopes will be cut to 1:3 and seeded. The excavated material will be used to construct some of the internal berms. Approximately 10 trees at the fine material access location would need to be removed. The Kraemer site has been used extensively in the past for channel maintenance and private barge slip dredged material and is highly disturbed, with limited wildlife habitat value. Alternative 2D represents the least environmental damaging alternative.

Alternative 2C . This alternative also involves the use of the Cargill East River site and would have similar impacts as under alternative 2D. The Below Cargill site may have also been farmed at some point. It is presently an upland meadow, with some young trees and shrubs. The Below Cargill site presently has no road access for beneficial use removal. If the Kraemer site is not selected for implementation, it is unlikely that road access across Kraemer's property would be obtained. Therefore, a new access road would have to be constructed. The new road would cross a wetland and tie into an existing dike area owned by Cargill. Around 1 acre of types 1, 2, and 6 wetlands would be impacted from this road access. Culverts may be necessary to minimize impacts on the contiguous wetlands. This fragmentation would reduce the fish and wildlife value of the remaining wetlands.

Other alternatives considered: Alternatives 2E and 2F are similar to 2D and 2C, but with the Cargill West Field substituted for the Cargill East River Site. The Cargill West Field site was row cropped not to long ago. A wetland delineation was performed in 1999. The entire site was classified as upland. Around 3 acres of the site was planted with trees and shrubs to mitigate for wetland fill from a past Cargill Company dredging

project. The Minnesota River Watershed District would be responsible for replacing this compensation site, if either of these alternatives is used. Alternatives 2A, 2B, and 2C would have the greatest impacts on wetlands, between 7.5 to 12.5 acres of wetlands would be filled. The wetland fill at both the NSP and Cargill East sites would bisect a larger wetland area, which could affect the hydrology and quality of the contiguous wetlands. This fragmentation would also reduce the fish and wildlife habitat value of the remaining wetlands.

Table 10-2. Habitat types impacted by the various alternative placement sites.

Alt.	Sites	Material To Site (CY)	Cuts Going To Site	Types of habitat impacted
2D	Kraemer	642,600	3-4, S1	12 acres of disturbed upland area from historic placement of dredged material
	Cargill East River	432,800	5, S3-S5	11 acres of upland meadow (previously agricultural land) & 0.04 acres of Types 1,2 6 wetlands for a road access
2C	Below Cargill	642,600	3-4, S1	12 acres of upland meadow & early succession forest and 1 acre of Types 1,2 6 wetlands for a new road access
	Cargill East River	432,800	5, S3-S5	11 acres of upland meadow (previously agricultural land) & 0.04 acres of Types 1,2 6 wetlands for a road access
2E	Kraemer	642,600	3-4, S1	12 acres of disturbed upland area from historic placement of dredged material
	Cargill West Field	432,800	5, S3-S5	11 acres of upland meadow (previously agricultural land)
2F	Below Cargill	642,600	3-4, S1	12 acres of upland meadow & early succession forest and 1 acre of Types 1,2 6 wetlands for a new road access
	Cargill West Field	432,800	5, S3-S5	11 acres of upland meadow (previously agricultural land)
2B	Kraemer	891,800	3, S1-S5	13 acres of disturbed upland area from historic placement of dredged material
	Cargill East	183,600	4-5	7.5 acres of Types 1&2 wetlands (placement site and road access).
2A	Below Cargill	891,800	3, S1-S5	13 acres of upland meadow & early succession forest and 1 acre of Types 1,2 6 wetlands for a new road access
	Cargill East	183,600	4-5	7.5 acres of Types 1&2 wetlands (placement site and road access)
2G	Kraemer	405,000	3	8 acres of disturbed upland area from historic placement of dredged material
	Cargill East	183,600	4-5	7.5 acres of Types 1 & 2 wetlands (placement site and road access)
	NSP	486,800	S1-S5	5 acres of Types 1, 2 & 6 wetlands

10.2.4 Fish And Wildlife

Short-term, localized adverse impacts will occur with each dredging event. Mechanical dredging or effluent return from the containment sites will cause elevated levels of turbidity in the immediate vicinity. However, the material to be dredged is relatively clean, and

mechanical placement should assure that no toxic effects occur. The increases in turbidity and suspended solids during each dredging event would have a localized suppressing effect on phytoplankton productivity. These limited local effects would be minor, however, and plankton populations would recover quickly upon completion of each dredging event.

Fish and benthic species would be adversely affected by the proposed dredging. Ganhgl, Pereira, and Walsh (2000) found walleyes migrating into the Minnesota River from pool 2 during the spring, but did not find them using the Minnesota River during other seasons. Spring dredging, especially with the finer-grained harbor sediments, could effect walleye use. Benthic organisms, including freshwater mussels, that inhabit bottom substrates in these areas would be removed and destroyed by the dredging activity. Native mussels are rather improverished in the navigable portion of the Minnesota River. The frequent maintenance dredging also limits the mussel fauna. Other benthic organisms should rapidly recolonize the newly exposed substrate. Therefore, the project effects on benthic organisms would be short-term and minor. Fish species would probably simply avoid the area during the dredging.

Converting the existing upland habitat to an active dredged material placement site under the preferred alternative 2D would reduce wildlife use of these areas. Removing around 10 trees for the barge access to the site would have a minor impact on wildlife use of the area.

10.2.5 Threatened And Endangered Species

A biological assessment for the two preferred alternatives has been completed to determine the potential effects on the following Federally listed species: Higgins eye pearly mussel (*Lampsilis higginsii*) and bald eagle (*Haliaetus leucocephalus*).

The Higgins eye pearly mussel has not been recorded in the last 30 years in the Minnesota River. Mussel surveys that have been conducted over the years have recorded very few specimens, within the navigable portion of the Minnesota River. However, recent surveys indicate that conditions for native mussels and their host fish species have improved and at least common species of mussels are being collected from the lower Minnesota River. The frequent dredging at the Minnesota River dredge cuts, probably precludes the presence of appreciable mussel populations. It is very unlikely that *L. higginsii* is present at any of the maintenance dredge cuts and slips. The proposed project should have no effect on the Higgins' eye pearly mussel or its habitat.

Active bald eagle nesting sites occur within the Minnesota River Valley. No active nesting sites are located in the immediate vicinity of the proposed placement sites. Other than small access points, none of the trees along the riverbank would be removed at any of the proposed sites. The access points were selected to avoid large trees that could be used as bald eagle perches. The dredging and placement activities could potentially disrupt short-term use of the general area by bald eagles. There would be no project-related long-term impacts to the bald eagle.

The proposed project would have no effects on any Federally listed threatened or endangered species or their critical habitat. The U.S. Fish and Wildlife Service concurs with this determination (Appendix D).

A number of Minnesota State listed fish and mussel species are listed from the project area. Several Minnesota State listed fish species use main channel, the primary habitat type that would be impacted by the proposed dredging. Dredging would temporarily displace any fish from the project locations. No known important spawning or overwintering habitat for State listed fish species would be adversely impacted by the proposed project features. Mussel fauna is somewhat sparse in this stretch of the Minnesota River, especially where frequent maintenance dredging is occurring. Vegetation surveys of the placement did not reveal any State listed species. It is the St. Paul District's conclusion the proposed project would have no more than minor impacts on State listed threatened and endangered plant, fish and mussel species. Because the project would have limited impacts on other natural resources and no impacts on Federally listed threatened and endangered species, no project related impacts on State-listed wildlife species are anticipated. The Minnesota Department of Natural Resource will receive a copy of this Environmental Assessment. Comments received pertaining to protection of threatened and endangered species will be addressed.

10.3 Cultural Resource Effects

The proposed dredged material disposal project will have no effect on any historic properties. No known historic properties are in the area of potential effect of any of the four sites. The Cargill East site has very low potential for cultural resources, being a wetland. The Kraemer site has already been significantly disturbed by the deposition of dredged material. The Cargill East River and Below Cargill sites are considered to have low potential as they are at a lower elevation than other sites in a similar Minnesota River floodplain setting. Nevertheless, they were both shovel-tested. No cultural material was encountered.

The project has been coordinated with the Minnesota State Historic Preservation Officer, and no further cultural resources work is recommended for the project (see appendix D).

10.4 Socioeconomic Effects

10.4.1 Noise

The use of heavy equipment for dredging and beneficial use removal from the placement sites would generate noise. The effects would be considered minor, as there are no sensitive receptors near the project sites. In addition, dredging would take place in the main channel or barge slips where noise associated with recreational boat traffic and commercial barges is relatively commonplace.

10.4.2 Aesthetics

The Lower Minnesota River bank and floodplain varies from relatively undisturbed floodplain forest and other wetlands to highly disturbed industrial and urban areas. To minimize visual impacts, most of the trees along the banks at the placement sites would be left to maintain a screen along the Minnesota River. However, the sand piles will likely be seen from the Minnesota River by boaters, reducing the aesthetic quality of the area. The use of the alternate NSP site would have the greatest impacts on visual quality.

10.4.3 Recreational Resources

Recreational use of the placement sites is probably somewhat limited, because they are all privately owned. Impacts on recreational use would be primarily due to reduced aesthetics and potential congestion conflicts with dredging, placement, and beneficial use removal. Use of the Kraemer site would have the least impacts, due to its already disturbed nature.

10.4.4 Commercial Navigation

Having a Corps and private long-term channel management plan for the Minnesota River would have a positive affect on commercial navigation. It would provide for a more reliable and safer navigation channel. It would also reduce long-term maintenance dredging costs.

10.4.5 Controversy

The lack of an acceptable long-term placement plan for channel maintenance material has been a long-standing controversy in the area, which should be reduced with the implementation of the selected plan. The USFWS has listed the Cargill West Field site for potential acquisition

to the Minnesota Valley National Wildlife Refuge. The USFWS has an agreement for use of the NSP as part of the Minnesota Valley National Wildlife Refuge. Use of the Cargill West Field and NSP sites as placement site, therefore, could be controversial.

10.5 Cumulative Impacts

The cumulative impacts of the Channel Management Program have been discussed in detail in COE 1997. A multitude of factors will affect the future environment of the Upper Mississippi River Basin, including the Minnesota River: continued operation and maintenance of the navigation system, hydrologic and hydraulic processes in an altered environment, commercial traffic, public use, point and non-point pollution, commercial and residential development, agricultural practices and watershed management, exotic species, and a host of other factors.

The cumulative impacts of the Minnesota River Channel Maintenance Management plan on the natural environment would be minor in relation to other non-project related impacts. The Minnesota River Dredged Material Management Plan would impact 23 acres of upland and between 0.04 to 1.25 acres of wetlands, depending on the alternative implemented. The Minnesota DMMP in combination with the Upper Mississippi River Dredged Material Management Plan for the Head of Navigation to Guttenberg, Iowa would impact 147 acres of wetlands, 370 acres of upland, and 292 acres of disturbed floodplain over the 40-year initial planning period.

11.0 COORDINATION AND COMMENTS

Coordination of this Dredged Material Management Plan (DMMP) began with a meeting on September 10, 1998 in Shakopee, MN. The meeting was well attended by Corps, Lower Minnesota River Watershed District, Federal and State resource agency, private industry, and City representatives. The purpose of the meeting was to initiate a comprehensive DMMP study for the Minnesota River to address all dredging requirements, both private and Federal.

An alternative placement site workshop was held on February 16, 1999 in Bloomington, MN for the purpose of discussing existing dredged material placement sites and to identify alternatives to evaluate. Representatives from the Corps, Lower Minnesota River Watershed District, Federal and State resource agency, private industry, and local communities provided alternatives and discussed concerns.

A Preliminary Draft DMMP was provided to a Corps review team on May 4, 1999. Revisions were completed and a Draft DMMP was distributed to study participants and River Resources Forum agencies on July 16, 1999 for comments.

On August 4, 1999, study participants held a workshop in Savage, MN to discuss the Draft DMMP and to inspect the alternative placement sites identified. Several existing sites were eliminated and several new sites were recommended as a result of discussions.

On August 31, 1999, the Corps held a coordination meeting with the Lower Minnesota River Watershed District in St. Paul, MN. The purpose of the meeting was to discuss alternative placement sites and respective agency authorities and responsibilities.

Coordination throughout the project was maintained with the On-Site Inspection Team and other study participants. Active participants included representatives of the Corps of Engineers, Fish and Wildlife Service, Coast Guard, Minnesota Department of Natural Resources, Minnesota Department of Transportation, Minnesota Pollution Control Agency, Fort Snelling State Park, City of Savage, City of Burnsville, City of Bloomington, Lower Minnesota River Watershed District, Upper River Services, L&S Industrial Marine, Harvest States Cooperatives, Cargill, Bunge, and Cargill Company. Formal coordination meetings were held on the dates shown below. Coordination also took place on a regular basis through informal means to facilitate the exchange of information.

September 10, 1998	August 4, 1999
February 16, 1999	August 31, 1999

The final DMMP was distributed for public review in October 2000. It was sent to Congressional interests, Federal, State, and Non-Federal agencies, special interest groups, and others as listed in Appendix D. Comment letters received are also included in Appendix D.

The revised final DMMP was distributed for public review in April 2007. It was sent to Congressional interests, Federal, State, and Non-Federal agencies, special interest groups, and others as listed in Appendix D. Comment letters received are also included in Appendix D.

12.0 SUMMARY

The purpose of this study was to develop a Dredged Material Management Plan (DMMP) that would address long-term management of dredging and placement site requirements on the Minnesota River. It includes public as well as private dredging requirements. Existing plans or placement sites formed the baseline condition, but the DMMP looked at additional requirements to satisfy placement of all material projected for the planning period.

During the development of this DMMP, several problems were encountered while evaluating sites below (downstream from) the I-35W Bridge. The emphasis for this report was changed to address only the area above (upstream from) the I-35W Bridge.

Work will continue on the area below the I-35W Bridge and a supplemental DMMP will be furnished when completed.

Several combinations of alternatives were developed and evaluated. The alternatives were ranked in order of preference for implementation. They were ranked this way because the Lower Minnesota River Watershed District (LMRWD) is responsible for implementation and this method would give them the most flexibility in negotiating agreements.

The recommended alternative for the Above I-35W Bridge reach is Alternative 2D. All material from cuts 3 and 4 will be taken to the Kraemer site using either mechanical or hydraulic dredging methods. All material from cut S1 will be taken to the Kraemer site using mechanical dredging methods. All material from cut 5 will be taken to the Cargill East River site using either mechanical or hydraulic dredging methods. All material from cuts S3, S4, and S5 will be taken to the Cargill East River site using mechanical dredging methods. The Kraemer site will have an 8 acre area for cuts 3 and 4 piled to a height of 15 feet and a 4 acre area for cut S1 piled to a height of 10 feet. The Cargill East River site will have a 7 acre area for cut 5 piled to a height of 15 feet and a 4 acre area for cuts S3, S4, and S5 piled to a height of 10 feet.

If implementation of the recommended alternative is not possible, the implementation will proceed with the next preferred alternative identified in the Summary of Alternative Comparisons (see Table 7-3). The LMRWD will be responsible for documenting why implementation is not possible and that they made a reasonable effort to implement the first preferred alternative prior to pursuing the second preferred alternative. Implementation of any alternative beyond 2D and 2C will require further coordination with other agencies and necessary endangered species coordination. In addition to this coordination, there may be a need for further NEPA documentation.

In addition to providing the LMRWD a clear direction regarding which placement sites to acquire and what is required to make sites useable, this DMMP serves another important role. It outlines authorities and responsibilities for the agencies involved. This should reduce future misunderstandings regarding placement site management.

13.0 FONSI

Environmental and Economic Analysis Branch
Planning, Programs and Project Management Division

FINDING OF NO SIGNIFICANT IMPACT

In accordance with the National Environmental Policy Act of 1969, the St. Paul District, Corps of Engineers, has assessed the environmental impacts of the following project.

DREDGED MATERIAL MANAGEMENT PLAN (DMMP)
LOWER MINNESOTA RIVER
DAKOTA, HENNEPIN, AND SCOTT COUNTIES, MINNESOTA

The primary purpose is to provide a comprehensive DMMP for the Minnesota River to address all dredging requirements for the main navigation channel and private barge slips. An estimated 1,156,400 cubic yards of material will be dredged from the navigation channel and private barge slips (669,600 cubic yards and 486,800 cubic yards respectively) over the next 27 years. This material would be periodically placed at 2 sites selected in the DMMP; the Kramer and Cargill East River sites.

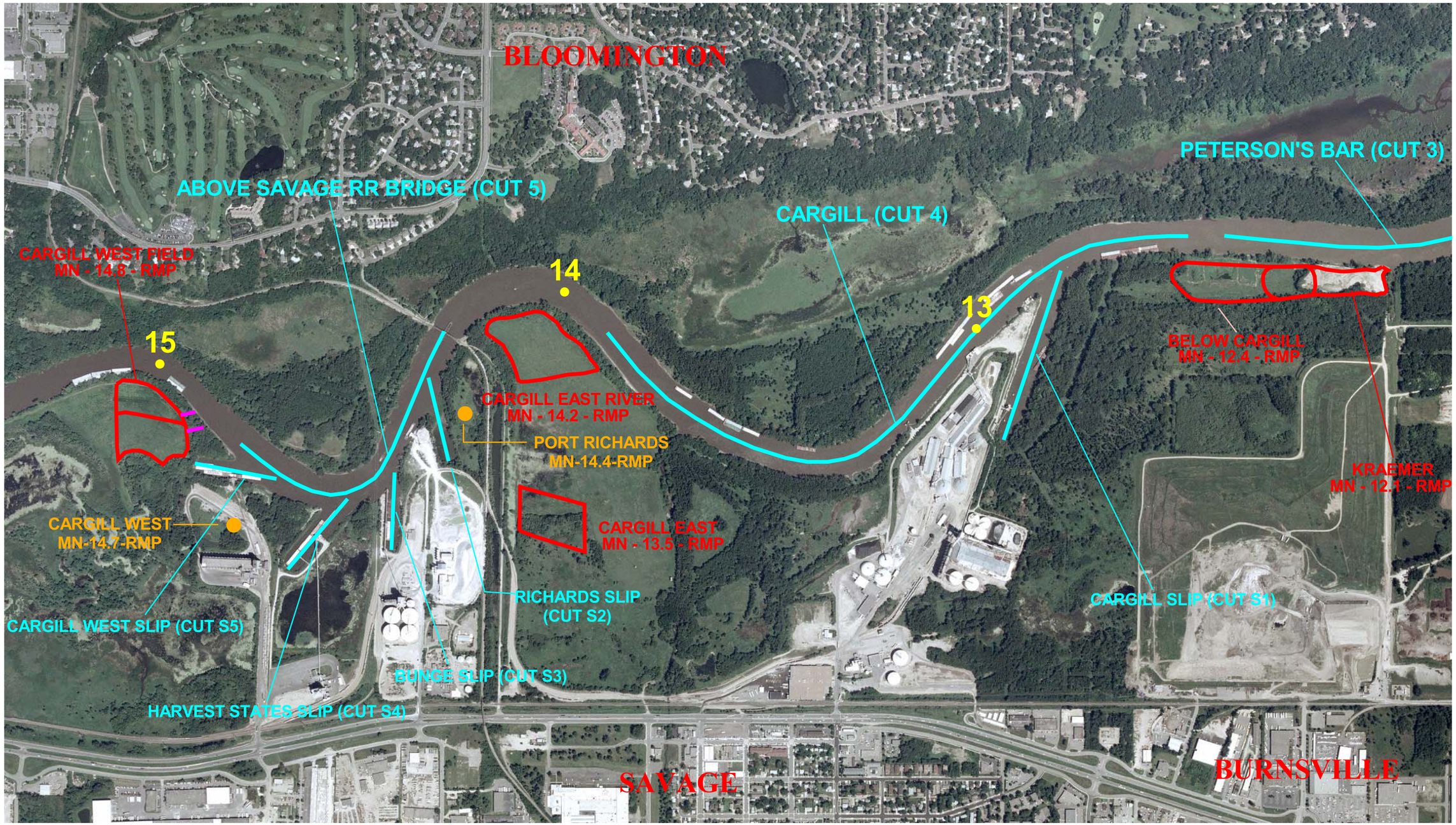
The proposed actions should have long-term positive impacts on economics and commercial navigation. Only minor impacts on water quality are anticipated. Use of the recommended placement sites would impact around 23 acres of upland habitat; which is old agricultural fields and an active placement site. Approximately 0.04 acres of wetlands would be impacted with the construction of the road access to the Cargill East River site. Wetlands (0.08 acres) will be constructed onsite at the Cargill East River site to compensate for the adverse wetland impacts. No impacts on Federally-listed endangered or threatened species would occur from either the dredging or placement. Dredging and placement of material at the selected placement sites would not have any effects on cultural resources. Placement of dredged material within the Minnesota River would have a minor impact on aesthetic qualities and minor social impacts from increased truck traffic to remove the material for beneficial use.

This finding of no significant impact is based on the fact that no significant environmental impacts were identified as resulting from the proposed actions. The environmental review indicates that the proposed actions do not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement will not be prepared.

1 July 2007
Date

Jon L. Christensen
Colonel, Corps of Engineers
District Engineer

Plates



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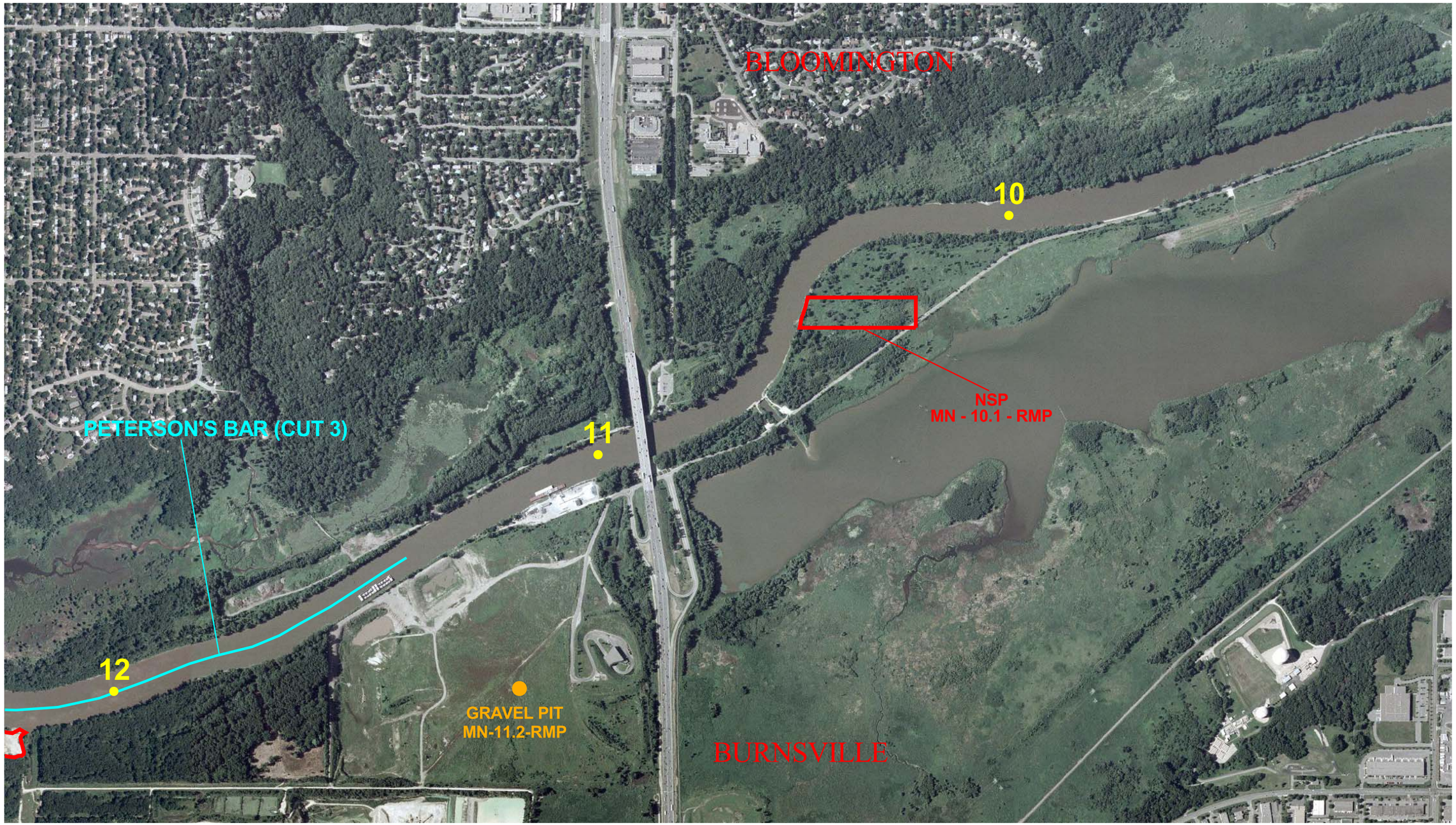
MINNESOTA RIVER DMMP
PLATE 1



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MINNESOTA RIVER DMMP
PLATE 2

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MINNESOTA RIVER DMMP

PLATE 3

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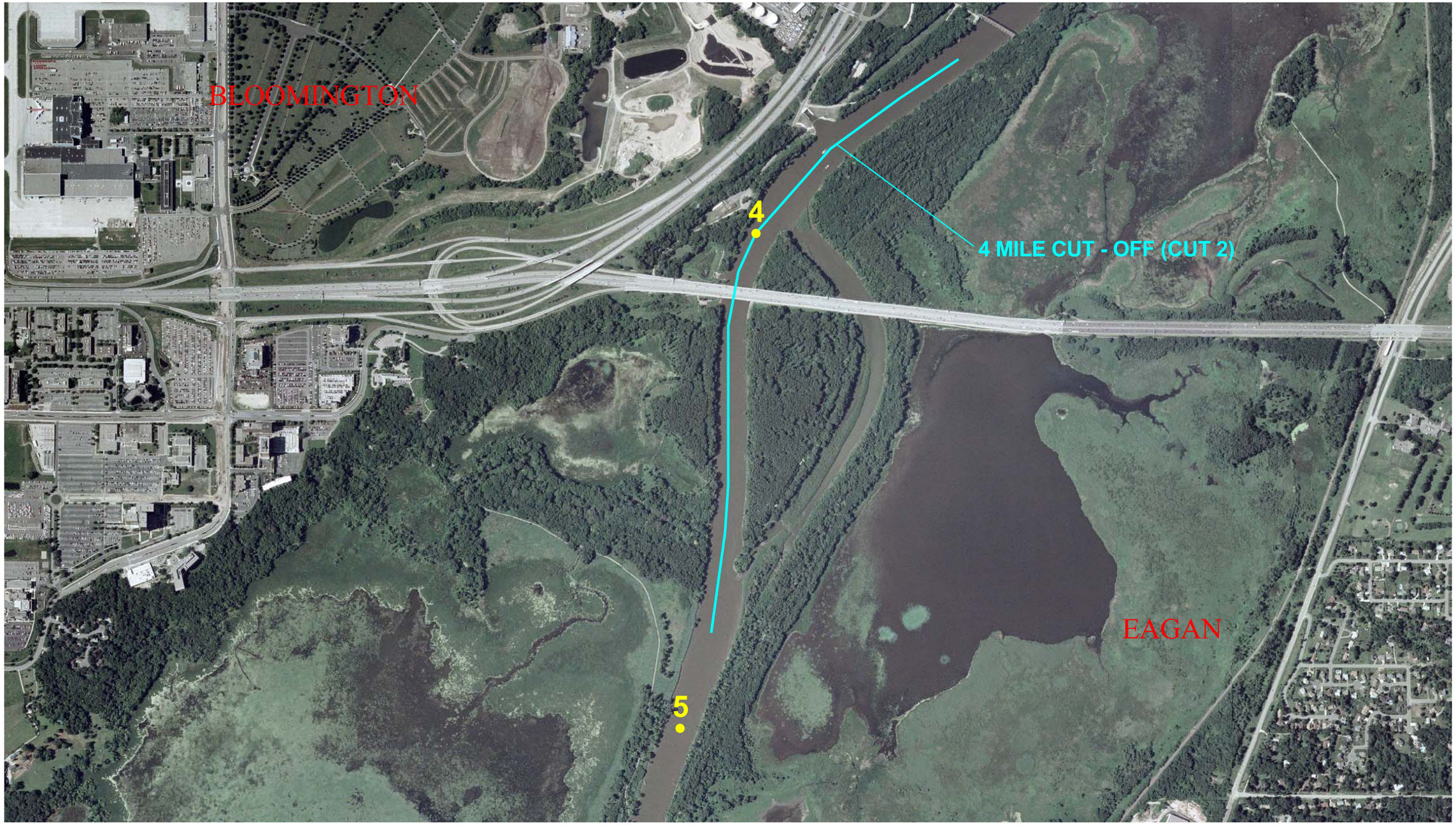
MINNESOTA RIVER DMMP

PLATE 4



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MINNESOTA RIVER DMMP

PLATE 5

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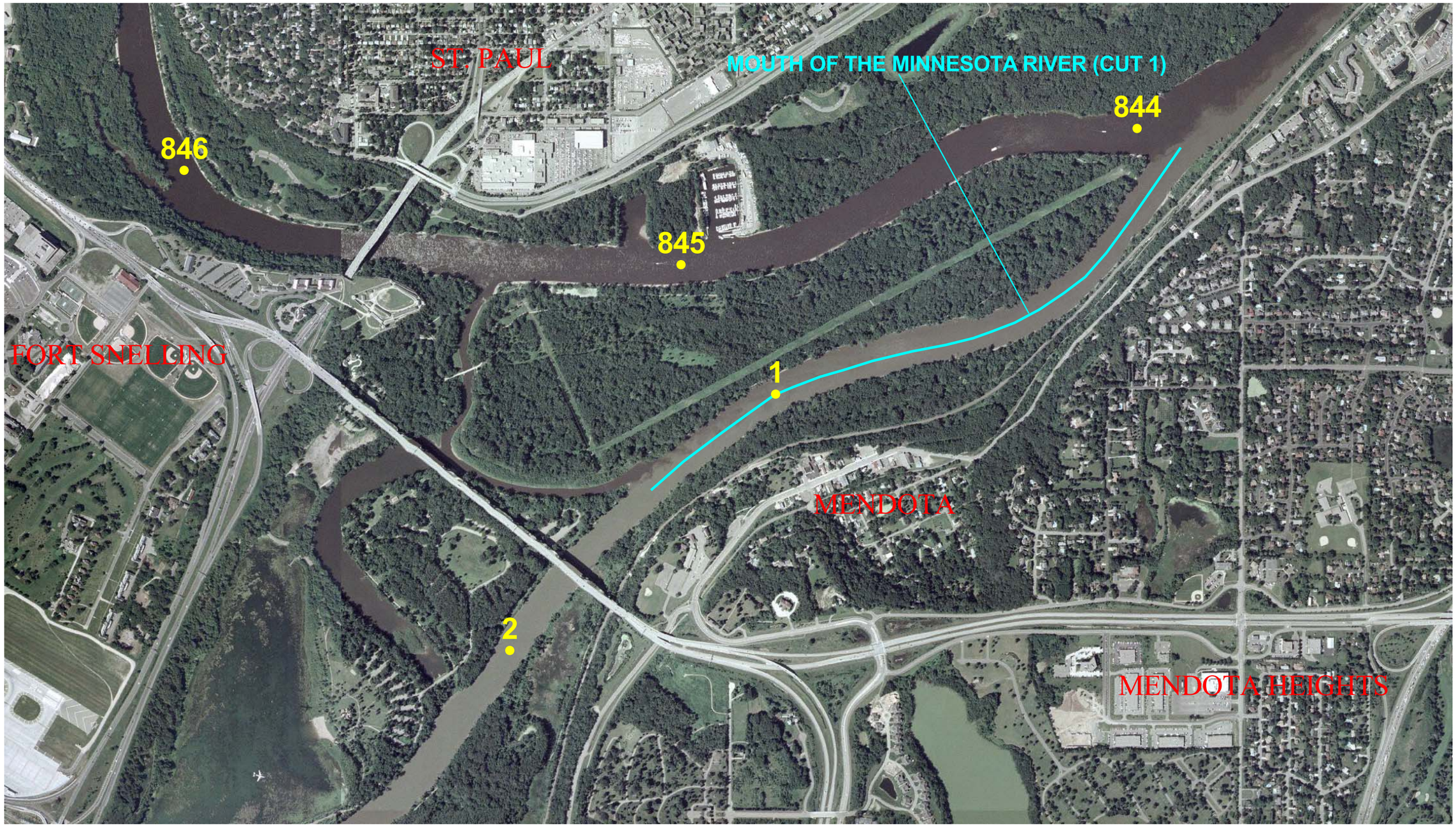
MINNESOTA RIVER DMMP
PLATE 6



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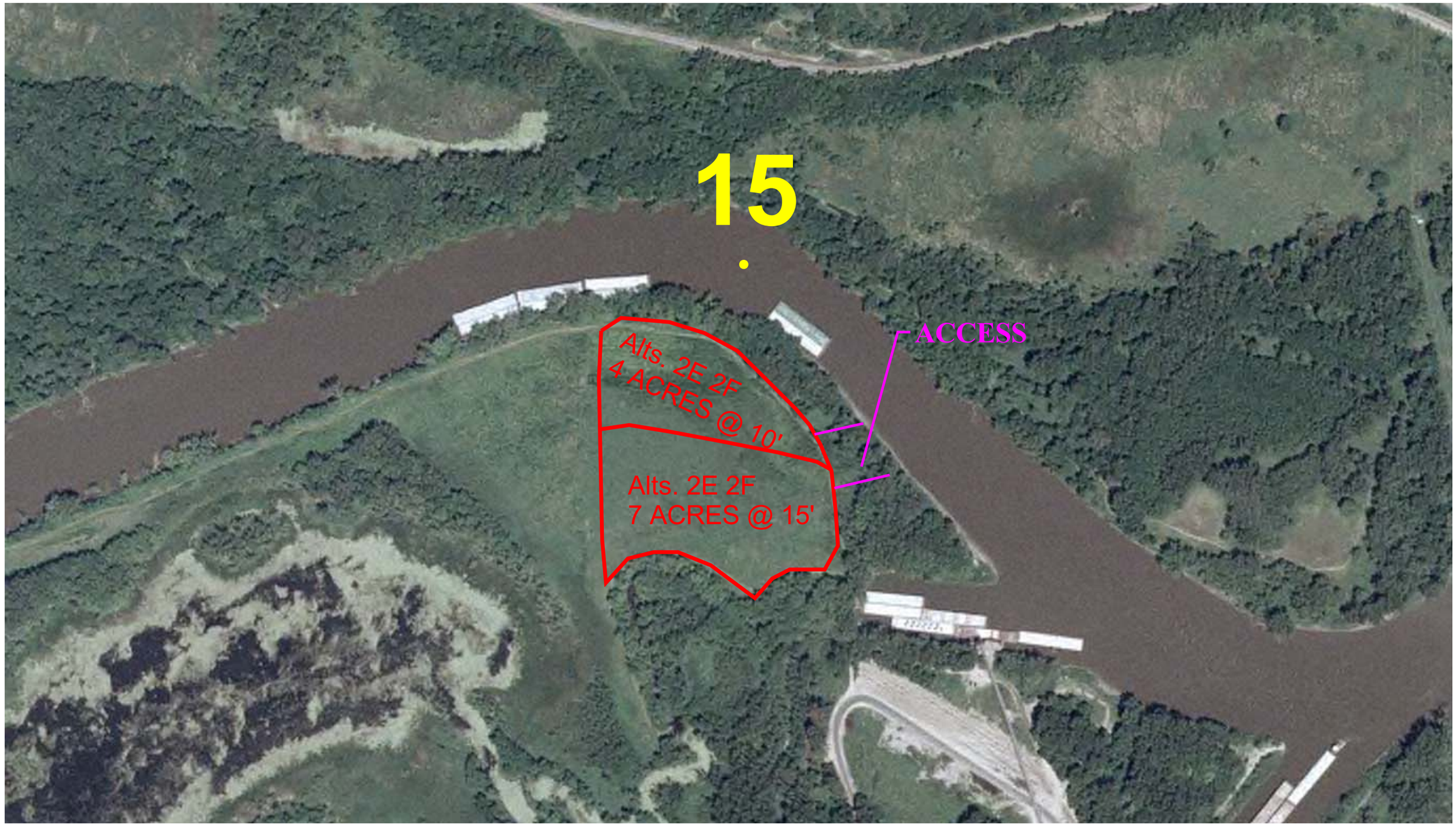
MINNESOTA RIVER DMMP
PLATE 7



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CARGILL WEST FIELD - MN-14.8-RMP
MINNESOTA RIVER DMMP
PLATE 8

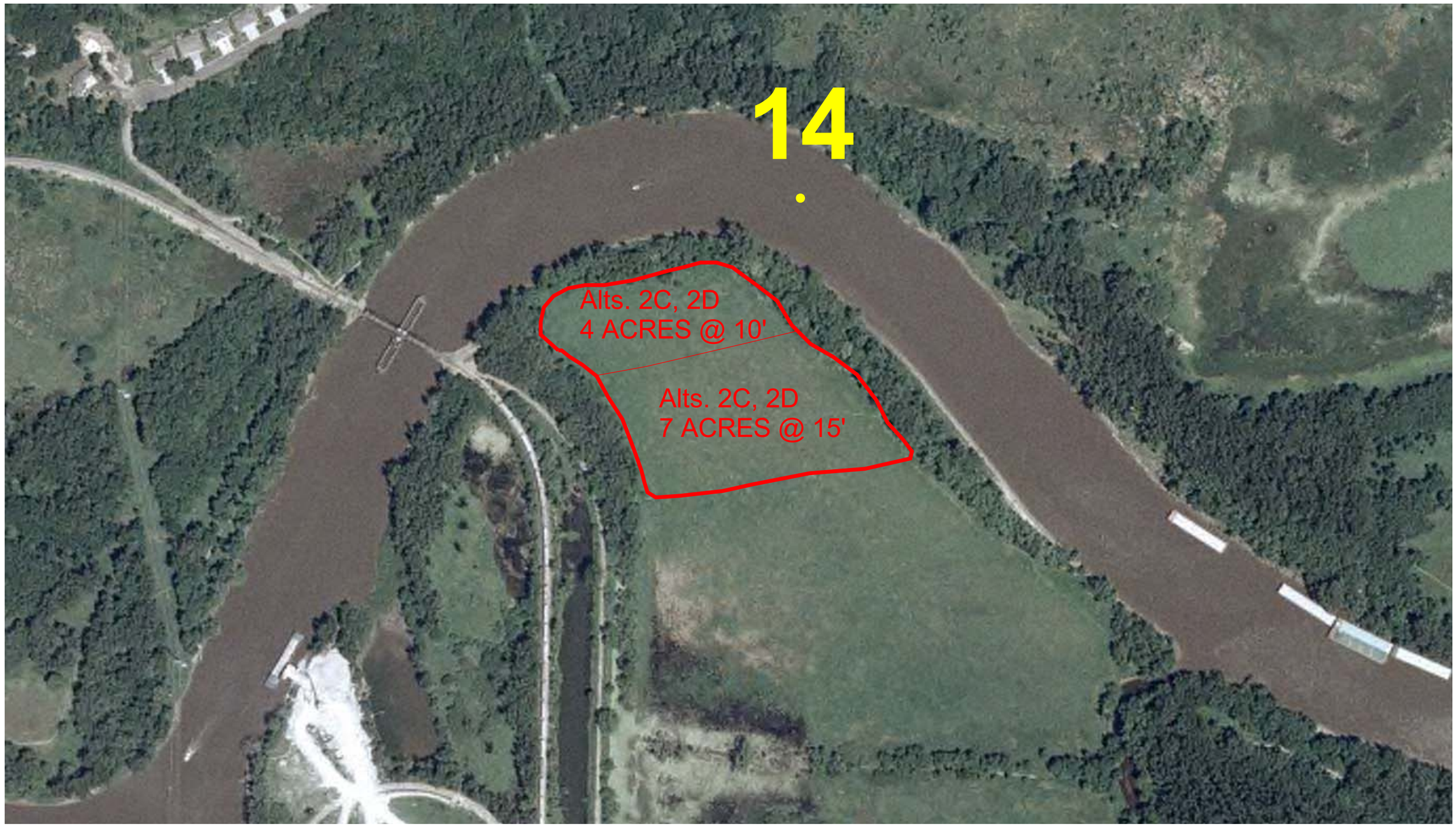

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Image Data: USGS Digital Orthophoto - April 1991

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CARGILL EAST RIVER - MN-14.2-RMP
MINNESOTA RIVER DMMP
PLATE 9

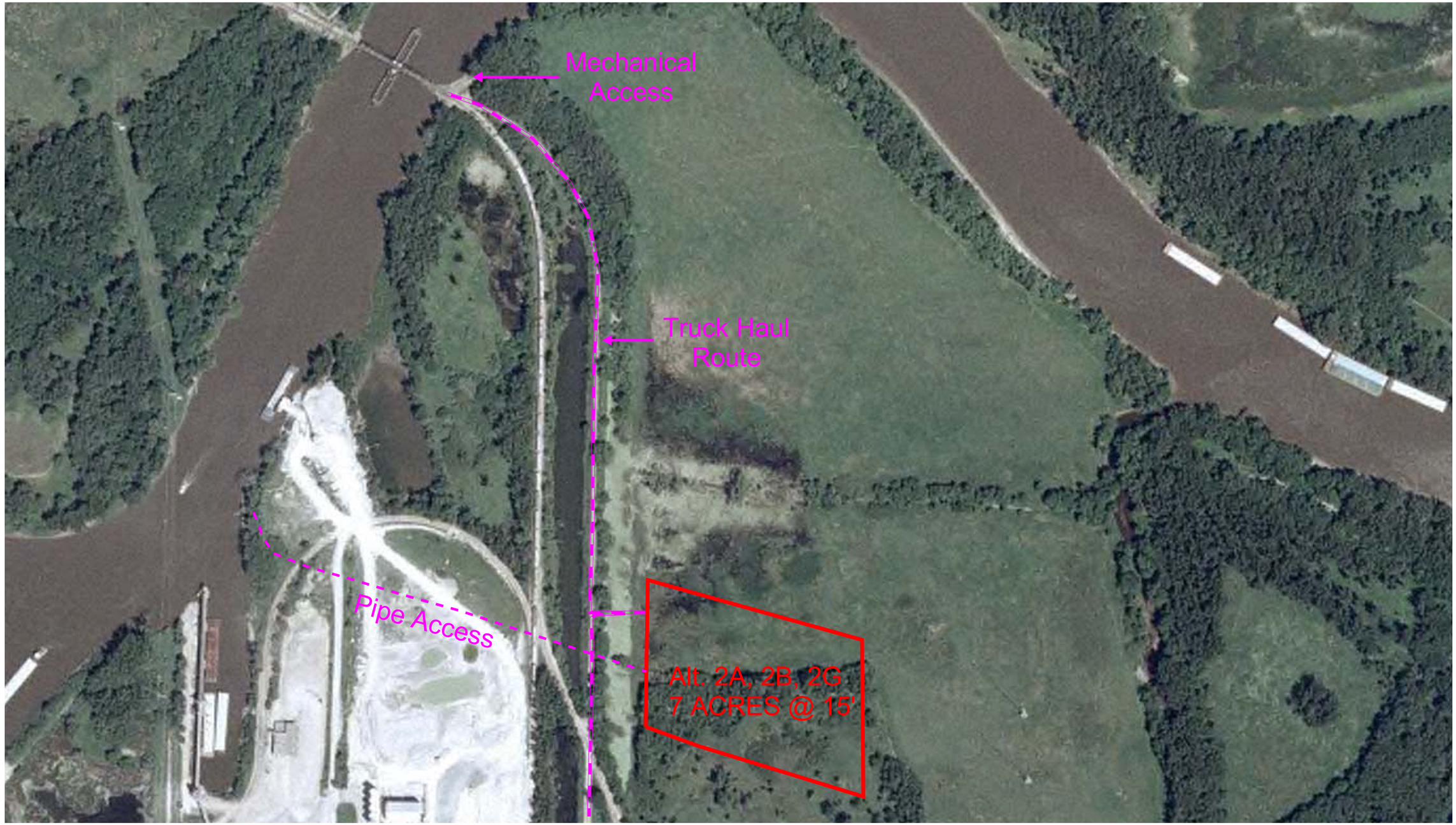

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Image Data: 2003 USDA Farm Service Agency Orthophoto

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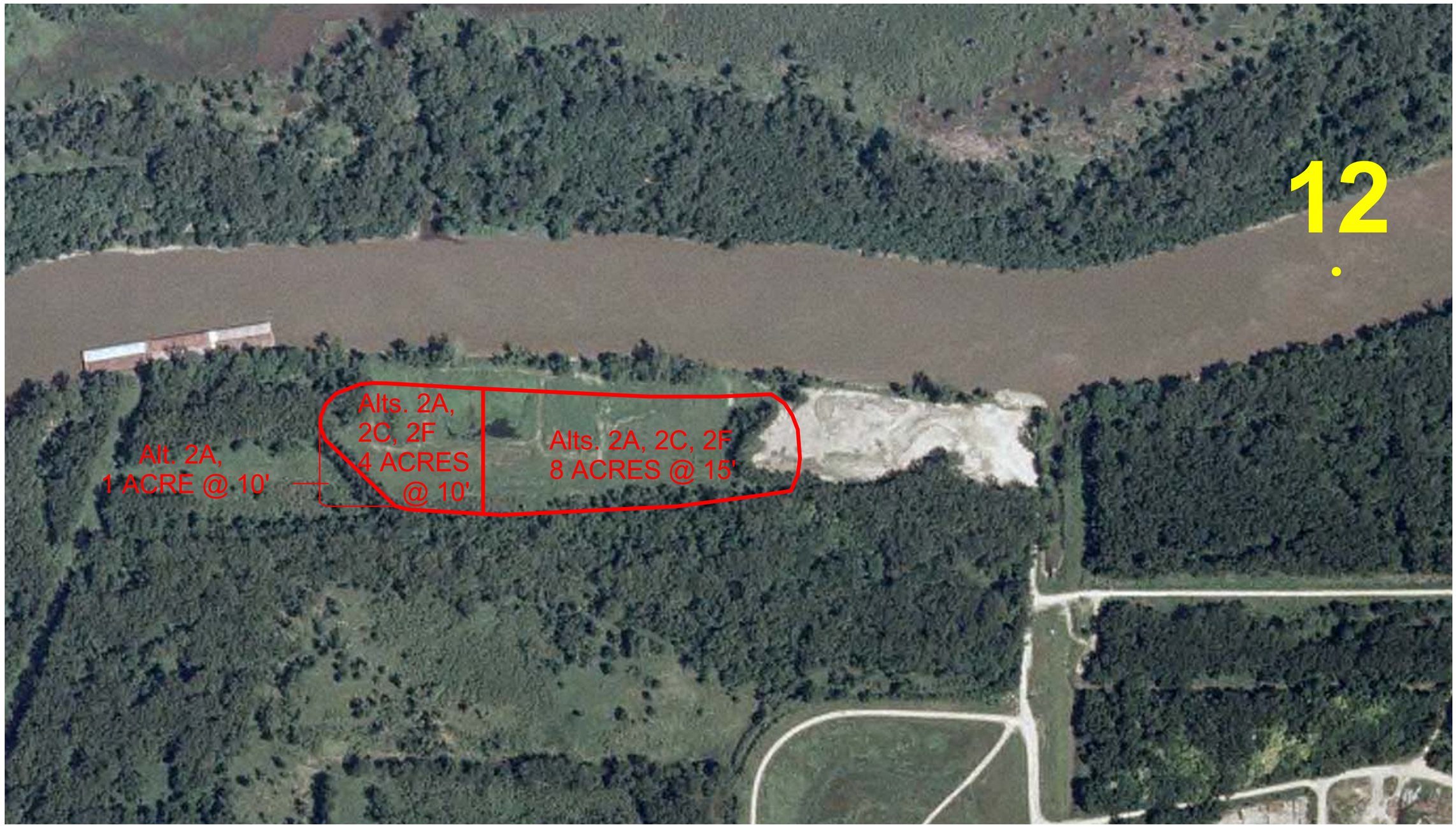
CARGILL EAST - MN-13.5-RMP
MINNESOTA RIVER DMMP
PLATE 10



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BELOW CARGILL - MN-12.4-RMP
MINNESOTA RIVER DMMP
PLATE 11

12

Alt. 2B

Alt. 2G

Alts. 2D, 2E

Access

8 ACRES @ 15'

4 ACRES @ 10'

1 ACRE @ 10'

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KRAEMER - MN-12.1-RMP

MINNESOTA RIVER DMMP

PLATE 12

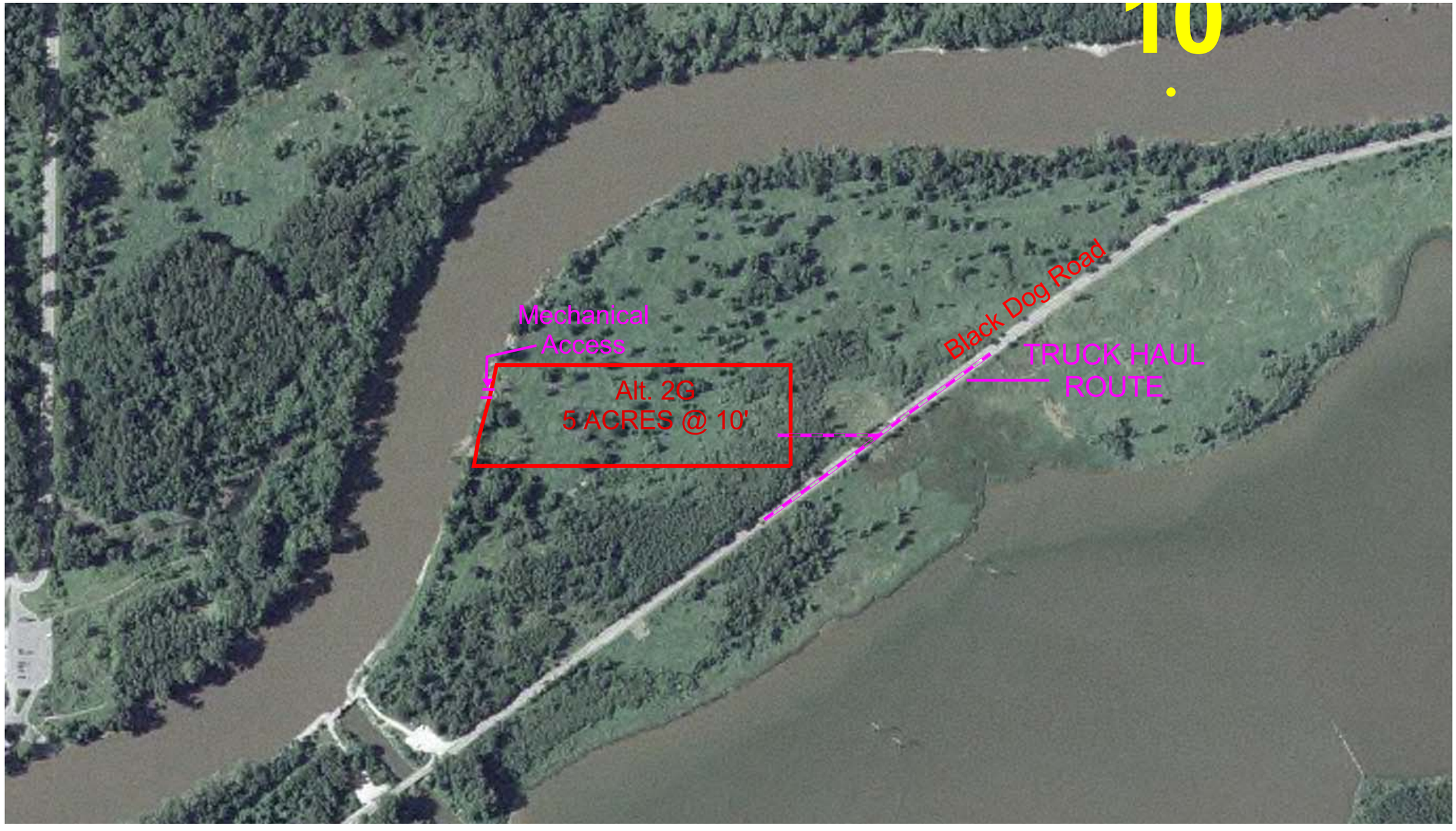

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Image Data: 2003 USDA Farm Service Agency Orthophoto

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NSP - MN-10.1-RMP

MINNESOTA RIVER DMMP

PLATE 13

Appendix A

Section 404(b)1 Evaluation

SECTION 404(b)(1) EVALUATION

Dredged Material Management Plan
Lower Minnesota River
(Above I-35W to Head of Navigation)

I. PROJECT DESCRIPTION

A. Location

The proposed dredging and placement would occur at various locations on the Minnesota River. The specific location of each activity is summarized in Tables 1 and 2.

B. General Description

This evaluation addresses the impacts resulting from effluent return from the selected placement sites (Cargill East River or Kramer sites) and placement of fill in waters of the United States in connection with access roads to the Cargill East River, in compliance with Section 404 of the Clean Water Act. For purposes of cumulative impacts the environmental impacts of dredging at three main channel historical dredge cuts and private dredging at 4 barge slips are also addressed. The proposed dredging and dredged material placement activities are summarized in Tables 1 and 2.

C. Authority and Purpose

The existing 9-foot channel navigation project on the Lower Minnesota River was authorized by the River and Harbor Act of 1958, Public Law 85-500, in accordance with Senate Document 144, 84th Congress, 2nd Session. The project consists of a 9-foot navigation channel from its mouth to river mile 14.7.

D. General Description of Dredged or Fill Material

1. General Characteristics of Material

Most of the main channel material is comprised of predominately sand, containing an average of 1% to 4% silts and clays depending on the dredge cut. Data from the Continental Grain Barge Slip indicates that sediments from this slip have a substantially greater amount of fines. Only chemical data was provided for the other barge slips, but it is anticipated that the sediments would be of similar texture.

Table 1. Sediment quantities and physical characteristics

			Average %	CMMP - average annual quantity (CY)		
Pool-Cut #	Cut Name	Location (river mile)	Silts & Clays	Total	Sand	Silts & clays
Main Channel Dredging						
MN-5	Savage Railroad Bridge	14.3-14.7	2.3%	6,000	5,862	138
MN-4	Cargill	12.8-13.6	1.2%	800	800	10
MN-3	Peterson's Bar	11.3-12.4	3.9%	15,000	14,430	570
Barge Slips						
Slip 1	Cargill	12.9	NA	8,000	NA	NA
Slip 3	Bunge	14.5	NA	2,000	NA	NA
Slip 4	Harvest States	14.6	NA	3,000	NA	NA
Slip 5	Continental Grain	14.7	30%	5,000	3,500	1,500

2. Quantity of Material

The average annual quantities for each of the dredge cuts are summarized in Table 1. The total quantities of material going to each of the placement sites under the preferred plan are summarized in Table 2.

3. Source of Material

The source of the dredge material is summarized in Table 1.

E. Description of the Proposed Discharge Sites

Table 2 and the ensuing paragraphs summarize the size and types of habitat impacted at the two placement sites that would be used.

Kraemer (MN-12.1-RMP): This site is 12 acres in size and is located adjacent to the shoreline and north of the USA Waste landfill (see Plates 1 and 12 in the DMMP report). A portion of this site has been the only placement site used by the Corps for dredging upstream from the 35W Bridge since 1983. Material from the private barge slips has been placed on the remainder of the site. The habitat type is recently deposited sand or fine material and old agricultural field. This site was recently acquired by the City of Burnsville, which has given permission to the Corps of Engineers to use of this site through 2011. This site will continue to be used as long it has capacity and the owners allow.

Cargill East River (MN-14.1-RMP): This site is 11 acres in size and is located along the shoreline just downstream from the Port Richards slip (see Plates 1 and 9 in the DMMP report).

It has been delineated as non-wetland. The area is located in the floodway. It has been tilled in the past but is now fallow and contains a variety of grasses, sedges, and herbs. An access road would need to be constructed to allow for beneficial use removal. Types 1, 2 and 6 wetlands are present along the existing road ditch that the access road would connect to. Around 0.04 acres (1,795 square feet) of this wetland would be impacted. A culvert would be placed in the new access road to maintain existing hydrology. On-site compensatory mitigation would be completed with the construction of around 0.08 acres (3,725 square feet) of wetland adjacent to the wetland channel. The Watershed District has obtained all necessary permits to construct this access (see appendix D). The Minnesota River bank would need to be excavated at two locations (one for fine material and the other for granular dredge material) to allow the material to be unloaded from barges. The bank at both locations would be cut 80 feet wide. The first 30 feet will have a slope of 1:3, the rest will angle back to elevation 705.0. The side slopes will be cut to 1:3 and seeded. The excavated material will be used to construct some of the internal berms. Approximately 10 trees at the fine material access location would need to be removed. See the Minnesota Department of Natural Resources permit in Appendix D for more information.

Table 2. Habitat impacts of the alternative being considered for implementation.

Alt.	Sites	Material to Site (CY)	Cuts Going To Site	Types of habitat impacted
2D	Kramer	0-642,600	3-4, S1	12 acres of disturbed upland from historical placement of dredged material.
	Cargill East River	432,800 - 1,075400	5, S3-S5	11 acres of upland meadow (previously agricultural land) & 0.04 acres of Types 1,2 6 wetlands for a road access

F. Alternative Placement Sites

Other placement alternatives were considered, but eliminated from further consideration. All would result in greater impacts to wetlands than the proposed placement sites. These alternative sites are described below.

Below Cargill (MN-12.4-RMP): This site is 12 acres in size and is located along the shoreline just downstream from the Cargill slip (see Plates 1 and 11 in the DMMP report). The Cargill Company owns this site. Some of this area has been used for mechanical placement of material dredged at private barge slips. This site is adjacent to the landfill site owned by USA Waste. USA Waste has indicated that they would use the material to cap their landfill. The site has been delineated as non-wetland. It is located in the floodway and vegetation consists of grasses, shrubs, and small trees. This site has no direct road access for beneficial use removal. The new road would cross a wetland and tie into an existing dike area owned by Cargill or USA Waste. Around 1 acre of types 1, 2, and 6 wetlands would be impacted from this road access. Culverts may be necessary to minimize impacts on the contiguous wetlands. This fragmentation would reduce the fish and wildlife value of the remaining wetlands. The owner of this site has indicated that this site is no longer available for consideration.

Cargill West Field Site (MN-14.8-RMP): The site is an 11-acre field site located upstream and adjacent to the Cargill West facility (see Plates 1 and 8 in the DMMP report). It has been used for placement of Corps and private dredged material in the past and is now owned by the Cargill Company. It is on a bend in the river and within the floodway. The Corps issued a permit in 1994 to fill 3 acres of wetlands by Continental Grain. Three acres at this site were restored by planting trees and shrubs to mitigate for those impacts. A perpetual deed restriction, such as a covenant or easement, on the compensation site was also required. The compensation site covers the eastern quarter of the Cargill West Field site. Use of this site would be contingent upon the LMRWD mitigating for impacts to the compensation area. A wetland delineation has identified the area as non-wetland.

Cargill East (MN-13.5-RMP): This is a 7-acre site located just downstream from the Port Richards slip (see Plates 1 and 10 in the DMMP report). It was acquired by the LMRWD for the placement of channel maintenance dredged material but has not been used. Easements have been acquired and a culvert installed under railroad tracks for pipeline access. Most of the site is characterized as Type 1-2 wetland. The dominant vegetation is sedges, smartweed, foxtail, and big bluestem.

NSP (MN-10.1-RMP): This is a 7-acre site located northwest of Black Dog Road approximately 1.5 miles upstream from the NSP Power Plant (see Plates 2 and 13 in the DMMP report). Most of the site has been characterized as Type 1/2/6 wetland. Vegetation consists primarily of reed canary grass and willows. Some larger trees do exist along the shoreline. The land is owned by NSP and leased to the LMRWD for placement of dredged material. It is also leased to the FWS for Refuge management.

G. Description of Disposal Method

Material would be either dredged mechanically or hydraulically. Berms are being constructed around the placement sites to minimize erosion and if dredged hydraulically, to pond the water before discharging back to the Minnesota River.

II. FACTUAL DETERMINATIONS

A. Physical Substrate Determinations

1. Substrate Elevation and Slope

The wetland fill for the road accesses to the Cargill East River site would elevate the area to an upland condition.

2. Sediment Type

The sediment in the 0.04 acres of wetlands is organic muck.

3. Dredged/Fill Material Movement

Containment berms would be constructed around the placement sites to reduce erosion. In high water events, some erosion of the dredged material remaining on the site may occur.

4. Physical Effects on Benthos

The benthic productivity of the 0.04 acres of wetlands would be permanently lost. The proposed construction of 0.08 acres wetland immediately adjacent to the fill area should compensate for this loss in benthic productivity. Around 93 acres of benthic habitat would be periodically dredged from the main navigation channel. Some benthic recolonization should occur rather quickly after each dredging event. However, the frequent shoaling and dredging at the dredge cuts restricts the benthic community, including freshwater mussels.

5. Actions Taken to Minimize Impacts

The containment berms should minimize secondary movement. Installation of culverts in the road accesses or other mitigation measures would reduce impact on the contiguous wetlands. The Lower Minnesota River Watershed District has developed and is implementing an acceptable on-site compensation plan (3,725 square feet) for the wetland fill associated with the construction of road accesses to Cargill East River site.

B. Water Circulation, Fluctuation, and Salinity Determination

1. Water

a. Salinity

Not applicable.

b. Water Chemistry

The use of clean dredged material should preclude any significant impacts on water chemistry.

c. Clarity

Some minor, short-term decreases in water clarity are expected from the proposed dredging and placement activities.

d. Color

The proposed dredging and placement activities should have no effect on water color.

e. Odor

The proposed dredging and placement activities should have no effect on water odor.

f. Taste

The proposed dredging and placement activities should have no effect on water taste.

g. Dissolved Oxygen Levels

The proposed dredging and placement activities should have no effect on dissolved oxygen levels.

h. Nutrients

The proposed dredging and placement activities should have no effect on nutrient levels in the water.

i. Eutrophication

The proposed dredging and placement activities should have no effects on the level or rate of eutrophication of the water.

j. Temperature

The proposed dredging and placement activities should have no effect on water temperatures.

2. Current Patterns and Circulation

a. Current Velocity and Patterns

Under over-bank flows, the placement sites would alter the current patterns. Creating stable berms should reduce subsequent erosion from the placement sites.

b. Stratification

The proposed dredging and placement activities should have no effect on stratification.

c. Hydrologic Regime

The road accesses would change the hydrologic regimes in the remaining wetlands. Culverts have been added to minimize the effects on the remaining wetlands.

3. Normal Water Level Fluctuations

The proposed dredging and placement activities would have no effect on normal water level fluctuations. Some floodplain impacts might occur with the use of the placement sites. The effects of the alternatives on 100-year flood levels when the sites are filled to capacity are summarized in

Table 3. These effects are well below the Federal guidance of 1 foot. The Watershed District has obtained the necessary floodway permit from the City of Savage (see Appendix D). The local permit requires that "in the event of flooding, the dredge material must be removed so as not impede the natural drainage or contribute to flooding upstream". Removal of most of the dredged material before the next high water event will minimize floodplain impacts.

Table 3. Flood plain impacts when sites are filled to capacity.

Alt.	Sites	Cumulative W.S. Increase By Alt. (ft)	W.S. Increase By Site (ft)
2D	Kraemer	.10	.04
	Cargill East River		.06

4. Salinity Gradient

Not applicable.

5. Actions Taken to Minimize Impacts

Natural berrms surround much of the site and only low berms measuring 3 to 4 feet in height will be constructed to complete the enclosure of the placement area. The requirements specified in the City of Savage's floodway permit should minimize the effects of the proposed project on the floodplain.

C. Suspended Particulate/Turbidity Determination

1. Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site

Minor increases in suspended particulates would occur from dredging and placement.

Mechanical dredging and placement or hydraulic dredging and placement in bermed areas at the proposed placement sites would also be expected to cause some localized turbidity plumes.

2. Effects on Chemical and Physical Properties of the Water Column

No effects are expected on dissolved oxygen, toxic metals, organisms, pathogens, or the aesthetics of the water column after the project is in place.

3. Effects on Biota

No toxic effects on biota are anticipated.

4. Actions Taken to Minimize Impacts

Some of the dredging would be done mechanically or, if done hydraulically, would be placed into bermed containment sites to minimize suspension of particulates in the water column.

D. Contaminant Determinations

In 1999 sediment samples were collected from the Minnesota River dredge cuts. The report summarizing the results can be found in Appendix B of the DMMP report. Table 4 below summarizes the results of testing for contaminants over the years. Earlier sampling at the Minnesota River dredge cuts found moderate levels of heavy metals and low levels of pesticides. In the 1999 sampling, only low levels of contaminants were found.

Table 4. Sediment Quality

Cut #	Cut Name	Location (river mile)	Average % Silts & Clays	Year Last Sampled	Contaminant 1970's*	Contaminant 1980's*	Contaminant 1999*
5	Savage Railroad Bridge	14.3-14.7	2.3%	1999	Ni (17), Cd (1.2), Cr(29),	Cu(13)	Mn(931)
4	Cargill	12.8-13.6	1.2%	1999	Pb(20)	None	None
3	Peterson's Bar	11.8-12.4	0.7%	1999	Hg(0.13)	Cr(20)	None
3	Below Peterson's Bar	11.0-11.6	6.7%	1999	ND	Dieldrin(0.5), DDD(0.8), Chlordane(1), As(3.2)	None
2	4-Mile Cut-Off	4.0	19.6%	1999	ND	ND	Cd(0.69) Mn(955) Ni(24.8)
1	Mouth of MN River	0.0-0.5	0.4%	1999	ND	Dieldrin(0.6), DDE(1), DDD(0.8), DDT(0.4), Chlordane(1)	Mn(784)

* Metals listed are ones that were found at concentrations above 1/2 the MOE Lowest Effects Levels (ug/g). Chlorinated hydrocarbons are any hits (ug/kg). Reported values are the maximum values recorded for that dredge cut and time period.
** ND - No Data

The quality of the private barge slips was tested from 1996-98 (see Appendix C of the DMMP report). Many of these slips contain finer-grained sediments (15 to 40% silts and clays). PCB's were not detected. Metals were analyzed using a TCLP extraction process. Most of the metals were not detected in the TCLP. Detectable levels of cadmium and lead were found, but substantially below

the TCLP cut-off level. Because the barge slip sediments tend to be finer, greater water quality impacts may occur during dredging of the slips than during main channel dredging.

E. Aquatic Ecosystem and Organism Determination

1. Effects on Plankton

Increases in turbidity and suspended solids near the dredging and placement activities would have a localized suppressing effect on phytoplankton productivity.

2. Effects on Benthos

The physical effects on benthos are summarized in section II.A.4. No toxic effects on benthos are anticipated.

3. Effects on Nekton

Increases in turbidity and suspended solids near the dredging and effluent return from the placement sites would have a localized suppressing effect on nekton productivity. However, these effects would be local and are not considered significant. The nekton populations would recover quickly once construction activities ceased.

4. Effects on Aquatic Food Web

The removal of existing benthos and localized impacts on plankton could cause a minor impact on the local food web. No long-term adverse impact on the aquatic food web is anticipated.

5. Effects on Special Aquatic Sites

A large portion of the Minnesota River floodplain is managed by the US Fish and Wildlife Service as the Minnesota Valley National Wildlife Refuge. The preferred alternatives would not affect the Refuge.

6. Threatened and Endangered Species

No known Federally- or State-listed threatened or endangered species would be affected by the project.

7. Other Wildlife

The dredging and placement activities would not result in the significant loss of aquatic or terrestrial habitat. Removal of the 10 trees to provide barge access would have minor effect on wildlife use.

8. Actions Taken to Minimize Impacts

No special actions are required.

F. Proposed Disposal Site Determinations

1. Mixing Zone Determination

A localized turbidity plume is anticipated. The coarse and relatively clean nature of the material should minimize turbidity plumes. Mechanical dredging or hydraulic dredging and placement into a bermed containment area would minimize the amount of material susceptible to suspension in the water column. Suspended solids should return to near background levels 200 to 300 meters downstream.

2. Determination of Compliance with Applicable Water Quality Standards

The designated use class of this stretch of the Minnesota River is 2C, 3B. The Minnesota River is on the 303(d) list as impaired for turbidity from River Mile 22 to the mouth and work on formulating the Total Maximum Daily Load (TMDL) is slated to begin in 2008. Minnesota's standard of 25 nephelometric turbidity units (NTU) would most likely be exceeded in the turbidity plumes generated through hydraulic dredging and placement. It is anticipated that within a relatively short distance from the discharge point, turbidity and suspended solids would return to near normal conditions. It is not anticipated that the proposed project would violate Minnesota's water quality standards for toxicity.

3. Potential Effects on Human Use Characteristics

a. Municipal and Private Water Supply

No municipal or private wells would be impacted by the proposed project.

b. Recreational and Commercial Fisheries

No commercial fisheries exist in this area. The proposed project may have a minor impact on the recreational fisheries, mainly from temporary disturbance.

c. Water Related Recreation and Aesthetics

The aesthetics of the area would be reduced during dredging and placement. To minimize visual impacts, most of the trees along the banks at the placement sites would be left to maintain a screen along the Minnesota River. However, the sand piles will likely be seen from the Minnesota River by boaters, reducing the aesthetic quality of the area.

d. Cultural Resources

The dredging sites have been periodically disturbed for years. Cultural resources investigations of

the placement site did not reveal the presence of any cultural material. There should be no effects of the project on cultural resources.

G. Determination of Cumulative Effects on the Aquatic Ecosystem

The cumulative impacts of the Minnesota River Channel Maintenance Management Plan on the natural environment would be minor in relation to other non-project-related impacts. The Minnesota River Dredged Material Management Plan would impact 23 acres of upland and 0.04 acres of wetlands. The Minnesota River DMMP in combination with the Upper Mississippi River Dredged Material Management Plan for the Head of Navigation to Guttenberg, Iowa would impact 147 acres of wetlands, 370 acres of upland, and 292 acres of disturbed floodplain over the 40-year initial planning period.

H. Determination of Secondary Effects on the Aquatic Ecosystem

No significant secondary effects on the aquatic ecosystem would be expected from the proposed action.

III. FINDING OF COMPLIANCE WITH RESTRICTIONS ON DISCHARGE

1. No significant adaptations of the guidelines were made relative to this evaluation.

2. The proposed dredging and placement activities would comply with the Section 404(b)(1) guidelines of the Clean Water Act. Dredging is required to provide the desired benefits. Several alternative placement sites were evaluated, but would have greater wetland impacts and/or would not meet the project objectives.

3. The proposed dredging and placement activities would comply with State water quality standards. The disposal operation would not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.

4. The proposed projects would not harm any endangered species or their critical habitat.

5. The proposed dredging and placement activities would not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing. The proposed activities would not adversely affect plankton, fish, shellfish, wildlife, and special aquatic sites. The life stages of aquatic life and other wildlife would not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity, and stability and on recreational, aesthetic, and economic values would not occur.

6. To minimize the potential for adverse impacts, material would be dredged and placed mechanically or, if dredged hydraulically, would be placed in bermed containment areas. Culverts

are being used at the road access, to minimize impacts on the remaining wetlands. The Lower Minnesota River Watershed District has developed and will construct a 0.08 acre (3,725 square feet) wetland onsite to compensate for the 0.04 acres of wetland fill. To minimize floodplain impacts, removal of dredged material from the site would be completed in accordance with City of Savage's floodway permit. Most of the large trees present along the Minnesota River bank bordering the placement site would be left to provide a visual screen.

7. On the basis of this evaluation, I specify that the proposed dredging and placement sites comply with the requirements of the guidelines for discharge of dredge material.

1 July 2007
Date

Jon L. Christensen
Colonel, Corps of Engineers
District Engineer

Appendix B

Sediment Quality of Minnesota River Dredge Cut Material

Sediment Quality of Minnesota River Dredge Cuts
August 1999

Background

There are over a hundred dredge cuts on the Mississippi River with dredging frequencies ranging from annual to less than once every 10 years. Due to the number of dredge cuts, the variability of the frequency of dredging, and the short time between the determination of the need for and actual dredging a standard operating procedure was instituted to evaluate the physical and chemical properties of sediment in the historic dredge cuts. The standard operating procedure calls for periodic sediment sample collection and analysis for a standard set of chemical and physical characteristics for the sediment in the historic dredge cuts. The standard list of parameters may be increased due to specific project concerns if they exist. Data obtained from periodic sample collection and analysis are used to evaluate the proper dredging and disposal alternatives for the proposed dredged material based on its chemical and physical properties. Data collected is sufficient to provide a Tier 1 or Tier 2 analysis on the specific sediment cut tested.

For the normal updating of the database surficial sediment samples from historic dredge cuts are collected using a 9-inch by 9-inch Ponar sampler. In instances where there is a concern with sediment stratigraphy, sediment samples for analytical work are collected with wide mouth corers (2-inch diameter or more). If depth integrated samples are collected they are generally obtained from the following collection zones:

Sediment surface to 1 foot above bottom of dredge cut
1 foot above bottom of dredge cut to bottom of dredge cut
Bottom of dredge cut to 1 foot below dredge cut

This data provides information on the vertical heterogeneity of the material and whether dredging activities will expose previously buried contaminated sediments.

Samples are homogenized using a stainless steel mixing pan and spoon prior to placement in collection vessels. All samples for chemical analysis are stored in glass containers with Teflon-lined caps and placed immediately on ice until delivery to the contract laboratory.

Minnesota River Sediment Sample Collection

During 1999 the sediment quality database for the Minnesota River was updated. Sediment samples were collected at historic dredging locations on the Minnesota River from the mouth of the Minnesota River at its junction with the Mississippi River (RM 0.0) to the Continental Grain Slip near RM 15.0. Twelve (12) samples were obtained using a 9-inch Ponar dredge. All samples represent approximately the top 10 centimeters of sediment. No core samples were obtained due to the water surface elevations during sampling and channel depth. If low water occurs it may be a good opportunity to collect core samples at some of the locations where dredging occurs less frequently.

Mr. Jim Sentz and Mr. Jason Berkner collected 12 sediment samples on August 4 and 5, 1999 using a ponar dredge. The lower part of the River near the mouth exhibited a large amount of coarse (gravel, rocks) material which was suprising. At some locations only gravel was found and samples were hard to collect due to the coarseness of material. Both days had calm winds and were sunny with warm temperatures. All samples were homogenized in a stainless steel pan, placed in laboratory provided containers and stored on ice immediately following sampling. All samples were repacked with ice and shipped by next day delivery to the laboratory on 5 August 1999. Table 1 summarizes sample collection activities.

Table 1

Minnesota River Sediment Sampling – August 1999				
Sample	Collection Date	Collection Time	River Mile	Notes
MN-1	8/4/99	1215	0.1	Mouth of Minn. River
MN-2	8/4/99	1230	0.4	Not used, rocks, mouth of Minn. River
MN-3	8/4/99	1315	3.8	Rocks/gravel left descending bank, several pulls-only rocks, middle channel sand, sampled middle, Mouth of Minn. River
MN-4	8/4/99	1430	4.1	Sampled at 494, below 494 pulled rocks, 4 mile cutoff
MN-5	8/4/99	1445	4.4	Above 494, clay, silt, 4 mile cutoff
MN-6	8/4/99	1530	11.0	Composite of 2 ponars, sand/silt, mostly sand near mid channel, too deep for corer, above 35W Bridge
MN-7	8/5/99	1050	11.3	Grayish sand, above 35W bridge, too deep for corer, Blw Peterson's Bar
MN-8	8/5/99	1105	12.0	Peterson's Bar
MN-9	8/5/99	1115	12.3	Peterson's bar
MN-10	8/5/99	1130	12.5, 12.6	Composite of 2 ponars, Cargill
MN-11	8/5/99	1200	14.5	Above Savage RR bridge
MN-12	8/5/99	1210	14.6	Above Savage RR bridge
MN-13	8/5/99	1300	0.6	Near mouth of Minnesota River

Samples were sent to Davy Laboratories of LaCrosse, Wisconsin and were analyzed for pesticides, PCB's, metals, and various physical characteristics such as grain size, total organic carbon, total solids, total volatile solids, and percent moisture. Metals analysis included arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, and zinc. All samples were analyzed for aroclor PCB's. Aroclor PCB analysis included aroclor's 1016, 1221, 1232, 1242, 1248, 1254, and 1260. In addition, 5 samples were also analyzed for congener PCB's. A list of the congener PCB's included in the analysis is contained in Appendix B. Comparative PCB analysis was accomplished for samples

MN-1, MN-5, MN-7, MN-9, and MN-11. The purpose of the dual analyses is to develop a database of congener PCB results that can be related to historic aroclor analyses. The Corps is switching to congener analyses, but data is required to relate congener results to the historic Aroclor PCB database.

Results:

Results of the sediment analysis are contained in Table 2. The last 4 columns of the table contain guideline data from the Ministry of Ontario Environment (MOE), Great Lakes Moderate and Heavy class, and Mississippi River backwater sediments above Lake Pepin. Most of the 1999 metals results were well below limits listed in the guidelines. Of the 12 samples tested OME's LEL guidelines was exceeded once for cadmium, twice for nickel, and three times for manganese. No Arochlor PCB's, congener PCB's, or Pesticides were detected in the 1999 samples so they are not included in Table 2.

The following text summarizes the analytical the 1999 sediment sample analysis and compares the results to the Ontario Ministry of the Environment and Energy (OME) Sediment Quality Guidelines (SQG) and pre-1999 Minnesota River sediment quality. The OME has devised SQG's for the No Effect Level (NEL), Lowest Effect Level (LEL), and Severe Effect Level (SEL) for a number of parameters. The NEL is a level of contamination at which no toxic effects have been observed on aquatic organisms. This is the level at which no biomagnification through the food chain is expected. Other water quality and use guidelines will also be met at this level. The NEL has not been determined for most parameters. The LEL indicates a level of sediment contamination that can be tolerated by the majority of benthic organisms. The SEL indicates the level at which pronounced disturbance of the sediment dwelling community can be expected. This is the sediment concentration of a compound that would be detrimental to the majority of benthic organisms.

Historic sediment quality data consists of pre-1999 sediment samples that were collected on the Minnesota River between 1975 and 1989. For summarization purposes the data results are pooled in the following river miles (RM): 0.1 to 0.6, 3.0 to 4.4, 11.0 to 13.4, and 14.4 to 14.7. These groupings allow comparison of 1999 data to historically collected data in the same areas. The Corps of Engineers collected all samples except for data from RM 0.1 to 0.5. The Metropolitan Waste Control Commission (MWCC) collected the pre-1999 samples from this river reach. MWCC collected a set of 5 yearly samples from 1981 through 1985. A sample set consisted of an east, mid, and west channel samples at river mile 3.0. PCB and Pesticide samples were combined to form one sample representative of the cross section. Table 3 shows sample collection activity for each range of river miles.

Table 2
1999 Sediment Sampling Results
Minnesota River

Sample Identifier		MN-1	MN-13	MN-3	MN-4	MN-5	MN-6	MN-7	MN-8	MN-9	MN-10	MN-11	MN-12						
Record #		78497		78498		78500	78501	78502	78503	78504	78505	78506	78507	Comparison					
River Mile		0.1	0.6	3.8	4	4.4	11.0	11.5	12.0	12.3	12.5&12.6	14.5	14.7						
Location		Mouth of Minnesota	Mouth of Minnesota	4-Mile Cutoff (airport drain)	4-Mile Cutoff	4-Mile Cutoff (above 494)	Blw Peterson's Bar	Blw Peterson's Bar	Peterson's Bar	Peterson's Bar	Cargill Slip	Above Savage RR Bridge	Above Savage RR Bridge	1999 Maximum	MOE LEL	Great Lakes Moderate	Great Lakes Heavy	Mississippi River - above Lake Pepin	Wisc Draft
Year		1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999						
Metals																			
As (arsenic)	mg/kg	1.91	1.39	1.61	5.84	3.53	3.44	1.13	1.43	1.16	1.89	1.81	1.30	5.84	6	3	8	11	
Cd (cadmium)	mg/kg	0.19	<0.03	0.12	**0.69**	0.30	0.17	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	**0.69**	0.6		6	1.4	1
Cr (chromium)	mg/kg	4.05	3.06	3.69	9.5	8.17	5.60	3.07	3.30	2.96	3.81	3.82	3.25	9.5	26	25	75	20	100
Cu (copper)	mg/kg	2.2	1.87	1.54	10.4	7.37	3.97	2.17	1.67	1.24	2.18	2.04	1.72	10.4	16	25	50	17	100
Hg (mercury)	mg/kg	<0.0048	<0.0048	<0.0048	0.0198	0.0095	0.0058	<0.0048	<0.0048	<0.0048	0.0052	0.0069	.0065	0.0198	0.2		1	0.18	0.1
Mn (manganese)	mg/kg	**784**	217	199	**955**	426	357	160	235	154	242	**931**	143	**955**	460	300	500	731	
Ni (nickel)	mg/kg	9.15	6.64	7.69	**24.8**	**16.4**	12.3	6.54	7.32	6.12	7.92	8.27	6.14	**24.8**	16	20	50	18	100
Pb (lead)	mg/kg	6.6	6.2	5.9	15.1	12.6	9.2	6.4	5.8	4.7	6.3	6.3	5.0	15.1	31	40	60	25	50
Zn (zinc)	mg/kg	12.0	9.33	10.4	46.5	30.1	19.3	8.53	9.29	8.12	11.1	12.3	9.47	46.5	120	90	200	81	100
Other																			
Cyanide, Total	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.1	0.1	0.25	<2	10
Ammonia (elutriate)	mg/l	0.38	0.44	0.41	0.55	0.47	0.33	0.41	0.21	0.3	0.25	0.26	0.25	0.55					
Physical																			
Total Organic Carb	%	0.02	0.03	0.02	0.72	0.50	0.18	0.02	0.01	0.02	0.03	0.03	0.04	0.72				2.9	
Moisture	%	0.2	0.3	0.1	2.2	1.3	0.7	0.1	0.2	0.2	0.2	0.2	0.2	2.2					
Total Solids	%	99.8	99.7	99.9	97.8	98.7	99.3	99.9	99.8	99.8	99.8	99.8	99.8	99.7					
Volatile Solids	%	0.43	0.4	0.31	2.92	2.31	0.95	0.29	0.49	0.25	0.35	0.54	0.41	2.92	6	5	8		
Grain Size Analysis																			
3 in																			
1 1/2																			
3/4																			
3/8																			
4		99.5		100	96.5	100	100.0		100	100.0	99.2	99.9	100.0						
8																			
10		98.4	98.7	99.9	94.5	99.0	98.8	100	97.4	100.0	96.5	98.3	100.0						
16																			
		93.4	95.8	99.5	92.8	97.8	97.6	99.8	91.7	99.9	92.4	93.8	100.0						
20																			
30		80.2	90.9	97.9	91.5	96.4	93.8	98.7	84.0	99.5	85.1	87.9	99.9						
40		65.2	84.4	89.0	78.7	87.8	85.2	94.0	76.6	95.0	71.1	79.6	99.1						
50																			
60		32.3	45.7	53.6	66.7	77.8	54.3	38.9	36.9	39.6	37.0	48.7	79.9						
70																			
80																			
100		1.9	4.0	2.8	38.0	39.0	30.4	2.6	3.4	3.4	6.4	9.9	15.8						
140		0.7	1.4	1.2	27.7	27.2	20.6	0.7	1.0	1.5	2.7	5.0	6.6						
200		0.4	0.8	0.8	19.6	19.0	12.5	0.4	0.4	0.8	1.1	2.2	1.9						
		0.3	0.6	0.5	14.7	13.2	7.8	0.2	0.3	0.5	0.8	1.2	0.5						

Table 3

Minnesota River Historical Sediment Sample Collection				
Year	RM 0.1-0.6	RM 3.0-4.4	RM 11.0-13.4	RM 14.4-14.7
75			1	
78				1
79			2	
80	2		2	
81		3 (MWCC)		
82		3 (MWCC)		2
83		3 (MWCC)		
84		3 (MWCC)		
85		3 (MWCC)		
89			4	2
99	2	3	5	2

Plots of arsenic, chromium, copper, lead, manganese, and nickel are presented in Appendix A. The plots illustrate the relationship of the parameters over time and by location (river mile). OME's LEL is included for reference. PCB and pesticide plots were not included since these compounds were not detected in 1999. Zero values typically represent a value that was below the laboratory detection limits.

Sample Analysis Results and Historic Comparisons

River Mile 0.1-0.6 – In 1999 2 sediment samples were collected from the Mouth of Minnesota River dredge cut at river miles 0.1 (MN-1) and 0.6 (MN-2). Two other sediment sample collection attempts were made at approximately RM 0.4 and RM 0.8. Both these attempts resulted in samples of entirely rocks and gravel and were not sent to the lab for analysis. Previous sediment samples were collected in 1980 (2 samples) at river miles 0.1 and 0.5.

Grain size analysis indicates that samples MN-1 and MN-13 are comprised of mostly sand, 99.6% and 99.1% respectively, and very little silts and clays (< 1.0%). Both samples can be classified as fine sands with a uniform particle size. The samples are not well graded. The 1980 sample at RM 0.1 had a much higher fines content (66%) than the 1999 sample. This could be due to a number of factors including sample collection location. Samples collected in 1999 were sampled from historical dredge cuts, earlier samples may have been from outside the dredge cuts limits.

Sample MN-13 grain size analysis was similar to the 1980 sample collected in the same vicinity. The 1980 sample contained 37% gravel and 63% sand compared to the 1999 sample containing 99.1% sand. These samples are considered similar since two additional sample collection attempts yielded large percentages of rock and gravel. Total solids (in percent) for samples MN-1 and MN-13 were 99.8 and 99.7 percent respectively. Total volatile solids were0.4 and 0.43 percent respectively. Moisture

content of the samples was 0.2 and 0.3 percent and TOC was 0.02 and 0.03 percent respectively. These parameters were not reported for the 1980 samples.

1999 sediment samples were also analyzed for ammonia elutriate and cyanide concentration. Ammonia concentrations were similar between sites MN-1 and MN-13 with results of 0.38 and 0.44 mg/l. Cyanide was not detected at or above the laboratory detection limit of 0.2 ug/g. These parameters were not reported in 1980.

Arsenic concentrations in samples MN-1 and MN-13 were 1.91 and 1.39 ug/g, much lower than MOE's LEL of 6 ug/g. Arsenic was not detected in the 1980 samples. 1999 Cadmium, chromium, copper, nickel, and lead concentrations found near the mouth of the Minnesota River were all less than MOE's LEL. Comparison of levels to 1980 levels was not possible due to high detection limits used in the 1980 analysis (10 ug/g). Mercury was not detected in either the 1980 or 1999 samples. 1999 Zinc levels were much lower that MOE's LEL. Zinc was not included in the 1980 analysis. Sample MN-1's manganese concentration of 784 ug/g exceeded MOE's LEL of 460 ug/g but was less than the SEL of 1100 ug/g. The manganese level found in sample MN-1 however is similar to the mean manganese concentration of 731 ug/g found in backwater sediments of the Mississippi River above Lake Pepin. The 1980 sample at RM 0.1 was only 390 ug/g. Sample results for MN-13 and the 1980 RM 0.6 sample were 217 and 230 ug/g respectively, indicating little change.

No pesticides or PCB's were detected in samples MN-1 or MN-13. Dieldrin (0.6 ug/kg), 4,4 DDE (1 ug/kg), 4,4 DDD (0.8 ug/kg), 4,4 DDT (0.4 ug/kg), and chlordane (1.0 ug/kg) were found in the 1980 RM-0.1 sample. The reported values were all below MOE's LEL for each constituent. The Dieldrin level was at OME's NEL and Chlordane was below OME's LEL. LEL concentrations have not been determined for DDE, DDD, and DDT. PCB's were not tested for during the 1980 analyses.

River Mile 3.0-4.4 – In 1999 sediment samples MN-3 (RM-3.8), MN-4 (RM-4.1), and MN-5 (RM-4.4) were collected by the Corps for chemical analysis. Station MN-3 is located just downstream of a major drainage into the river. This area has been dredged several times. Station MN-4 is located just upstream of the I-494 highway bridge and station MN-5 is located just downstream the mouth of the 4 mile cutoff channel. The nearest historic sample collection and analysis was accomplished from 1981 through 1985 by the MWCC at River Mile 3.0. Each year the MWCC collected east, west, and mid channel samples for analysis for a total of 15 sediment samples over 5 years.

Sample MN-1 was located just below a major drainage into the river. Grain size analysis indicated the sample was comprised mainly of fine sand (99.2%) with very little silts and clays. Samples MN-4 and MN-5 were comprised of 79.9% and 80.4% sand and 20.1% and 19.6% fine material and can be classified as silty or clayey fine sand. The samples were not well graded and have uniform particle size. Grain size analysis records were not reported with the MWCC data so comparisons to historical data are not made.

Total solids (in percent) for samples MN-3, 4, and 5 were all greater than 98% and total volatile solids were all less than 3%. Moisture content ranged from 0.1% for sample

MN-3 to 2.2% for sample MN-4. TOC comprised 0.02% of sample MN-3, 0.72% of sample MN-4, and 0.50% of sample MN-5. Cyanide was not detected at or above the laboratory detection limit of 0.2 ug/g for any sample. Ammonia elutriate concentrations reported were 0.41, 0.55, and 0.47 mg/l respectively for samples MN-3, MN-4, and MN-5. The MWCC data did not include these parameters.

In 1999 metals analysis was conducted on samples MN-3, MN-4, and MN-5. Metals concentrations were consistently highest at station MN-4 and lowest at Station MN-3 for the three stations. Sample MN-4 was collected just upstream of the I-494 Highway bridge. The higher metals levels would be expected here due to local highway drainage and higher percentage of fine sediments. Still, 1999 levels of arsenic, chromium, copper, and lead were all below MOE's LEL sediment guideline. Sample MN-4 did exceed MOE's cadmium, nickel and manganese LEL guidelines and sample MN-5 exceeded the nickel guideline. The cadmium exceedance was only slightly above the LEL (0.6 vs 0.69) and well below OME's SEL of 10 ug/g. The maximum cadmium level reported is less than the mean Mississippi River (above Lake Pepin) backwater sediment concentration of 1.4 ug/g. Nickel concentrations in samples MN-4 and MN-5 of 24.8 and 16.4 ug/g respectively, exceeded MOE's LEL of 16 ug/g, but are much lower than OME's SEL of 75 ug/g. The mean nickel concentration of Mississippi River backwater sediments above Lake Pepin is 18 ug/g with a standard deviation of 7ug/g, indicating that the samples are in the range expected in backwater sediments. Sample MN-4's 955 ug/g manganese concentration of exceeds the 460 ug/g LEL but is in the range anticipated for Mississippi River backwaters. The remaining cadmium, nickel, and manganese results were below MOE's LEL guidelines. Graphical depiction of sample results is shown in Appendix A.

With the exception of cadmium and manganese, the MWCC data indicates similar or historically higher sediment metals concentrations existed in this portion of the river. Both 1999 cadmium and manganese results indicate potential increases from historic concentrations. The average 1999 cadmium concentration appears higher than historic levels, which may be due to one high value of 0.69 ug/g raising the average value. The 1999 mean manganese concentration may be distorted by the MN-4 sample result of 955 ug/g. The remaining metals concentrations indicate decreasing or similar concentrations when compared to historic data. The 1999 mean sediment chromium concentration is less than 50% of the 1980's mean chromium values, indicating a potential decline from historical conditions. Mean copper concentrations also show a potential decline, however the differences are much less pronounced. Mercury data also indicates potential decreasing levels since the early 80's. 1999 nickel, lead, and arsenic results indicate concentrations in the same range as those reported in the 1980's by the MWCC.

No pesticides or PCB's were detected in samples collected in 1999 (samples MN-3, MN-4, or MN-5). MWCC samples detected alpha BHC, Heptachlor, and 4,4 DDE at concentrations of 20, 7 and 7 ug/kg respectively in 1982 and chlordane at 32.6 ug/kg in 1985. The Alpha BHC level exceeded both OME's NEL and LEL guidelines of 0.2 and 3 ug/kg. The heptachlor level found in 1982 was above OME's NEL but equal to the LEL guideline. The DDE level detected was slightly higher than OME's LEL of 5 ug/kg.

The 1985 Chlordane level exceeded both OME's NEL and LEL guidelines. OME SEL levels require sample TOC levels to compute. MWCC data did not include TOC values therefore SEL guidelines are not reported. All other analyses were below laboratory detection limits. Pesticide analyses indicate that any contaminated sediment has been buried, degraded, or transported out of the reach. Future sediment core samples should be conducted on this reach of the river in the future.

MWCC Aroclor PCB analyses were conducted in 1982 through 1985. Aroclor-1016 was detected in 1982 at 800 ug/kg but not detected in 1983 through 1985. Aroclor 1254 was found in 1982, 1983 and 1984 at concentrations of 1000, 25, and 36 ug/kg but was less than 5.3 ug/kg in 1985. Aroclor 1260 was not detected at 20 ug/kg in 1982 but was found in 1983 and 1984 at 13 ug/kg and 30 ug/kg. 1985 levels were less than 5.3 ug/kg. There is no record of dredging at river mile 3.0, but dredging has occurred where the 1999 samples were collected. It appears that historical sediment contaminants may have decreased since the early 1980's in this river reach due to one of the mechanisms mentioned above.

Comparison of the 1999 samples from river miles 3.8 to 4.4 is a good distance from the MWCC data collected at river mile 3.0. The data still indicate that historical sediment contamination could have existed in the vicinity but is not present in the surface sediments at this time. Sediment core collection and analysis should be conducted in this region to ensure future dredging will not impact buried "hot spots". Sediment samples should also include samples from upstream and downstream of the dredging zones in the event dredging is required outside of the historic dredge cut area.

River Mile 11.0-12.6 - In 1999 5 Minnesota River sediment samples (MN-6, MN-7, MN-8, MN-9, and MN-10) were collected between river miles 11.0 and 12.6. Samples MN-6 and MN-7 were obtained from upstream of the I-35W Highway bridge below Peterson's Bar. Samples MN-8 and MN-9 were obtained from the Peterson's Bar Dredge cut areas, and sample MN-10 was obtained just downstream of the Cargill slip. All samples were obtained from historic main channel dredge cut locations. The dredge cuts represented by samples MN-8, MN-9, and MN-10 are dredged relatively frequently. The historic record consists of 9 sediment samples collected and analyzed by the Corps between 1975 and 1989. The historic samples are in the same vicinity as the 1999 samples.

Samples MN-6 and MN-7 were 87% and 99.6% sand, with 13% and 0.4% silts and clays, respectively. The samples can be classified as silty or clayey sand and fine sand respectively. Samples MN-8 and MN-9 can be classified as fine sands consisting of 99.5% and 99.2% sand with less tan 1% silts and clays. Sample MN-10 is classified as fine sand consisting of 98.8% sand with less than 2% silts and clays. All 5 samples have uniform particle size and are poorly graded according to the Hazen uniformity coefficient. Generally 1980 and 1989 historic data indicates a much higher concentration of silts and clays. Samples collected upstream (RM 13.2 to 13.4) indicates a higher percentage of silts and clays than 1999 data.

Total solids for samples MN-6 through MN-10 ranged from 99.3% to 99.9% and total volatile solids ranged from 0.25% to 0.95%. Moisture content ranged from 0.1% for sample to 0.7%. The percentage of total organic carbon in sample MN-6 was 0.18% and ranged from 0.01 to 0.03 in samples MN-7 through MN-10. Cyanide was not detected at or above the laboratory detection limit of 0.2 ug/g for any sample. Ammonia elutriate concentrations ranged from 0.25 to 0.41 mg/l with a mean concentration of 0.3 mg/l. This data was not available for pre-1999 data.

Metals analyses for samples MN-6 through MN-10 revealed no concentrations above OME's LEL guidelines. The highest 1999 metals concentrations occurred in sample MN-6 which also had the greatest percentage of fine materials. Arsenic values ranged from 1.13 to 3.44 ug/g with a mean concentration of 1.81 ug/g. The range of arsenic values is similar to pre 1999 data in the same river reach. Cadmium was only detected in 1 1999 sample (MN-6) at 0.17 ug/g. All other samples were below the laboratory detection limit of 0.03 ug/g. Pre-1999 detection limits were higher than the detected 1999 concentration so no comparison to pre 1999 levels can be made. 1999 chromium concentrations ranged from 2.96 to 5.6 ug/g with a mean value of 3.75 ug/g. Pre-1999 data indicate that there may be a decrease in historic chromium concentrations. Copper concentrations ranged from 1.24 to 3.97 ug/g with a mean value of 2.25 ug/g in 1999. The range of reported values is much smaller than pre-1999 data, which may indicate decreasing concentrations due to burial, transport, or removal mechanisms. The 1999 manganese concentration range is 154 to 357 ug/g. Historic manganese values are quite variable and are subject to high spatial variability. Mercury was detected in very small concentrations intermittently. The 1999 range nickel and lead concentration ranges were 6.1 to 12.3 ug/g and 4.7 to 9.2 ug/g with mean values of 8.0 and 6.5 ug/g respectively. Pre-1999 sample analyses had high detection limits, however larger concentration range suggests that current levels are reduced from historic concentrations. Zinc was only sampled in 1999. Zinc concentrations ranged from 8.1 to 19.3 ug/g with a mean concentration of 11.3 ug/g, much less than OME's LEL of 120 ug/g.

No pesticides or PCB's were detected the 1999 samples MN-6 through MN-10. In 1980 sample analysis at RM-11.4 detected dieldrin, 4,4 DDD, and chlordane at concentrations of 0.5, 0.8, and 1.0 ug/kg respectively. NEL guidelines are established for dieldrin and chlordane at 0.6 and 5 ug/kg, higher than the detected concentrations. No NEL is established for DDD, however the reported concentration is less than OME's LEL of 8 ug/kg. There appear to be no current concerns with pesticides or PCB's in this section of the river.

River Mile 14.4-14.7 – 1999 samples MN-11 and MN-12 were obtained above the Savage railroad bridge, an area that is dredged relatively frequently, at river miles 14.5 and 14.7 respectively. Five historical samples were collected in this river reach between river miles 14.4 and 14.6. The 5 samples were collected and analyzed in 1978 (1), 1982 (2), and 1989 (2).

Samples MN-11 and MN-12 are classified as fine sands. Both samples are composed of over 97% fine sand with less than 3% silts and clays. Both samples have uniform particle

size and are poorly graded according to the Hazen uniformity coefficient. The 1999 grain size analyses indicate a similar class of sediment as the 1989 samples. The 1982 and 1978 sample grain size analyses indicate a much higher proportion of silts and clays (over 30%) than currently exists.

Total solids for samples MN-1 and MN-12 were both 99.8% and total volatile solids results were 0.54 and 0.41% respectively. The moisture content of both samples was 0.2%. The percentage of total organic carbon in samples MN-11 and MN-12 was 0.03 and0.04% respectively. Cyanide was not detected at or above the laboratory detection limit of 0.2 ug/g for either sample. Reported ammonia elutriate concentrations for MN-11 and MN-12 were 0.26and 0.25 mg/l. The 2 1989 samples contained less than 1% TOC. No other physical data was available for pre-1999 data.

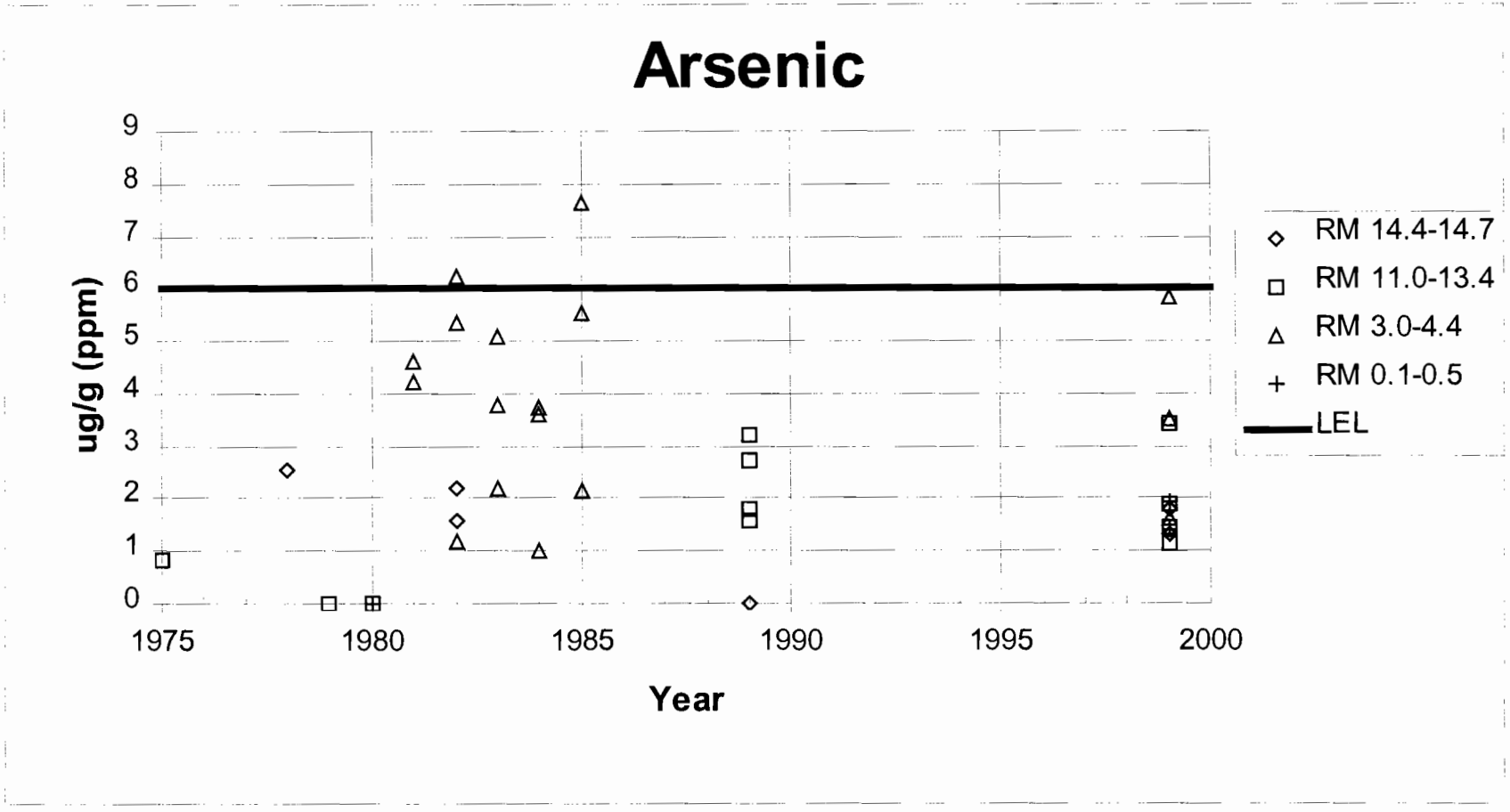
Arsenic concentrations were detected at low levels in samples MN-11 and MN-12. These levels are similar to pre-1999 sample results and are well below OME's LEL sediment guideline. Cadmium was not detected at 0.03 ug/g in 1999 samples. In 1978 cadmium was found at 1.2 ug/g, above OME's LEL of 0.6, but well below the SEL of 10. The reported 1978 cadmium level is similar to the mean concentration of Mississippi River backwater sediments above Lake Pepin of 1.4 ug/g. 1982 and 1989 detection limits were higher than 1999 detection limits preventing further analysis and comparisons. Chromium concentrations in samples MN-11 and MN-12 were 3.8 and 3.3 ug/g respectively. These are similar to 1989 and 1982 reported levels and much less than the 1978 reported concentration of 28.7 ug/g. 1999 copper levels were reported at 2.0 and 1.7 ug/g. These values are much lower than those reported in 1978 and 1989, but only slightly lower than those reported in 1982. All copper values were below OME's LEL guideline of 16 ug/g. Mercury was reported at very low concentrations below OME's LEL guideline. Reported 1999 manganese concentrations were 931 and 143 ug/g. The pre-1999 manganese concentration range (3 samples) was 254 to 419 ug/g, displaying the high spatial variability of manganese in the Minnesota and Mississippi River systems. MN-11 nickel and lead concentrations were reported as 8.3 and 6.3 and MN-12 concentrations were 6.1 and 5 ug/g respectively. These values are in the same range as 1989 and 1982 results but are much lower than the nickel and lead 1978 results of 16.7 and 44 ug/g. Both 1978 nickel and lead results exceeded OME's respective LEL guidelines of 16 and 31 ug/g. Generally, except for copper and manganese, the highest metals concentrations reported between River miles 14.4 and 14.7 occurred in 1978. Since 1978 all sample results appear to be similar to the 1999 results. In 1999 there were no exceedances of OME's LEL guidelines.

No pesticides or PCB's were detected in either the 1999 samples or the pre-1999 samples.

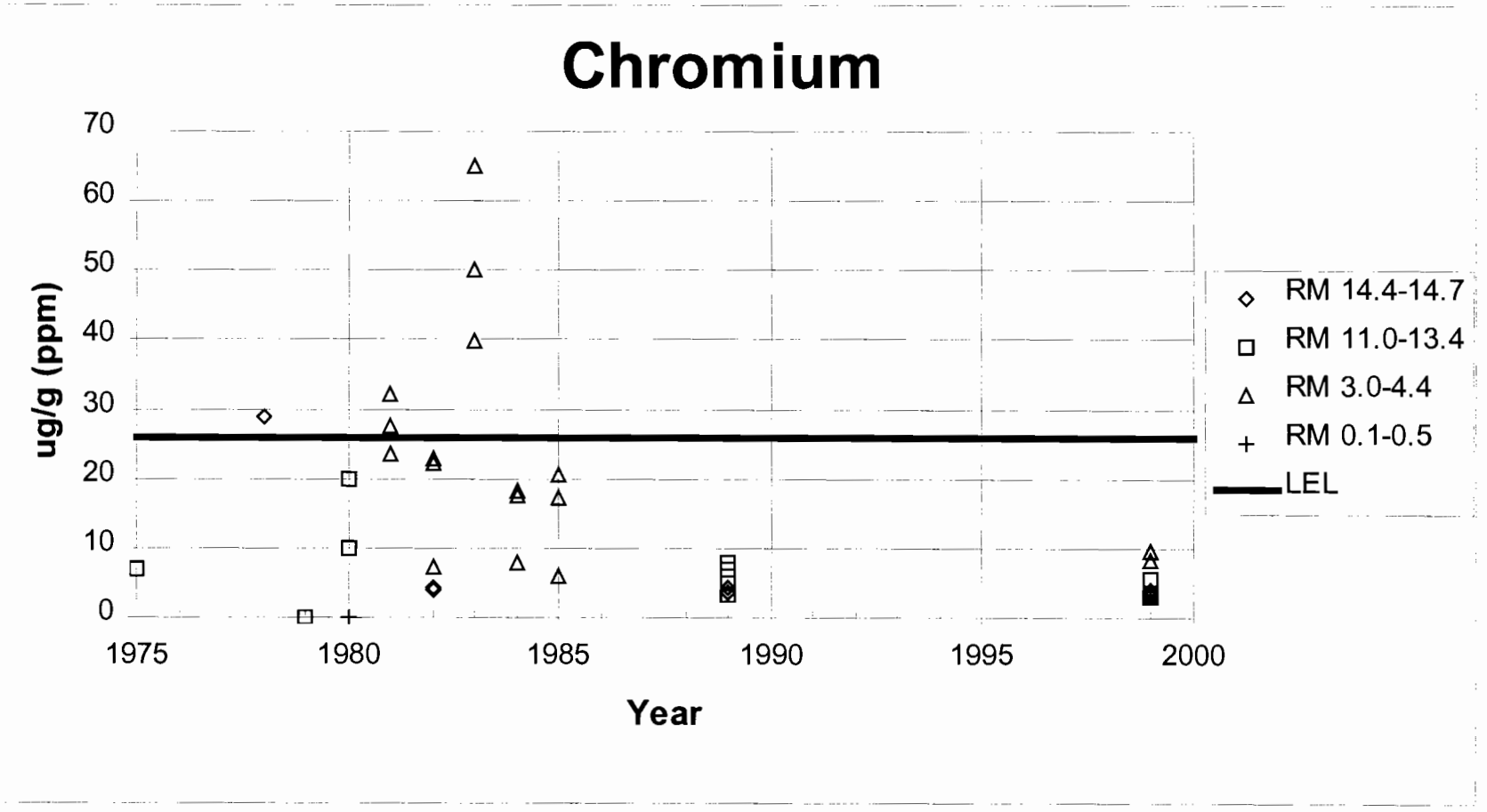
Summary: Generally quality of the 1999 sediment samples collected from Minnesota River dredge cuts appear to be of good quality. Grain size analyses indicate the sediment consists of a higher proportion of fine sands and less silts and clays than historical samples. All 1999 samples contained low percentages of total organic carbon (<1%). Cyanide was not detected in any of the 1999 samples and ammonia measured in the

sample elutriate ranged from 0.25 to 0.55 mg/l. Sample MN-4 exceeded OME's LEL sediment quality guidelines for cadmium, nickel, and manganese. Samples MN-5 exceeded OME's nickel LEL and sample MN-1 exceeded the manganese LEL. All parameters in exceedance of OME's LEL were within the concentration range typical of Mississippi River backwater sediments above Lake Pepin. and some of the exceedances only marginally exceeded OME's LEL. All other metals sample results were below OME's LEL guidelines. Comparisons to historical data indicate most 1999 metals concentrations are similar or less than historic levels. PCB's and Pesticides, which were present in historical samples, were not detected in the 1999 samples. Declining PCB and pesticide levels could be due to transport out of the area, burial, degradation, or removal. Sediment cores should be pursued in some areas to determine if burial has occurred. Sampling outside of the dredge cut areas may be helpful in determining contaminant levels outside the usual dredging limits.

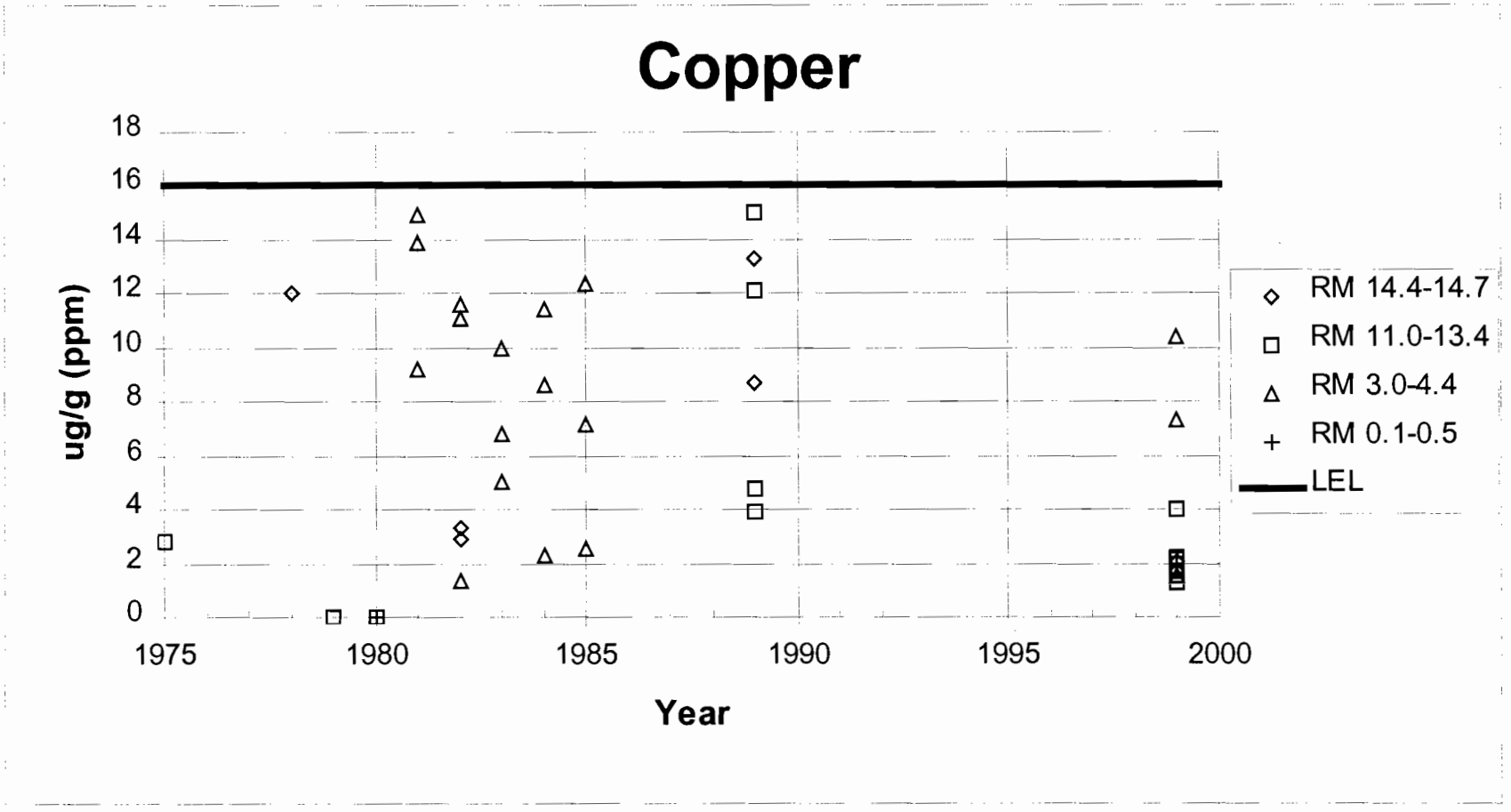
Metals Plots


Arsenic
ug/g (ppm)
9
8
7
6
5
4
3
2
1
0
1975
1980
1985
1990
1995
2000
Year
RM 14.4-14.7
RM 11.0-13.4
RM 3.0-4.4
RM 0.1-0.5
LEL

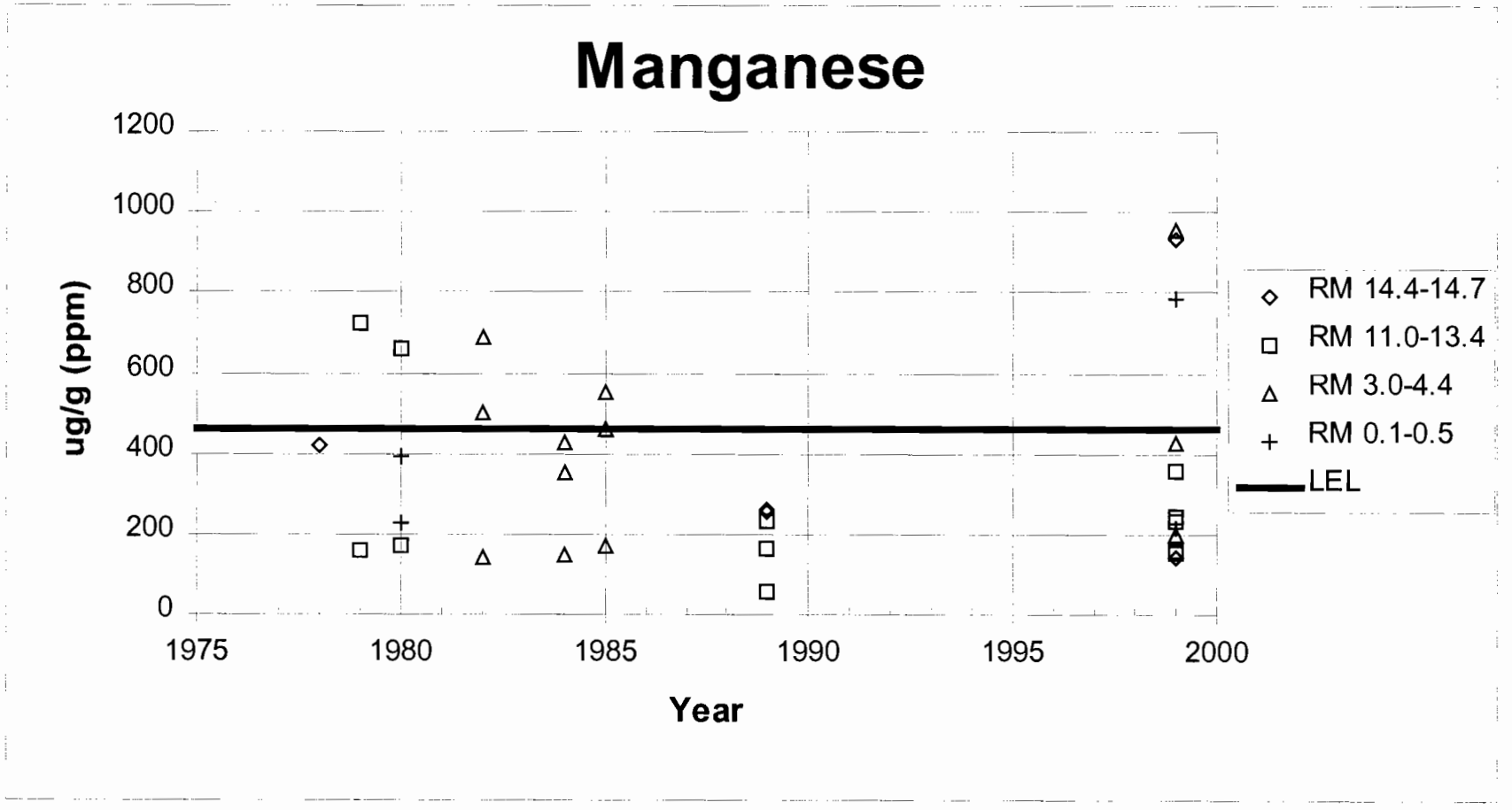
B - 13

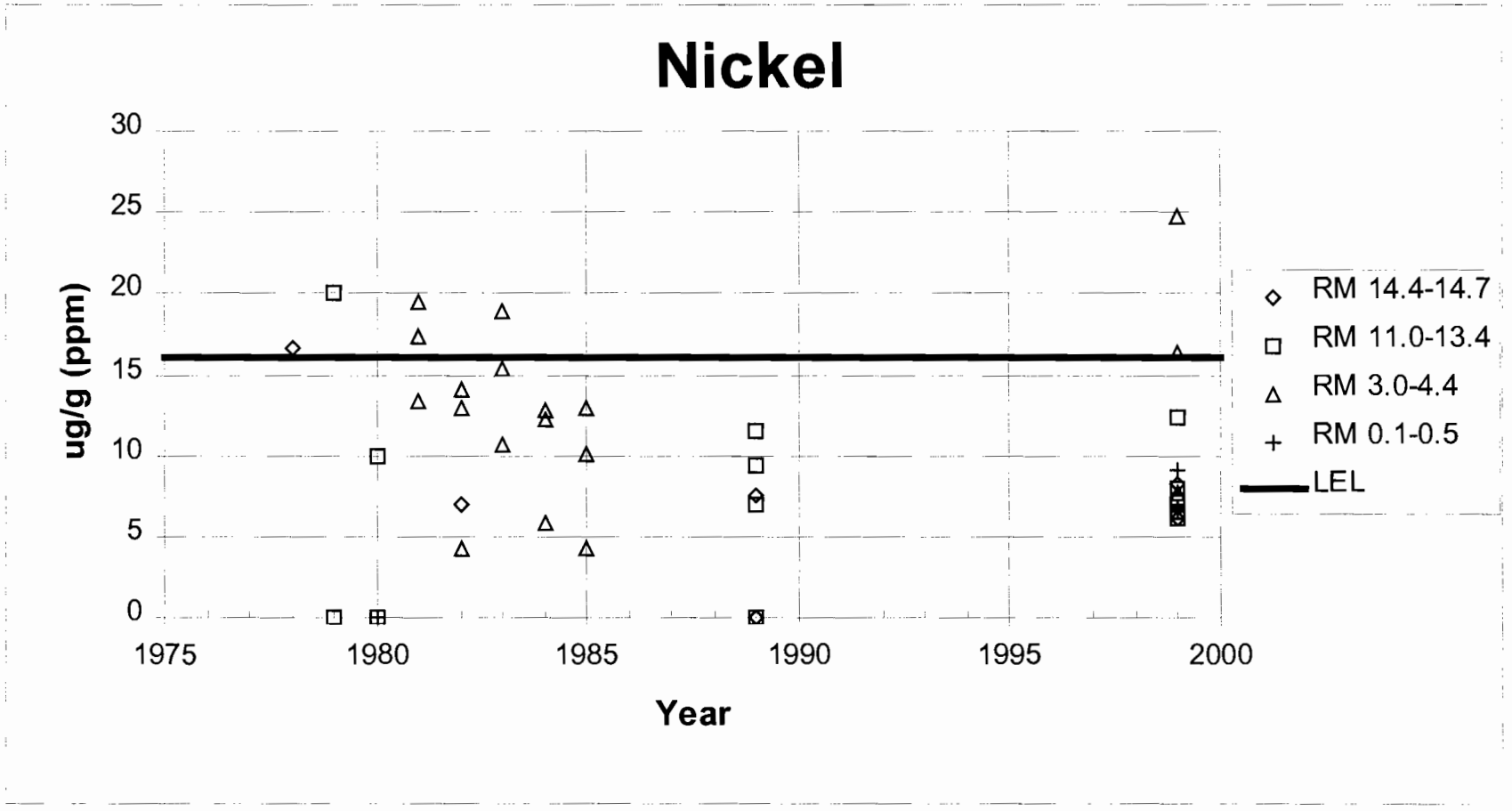

Chromium
70
60
50
40
30
20
10
0
ug/g (ppm)
1975
1980
1985
1990
1995
2000
Year
RM 14.4-14.7
RM 11.0-13.4
RM 3.0-4.4
RM 0.1-0.5
LEL

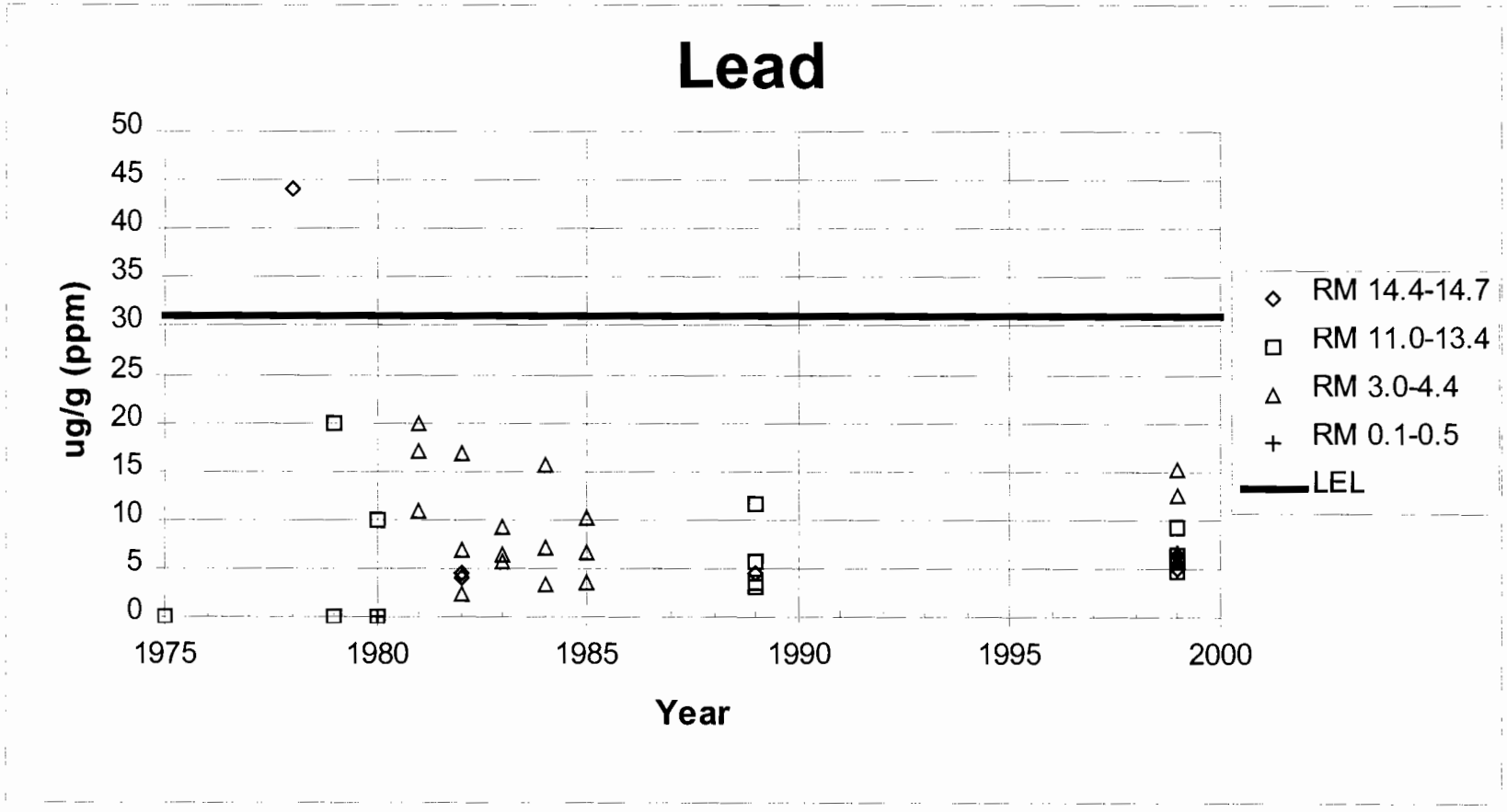
B-14


Copper
ug/g (ppm)
18
16
14
12
10
8
6
4
2
0
1975
1980
1985
1990
1995
2000
Year
RM 14.4-14.7
RM 11.0-13.4
RM 3.0-4.4
RM 0.1-0.5
LEL

B-15


Manganese
1200
1000
800
600
400
200
0
ug/g (ppm)
1975
1980
1985
1990
1995
2000
Year
RM 14.4-14.7
RM 11.0-13.4
RM 3.0-4.4
RM 0.1-0.5
LEL


Nickel
30
25
20
15
10
5
0
ug/g (ppm)
1975
1980
1985
1990
1995
2000
Year
RM 14.4-14.7
RM 11.0-13.4
RM 3.0-4.4
RM 0.1-0.5
LEL


Lead
ug/g (ppm)
50
45
40
35
30
25
20
15
10
5
0
1975
1980
1985
1990
1995
2000
Year
RM 14.4-14.7
RM 11.0-13.4
RM 3.0-4.4
RM 0.1-0.5
LEL

B-18

Congener List

Parameter	BZ#
2,4'-Dichlorobiphenyl	8
2,2',5-Trichlorobiphenyl	18
2,4,4'- Trichlorobiphenyl	28
3,4,4'- Trichlorobiphenyl	37
2,2',3,5'-Tetrachlorobiphenyl	44
2,2',4,4',5-Pentachlorobiphenyl	99
2,2',5,5'- Tetrachlorobiphenyl	52
2,3',4,4'- Tetrachlorobiphenyl	66
2,3',4',5- Tetrachlorobiphenyl	70
2,4,4',5- Tetrachlorobiphenyl	74
3,3',4,4'- Tetrachlorobiphenyl	77
3,4,4',5- Tetrachlorobiphenyl	81
2,2',3,4,5'-Pentachlorobiphenyl	87
2,2',4,5'- Tetrachlorobiphenyl	49
2,2',4,5,5'- Pentachlorobiphenyl	101
2,3,3',4,4'- Pentachlorobiphenyl	105
2,3,4,4',5- Pentachlorobiphenyl	114
2,3',4,4',5- Pentachlorobiphenyl	118
2,3',4,4',6- Pentachlorobiphenyl	119
2',3,4,4',5- Pentachlorobiphenyl	123
3,3',4,4',5- Pentachlorobiphenyl	126
2,2',3,3',4,4'-Hexachlorobiphenyl	128
2,2',3,4,4',5- Hexachlorobiphenyl	138
2,2',3,5,5',6- Hexachlorobiphenyl	151
2,2',4,4',5,5'- Hexachlorobiphenyl	153
2,3,3',4,4',5- Hexachlorobiphenyl	156
2,3,3',4,4',5'- Hexachlorobiphenyl	157
2,3,3',4,4',6- Hexachlorobiphenyl	158
2,3',4,4',5,5'- Hexachlorobiphenyl	167
2,3',4,4',5',6- Hexachlorobiphenyl	168
3,3',4,4',5,5'- Hexachlorobiphenyl	169
2,2',3,3',4,4',5-Heptachlorobiphenyl	170
2,2',3,4,4',5,5'-Heptachlorobiphenyl	180
2,2',3,4,4',5',6-Heptachlorobiphenyl	183
2,2',3,4,4',6,6'-Heptachlorobiphenyl	184
2,2',3,4',5,5',6-Heptachlorobiphenyl	187
2,3,3',4,4',5,5'-Heptachlorobiphenyl	189
2,2',3,3',4,4',5,6-Octachlorobiphenyl	195
2,2',3,3',4',5,5',6-Octachlorobiphenyl	201
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	206
Decachlorobiphenyl	209

Appendix C

Sediment Quality of Minnesota River Private Barge Slip Material

BUNGE
CORPORATION

P.O. Box 28500 / St. Louis, MO 63146-1000 (314) 994-6374 FAX (314) 994-6384

November 6, 1998

NOV 12 1998

Attention: CEMVP-CO-MR-Waterways
P.O. Box 397
Fountain City, WI 54629

Subject: Dredged Material Information
Bunge Corporation - Savage, MN

This is in response to the 9/21/98 letter sent to Mr. Dan Erz of Bunge Corporation. The letter requested dredging information on Bunge's barge grain loading facility at Savage, MN (lower Minnesota River) for a C.O.E. study to develop a comprehensive Dredged Material Management Plan.

Historic information regarding dredging activity at the Bunge facility in Savage, MN is summarized below:

Date (mo/year)	Quantity (yds^3)
9/98	3790
9/96	3150
10/95	1960
4/95	5250
6/92	4410
6/88	3900
3/87	7200
9/83	3500
8/82	unknown
8/78	unknown
4/77	unknown
5/76	unknown
3/75	unknown

We have records indicating that dredging activity occurred prior to 1983, but we have no information on the quantities of dredged materials. The records for 1988-1998 list the Kraemer disposal site located at mile 12.2 as the placement site for spoils. The records prior to 1988 do not list a placement site. Spoils are excavated at Savage to an elevation of 677.2 ft. This elevation reflects the beginning of bedrock.

The most recent four dredging occasions have required laboratory analyses of materials removed. Samples were tested for PCB's, selected herbicides, and metals. The results of all samples yielded "no detection" of PCB's and herbicide chemical compounds. The metals analysis in September 1998 was based on a Toxicity Characteristic Leaching Procedure (TCLP). It showed no detectable levels of silver, arsenic, chromium, mercury, lead or selenium. Barium was detected at .98 mg/l and cadmium was found at a concentration of .017 mg/l. Prior to 1998 the presence of metals in spoil samples was determined based on a total metals analysis. The following ranges of concentrations were found:

Arsenic	ND - 3.7	Mercury	ND - .094
Cadmium	.57 - 2.7	Lead	3.5 - 6.7
Chromium	6.9 - 7.1	Copper	5.4 - 6.8
Zinc	22 - 27		

Units = mg./L ND denotes "No Detection"

Sincerely,

Bunge Corporation

Loren Polak

Loren Polak
Environmental Compliance Officer

pc: G. Duncan
C. Wargel
M. Griffin
D. Erz

NOV 9 REC'D

To: Steven D. Tapp 10/22/98
Channel Maintenance Coordinator

From: Gary D Schaffer
Port Cargill Elevator "C"
12101 Lynn Ave South
Savage, Mn. 55378

Dear Mr. Tapp

Past Dredging activity from the barge slip located at mile 12.9 of the Minnesota River at Port Cargill include.

1. Sept 1998 7,156 cubic yards Mechanically dredged
2. Oct 1997 2,852 cubic yards Mechanically dredged
   (dredged material from item #1 and #2 was placed in a contained disposal site located 400 ft upstream from the Kraemer site on Cargill property, because the Kraemer site was full. The project site is in the NW 1/4 of section 32, T. 27N., R. 24 W, of Scott County at Savage Mn.)
3. Oct 1996 10,718 cubic yards Mechanically dredged.
   (dredged material from Item #3 was placed in the Kraemer site)
4. June 1994 30,543 cubic yards hydraulically dredged
5. June 1992 20,460 cubic yards hydraulically dredged
6. June 1988 26,667 cubic yards hydraulically dredged
   (hydraulically dredged material was placed in a contained area on Cargill property in Section 32, T 27 N, R 24 in Scott and Dakota counties at Minnesota River mile 13 Dike has a volume of 472,600 cubic yards)

Attached are soil sample results taken from the 1997 and 1996 dredged material

I could not locate any dredging data previous to the 1988 activity.

Observations concerning dredging is that we anticipate the need to budget for dredging on an annual basis. The amount of dredging will depend on how much our slip gets filled in from material coming down stream and settling out.

Please do not hesitate to call if there is any ther information that I can supply
(612) 890-1300 ext 13. fax # 894-0760

Sincerely,

Gary D Schaffer

Gary D Schaffer
Port Cargill , Elelvator "C"

LEGEND
TECHNICAL SERVICES, INC.

Pg 1 Oct 15 1996

October 15, 1996

Mr. Greg Rowe
Cargill
12101 Lynn Avenue
Savage, MN 55378

SUBJECT: Dredging
LEGEND No. 96-2700

1.0 INTRODUCTION

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received one sludge sample from a representative of Cargill on October 4, 1996. The parameters and analytical results are listed in the attached tables.

2.0 SAMPLE IDENTIFICATION

LABORATORY NO.	CLIENT IDENTIFICATION
SN96-64671	Sludge

3.0 METHODOLOGY

TCLP

The sample was prepared with methods based on EPA SW-846, Method 1311.

Metals

The sample was prepared and analyzed with methods based on EPA SW-846 methods.

Polychlorinated Biphenyls

The sample was prepared and analyzed with methods based on EPA SW-846, Method 8081.

4.0 CASE NARRATIVE

The sample was received in acceptable condition.

The method blank was free of target analytes at detectable levels, and the associated batch quality assurance/quality control criteria were met with satisfaction.

5.0 **REMARKS**

The unconsumed sample will be retained by our laboratory for 30 days from the date of this report and then discarded unless other instructions are received by the client.

Prepared by,

LEGEND TECHNICAL SERVICES, INC.

Lisa M. Reuder

Lisa Reuder
Project Manager

Chris Bremer
Laboratory Manager

LR/CB/tls

Pp 3 Oct 15 1996

LEGEND TECHNICAL SERVICES, INC.
TABLE #1
LEGEND No. 96-2700

CARGILL

POLYCHLORINATED BIPHENYLS - SOIL

Compound	Sludge (mg/kg)	Method Blank (mg/kg)	PQL (mg/kg)
Aroclor 1016	<1.0	<1.0	1.0
Aroclor 1221	<1.0	<1.0	1.0
Aroclor 1232	<1.0	<1.0	1.0
Aroclor 1242	<0.10	<0.10	0.10
Aroclor 1248	<0.10	<0.10	0.10
Aroclor 1254	<0.10	<0.10	0.10
Aroclor 1260	<0.10	<0.10	0.10
Recovery Data			Percent
Spike #1			117
Spike #2			123
DATE EXTRACTED:	10/04/96	10/04/96	----
DATE ANALYZED:	10/05/96	10/04/96	----

< = Less than number shown

PQL = Practical quantitation limit

mg/kg is equal to parts-per-million

Pp 4 oct 15 1996

LEGEND TECHNICAL SERVICES, INC.

TABLE #2

LEGEND No. 96-2700

CARGILL

METALS RESULTS - TCLP

Analyte	Sludge (mg/L)	TCLP Blank (mg/L)	PQL (mg/L)	Date Analyzed	Method Number	Regulatory Limit (mg/L)
Silver	<0.010	<0.010	0.010	10/08/96	7760	5.0
Arsenic	<0.020	<0.020	0.020	10/07/96	7060	5.0
Barium	0.61	<0.10	0.10	10/07/96	6010	100
Cadmium	0.028	<0.020	0.020	10/08/96	7130	1.0
Chromium	<0.050	<0.050	0.050	10/08/96	7190	5.0
Mercury	<0.0050	<0.0050	0.0050	10/08/96	7470	0.20
Lead	<0.10	<0.10	0.10	10/08/96	7420	5.0
Selenium	<0.020	<0.020	0.020	10/07/96	7740	1.0

< = Less than number shown

PQL = Practical quantitation limit

mg/L is equivalent to parts-per-million

LEGEND
TECHNICAL SERVICES, INC.

October 22, 1996

Pp 1- Oct 22, 1996

Mr. Greg Rowe
Cargill
12101 Lynn Avenue
Savage, MN 55378

SUBJECT: Dredging
LEGEND No. 96-2796

1.0 INTRODUCTION

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received one sludge sample from a representative of Cargill on October 14, 1996. The parameters and analytical results are listed in the attached tables.

2.0 SAMPLE IDENTIFICATION

LABORATORY NO.	CLIENT IDENTIFICATION
SN96-65363	Dredging

3.0 METHODOLOGY

TCLP

The sample was prepared with methods based on EPA SW-846, Method 1311.

Metals

The sample was prepared and analyzed with methods based on EPA SW-846 methods.

Polychlorinated Biphenyls

The sample was prepared and analyzed with methods based on EPA SW-846, Method 8081.

4.0 CASE NARRATIVE

The sample was received in acceptable condition.

The method blank was free of target analytes at detectable levels, and the associated batch quality assurance/quality control criteria were met with satisfaction.

5.0 **REMARKS**

The unconsumed sample will be retained by our laboratory for 30 days from the date of this report and then discarded unless other instructions are received by the client.

Submitted by,

LEGEND TECHNICAL SERVICES, INC.

Lisa M. Reuder

Lisa Reuder
Project Manager

Jeff Zeske
Chemist

LR/JZ/sec

LEGEND TECHNICAL SERVICES, INC.

TABLE #1
LEGEND No. 96-2796

CARGILL

POLYCHLORINATED BIPHENYLS

Compound	Sludge (mg/kg)	Method Blank (mg/kg)	PQL (mg/kg)
Aroclor 1016	<1.0	<1.0	1.0
Aroclor 1221	<1.0	<1.0	1.0
Aroclor 1232	<1.0	<1.0	1.0
Aroclor 1242	<0.10	<0.10	0.10
Aroclor 1248	<0.10	<0.10	0.10
Aroclor 1254	<0.10	<0.10	0.10
Aroclor 1260	<0.10	<0.10	0.10
Recovery Data			Percent
Spike #1			95.0
Spike #2			88.7
DATE EXTRACTED:	10/16/96	10/16/96	----
DATE ANALYZED:	10/18/96	10/18/96	----

< = Less than number shown

PQL = Practical quantitation limit

mg/kg is equal to parts-per-million

LEGEND TECHNICAL SERVICES, INC.

TABLE #2
LEGEND No. 96-2796

CARGILL

METALS RESULTS - TCLP

Analyte	Sludge (mg/L)	TCLP Blank (mg/L)	PQL (mg/L)	Date Analyzed	Method Number	Regulatory Limit
Silver	<0.010	<0.010	0.010	10/17/96	7760	5.0
Arsenic	<0.50	<0.50	0.50	10/16/96	6010	5.0
Barium	0.88	<0.50	0.50	10/16/96	6010	100
Cadmium	0.029	<0.020	0.020	10/18/96	7130	1.0
Chromium	<0.050	<0.050	0.050	10/17/96	7190	5.0
Mercury	<0.0050	<0.0050	0.0050	10/17/96	7470	0.20
Lead	<0.10	<0.10	0.10	10/17/96	7420	5.0
Selenium	<0.50	<0.50	0.50	10/16/96	6010	1.0

< = Less than number shown

PQL = Practical quantitation limit

mg/L is equivalent to parts-per-million

Pp 1-1997

November 11, 1997

Mr. Gary Schaffer
Cargill
2301 Crosby Road
Wayzata, MN 55391

SUBJECT: Barge
LEGEND No. 97-3776

1.0 INTRODUCTION

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received two soil samples from a representative of Cargill on October 14, 1997. The parameters and analytical results are listed in the attached tables.

2.0 SAMPLE IDENTIFICATION

LABORATORY NO.	CLIENT IDENTIFICATION
SN97-92132	Cargill Barge N End #1
SN97-92133	Cargill Barge N End #2

3.0 METHODOLOGY

Polychlorinated Biphenyls

The samples were prepared and analyzed with methods based on EPA SW-846, Method 8080.

TCLP

The samples were prepared with methods based on EPA SW-846, Method 1311.

Metals

The samples were prepared and analyzed with methods based on EPA SW-846 methods.

PP 2-1997

5.0 **REMARKS**

The unconsumed samples will be retained by our laboratory for 30 days from the date of this report and then discarded unless other instructions are received by the client.

This report shall not be reproduced except in full, without the written authorization of LEGEND TECHNICAL SERVICES, INC.

Prepared by,
LEGEND TECHNICAL SERVICES, INC.

Chris Bremer
Laboratory Manager

Sharon Cenis
Chemist

CB/SC/mmc

LEGEND TECHNICAL SERVICES, INC.

TABLE #1
LEGEND No. 97-3776

CARGILL

POLYCHLORINATED BIPHENYLS - SOIL

Compound	#1 (mg/kg)	#2 (mg/kg)	Method Blank (mg/kg)	PQL (mg/kg)
Aroclor 1016	<1.0	<1.0	<1.0	1.0
Aroclor 1221	<1.0	<1.0	<1.0	1.0
Aroclor 1232	<1.0	<1.0	<1.0	1.0
Aroclor 1242	<0.10	<0.10	<0.10	0.10
Aroclor 1248	<0.10	<0.10	<0.10	0.10
Aroclor 1254	<0.10	<0.10	<0.10	0.10
Aroclor 1260	<0.10	<0.10	<0.10	0.10
Surrogate Recoveries (percent)				Limits
2,4,5,6-Tetrachloro-m-xylene	125	115	123	60-150
Decachlorobiphenyl	128	120	122	60-150
Recovery Data				Percent
Spike #1				127
Spike #2				119
DATE EXTRACTED:	10/24/97	10/24/97	10/24/97	----
DATE ANALYZED:	10/24/97	10/24/97	10/24/97	----

< = Less than number shown

PQL = Practical quantitation limit

mg/kg is equal to parts-per-million

Pg 4-1997

LEGEND TECHNICAL SERVICES, INC.

TABLE #2
LEGEND No. 97-3776

CARGILL

METALS RESULTS - TCLP

Analyte	N End #1 (mg/L)	N End #2 (mg/L)	Method Blank (mg/L)	PQL (mg/L)	Date Analyzed	Method Number	Regulatory Limit (mg/L)
Silver	<0.010	<0.010	<0.010	0.010	11/07/97	7760	5.0
Arsenic	<1.0	<1.0	<1.0	1.0	11/09/97	6010	5.0
Barium	<1.0	<1.0	<1.0	1.0	11/09/97	6010	100
Cadmium	0.050	0.060	0.010	0.010	11/05/97	7130	1.0
Chromium	<1.0	<1.0	<1.0	1.0	11/09/97	6010	5.0
Mercury	<0.00050	<0.00050	<0.00050	0.00050	10/21/97	7471	0.20
Lead	0.10	0.14	<0.010	0.10	11/05/97	7420	5.0
Selenium	<0.50	<0.50	<0.50	0.50	11/09/97	6010	1.0

< = Less than number shown

PQL = Practical quantitation limit

mg/L is equivalent to parts-per-million

Xoff Co.

NOV 9 RECD

Continental Grain Company

Continental Grain Company

Phone:
FAX:
email:

Tuesday, October 13, 1998

Dept Of The Army
St Paul district. Corps Of Engineers
ACOE Centre
180 5th St East
St Paul MN, 55101

Steven Tapp

Continental Grain's Savage plants extracted dredge material total since 1978 is as follows.

Total Hydraulic dredging is : 90,000 cu yrds. (done pre 1993)

Total Mechanical dredging is 65,000 cu yrds. (done post 1993)

The hydraulic dredging was done onto Continental's approved sites.

The Mechanical dredge material was distributed between our site and the Krammer site.

David Holzer

Continental Grain Co. NAGD

NOV 06 1998

Continental Grain Company

Continental Grain Company

Phone: (612) 890-3220
FAX: (612) 890-7263
email:
David.Holzer@conti.com

Tuesday, March 10, 1998

TO: INTERESTED PARTIES
RE: 20,000 YARDS OF CONSTRUCTION QUALITY FILL MATERIAL

WHAT: 20,000 yards of fill product consisting of approximately 60% to 80% sand (see independent laboratory test results concerning soil type percentage reports).

WHERE: Material located on Continental Grain Property on West HWY. 13, Savage, MN.

AVAILABILITY: April 1 through November 30.

REMOVAL OF MATERIAL: All material removal and transportation will be the responsibility of the receiving parties.

SUGGESTED REMOVAL EQUIPMENT: Back hoe, front end loader, dump trucks.

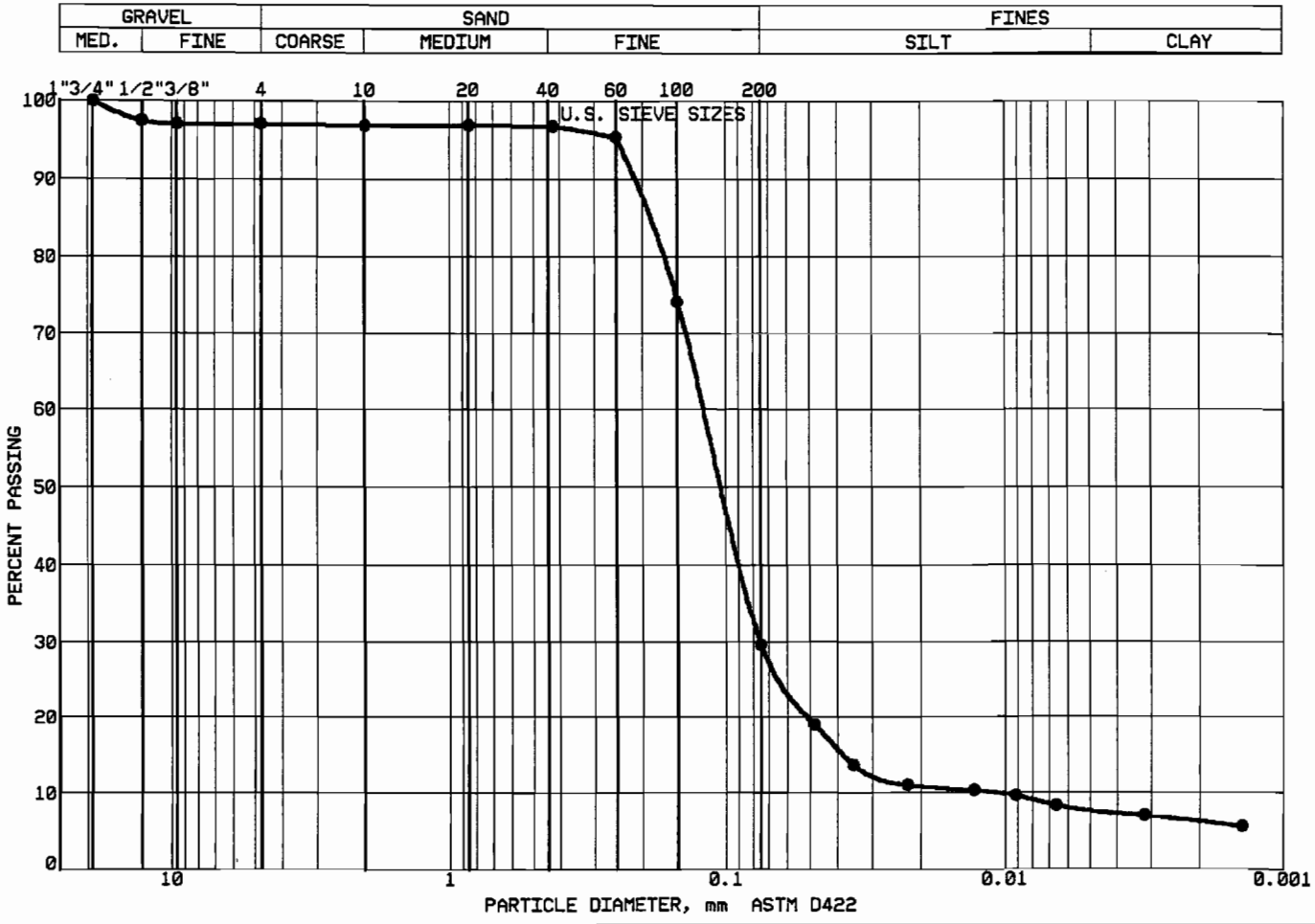
PRICE: Free .

Sincerely,

David Holzer.

NAGD

GRAIN SIZE - HYDROMETER ANALYSIS CURVE



BRAUN INTERTEC

PROJECT: BADX-98-115
Continental Grain Company
Savage, Minnesota
BORING: 1
SAMPLE:
DEPTH:

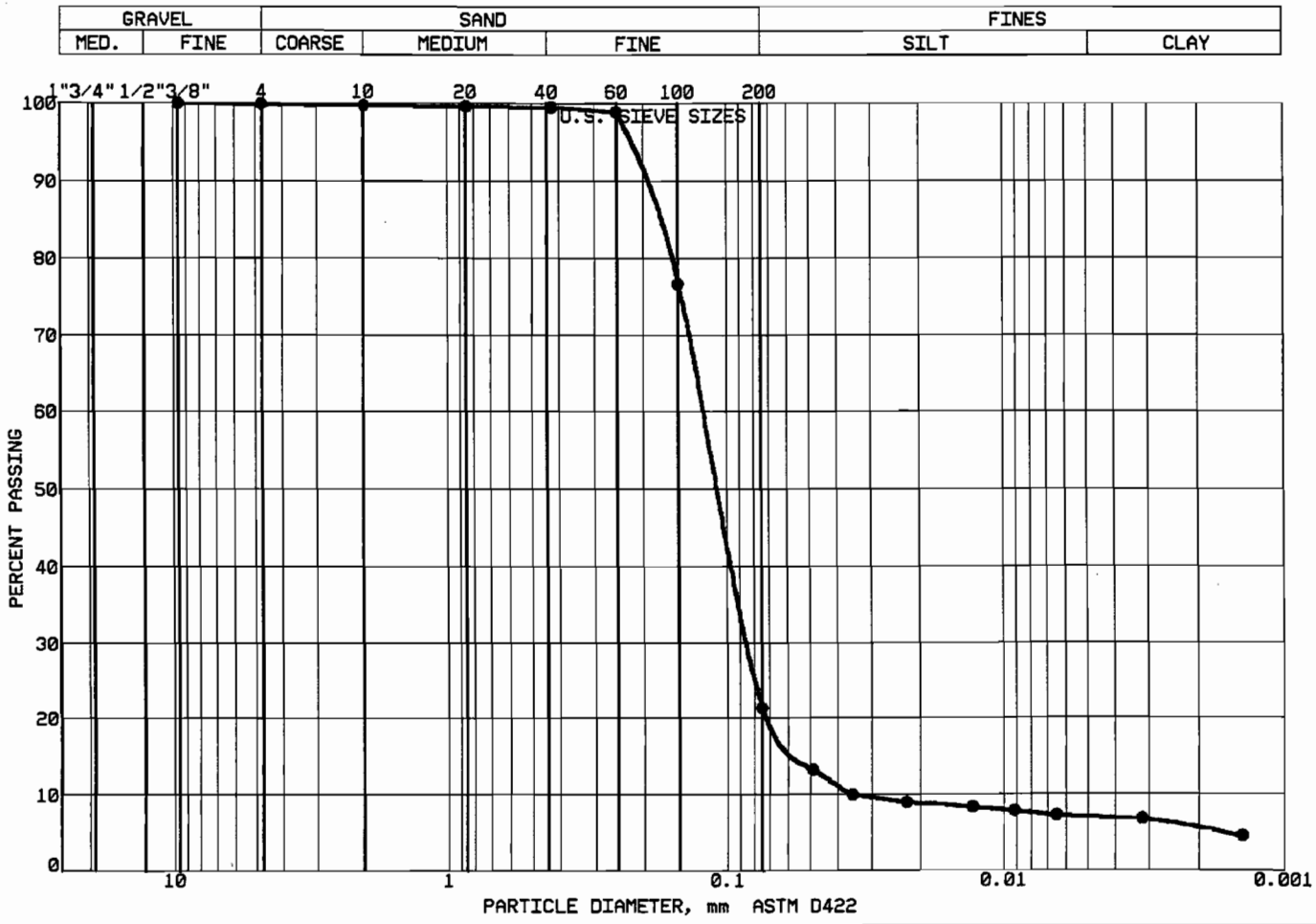
GRAVEL	2.9 %
SAND	67.5 %
SILT	21.7 %
CLAY	7.9 %

CLASSIFICATION:
SM, Silty Sand, Brown

D60=0.120
D30=0.076
D10=0.011
Cu=
Cc=

C - 18

GRAIN SIZE - HYDROMETER ANALYSIS CURVE



BRAUN INTERTEC

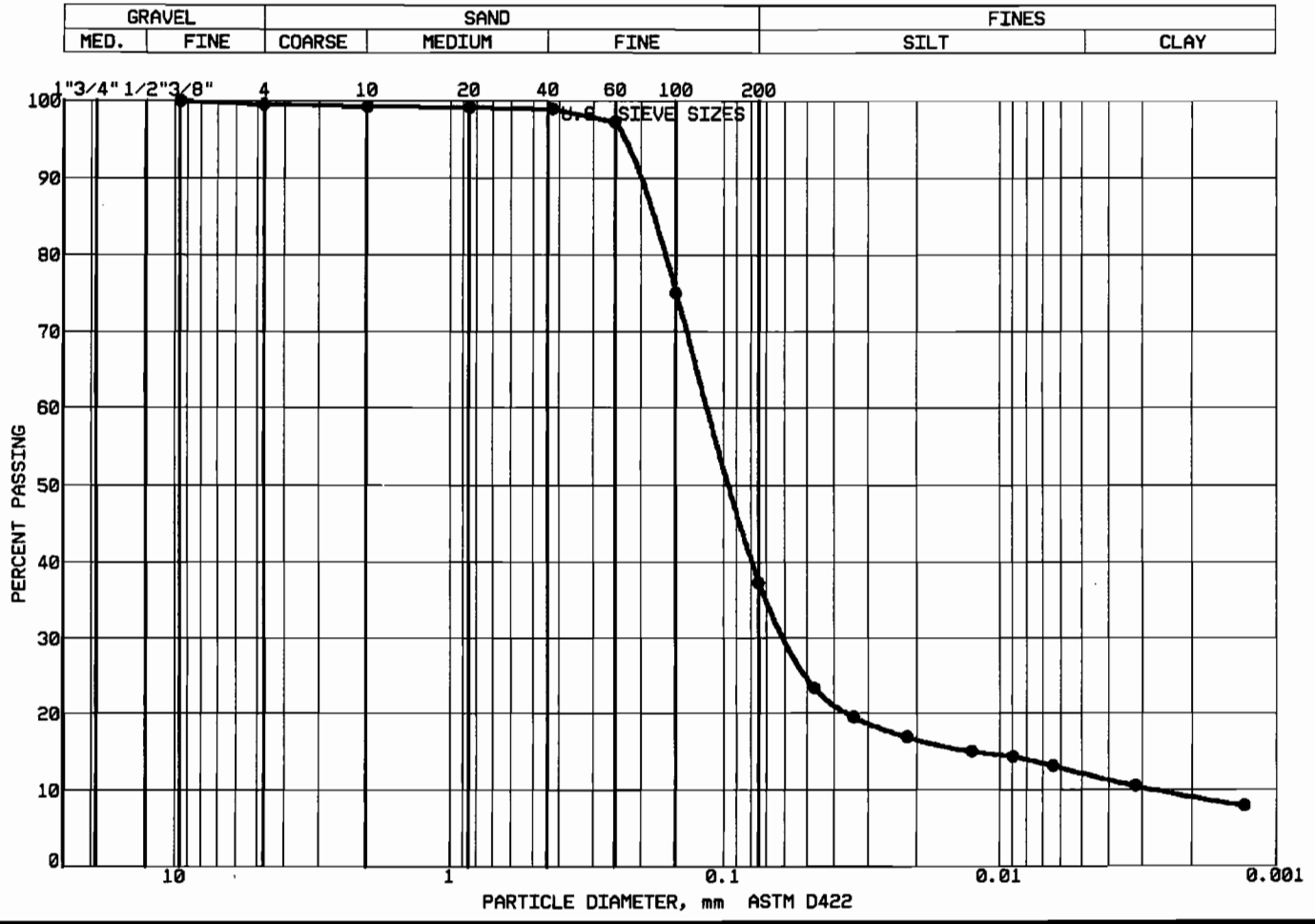
PROJECT: BADX-98-115
Continental Grain Company
Savage, Minnesota
BORING: 2
SAMPLE:
DEPTH:

GRAVEL	0.1 %
SAND	78.5 %
SILT	14.3 %
CLAY	7.1 %

CLASSIFICATION:
SM, Silty Sand, Brown

D60=0.122
D30=0.084
D10=0.035
Cu=
Cc=

GRAIN SIZE - HYDROMETER ANALYSIS CURVE



BRAUN INTERTEC

PROJECT: BADX-98-115
Continental Grain Company
Savage, Minnesota
BORING: 3
SAMPLE:
DEPTH:

GRAVEL	0.4 %
SAND	62.3 %
SILT	25.0 %
CLAY	12.3 %

CLASSIFICATION:
SM, Silty Sand, Brown

D60=0.114
D30=0.059
D10=0.003
Cu=
Cc=

Harvest States Cooperatives
6200 West Highway 13
Savage, Minnesota 55378
phone = 612-894-9480

September 28, 1998

To: Steven D. Tapp
Channel Maintenance Coordinator
CEMVP-CO-MR-Waterways
P.O. Box 397
Fountain City, WI 54629

Re: Maintenance Dredging

Our facility was built in 1981/1982 and loaded our first barge in May of 1982. I have attached our history of maintenance dredging that you have requested. If any additional information is needed please do not hesitate in calling.

Sincerely,

Clinton G. Gergen
Superintendent
H.S.C. Savage Elev.

HARVEST STATES COOPERATIVES
6200 WEST HIGHWAY 13
SAVAGE, MINNESOTA 55378
PHONE = 612-894-9480 FAX= 612-890-9076

BARGE SLIP MAINTENANCE

YEAR	AMOUNT DREDGED	TYPE OF REMOVAL	WERE MATERIAL DEPOSITED	ELEVATION DREDGED TO	PERCENT OF SLIP DREDGED
1982	0				
1983	0				
1984	3000	MECHANICAL	ON SITE	674	30%
1985	0				
1986	0				
1987	0				
1988	12268	HYDRAULIC	CONTINENTAL	674	95%
1989	0				
1990	0				
1991	0				
1992	6328	MECHANICAL	KRAEMER	674	50%
1993	0				
1994	10000	MECHANICAL	KRAEMER	674	50%
1995	6000	MECHANICAL	KRAEMER	674	50%
1996	6000	MECHANICAL	KRAEMER	674	50%
1997	6400	MECHANICAL	KRAEMER	674	50%
1998	6000	MECHANICAL	CONTINENTAL	674	40%
TOTAL	55996	CUBIC YARDS REMOVED FROM SLIP SINCE 1982			

SAVAGE- BARGE LOAD OUTS

YEAR	CONTINENTAL GRAIN	HARVEST STATES	PORT BUNGE	PORT CARGIL		TOTAL
1980	776		493	538		1807
1981	886		770	622		2278
1982	873	521	704	656		2754
1983	1087	1429	1015	890		4421
1984	923	1095	770	718		3506
1985	722	1000	541	644		2907
1986	540	434	421	577		1972
1987	590	771	595	424		2380
1988	603	1362	653	502		3120
1989	591	1468	736	620		3415
1990	816	1888	760	639		4103
1991	776	1327	723	664		3490
1992	841	1363	765	839		3808
1993	322	701	415	232		1670
1994	398	1052	397	426		2273
1995	366	1168	572	358		2464
1996	619	1114	656	598		2987
1997	540	1030	569	344		2483
1998	0	0	0	0		0
1999	0	0	0	0		0
2000	0	0	0	0		0
TOTAL=	12269	17723	11555	10291		51838
AVERAGE	682	1108	642	572		2880

Harvest States Cooperatives
Savage

Volumes IN and OUT since opening.
May 1982 through JUNE 19, 1998

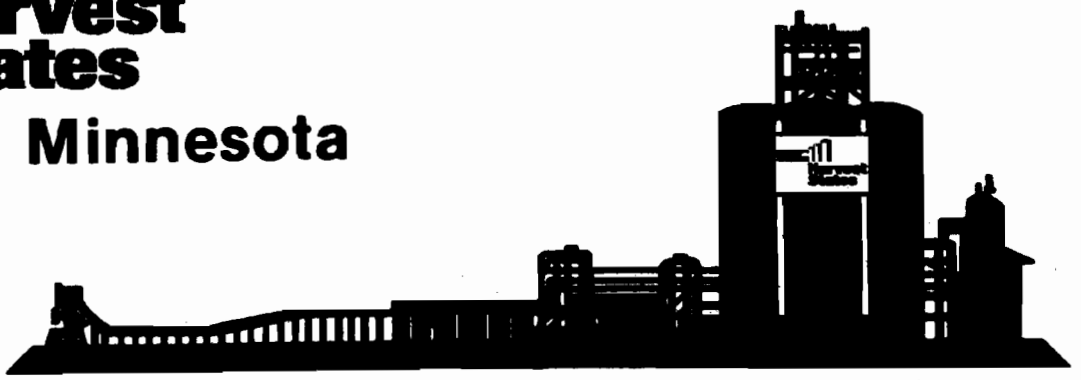
Trucks In =	709,673
Trucks Out =	1,268
Cars In =	105,806
Cars Out =	15,350
Barges Out =	18,130

Bu. Handled = 1 BILLION bushels out

BEST YEAR 1990 = 101 MILLION BUSHEL
WORST YEAR 1986 (EXCLUDING START-UP YEAR 1982) = 32 MILLION BUSHEL

Harvest States

Savage, Minnesota



The Harvest States Savage Terminal elevator was built to give Harvest States producer-members increased access to export markets through the Gulf of Mexico.

History

The land on which the elevator stands was purchased in 1972. Applications for building permits were first sought in that year, but were not granted until 1979. Today, this Harvest States facility holds permits from the City of Savage, the Minnesota Pollution Control Agency, Department of Natural Resources, Department of Weights and Measures, Department of Agriculture, the Department of Transportation and the U.S. Army Corps of Engineers.

In October of 1980, 34,000 truckloads of fill sand were brought in to the 54 acre site, raising the level of the elevator and truck parking areas 12 to 15 feet. Another 19,000 truckloads of dredge material were excavated from the barge slip and taken to a sanitary land fill. Concrete footings were placed in the wetlands during the winter months of 1981 when the frozen wetlands offered workers their only access to the area. The terminal area is approximately 54 acres. Of that area, 40 acres remain a wildlife/wetlands area and only 14 acres are actually used for operations.

Excavation and forming of the elevator and operations building foundations began in March and continued throughout the summer. In September 1981, concrete for the elevator's 15 tanks was slipped continuously in a 96 hour operation. By December the operations building was complete. Savage's first run-through on a limited basis took place May 21, 1982 and the river terminal celebrated 10 years of operation in May of 1992.

McKenzie-Hauge-Gillis of Edina, Minnesota, was engineer and contractor for the project.

Location

The terminal is located at Mile 14.5 on the Minnesota river and is just below the end of the nine foot channel which is maintained by the Corps of Engineers. The navigable channel ends at the Continental Grain facility next door.

Savage was built to capitalize on the savings which come from the economies offered by barge freight. Each barge carries the equivalent of 15 rail cars or 60 semi-trucks. Savage receives grain by truck and rail and loads it onto barges for export. At times, the Savage facility functions as a unit-train loader and loads trains headed for the West Coast or to mills or processors for domestic use.

Truck Receiving Area
The truck receiving area has parking for more than 150 trucks. The terminal has two truck dumps, each with a 75 foot platform scale and each with a 60 ton hydraulic Air-O-Flex dumper that is able to lift trucks to 35 degrees. The pits below the truck dumps hold up to 1500 bushels.

Each of the truck dumps is capable of receiving grain at the rate of 25,000 bushels per hour and can average one truck every 5 minutes.

At heavy use times, operators have the option of using the rail receiving pit to dump hopper bottom trailers which means the terminal can accommodate as many as 50 trucks per hour. Corn and Soybeans and some other small grains are sampled by Garnet Automatic Samplers. Received grain is sent to its destination by the computer which is also located in the truck dump area.

Rail Car Receiving
The Savage Terminal is serviced by the Union Pacific Railroad. The rail yard holds more than 90 railcars, although the switching set up works best with 90 cars or less.

Harvest States owns and operates its own 600 horse power locomotive and can unload 5 to 6 cars per hour or 130 to 140 cars in 24 hours. The rail receiving leg is rated at 25 thousand bushels per hour and the receiving pit can hold up to 3,500 bushels or the contents of one rail car.

When it comes time to load-out by rail, the terminal has a capacity of 30 thousand bushels per hour. The full load-cell platform scale is graduated in 20 pound increments for trucks and 50 pounds for rail cars. Like the truck dump, the rail unloader has automatic sampling equipment. In addition, there is an automatic car moving alarm system and there are hydraulic gate openers.

Barge Loading
The barge dock is 1/4 mile away from the elevator and is serviced by a barge belt rated for 50 thousand bushels per hour. The belt itself is 1480 feet from the center of the head pulley to the center of the tail pulley. It is 48 inches across and is weighted with 7 tons of steel slugs to keep the belt tight. The conveyor is driven by a 300 horse motor and when it is running at capacity, there are three truck loads of grain on the belt or about 2,500 bushels.

The barge dock is tied in to the computer in the truck dump area and can load one barge every two hours of operation. It is not uncommon to load 15 to 16 barges in a 24 hour day. The barge slip holds 6 empty barges and can load all 6 barges without a switch from a harbor tow-boat.

General Information
This elevator is a transfer facility, with limited storage. It has cleaning equipment and all concrete hopper-bottom storage tanks with a capacity of 560 thousand bushels.

The elevator has six grain legs, eight belt conveyors, six drag-conveyors, six dust systems.

Overall control of the facility resides in the Allen-Bradley PLC-3 Computer which starts and stops and monitors all major equipment. (Industrial Electric was the electrical contractor who installed and wired the elevator.)

Savage Statistics 1996
68,101 trucks in
2,230 rail cars in
3,010 railcars out
1,114 barges loaded
70.2 million bushels shipped

Lametti & Sons, Inc.

FAX COVER LETTER

DATE: 10/22

TO: Steve Tapp

COMPANY: Corps FAX: 608 687-8753

FROM: Van Hoven

Number of Pages 4 Including Fax Cover Letter

COMMENTS: Recent Quantities Older Records Are Hard to Get)

92>98 Corp 130,241 -

Equations 133364 -

total Tue 263,605 -

Also Recent '98 metals & PCB tests

16028 Forest Boulevard North P. O. Box 477 Hugo, MN 55038 651/426-1380 Fax: 426-0044

General Contractors

PROJECT LOCATION: _____ CAL'D. BY: _____ DATE: _____

CHK'D. BY: _____ DATE: _____

PROJECT DESCRIPTION: Mind River Dredge History JOB NO: _____

YEAR	CORP	HARVEST STATES	BUNGE	COOTIN'L	CARGILL	INDUSTRY TOTAL
'92	11007 (1)	6328	4414	—	20460 (3)	31202
'93	15944 (1)	—	—	—	—	—0—
'94	—	10,000	—	—	—	10000
'95	30133	6000	7209 (3)	250	—	13459
'96	18632	6000	3150	12124	10718	31992
'97	18800	6400	—	10000	2852 (4)	19252
'98	35725	5200	3790	11313 (2)(4)	7156 (4)	27459

NOTES:

(1) DREDGED BY OTHERS

(2) DREDGED TWICE, SAME YEAR

(3) HYDRAULIC; DISPOSAL ON SITE

(4) MECHANICAL; DISPOSAL ON SITE

LEGEND TECHNICAL SERVICES, INC.

TABLE #2
LEGEND No. 98-2889

L & S INDUSTRIAL & MARINE, INC.

METALS RESULTS - TCLP

Analyte	Blind Dup (mg/L)	Matrix Spike (mg/L)	TCLP Blank (mg/L)	PQL (mg/L)	Date Analyzed	Method Number	Regulatory Limit (mg/L)
Silver	<0.010	<0.010	<0.010	0.010	8/11/98	7760	5.0
Arsenic	<0.020	<0.020	<0.020	0.020	8/10/98	7060	5.0
Barium	0.98	0.71	<0.10	0.10	8/11/98	6010	100
Cadmium	0.017	0.027	<0.010	0.010	8/10/98	7130	1.0
Chromium	<0.050	<0.050	<0.050	0.050	8/11/98	7190	5.0
Mercury	<0.0020	<0.0020	<0.0020	0.0020	8/11/98	7471	0.20
Lead	<0.10	<0.10	<0.10	0.10	8/10/98	7420	5.0
Selenium	<0.020	<0.020	<0.020	0.020	8/10/98	7740	1.0

< = Less than number shown

PQL = Practical quantitation limit

mg/L is equivalent to parts-per-million

LEGEND TECHNICAL SERVICES, INC.

TABLE #1
LEGEND No. 98-2889

L & S INDUSTRIAL & MARINE, INC.

POLYCHLORINATED BIPHENYLS - SOIL

Compound	Bunger (mg/kg)	Harvest Station (mg/kg)	Method Blank (mg/kg)	PQL (mg/kg)
Aroclor 1016	<1.0	<1.0	<1.0	1.0
Aroclor 1221	<1.0	<1.0	<1.0	1.0
Aroclor 1232	<1.0	<1.0	<1.0	1.0
Aroclor 1242	<0.10	<0.10	<0.10	0.10
Aroclor 1248	<0.10	<0.10	<0.10	0.10
Aroclor 1254	<0.10	<0.10	<0.10	0.10
Aroclor 1260	<0.10	<0.10	<0.10	0.10
Surrogate Recoveries (percent)				Limits
2,4,5,6-Tetrachloro-m-xylene	112	135	132	60-150
Decachlorobiphenyl	105	142	148	60-150
Recovery Data				Percent
Spike #1				96.9
Spike #2				118
DATE EXTRACTED:	8/06/98	8/06/98	8/06/98	---
DATE ANALYZED:	8/08/98	8/08/98	8/08/98	---

< = Less than number shown

PQL = Practical quantitation limit

mg/kg is equal to parts-per-million (as received basis)

Appendix D

Correspondence/Coordination

The Final Draft Minnesota River DMMP/Environmental Assessment or Notice of Availability (*) was sent to the following.

Congressional
Sen. Rod Grams (Anoka)
Sen. Paul Wellstone (St. Paul)
Rep. Jim Ramstad (Bloomington)
Office of Rep. Bruce Vento (St. Paul)
Rep. Martin Olav Sabo (Minneapolis)

Federal
Corps of Engineers (Whiting, Palesh, Anderson, Foley, Hendrickson, M. Krumholz, M. Nelson, Wopat, Verstegen, Tapp, D. Krumholz, Machajewski, Peterson, Brossart, Norton, Otto, Aidala)
Environmental Protection Agency (Fennedick, MacMullen)
U.S. Coast Guard (Neubauer)
U.S. Geological Survey (De Laney)
National Park Service (Kyral)
National Resource Conservation Service (De Groot)
U.S. Fish and Wildlife Service (Peterson, Wege, Schultz, Schreiner)

State of Minnesota
Department of Natural Resources (Steve Johnson, Homuth, Weir, Zappetillo, Regenscheid, Balcom, Scot Johnson, Breva, Cleveland)
Minnesota Pollution Control Agency (Mader)
Department of Transportation (Lambert)
State Historic Preservation Office (Gimmestad)
Board of Water and Soil Resource (Snyder)

State of Wisconsin
Department of Natural Resources (Moe, G. Benjamin)
Department of Transportation (Fisher)

State of Iowa
Department of Natural Resources (Szcodronski)

Local
City of Savage, MN (Hutten)
City of Bloomington, MN (Gates)
City of Burnsville, MN (Schultz)

Other Interests

Lower Minnesota River Watershed District (Schwalbe, Neal, Schlampp, Spiotta, Kraemer, Malkerson, Samstad, Bigalke)
Cenex Harvest States (Gergen)
Superior Minerals (Dunning)
Edward Kraemer & Sons, Inc. (Edmunds)
Bunge Corp. (Erz)
Richards Asphalt (Richards)
Cargill (Schaffer)
NSP (Kermes)
L&S Industrial Marine, Inc. (VanHoven)
Upper River Services (Nelson)
MN-WI Boundary Area Commission (Uhlig)
Metropolitan Council, Park Planner (Mauritz)
Upper Mississippi Waterways Association (Genz)

Media/Libraries

Carver County Library
Scott County Library
Dakota County Library
Hennepin County Library
Star Tribune*
Pioneer Press*
Shakopee Valley News*
Savage Pacer*
Southwest Suburban Publishing*
Eden Prairie News*
Thisweek Newspapers*
Metro Network News*
KARE TV (Golden Valley)*
KMSP TV (Eden Prairie)*
KSTP TV (St. Paul)*
KTCA TV/KCTI TV (St. Paul)*
WCCO TV (Minneapolis)*
WTCF TV (Minneapolis)*
KBEM Radio (Minneapolis)*
KDWB Radio (Minneapolis)*
KNOW Radio (St. Paul)*
KSTP AM Radio (St. Paul)*
KSTP FM Radio (St. Paul)*
Minnesota Public Radio (St. Paul)*
WCCO Radio (Minneapolis)*
WMNN Radio (Minneapolis)*

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
ARMY CORPS OF ENGINEERS CENTRE
190 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

2 September 1998

REPLY TO
ATTENTION OF

CEMVP-CO-MR-Waterways

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Minnesota River Dredged Material Management Plan (DMMP).

1. A meeting is scheduled on 10 September 1998 from 3:00 PM to 5:00 PM. It will be held in the Rotary Room at the Shakopee Community Center located at 1255 Fuller Street in Shakopee, MN (see enclosed location map). It is the policy of the Corps of Engineers to develop and implement DMMP's that satisfy the long-term placement needs for Corps navigation projects. Several issues have surfaced recently including lack of capacity at the Kraemer site, lack of adequate placement sites for privately owned terminal dredged material, and complaints from the navigation industry on channel conditions. The Corps is concerned with these issues and believes that a comprehensive DMMP should be developed for the Minnesota River to address all dredging requirements, both private and Federal. The DMMP would only address existing problems and would not revisit areas that have an adequate plan in place. The Corps is taking the lead in the planning process but active participation will be required from the Lower Minnesota River Watershed District, terminal operators, and other interested groups.

2. An agenda for the meeting and an outline and schedule for the study process will be provided at the meeting. If you have any questions, please contact me at (608) 687-3011.

Sincerely,

Steven D. Tapp
Channel Maintenance Coordinator

DISTRIBUTION:
Jim Kephart, President, Watershed District
Eugene A. DePalma, Watershed District
Wallace E. Neal Jr., Watershed District
Edward A. Schlampp, Watershed District
Terry L. Schwalbe, Watershed District
Bruce Malkerson, Attorney, Watershed District
Lawrence E. Samstad, Engineer, Watershed District
Bob Kermes, Northern States Power
Dave Edmunds, Edward Kraemer & Sons, Inc.
Gary Schaeffer, Cargill

DISTRIBUTION (CONT)
Byron Richards, Richards Petroleum
Pete Dunning, Superior Minerals
Dan Erz, Bunge
Clint Gergen, Cenex Harvest States
Dave Holzer, Continental Grain
Jim VanHoven, L&S Industrial Marine, Inc.
Lee Nelson, Upper River Services
City of Savage
City of Burnsville
City of Bloomington
Gary Palesh, Corps of Engineers
Dennis Anderson, Corps of Engineers
Gary Wege/Lynn Lewis, USFWS
Scott Bates, USCG
Joann Kyral, NPS
Steve Johnson, MDNR
Scot Johnson, MDNR
Dick Lambert, MDOT
Judy Mader, MPCA

Minnesota River Dredged Material Management Plan
Initial Planning Meeting
Meeting Attendees - September 10, 1998

Gary Palesh, Corps of Engineers
David Holzer, Continental Grain
Dick Lambert, Minnesota Department of Transportation
Lee Nelson, Upper River Services
Dan Erz, Bunge
Shelly Pederson, City of Bloomington
Debra Bloom, City of Burnsville
Lawrence Samstad, Lower Minnesota River Watershed District (Admin/Engr)
Terry Schwalbe, Lower Minnesota River Watershed District (Admin/Engr)
Bruce Malkerson, Lower Minnesota River Watershed District (Attorney)
Jim Kephart, Lower Minnesota River Watershed District (Admin/Engr)
Dan Krumholz, Corps of Engineers
Dean Peterson, Corps of Engineers
Jim Van Hoven, L&S Industrial and Marine, Inc.
Jim Paris, NSP Black Dog
David Edmunds, Ed Kraemer & Sons
Mark Cleveland, Minnesota Department of Natural Resources (Ft. Snelling Park)
Steve Johnson, Minnesota Department of Natural Resources
Bill Weir, Minnesota Department of Natural Resources
Gary Schaffer, Cargill Inc.
George Psihos, Phihos & Asc./Richards Asphalt
Byron Richards, Richards Asphalt
Peter Dunning, Superior Minerals
Jeff Sandberg, City of Savage
Scott Bates, U.S. Coast Guard
Clinton Gergen, Cenex Harvest States Coop.
Steve Tapp, Corps of Engineers

City of
BURNSVILLE

100 Civic Center Parkway • Burnsville, Minnesota 55337-3817 (612) 895-4400

September 18, 1998

Mr. Steven D. Tapp
U.S. Army Corps of Engineers
Mississippi River Project Office
431 North Shore Drive
Fountain City, WI 54629-0397

RE: Proposed Dredge Material Site – Northern States Power Property (NSP) in Burnsville.

Dear Mr. Tapp:

The City of Burnsville has strong reservations about the Corps of Engineers plans to activate the 7-acre Dredge Material Site located west of the Northern States Power plant in Burnsville (see attached Site Information sheet & map). We understand that the Corps of Engineers is working with the Lower Minnesota River Watershed District to begin actively stockpiling public (and perhaps private) river dredge material on this site in the near future. Our concerns about the site stem from the fact that it was identified back in 1979, and did not take into consideration the following issues:

1) The site is a wetland, and
2) Using the site for river dredge spoils is inconsistent with the U.S. Fish and Wildlife Service plans for the area, which is for preservation as natural habitat as part of the surrounding Wildlife Refuge.

Adding to our concerns, is the fact that the City of Burnsville's goals are to expand the recreational opportunities and improve the aesthetic appeal of the river front area. The proposed dredge material site certainly does not support our efforts, and generally does not seem to be the best use of this important community natural resource.

We understand the Corps of Engineers is beginning the process of developing a comprehensive Dredge Material Management Plan for the Minnesota River. The City of Burnsville requests that the Corps re-evaluate the impacts of using the NSP site as part of that process. Some of the questions we feel need to be addressed are:

- Are there other sites in the area that would avoid or minimize the impact on our wetland resources? This is a question we would ask a private developer and which should be addressed by us, as public agencies.

- How does the project fit in with the surrounding uses and planned uses?
- Could the site be relocated closer to more industrial uses?
- Are the current dredge spoil sites being used to their fullest extent? Could material be moved off those sites to allow for additional capacity?

Finally, should you decide to proceed with the plans for a dredge material site, we request that the landowner follow our normal permit requirements. In this case, applications must be made for an Interim Use Permit for Soil Processing and we will need to address how the requirements of the Wetland Conservation Act will be met.

We look forward to working with you to resolve these issues and pledge our involvement in the process.

Sincerely,

CITY OF BURNSVILLE

Greg Konat
City Manager

Terry Schultz
Director of Natural Resources

GK/TS/ns

Attachments (2)

cc: City Council
Lawrence Samstad – LMRWD
Bob Kermes – NSP
Dave Edmunds – Edward Kraemer & Sons

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
ARMY CORPS OF ENGINEERS CENTRE
190 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

23 October 1998

REPLY TO
ATTENTION OF

CEMVP-CO-MR-Waterways
P.O. Box 397
Fountain City, WI 54629

Mr. Greg Konat and Mr. Terry Schultz
City of Burnsville
100 Civic Center Parkway
Burnsville, MN 55337-3817

Dear Sirs:

This is in response to your letter of September 18, 1998, expressing concern with the proposed use of the NSP placement site located in Burnsville. The Corps of Engineers has been working with the Lower Minnesota River Watershed District to identify placement sites on the Minnesota River for many years. As you may know they are the local sponsor for the Minnesota River 9-foot channel project and as such are responsible for providing sites for placement of material from channel maintenance dredging operations.

It is the Corps position that the existing designated placement sites contained in our Channel Maintenance Management Plan have satisfied state and federal regulatory requirements. An exception is at the NSP site, which has some limited wetland habitat that had not previously been recognized and could result in a mitigation requirement. The federal government has not waived its sovereign immunity related to obtaining local permits for placement of dredged material. Therefore, the Corps will not be seeking local permits. We have asked the Watershed District for their position relative to local jurisdiction over sites they furnish to the Corps. This will be addressed during the current planning process to develop a comprehensive plan for dredged material placement.

Thank you for providing representation from the City of Burnsville at the 10 September 1998 meeting to discuss our current planning study. I understand your concerns and look forward to working together to develop solutions that will minimize impacts to wetland resources, aesthetics, and surrounding and planned land uses. If you have any questions, please contact me at (608) 687-3011.

Sincerely,

Steven D. Tapp
Channel Maintenance Coordinator

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
ARMY CORPS OF ENGINEERS CENTRE
180 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

REPLY TO
ATTENTION OF

October 8, 1998

Construction-Operations
Mississippi River

Mr. Jim Kephart
President, Lower Minnesota River
Watershed District
P.O. Box 69
Jordan, MN 55352

Dear Mr. Kephart:

I would like to thank you for the participation of the Watershed District at our meeting on 10 September 1998 and look forward to working together to develop a dredged material management plan that will benefit all interested parties. As mentioned at the meeting, the Corps' objective is to address existing problems and not to revisit areas with adequate plans. The current plans will be reviewed and recommendations will be made on how to best implement use of them.

The Corps believes that one of the most important issues to resolve is that of agency responsibilities. The Corps is authorized by Congress to maintain a 9-foot channel from the mouth of the Minnesota River to mile 14.7. The channel will be maintained to have a bottom width of 100 feet with increased widths at bends. As part of the local cooperation agreement, the Watershed District is responsible for furnishing placement sites for channel maintenance dredging performed by the Corps or its contractors. Specifically, the Watershed District must "provide without cost to the United States all lands, easements, and rights-of-way necessary for the construction of the project and for subsequent maintenance when and as required." In providing a placement site, floodplain and wetland regulatory compliance must be met to allow Corps to use the site without additional cost including mitigation. The Corps agrees to build any ancillary facilities necessary to allow placement with the Corps equipment.

As a site becomes filled, the Watershed District must furnish a new site or remove material from the existing site to maintain capacity. This is an obligation of the Watershed District. Once material is placed at a site, the Corps has neither ownership control over that material nor responsibility for its removal. The Corps can not relieve the Watershed District of this responsibility, but would like to work in partnership to assure that only those sites that the Corps reasonably expects to use will be acquired. Please provide the Corps with documentation regarding the Watershed District's official position on its responsibilities to fulfill the requirements of the local cooperation agreement.

The current Partnership planning effort will address private industry dredging and placement site requirements. The Watershed District stated that without new legislation, it might not be authorized to allow private industry to use sites acquired for placement of material from Corps channel maintenance operations. Please clarify what authority the Watershed District has regarding this issue and what legislative action would be required if any.

Previous long-term plans completed by the Corps in recent years have used a planning period ending in the year 2025. This corresponds to the time period used during the GREAT Study, completed in 1980. The Corps intends to use the time frame of 1999-2025 for the current planning effort. Please provide comments and suggest an alternate time frame if you have concerns with the one proposed.

Identification of beneficial use demand was a major issue discussed at the meeting. The Corps will take the lead on developing a questionnaire, sending it out, and compiling the data from the responses. We would like help from the Watershed District in developing a list of potential users. The survey should be sent to users as soon as possible to meet the planning schedule provided at the meeting. Please contact Mr. Steve Tapp of my staff at (608) 687-3011 to discuss development of this list.

It is the Corps position that the existing designated placement sites contained in our Channel Maintenance Management Plan have satisfied state and federal regulatory requirements and are approved for use once the real estate agreements have been finalized. An exception is at the NSP site, which has some limited wetland habitat that had not previously been recognized and could result in a mitigation requirement. The federal

government has not waived its sovereign immunity related to obtaining local permits for placement of dredged material. Therefore, the Corps will not be seeking local permits. What is the LMRWD position relative to local jurisdiction over sites that the Watershed District furnishes to the Corps?

Please provide the requested information prior to 31 October 1998. If there are any questions regarding the requested information or the timeliness of the response, please contact Mr. Steve Tapp of my staff at (608) 687-3011.

Sincerely,

for David J. Haumersen, P.E.
Chief, Construction-Operations Division

CF:
Mr. Larry Samstad
Itasca Engineering, Inc.
Marschall Road Business Center
327 Marschall Road South
Shakopee, MN 55379

Mr. Bruce Malkerson
Malkerson Gilliland Martin LLP
Suite 1500, AT&T Tower
901 Marquette Ave.
Minneapolis, MN 55402-1414

MALKERSON GILLILAND MARTIN LLP

SUITE 1500 AT&T TOWER
901 MARQUETTE AVENUE
MINNEAPOLIS, MINNESOTA 55402-3205
TELEPHONE 612-344-1111
FACSIMILE 612-344-1414

Bruce D. Malkerson, Esq.
Direct Dial No. 612-344-1699

October 27, 1998

David J. Haumersen, P.E.
Chief, Construction-Operations Division
Department of the Army, St. Paul District, Corps of Engineers
Army Corps of Engineer Centre
190th Fifth Street East
St. Paul, MN 55101-1638

Re: Lower Minnesota River Watershed District
Our File No. 1447.001

Dear Mr. Haumersen:

The undersigned represents the Lower Minnesota River Watershed District (the "District"). The Managers reviewed your letter of October 8, 1998 at their regularly scheduled monthly meeting on October 21, 1998 and asked me to respond as follows:

1. The Managers are pleased that the Corps is addressing the existing and future problems relating to the dredging of the Minnesota River. The District wishes to cooperate.

2. The District agrees that it is responsible for finding certain dredge material placement sites for channel maintenance performed by the Corps or its contractors on behalf of the Corps. However, the District has always understood from the Corps, that the Corps was exempted from State and local regulations and that there was no need for local or state land use permits relating to any use of the of such placement sites by the Corps. Moreover, a review of the District's files and passed matters has shown that the Corps has agreed to obtain any such permits.

3. The District has never understood that as a site becomes filled that the District must remove the material from the existing site to maintain capacity or furnish a new site. On behalf of the District, I have reviewed many of the old files relating to the nine-foot channel and subsequent activities and I can not find any information to support the Corps' position in that regard. However, there may be such material in the Corp's files or in the authorizing legislation or in the legislative history for such authorizing legislation. I assume the Corp has similar type agreements elsewhere in the Country and perhaps there has been some judicial determination as to the meaning of similar language. In any event, the District wants to cooperate with the Corps in understanding what documentation there may be concerning this matter.

4. The District believes that the State law is not clear as to the District's authority to obtain dredge material sites for the benefit of private industry. Before the District spends money in obtaining such sites for such use by private industry, the District wants to make sure that the statute is amended so that the authority is clear and that there is the appropriate mechanism for the District to charge back to private dredging companies, the cost of such acquisition and management. This statutory amendment does not relate to whatever duty the District has to the Corps pursuant to prior agreements between the parties. The Managers have approved of such legislation and the District and its staff is working with private industry to develop the appropriate legislation and plans to promote its adoption in the 1999 State legislative session. The District would be glad to involve the Corps, as the Corps deems appropriate, and/or keep the Corps informed of the success of same.

5. The District at this time has no problem with your proposed planning, ending in the year 2025.

6. The District appreciates the fact that the Corps will take the lead on developing a questionnaire relating to beneficial use of the material. The District's additional thoughts concerning potential users would be major contractors who buy such material presently from sand and gravel pits. Those contractors are known to the construction industry. A list of same can also be found in the yellow pages. If this material can be mixed at a sand and gravel pit for use in developing other types of minerals for sale or possibly in an asphalt plant, then of course sand and gravel pit operators may also be interested.

7. The District agrees that at this point, at least, the Corps should not waive its sovereign immunity relating to obtaining local permits for placement of dredge material. The District needs to review its files further, but I believe at the time of the acquisition of the NSP site and other sites, that wetlands were not known to exist at that time, or the wetlands were not regulated at that time, or that the District believed that the Corps had obtained the appropriate permits or waivers of any requirement of permits through some sort of agreement which the District understood the Corps had with the State of Minnesota. We would like to discuss this issue further with you before rendering an opinion whether or not the District would require compliance with regulations of local jurisdictions over sites that the District furnishes to the Corps.

As always, the District appreciates the opportunity to work with the Corps on these very important issues. Please have the appropriate person call the undersigned to discuss the above or any questions you have relating to the above.

Very truly yours,

Bruce D. Malkerson

Bruce D. Malkerson

BDM/ad
cc: Board of Managers of the LMRWD
Larry Samstad, District Engineer

20190BDM

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
ARMY CORPS OF ENGINEERS CENTRE
190 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

REPLY TO
ATTENTION OF

20 January 1999

CEMVP-CO-MR-Waterways

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Minnesota River DMMP – Alternative Placement Site Workshop

1. A meeting is scheduled on 16 February 1999 at 10:00 AM. It will be held at the USFWS Minnesota River Refuge Visitor and Education Center (3815 East 80th Street - Bloomington, Minnesota. Directions - The Visitor and Education Center is located just south of I-494. Exit off I-494 onto 34th Avenue and go south toward the Holiday Inn Hotel. Turn east on East 80th Street and proceed to the refuge gate, which is opposite the Airport Hilton Hotel entrance). The purpose of the meeting will be to discuss existing placement sites and to identify alternatives to evaluate.

2. The current plans will be reviewed and recommendations will be made on how to best implement use of them. Please take some time prior to the meeting to come up with a few ideas for alternative placement site locations or alternatives for implementation of existing sites. If you have any questions, please contact me at (608) 687-3011.

Sincerely,

Steven D. Tapp
Channel Maintenance Coordinator

DISTRIBUTION:
Jim Kephart, President, Watershed District
Eugene A. DePalma, Watershed District
Wallace E. Neal Jr., Watershed District
Edward A. Schlampp, Watershed District
Terry L. Schwalbe, Watershed District
Bruce Malkerson, Attorney, Watershed District
Lawrence E. Samstad, Engineer, Watershed District
Bob Kermes, Northern States Power
Dave Edmunds, Edward Kraemer & Sons, Inc.
Gary Schaeffer, Cargill
Byron Richards, Richards Petroleum
Pete Dunning, Superior Minerals
Dan Erz, Bunge

DISTRIBUTION (CONT)
Clint Gergen, Cenex Harvest States
Dave Holzer, Continental Grain
Jim VanHoven, L&S Industrial Marine, Inc.
Lee Nelson, Upper River Services
City of Savage
City of Burnsville
City of Bloomington
Gary Palesh, Corps of Engineers
Dennis Anderson, Corps of Engineers
Gary Wege/Lynn Lewis, USFWS
Scott Bates, USCG
Joann Kyral, NPS
Steve Johnson, MDNR
Scot Johnson, MDNR
Dick Lambert, MDOT
Judy Mader, MPCA

Minnesota River Dredged Material Management Plan
Alternative Placement Site Workshop
Meeting Attendees - February 16, 1999

Steve Tapp, Corps of Engineers
Sissel Johanassen, Corps of Engineers
Jim Van Hoven, L&S Industrial and Marine, Inc.
Terry Schultz, City of Burnsville
Greg Genz, L&S Industrial and Marine, Inc.
Lee Nelson, Upper River Services
Clinton Gergen, Cenex Harvest States Coop.
Gary Schaffer, Cargill Inc.
Scott Bates, U.S. Coast Guard
Jim Gates, City of Bloomington
Peter Dunning, Superior Minerals
Gary Wege, U.S. Fish and Wildlife Service
Gary Palesh, Corps of Engineers
Dennis Anderson, Corps of Engineers
David Edmunds, Ed Kraemer & Sons
Doug Snyder, Board of Water and Soil Resources
Terry Schreiner, U.S. Fish and Wildlife Service (MN Valley NWR)
Scot Johnson, Minnesota Department of Natural Resources
Judy Mader, Minnesota Pollution Control Agency
Bruce Malkerson, Lower Minnesota River Watershed District (Attorney)
Wallace Neal, Lower Minnesota River Watershed District
Ed Schlampp, Lower Minnesota River Watershed District
Lawrence Samstad, Lower Minnesota River Watershed District (Admin/Engr)
Byron Richards, Richards Asphalt

CENCS-CO-MR-Waterways Section 4 May 1999

MEMORANDUM FOR: Minnesota River DMMP Corps Review Team

SUBJECT: Review of Preliminary DMMP Report

1. The attached report is in preliminary draft form. Please review the document and provide comments no later than 20 May 1999. I took my best shot at some of the areas like cultural and environmental resources and I am expecting corrections. One assumption I made was that sites with known wetland impacts would have more negative impacts to fish and wildlife resources. What I'm not sure of is how to rank impacts when comparing marginal quality wetlands (NSP site) and bottomland or upland meadow sites. Feel free to re-write as needed. If necessary, I can provide the electronic file for re-writing sections. I will be revising the drawings and will probably do the individual site plans at a scale of 1"=200'.

2. Once I have received comments, I may be calling for a meeting of the Corps Review Team to address some issues. I want to get a draft report to participants outside the Corps by the end of May, complete the draft plan for RRF and public review by the end of July, and complete the final plan by the end of September. We have a lot of work to do on this before sending it out for RRF review. Let me know if you have any questions.

STEVEN D. TAPP
Channel Maintenance Coordinator

CENCS-CO-MR-Waterways Section 16 July 1999

MEMORANDUM FOR: Minnesota River DMMP Study Participants

SUBJECT: Review of Draft DMMP Report

1. The attached report is in draft form. Please review the document and provide comments no later than 13 August 1999. I know some of the drawings are hard to read, but this should be adequate for the draft review. The final document will be reproduced in color or the drawings will be modified so the identified features and text is easier to read. The individual site plans (Plates 8-16) will be re-drawn to a scale of 1"=200'.

2. A workshop for study participants is scheduled for 9:00 AM on 4 August 1999 at the American Legion in Savage, MN (12375 Princeton Ave., see directions on the back). **NOTE: The meeting location has changed since I spoke to some of the participants.** The purpose of the workshop is to review the draft report and to inspect each of the alternative placement sites. I am planning on at least one to two hours of discussions regarding the contents of the report while at the Legion. We will then formulate a game plan to inspect any sites participants would like to see.

3. Contact me at 608-687-3011 if you have any questions.

STEVEN D. TAPP
Channel Maintenance Coordinator

Minnesota River Dredged Material Management Plan
Workshop to review Draft DMMP
Meeting Attendees - August 4, 1999

Steve Tapp, Corps of Engineers
Gary Palesh, Corps of Engineers
Paul Machajewski, Corps of Engineers
Dan Erz, Bunge
Scot Johnson, Minnesota Department of Natural Resources
Clinton Gergen, Cenex Harvest States Coop.
John Kellas, Waste Management
Gary Schaffer, Cargill Inc.
Deb McDonald, Waste Management
Mike Niewind, Burnsville Landfill
Mark Cleveland, Minnesota Department of Natural Resources (Ft. Snelling Park)
Tom Polasik, Minnesota Department of Natural Resources (Ft. Snelling Park)
Laura Ball, National Park Service (MNRRA)
Wallace Neal, Lower Minnesota River Watershed District
Lawrence Samstad, Lower Minnesota River Watershed District (Admin/Engr)
Dennis Anderson, Corps of Engineers
Greg Genz, L&S Industrial and Marine, Inc.
Terry Schreiner, U.S. Fish and Wildlife Service (MN Valley NWR)
Judy Mader, Minnesota Pollution Control Agency
Steve Johnson, Minnesota Department of Natural Resources
Gary Wege, U.S. Fish and Wildlife Service
Mike Nemes, Cargill Inc.
Steve Brossart, Corps of Engineers
Byron Richards, Richards Asphalt

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Twin Cities Field Office
4101 East 80th Street
Bloomington, Minnesota 55425-1665

AUG 16 1999

Mr. Steven D. Tapp
Channel Maintenance Coordinator
U.S. Army Corps of Engineers
Mississippi River Project Office
P.O. Box 397/431 North Shore Drive
Fountain City, Wisconsin 54629-0397

Dear Mr. Tapp:

This replies to your July 16, 1999, memorandum requesting U.S. Fish and Wildlife Service (Service) comments on the draft Dredged Material Management Plan (DMMP) for the Lower Minnesota River in the Twin Cities Metropolitan Area, Minnesota. We appreciate your effort and that of other District personnel in conducting this planning effort which we hope will provide needed long-term dredged material placement sites on the Lower Minnesota River for both federal and private dredging activities associated with commercial navigation. The following comments are provided for your use in revising the draft report.

1. We support the intent of the District and Lower Minnesota Watershed District to delineate wetlands at sites selected by the DMMP. We also support the application of the Minnesota Wetland Conservation Act in mitigating for unavoidable wetland impacts and offer our assistance in developing suitable mitigation projects.

Alternatives Below I-35 Bridge

1. Based on our joint field review of August 4, 1999, the Below 494 Site is currently mature bottomland forest habitat. The site is undeveloped although it is located adjacent to a stormwater pond. It can also be viewed from the I-494 Bridge which we believe would also detract from the relatively undisturbed setting of the area. As discussed during the field review, we suggest that an alternative be pursued involving lands within the right-of-way of an existing electrical transmission line downstream of the property. Since these lands are already disturbed, development of a disposal site here would minimize habitat impacts compared to the Below 494 Site.

2. We also suggest that the Highbridge Site (2-840.4-RMP) be included in the evaluation of alternatives. We also recommend that Site WD #6 be eliminated as a disposal site given its

location within Fort Snelling State Park and its undisturbed character. We are hopeful that an acceptable plan can be developed for dredge cuts below the I-35 Bridge using one or more of the following placement sites; new site described in Item 1 above, Highbridge Site, Pahl Site.

Alternatives Above I-35 Bridge

1. The Minnesota Valley National Wildlife Refuge is located along the Lower Minnesota River and immediately adjacent to several of the alternative placement sites under consideration. As noted during the field review, we recommend an alternative site be evaluated involving use of property to the east of the Port Richards Site. The property appears to be former cropland, has good road access and access to the River, and may be suitable for both hydraulic and mechanical placement. Use of the site would also avoid use of the Cargill West Site which is immediately adjacent to Refuge lands.

As discussed during the field review, the Cargill West Site was involved in a previous illegal wetland fill activity under jurisdiction of Section 404 of the Clean Water Act. Agency personnel at our field review indicated that the Cargill West Site was designated as a mitigation site for illegal fill activities conducted by a previous landowner several years ago. We support the recommendation that the St. Paul District's Regulatory Functions Branch review their permitting decisions for the previous illegal fill activity and designation of the Cargill West Site as a mitigation area; their findings should be included in the revised draft report. The Service recommends that the Cargill West Site be eliminated as a dredged material placement site if it was designated as a wetland mitigation site.

2. We recommend that the Kramer Site be developed as a long-term placement site in priority to Alternatives 2A and 2D which use the Below Cargill Site. The Kramer Site has been used in the past for material placement and has good road and River access. As such, the area has already been impacted from dredged material placement in comparison to the Below Cargill Site. We would support expansion of the existing Kramer Site to the west if additional capacity is needed beyond current dimensions as per Alternatives 2B, and 2C. At this time, we are hopeful that an acceptable alternative for dredging activities above the I-35 Bridge can be developed using the existing Kramer Site, and/or new placement site described in Item 1 above.

In summary, we are optimistic that acceptable dredged material placement sites can be developed for federal and private dredging activities in support of commercial navigation on the Lower Minnesota River. We appreciate your efforts on this project and look forward to the next round

of planning efforts and revised report. Please contact Mr. Gary Wege at 612/725-3548, ext. 207 or Mr. Terry Schreiner at 612/854-5900 if you have any questions concerning these comments or require additional information.

Sincerely,

Rick Schultz
Refuge Manager
Minnesota Valley National
Wildlife Refuge

for Russ Peterson
Field Supervisor
Twin Cities Field Office

cc: Minnesota Department of Natural Resources, St. Paul, Minnesota
Minnesota Department of Natural Resources, Lake City, Minnesota
Minnesota Pollution Control Agency, St. Paul, Minnesota

United States Department of the Interior

NATIONAL PARK SERVICE
Mississippi National River and Recreation Area
175 Fifth Street East, Suite 418, Box 41
St. Paul, Minnesota 55101-2901

IN REPLY REFER TO:

L7425-2

August 12, 1999

Steven D. Tapp, Channel Maintenance Coordinator
Department of the Army
St. Paul District, Corps of Engineers
CO-MR-Waterways Section, P.O. Box 397
Fountain City, WI 54629

Dear Mr. Tapp:

This letter is in regard to the draft Minnesota River Dredge Material Management Plan (DMMP). As you may know, the area designated by Congress in 1988 as the Mississippi National River and Recreation Area (MNRRA) includes about four miles at the mouth of the Minnesota River. Federal Law 16 U.S.C. § 460zz –3(b) (1) requires the NPS to review any Federal facility or plan within the area to assess its compatibility with the area's Comprehensive Management Plan. We offer the following comments on the draft DMMP.

We would like to suggest the following be included in the section 2.1 on recreation within the project area:

> *The Mississippi National River and Recreation Area, a unit of the National Park Service includes four miles of the Minnesota River and adjacent land upstream from its confluence with the Mississippi. The area overlaps with Fort Snelling State Park from the mouth of the Minnesota River to the I-494 Bridge. The National Park Service does not own land in this portion of the corridor, but works in partnership to protect and enhance the area's natural, cultural, scenic, recreational and economic resources.*

We recognize the need for an approved site for placement of dredge material from the lower Minnesota River below the 35W Bridge. However, we share the concern the Minnesota DNR expressed at the workshop on August 4 at the inclusion of the WD#6 site among the alternatives in the draft DMMP. The site would negatively impact cultural and historical resources and significant floodplain forest habitat. The site is not compatible with cultural, historical and natural resource goals and policies of the MNRRA Comprehensive Management Plan.

The High Bridge Containment Site, identified in the Channel Maintenance Management Plan as an approved disposal site for the Mouth of the Minnesota River Dredge Cut, should be included in the DMMP. We are aware that there are concerns about the continued use of the site, but as a previously used and endorsed site, the site has several advantages. We believe the site should be included in the analysis of the alternatives.

The Below 494 Bridge site contains mature floodplain forest trees. These trees would be difficult to replace through wetland mitigation, a factor that should be considered when compared

with the other alternatives. An alternative site downstream of the 494 Bridge and under the power lines should be investigated further.

Additionally, wetland delineation, cultural resources surveys, and the analysis of floodplain impacts must be completed for all sites under consideration prior to the final determination of a placement site.

Thank you for the opportunity to comment on the draft Minnesota River DMMP. If you have any questions regarding these comments, please contact Laura Ball at 651-290-4160, x235.

Sincerely,

JoAnn M. Kyral
Superintendent

cc: Scot Johnson, MN DNR
Steve Johnson, MN DNR
Mark Cleveland, MN DNR

Minnesota Department of Natural Resources

500 Lafayette Road
St. Paul, Minnesota 55155-40__
DNR Waters
651-296-4802
Fax: 651-296-0445
E-mail: steve.johnson@dnr.state.mn.us

August 13, 1999

Mr. Steve Tapp, Channel Maintenance Coordinator
Department of the Army
St. Paul District, Corps of Engineers
CO-MR-Waterways Section, P.O. Box 397
Fountain City, Wisconsin 54629

Dear Mr. Tapp:

Re: Draft Minnesota River Dredge Material Management Plan (DMMP)

Thank you for the opportunity to comment on the draft Minnesota River DMMP. Our comments are based on DNR staff review of the plan as well as the August 4, 1999 meeting discussions and site visit observations.

General Comments for All Alternative Sites

Wetland Delineation - All sites need a wetland delineation before a true comparison of costs and environmental impacts can be made. We support the suggestion that a Corps wetland expert be used to delineate wetlands at all potential sites. Since most of the potential wetlands are regulated under the Wetland Conservation Act, it is important that the Board of Water and Soil Resources (BWSR) and the Local Government Units be brought into the process as early as possible.

Floodplain Impacts - We were encouraged to hear that the Corps has already begun an analysis of floodplain impacts associated with potential placement sites. We are eager to review your findings. Our own preliminary findings show that most of the possible containment sites are within the designated floodway. The floodway is the part of the floodplain necessary to convey the 100 year (1% chance) flood event. Federal and State law require that no fill or structure be placed in a designated floodway that will significantly raise the 100 year flood stage or increase flood damage potential.

Analyses of floodplain impacts have been completed for the Kraemer, NSP, Highway 77 and High Bridge sites; it would appear the analysis of the Highway 77 site may have been of the site under the bridge rather than the Pahl site currently being considered (the two sites are adjacent, but are not the same site).

Sediment Sampling and Testing - We are pleased to hear that the Corps has collected samples for contaminant testing and look forward to reviewing the laboratory results.

Above 35W Containment Sites

Kraemer Site - This is the site endorsed by the Mississippi River Resources Forum (MRRF) in the Channel Maintenance Management Plan (CMMP) and it has been used in the past. It appears that there is enough interest by Waste Management and the Lower Minnesota River Watershed District to get the site unloaded and ready for use. Waste Management has an immediate use for the material and the Watershed District has an immediate need to supply the Corps with a placement site. It is our understanding that Kraemer has offered to sell the material to both Waste Management and the Watershed District. In our opinion it should be a simple matter for Waste Management and the Watershed District to pool their financial resources to get the job done. Lack of cooperation is not an acceptable reason to destroy additional wetlands and wetland restoration costs are high.

The Corps 404 Regulatory Program and the Wetland Conservation Act require sequencing - avoid, minimize and then mitigation (compensation) - prior to the destruction of wetlands. Unloading the Kraemer site would avoid additional wetland destruction and this option must be exhausted before moving on to minimization and mitigation at the Cargill West site. Use of the Kraemer road instead of constructing a new road through wetlands would avoid additional wetland destruction. Every effort must be made to gain access to the Kraemer site and its material - even if it means condemnation by eminent domain by the Corps or Watershed District.

Below 35W Alternative Containment Sites

High Bridge Containment Site (2-840.4 RMP) - The CMMP identifies the High Bridge Site on the Mississippi River as the approved disposal site for the Mouth of the Minnesota River Dredge Cut. While we are aware that the Corps has some concerns with the continued use of this site (we raised those same concerns when the CMMP was being developed), it is our position that the High Bridge containment site must be included in the analysis of Below 35W alternatives. Because it is an existing containment site that has already been disturbed, already endorsed by the MRRF and successfully used for years, we would expect it to rank high overall when compared to the other alternatives.

WD#6 (MN-0.7-RMP) - This site is unacceptable because it would negatively impact cultural and historical resources, significant floodplain forest habitat and is not compatible

with Fort Snelling State Park natural resource management goals. At the August 4, 1999 meeting, DNR staff explained in detail our concerns. A Dredge Material Management Plan that includes this site as a preferred alternative will not be endorsed by Minnesota at the River Resources Forum.

Below 494 Bridge - This site contains mature floodplain forest trees which are very hard to replace through wetland mitigation. This site would likely not be a first choice for when compared to other alternatives.

New Site Downstream of 494 Bridge and under the Power Lines - We think this site has some promise and believe it should be investigated further.

Pahl (MN-7.2-RMP) - We own this site and think it has strong potential, although—as noted above—it needs both floodplain and wetland analyses.

Interim Opportunity

With the Kraemer Site full and the DMMP incomplete, there is no readily available location for the Corps to place Minnesota River dredge material within the Minnesota River Valley. With limited capacity at the High Bridge Site and potentially large volumes of material needing to be dredged, we suggest that the Corps consider barging Minnesota River dredge material to containment sites in Pools 2, 3 or 4 where containment site berms have pure sand side slopes. In our estimation, the Minnesota River dredge material could be incorporated into the side slopes as topsoil to promote revegetation at the containment sites. While it is unusual to consider transporting material such distances, we believe such a one-time action would greatly improve revegetation of those sterile sand side slopes.

We recognize the complexity of developing a DMMP that is acceptable to all involved parties. It is apparent that federal and state laws place considerable constraints on the planning process and will greatly limit the number of viable alternatives. In our opinion, the implementation of an acceptable plan will likely require considerable effort and significant financial support from the Corps, Watershed District and shippers. We look forward to our future participation and review of the DMMP.

Very truly yours,

Steve Johnson
River Management Supervisor

cc. Bill Weir, Region 6 Parks
Mark Cleveland, Fort Snelling State Park
Tom Polasik, Region 6 Parks
Scot Johnson, Lake City
Gary Wege, USFWS, 4101 East 80th St., Bloomington, MN 55425-1665
Judy Mader, MPCA
Dale Homuth, Region 6 Waters
Ceil Strauss, Region 6 Waters
Pat Lynch, Region 6 Waters
Jim Cooper, Region 5 Waters
Dave Radford, Parks
Kathleen Wallace, Region 6 Administrator
John Linc Stine, Waters
Larry Samstad, Lower Minnesota River Watershed District, Itasca Engineering, 327 Marschall Road S., Suite 200, Shakopee, MN 55379

Minnesota Pollution Control Agency

August 17, 1999

Mr. Steven D. Tapp
St. Paul District, U.S. Army Corps of Engineers
Mississippi River Project Office
431 North Shore Drive
P.O. Box 397
Fountain City, Wisconsin 54629-0397

RE: Comments on the Draft Dredged Material Management Plan for the Minnesota River

Dear Mr. Tapp:

Thank you for the opportunity to review the St. Paul District of the U.S. Army Corps of Engineers' (COE) Draft Dredged Material Management Plan (Draft Plan and DMMP) for the Minnesota River. The Minnesota Pollution Control Agency (MPCA) has reviewed the Draft Plan and provides the comments below.

The MPCA looks forward to the consolidation of the disposal activities for all of the dredging currently taking place on the Minnesota River. Hopefully, such a consolidation will result in fewer disposal sites being used, and will be located where more of the material can be re-used beneficially.

The following are the MPCA's thoughts and comments for the various sites being considered:

Continental Grain Field (MN-14.8-RMP)

This site may not be available as expected due to a mitigation agreement between Continental Grain and the U.S. Fish and Wildlife Service. The COE should provide the results of their inquiry into this matter in the final DMMP.

520 Lafayette Rd. N.; St. Paul, MN 55155-4194; (651) 296-6300 (Voice); (651) 282-5332 (TTY)
Regional Offices: Duluth • Brainerd • Detroit Lakes • Marshall • Rochester

Port Richards (MN-14.4-RMP)

Richards Asphalt sought a permit for dredged material disposal at this site in 1997. Although the MPCA did *not* issue a final State Disposal System permit to Richards Asphalt for dredged material disposal at this site, a Draft permit was put on Public Notice. A disposal site design was developed in consultation with Larry Samstad of the Lower Minnesota River Watershed District (LMRWD), and Pat Lynch of the Minnesota Department of Natural Resources (MN DNR), during a site visit in late May 1997, in conversations shortly after that visit, and from comments received regarding the Draft Permit; the MPCA prefers that design. (The written description and maps that would have been included in the final permit are enclosed). Another option to completely filling in the barge slip would be to mitigate for wetlands lost elsewhere, through dredged material disposal, by creating a wetland here.

Cargill (MN-13.5-RMP)

The MPCA is concerned about the loss of wetlands and their absorptive capacity in the floodplain if this site is used. The MPCA prefers the area between this site and the River even though that location may be in the floodway.

Below Cargill (MN-12.4-RMP)

While the MPCA is pleased that an immediate need for the dredged material exists and a portion of the site is adjacent to the Kraemer site, the MPCA prefers access through the Kraemer site instead of constructing a new access road.

Kraemer (MN-12.1-RMP)

Since this area has been disturbed by past disposal practices, the MPCA favors the continued disposal at this location if financially acceptable material removal agreements can be crafted with the owner.

NSP (MN-10.1-RMP)

Northern States Power - Black Dog Generating Plant had used a site just upstream of the Interstate 35 bridge for disposal of material from their plant intake (MPCA Permit Number MN0053520). If the COE or the LMRWD has already looked into using this site, that information should be included in the final DMMP. If they have not, then perhaps they should consider this site, as it has been disturbed in the past and appears to be located where it would not have to be screened. Also, if this site could be used, it would be closer to the barge slips whose material would be placed here.

Pahl (MN-7.2-RMP)

The MPCA does not have significant comments about this site at this time.

Below 494 (MN-4.2-LMP)

The MPCA favors investigating other areas within Fort Snelling State Park to take the place of this proposed site.

WD#6 (MN-0.7-RMP)

Although the greatest concern associated with this site -- the potential for impacts to cultural resources adjacent to this site -- are outside of the MPCA's authority. The MPCA would support dropping this site from further consideration.

Highbridge site (2-840.4-RMP)

This site was not included in the Draft Plan, but was discussed briefly at the meeting held on August 4, 1999, in Savage. The MPCA agrees with Steve Johnson of the MN DNR, that this site should be included in the DMMP until another site of similar size, access, and location is acquired/provided and approved.

The MPCA would likely bar the permanent placement of dredged material in the Minnesota River's floodway. The MPCA would consider a requirement that dredged material placed in the floodway be removed after it has de-watered or within 18 months of placement, whichever came first. Such removal would extend the "life" of all of the disposal sites.

Miscellaneous Comments

There appears to be an error in the paragraph on page two of the Draft Plan, regarding the Clean Water Act. The MPCA believes that it would have been more correct to state that the existing disposal sites are included in a permit to the COE.

State statutes can be accessed on the Internet at *http//www.leg.state.mn.us/leg/statutes.htm,* and all of the state Rules pertaining to the MPCA can be accessed from the MPCA's home page, at *http//www.pca.state.mn.us*.

If you have any questions regarding this matter, please feel free to contact me either through the MPCA's toll-free number (800) 657-3864 or directly at (651) 296-7315.

Sincerely,

Judy Mader

Judy Mader
Community & Area Wide Programs
South District/Rochester Subdistrict

JM:dms

Enclosures

cc: Gary Wege, Twin Cities Field Office, U.S. Fish and Wildlife Service, Bloomington
Scot Johnson, Division of Waters, MDNR, Lake City
Steve Johnson, MDNR, St. Paul
Dennis Gimmestad, State Historic Preservation Office, MN Historical Society, St. Paul
Lawrence Samstad, Lower Minnesota River Watershed District, Shakopee
Mike Nemes, Cargill West, Savage
Clinton Gergen, Cenex Harvest States Cooperative, Savage
Dan Erz, Bunge Corporation, Savage
Byron Richards, Richards Asphalt, Savage
Gary Schaffer, Cargill, Inc., Savage
Jim Bodensteiner, Northern States Power Company, Minneapolis
Greg Genz, L & S Industrial and Marine, Inc., St. Paul

City of
BURNSVILLE
100 Civic Center Parkway • Burnsville, Minnesota 55337-3817 (612) 895-4400

August 24, 1999

Mr. Steven D. Tapp
U.S. Army Corps of Engineers
Mississippi River Project Office
431 North Shore Drive
Fountain City, WI 54629-0397

RE: Comments regarding the Minnesota River – Dredge Material Management Plan.

Dear Mr. Tapp:

Please accept my apology for not getting comments to you earlier on the MN River Dredge Material Management Plan (DDMP). After contacting your offices, I understand you are still interested in receiving comments at this time.

I would like to begin by thanking you and the Corps of Engineers for your willingness to explore additional options and re-evaluate the existing dredge material sites. The City of Burnsville recognizes the importance of maintaining the 9-foot navigational channel on the MN River, and appreciates the challenges you have in pulling together a plan that will meet everyone's needs.

Speaking for staff at the City of Burnsville, we are in agreement with the priorities established in the Plan. As the DMMP points out, there appears to be much better alternatives than the NSP (MN 10.1-RMP) site for dredge material disposal. The NSP site is a significant distance from the "cut" areas noted in the DMMP, and in many cases exceeds the "reasonable" distance of four miles identified in the Plan (page 22). Further, if the NSP site were rated independently, we believe it would receive additional negative ratings for, "impacts on recreation", "aesthetics", and "social impact". Using the Below Cargill (MN 12.4-RMP) and "Kraemer" (MN 12.1-RMP) sites make much more sense for the needs of our community, as well as, the needs of the various agencies. We would encourage you to remove the NSP site from consideration and shift any potential need to other locations identified in the Plan. If the Corps of Engineers still believes an emergency site is needed in that general area, we would encourage further exploration of the NSP Loading Dock site.

Finally, the City of Burnsville believes that all communities in this section of the MN River should share responsibility for helping to maintain the 9-foot channel. We encourage you to evaluate the Plan from this perspective as well. We are willing to do our part, and pledge staff's support to assist you in any we can in pursuing the Cargill and Kraemer sites.

Sincerely,

City of Burnsville

Terry Schultz
Director of Natural Resources

C: Lawrence Samstad – LMRWD
Bob Kermes – NSP
Dave Edmunds – Edward Kraemer & Sons
Gary Schaeffer – Cargill
Greg Konat – City Manager

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
ARMY CORPS OF ENGINEERS CENTRE
190 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

REPLY TO
ATTENTION OF

AUG 23 1999

Constructions-Operations
Mississippi River Project Office

Mr. Terry L. Schwalbe
President, Lower Minnesota River
Watershed District
Wayzata City Hall
600 East Rice Street
Wayzata, Minnesota 55391

Dear Mr. Schwalbe:

This letter serves two purposes. It is written to inform the Lower Minnesota River Watershed District (Watershed District) that dredging is required on the Minnesota River in 1999 and that there is, again, an issue regarding a lack of suitable placement sites to accommodate the dredged material. It is also written to respond to a letter from Bruce D. Malkerson on behalf of the Watershed District dated 27 October 1998.

As you are aware, the Corps is developing a Dredged Material Management Plan (DMMP) to address dredging and dredged material placement requirements on the Minnesota River. This DMMP has not been completed but several meetings have been held and a draft report is currently being reviewed. The DMMP will designate a plan of action for the Watershed District to use for implementation of long-term dredged material placement sites. In the interim, the Watershed District must continue to provide acceptable sites.

The Corps has identified the need to dredge approximately 20,000 cubic yards from the Peterson's Bar and Above Savage Railroad Bridge dredge cuts. The dredging quantity could be significantly higher now because the estimated quantity of 20,000 cubic yards was determined from preliminary surveys completed in early June. The Corps requests that the Watershed District provide a response to the undersigned stating where dredged materials may be placed during the 1999 navigation season. The Corps is aware that the Watershed District has real estate agreements to use the Cargill, Kraemer, and NSP sites. The Corps of Engineers, the U.S. Fish and Wildlife Service, the Minnesota Department of Natural Resources, and the Minnesota Pollution Control Agency have previously approved these sites for use. Any other site(s) selected by the Watershed District will require further coordination with those agencies.

The NSP and Cargill sites contain wetland areas. The Watershed District has informally notified the Corps that those sites should not be used until a decision is made regarding mitigation requirements. The only other site identified is the Kraemer site. The Kraemer site has been successfully used many times. However, the

Kraemer site is full at this time and is therefore unavailable for use. At a recent meeting, the Corps learned that the operator of the Burnsville Sanitary Landfill (Waste Management Company) is interested in receiving all of the material currently at the Kraemer site. The Corps suggests that the Watershed District negotiate with Waste Management Company, or any other potentially interested user, and Ed. Kraemer & Sons to have the material removed from the site, thus restoring capacity for dredged material placement operations in 1999. The Corps will defer dredging until such time as the Watershed District provides an acceptable placement site.

The following comments are offered in response to the letter from Bruce D. Malkerson on behalf of the Watershed District dated 27 October 1998:

The Corps does maintain it's sovereign immunity from local regulations. If the Watershed District provides real estate in compliance with the Local Cooperative Agreement, we would not require you to acquire nor would we acquire local permits such as local zoning for placement of dredged material. The Corps is required by the Clean Water Act to comply with State regulatory requirements when depositing material below the ordinary high water mark or discharging an effluent. State permits are not required for the actual act of dredging, for placement of material above the ordinary high water mark, or for operations with no effluent discharge. The Corps does have agreements with the Minnesota Department of Natural Resources and the Minnesota Pollution Control Agency concerning regulatory requirements and procedures.

The Watershed District has a continuing obligation to provide dredged material placement sites for the life of the project. Providing the initial real estate for dredged material placement does not relieve the Watershed District from the continuing need when individual site capacity is exhausted. Therefore, the Watershed District has an interest in unloading placement sites as it impacts the need for additional sites. The basis of this position rests with the Cooperative Agreement signed by the Watershed District. I have attached a legal opinion from Chief Counsel (E. Manning Seltzer) from the Department of the Army, Office of the Chief of Engineers, Washington, D.C. dated 18 March 1977. This document addresses the requirements of local cooperation for the Minnesota River Navigation Project.

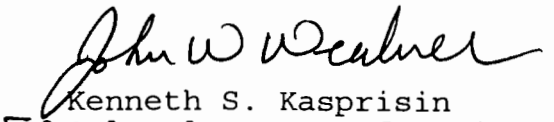
The language in the Local Cooperation Resolution dated 22 August 1962 is "Provide without cost to the United States all lands, easements, and rights-of-way necessary for the construction of the project and for subsequent maintenance when and as required." If the Watershed District acquires a wetland site, it is not a usable site nor have they met the local assurance until any use conditions are met. To make the site suitable, the Watershed District must provide any mitigation requirements or other requirements such as access. The Corps has historically agreed that the containment facilities are controlled by the type of equipment deployed at the discretion of the

Corps. The Corps controls the effluent quality and we will therefore construct necessary dikes and acquire 401 water quality certification. Similarly, the Watershed District controls the real estate acquisition and related land use conditions in acquiring the land and is liable for meeting the land use conditions such as mitigation in providing a useable site.

The Corps is aware that the Watershed District was interested in initiating legislation to insure that the State Statute is amended to clearly provide authority for the Watershed District to obtain dredged material placement sites for the benefit of private industry. The legislation would also include an appropriate mechanism for the Watershed District to charge private industry to recover costs for acquisition and management of those sites. Please provide the Watershed District's current position regarding this issue.

The Corps is encouraged by the progress made so far on the DMMP and intends to have that plan completed by the end of the calendar year. We recognize that there are still several issues that need to be resolved and we appreciate the input to date from the Watershed District. If there are any questions regarding the information provided, please contact Mr. Steve Tapp of my staff at (608) 687-3011.

Sincerely,



Kenneth S. Kasprisin
For Colonel, Corps of Engineers
District Engineer

Enclosure

CF:
Mr. Wallace E. Neal, Jr.
8901 Lyndale Ave South, Suite 202
Bloomington, Minnesota 55420

Mr. Edward A. Schlampp
4601 Excelsior Blvd, Suite 309
St. Louis Park, Minnesota 55416

Ms. Glenda Spiotta
1164 Merrifield Court
Shakopee, Minnesota 55379

Mr. Bruce Malkerson
Malkerson Gilliland Martin LLP
Suite 1500, AT&T Tower
901 Marquette Ave.
Minneapolis, Minnesota 55402-1414

Mr. Larry Samstad
Itasca Engineering, Inc.
327 Marschall Road South
Shakopee, Minnesota 55379

Mr. Lee Nelson
Upper River Services
40 State Street
St. Paul, Minnesota 55107

DAEN-CCC (27 Jan 77) 1st Ind
SUBJECT: Requirements of Local Cooperation; Minnesota River Navigation Project

DA, Office of the Chief of Engineers, Washington, D. C., 20314
18 March 1977

~~THRU: Division Engineer, North Central, ATTN: NCDOC~~ C.E. 22 Mar 1977

TO: District Engineer, St. Paul, ATTN: NCSOC

1. The Minnesota River Navigation Project was authorized by the River and Harbor Act of 1958 (P.L. 85-500) in accordance with Senate Document 144, 84th Congress, 2nd Session. The project consists of a 9 foot navigation channel on the Minnesota River extending from its mouth to Mile 14.7.

2. The Senate Document sets forth the requirements of local cooperation, including a provision that the local sponsor furnish "without cost to the United States all lands, easements, and rights-of-way necessary for the construction of the project and for subsequent maintenance when and as required." (emphasis added) Pursuant thereto, the Board of Managers of the Lower Minnesota River Watershed District passed, in 1962, a Resolution of Assurances of Local Cooperation whereby the Board agreed to provide all rights-of-way necessary for maintenance.

3. Since the authorization of the Navigation Project, requirements of state, local and Federal Governments concerning water quality, floodplain regulation, and fish and wildlife preservation have affected the placement of dredge disposal sites. Accordingly, local sponsors are now required to provide lands, easements, etc., that considerably exceed the requirements in effect at the time the local assurances were given, and additional expenditures in connection with disposal of dredged material will now be incurred in excess of those originally contemplated. The increased costs relate to such items as containment dikes, top soiling, seeding, double handling of dredged material, barging of dredged material, excess plant capability costs, site preparation, etc.

4. Senate Document 144 sets forth very little guidance in these matters. Paragraph 39 therein provides: "When the project is in operation it may be reasonably expected that some maintenance dredging would be required. It is not possible at this stage to determine where such maintenance would be necessary, but provision for acquiring necessary spoil disposal areas has been made a part of the local cooperation and would be acquired as needed." Paragraph 42 of the Senate Document, while setting forth estimates of first costs and annual charges, does not contain any figures for non-Federal annual charges relating to the provision of additional lands for disposal sites. Paragraph 50, which sets forth the requirements of local cooperation, merely states that these are "in accordance with the normal requirements of local cooperation for navigation projects of this nature."

5. We note with interest that paragraph 52 of the Senate Document specifically referred to the recommendations of the United States Fish and Wildlife Service, which were: "(1) Spoil be deposited away from wildlife habitat wherever possible. (2) Spoil be deposited so that it does not blanket marsh areas or inflow and outflow channels between the river and bordering lakes and marshes." The complete report of the Fish and Wildlife Service was attached to the Senate Document as an appendix. It would appear reasonable, therefore, for the local sponsors to have been aware, at the time of giving assurances, of the fact that environmental considerations would constitute a factor in selecting disposal areas.

6. Finally, we observe that paragraph 51 of the Senate Document provides that: "Allocation of costs.-In accordance with the established general policy on navigation projects of this nature, local interests should furnish all lands and rights-of-way necessary for construction of the project and should make the necessary relocations of roads at their expense. All other costs (except those to be borne by local interests in accordance with existing law and maintenance of fender protection at the railroad bridge at mile 1.6) would be borne by the Federal Government." (emphasis added) While stating that the Federal Government is to bear all other costs, we do not find that this language covers the additional costs now being encountered by the local sponsors. "All other costs", we find, refers to the costs of building the navigation project itself.

7. Based upon the requirements of Senate Document 144 and the resolution of assurances from the local sponsors, we find that even if the local sponsor is correct in claiming that environmental requirements of state, local, and Federal Governments have resulted in unanticipated additional costs for land acquisition expenditures, we find no legal basis upon which the United States could bear the responsibility of these additional expenses without specific legislative authority. As ER 405-2-680, dated 16 June 1967, which is a Real Estate regulation concerning local cooperation projects, states, the requirements of local assurance vary, and it is necessary to refer to the authorizing legislation and the project document. Finally, we do not find that paragraph 11-6 of EP 1165-2-1, dated 10 January 1975 is controlling in this situation. The EP states "In planning all new navigation projects the present policy is to require local interests to provide without cost to the United States all suitable areas required for initial and subsequent disposal of dredged material and all necessary retaining dikes, bulkheads and embankments thereof, or the cost of such retaining works". This policy is prospective in viewpoint, and is to be used in the formulation of requirements of local cooperation in the authorizing legislations and appropriate House and Senate Documents; it cannot be relied upon retroactively to broaden prior requirements of local cooperation on already existing projects, without legislation. We do find, however, that the expenses of necessary

retaining works, such as dikes, bulkheads, and embankment can be assumed by the Federal Government, since these are not part of the requirement of providing all lands, easements and rights-of-way, but rather are essential features of the dredging required to maintain the channel, which is to be performed by the United States.

FOR THE CHIEF OF ENGINEERS:

E. MANNING SELTZER
Chief Counsel

MEETING NOTES: 31 August 1999

SUBJECT: Lower Minnesota River Watershed District (WD)

Background – We are currently working with the WD to complete a DMMP for the MN River. The Corps sent a letter to the WD dated 23 August 1999. That letter informed the WD of the requirement to dredge ~ 20,000 cubic yards from the main channel and requested the WD identify a placement site. The letter also responded to a 27 October 1999 letter from the WD regarding their position on compliance with local regulations, responsibility for removal of material from placement sites, wetland mitigation, and private industry use of sites furnished by the WD.

Attendance – Steve Tapp, Dan Krumholz, Ed Bankston (Corps), Bruce Malkerson, and Larry Samstad (WD)

Notes – The meeting was held at 1000 on 31 August 1999 at the MDNR office located at 500 LaFayette Rd., St. Paul. We provided a handout containing a table listing each placement site under consideration. The table also indicated whether the site had high, medium, low, or no potential for implementation based on comments from the Corps, NPS, FWS, MDNR, and MPCA.

Each of the following sites was discussed.

Cargill West (Low Potential): This site has been identified for mitigation for past practices of Continental Grain. The WD could pursue this site if they mitigate for the 3 acres of wetland lost from past practices.

Port Richards (Low Potential): This site is likely unacceptable because the proposal from Port Richards was to fill it one time and develop the area. That is not conducive to long-term needs.

Cargill East (Medium/High Potential): The existing site is located out of the floodway and has been agreed upon by resource agencies. However, resource agencies have requested evaluation of a site closer to the river, which would reduce wetland impacts. The WD will meet with Cargill to discuss an agreement for use of the site.

Below Cargill (High Potential): The WD will meet with Waste Management and Cargill to discuss acquisition. They will look at access through the Kraemer site and through development of a new road across a wetland area.

Kraemer (High Potential): The WD has identified this site for us to use during the 1999 navigation season. They contacted Dave Edmunds and he is committed to have the material removed. He will have it moved on weekends so he doesn't tie up his trucks during the week. Dave wants to cooperate and they have always worked well with the Corps. A material broker (Dale Eastman?) is looking for sources in the area with

demands for material. At this time, the landfill is going to take ~5,000 cubic yards and Dale has found a source to take ~3,000 cubic yards. We need capacity for 20-30,000 cubic yards, which means Dave, will haul ~12-22,000 cubic yards away and stockpile on his property somewhere. We would like to use the site as soon as we can get our contractor going (CM2). The WD will meet with Dave to begin discussing a long-term agreement again. ***Action:*** *I will call L&S to see how soon they can be ready to begin dredging, then call Dave to see how long it will take to remove material.*

NSP (Low Potential): This site has a low potential based on comments from other agencies. The Corps would not require it as long as an adequate site is developed near the Peterson's Bar cut.

Pahl (High Potential): As soon as the Corps finishes the cultural resources coordination, the WD will complete negotiations with the MDNR for use of the site. The MDNR said the max. term will be 10 years.

Below 494 (Low Potential): Resource agencies do not like the site because it would impact mature bottomland forest. They would like the DMMP to include evaluation of the Powerline site located downstream.

WD#6 (No Potential): Resource agencies will not endorse.

Highbridge (No Potential): The City of St. Paul provides this site for placement of material from dredging at the St. Paul SBH. The city has a hard enough time making sure the site is available for it's own needs. It is unlikely that they would agree to placement of MN River material. The site has been reduced in size from four acres to less than two acres.

Powerline (Medium Potential): Resource agencies like this site rather than the Below 494 site because of reduced natural resource impacts. ***Action:*** *I will contact the landowner (US Air Force) regarding use of the site.*

Other sites in Pool 2, 3, and 4 (No Potential): Economically unfeasible.

Other issues.

Compliance with local regulations: The Corps will not pursue nor will we require the WD to acquire local agreements. They may take an approach similar to the Corps when we file for permits out of comity. ***Action:*** *Send copies of agreements with MDNR and MPCA to WD.*

Removal of material from placement sites: The WD is still not convinced that they are responsible for removal of material once a site is full. ***Action:*** *Ed Bankston will send the documents referenced in the 1977 letter from HQ to the WD.* The WD will review the documentation and finalize their position.

Wetland Mitigation: The WD is not sure of their position. The Board of Water and Soil Resources (BOWSR) told the WD that the local government unit (LGU) has the ultimate decision on what will be required for mitigation. It becomes a question of policy and public relations. Bruce indicated that they might take a position that since they are not the agency filling the wetland, they are not responsible for mitigation. ***Action:*** *The Corps will complete wetland delineation of several sites by the end of September.*

Private industry use of WD sites: The WD will begin discussions again with industry on legislative changes.

Steven D. Tapp
Channel Maintenance Coordinator

Mnriverend.doc PM-E

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
ARMY CORPS OF ENGINEERS CENTRE
190 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

REPLY TO
ATTENTION OF

April 7, 2000

Environmental and Economic Analysis Branch
Planning, Programs and Project Management Division

Mr. Russell Peterson
U.S. Fish and Wildlife Service
Twin Cities Field Office
4101 East 80th Street
Bloomington, Minnesota 55420

Dear Mr. Peterson:

In accordance with the Endangered Species Act, we wish to obtain your comments on the potential impacts on federally designated threatened and endangered species from the proposed Minnesota River Channel Maintenance Management Plan.

The authorization for the 9-foot navigation channel on the Minnesota River requires the non-Federal sponsor (Lower Minnesota River Watershed District (LMRWD)) to provide suitable dredged material placement sites for the project. The St. Paul District is preparing a long-term (40 years) dredged material management plan that addresses Federal dredging requirements above the Highway 35 bridge and private dredging of commercial harbors. The project involves Federal maintenance dredging at three cuts: Savage Bridge (river mile 14.3-14.7), Cargill (river mile 12.5-13.6) and Peterson's Bar (river mile 11.3-12.4).

The proposed placement sites are the Kraemer or Below Cargill sites and the Cargill East River or Cargill sites (see attached table and plates). The preferred placement sites are the Kraemer site (12 acres) because of the disturbed nature of the site and absence of any wetlands and the Cargill East River site (11 acres) because the Cargill site is a wetland. However, both the Kraemer and the Cargill East River sites have potential problems that may prevent implementation by the LMRWD.

The Kraemer site may be cost prohibitive. If the LMRWD determined and documented the Kraemer site to be cost prohibitive, the Below Cargill site (12 acres) would be used. The Below Cargill site is an upland site, but a new access would have to be constructed across a wetland to allow for beneficial use removal. The use of the Cargill East River site would result in greater floodplain impacts (0.07 foot) than the Cargill site (0.00 foot). The LMRWD would have to obtain local and State floodplain variances for the Cargill East River site. If the LMRWD was unable to obtain floodplain variances, then we would revert back to the Cargill site (7 acres), which was the selected plan in the 1997 Channel Maintenance Management Plan. Private dredging contractors for the commercial harbors along the Minnesota River would also be allowed to place material at the selected placement sites.

We have conducted a biological assessment of these activities to determine the potential effects on the following species: Higgins' eye pearly mussel (Lampsilis higginsi) and bald eagle (Haliaeetus leucocephalus).

In 1997, we conducted biological assessments of the potential impacts on Federally and State listed threatened and endangered species as part of the 1997 Final Environmental Impact Statement for the Channel Maintenance Management Plan for the 9-foot navigation channel project. You concurred with our determination that maintenance dredging on the Minnesota River above the Highway 35 bridge and placement of material at the Kraemer or Cargill placement sites would have no impacts on Federally listed threatened or endangered species. The Cargill East River and Below Cargill placement sites were not addressed in this assessment.

Active bald eagle nesting sites occur within the Minnesota River Valley. No active nesting sites are located in the immediate vicinity of the proposed placement sites. Other than for small access points, none of the trees along the riverbank would be removed at any of the proposed sites. The access points were selected to avoid large trees that could be used as bald eagle perches. Minor disturbances of the general project area during the placement of dredged material at these sites should not affect bald eagle use of the area. We have no reason to believe conditions for the bald eagle with the Kraemer or Cargill East Original site have changed since the 1997 biological

assessment.

We have no reason to believe conditions for the Higgins' eye pearly mussel have changed since the 1997 biological assessment. Therefore, we have determined that the proposed dredging should have no effects on Higgins' eye pearly mussel.

On the basis of these findings, we have determined that the proposed project would have no effect on federally listed threatened or endangered species. We would appreciate your comments on this determination.

If you have any questions, please contact Mr. Dennis Anderson at (651) 290-5272 or dennis.d.anderson@MVP02.usace.army.mil.

Sincerely,

Attachments

Robert J. Whiting
Chief, Environmental and Economic
Analysis Branch

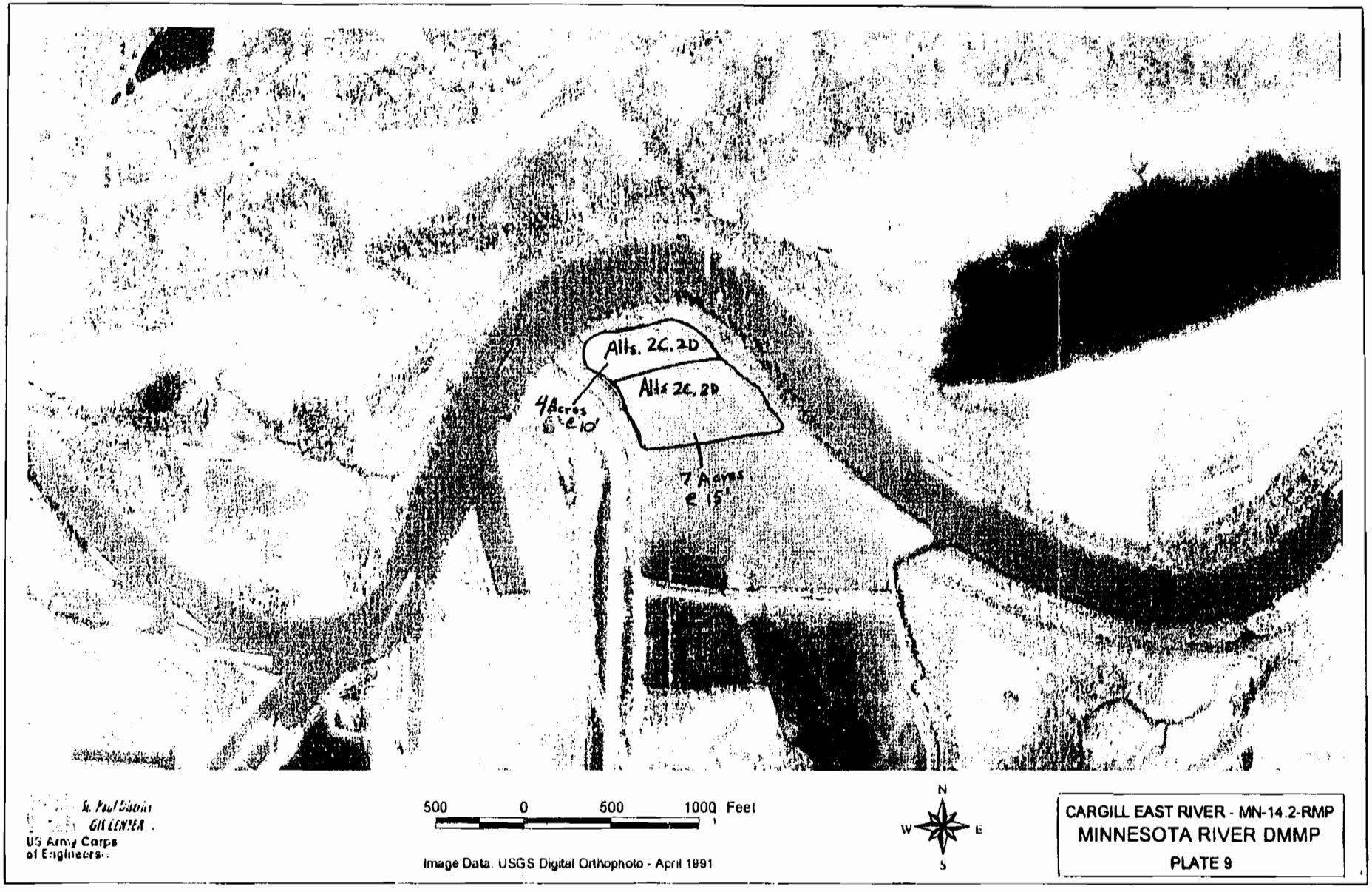
Table 1 - Summary of Alternatives for Above I-35W Bridge

Alt.	Sites	Material to Site (CY)	Acres	Max. Pile Height (ft)	Max. Site Width (ft)	Cuts Going To Site	Plate #
2A	*Below Cargill	891,800	13	8AC @ 15' & 5AC @ 10'	425	3, S1-S5	11
	Cargill	183,600	7	15'	NA	4-5	10
2B	*Kraemer	891,800	13	8AC @ 15' & 5AC @ 10'	400	3, S1-S5	12
	Cargill	183,600	7	15'	NA	4-5	10
2C	*Below Cargill	642,600	12	8AC @ 15' & 4AC @ 10'	425	3-4, S1	11
	*Cargill East River	432,800	11	7AC @ 15' & 4AC @ 10'	700	5, S3-S5	9
2D	*Kraemer	642,600	12	8AC @ 15' & 4AC @ 10'	400	3-4, S1	12
	Cargill East River	432,800	11	7AC @ 15' & 4AC @ 10'	700	5, S3-S5	9
2E	Kraemer	642,600	12	8AC @ 15' & 4AC @ 10'	400	3-4, S1	12
	*Cargill West	432,800	11	7AC @ 15' & 4AC @ 10'	700	5, S3-S5	8
2F	Below Cargill	642,600	12	8AC @ 15' & 4AC @ 10'	425	3-4, S1	11
	Cargill West	432,800	11	7AC @ 15' & 4AC @ 10'	700	5, S3-S5	8
2G	*NSP	486,800	5	10'	400-800	S1-S5	13
	*Kraemer	405,000	8	15'	350	3	12
	Cargill	183,600	7	15'	NA	4-5	10

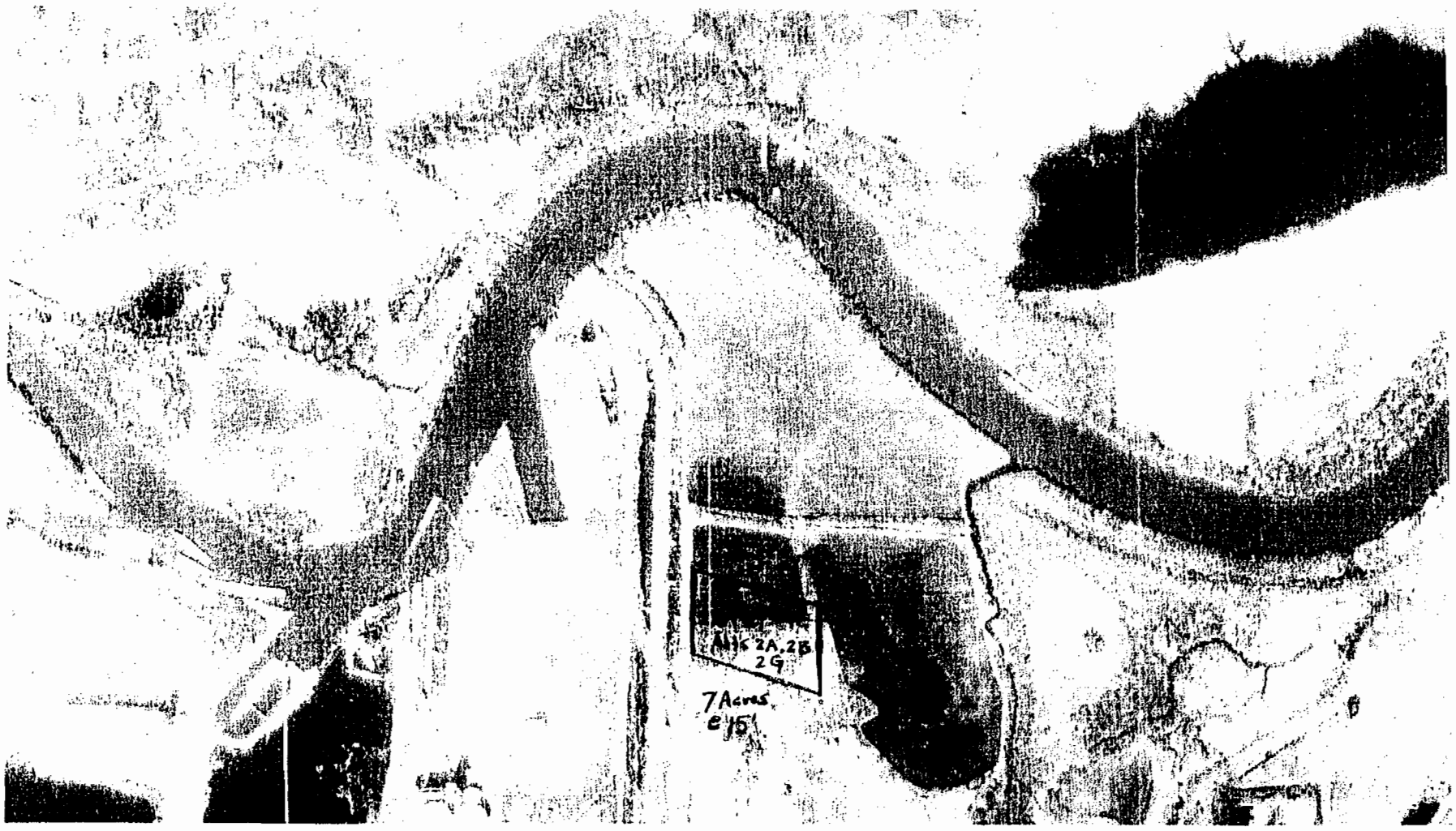
*Run an individual analysis for each site. Note that each site may need to be analyzed more than once depending on how it is configured in the alternatives (i.e. The Kraemer site has 3 configurations).
Run a combination analysis for each of the alternatives listed.

Table 2. Water Surface Elevation Impacts of Alternatives for Above I-35W Bridge

Alt.	Sites	Material to Site (CY)	Acres	Max. Pile Height (ft)	Max. Site Width (ft)	Cumulative Increase for each Alt.	Increase Caused by Each Site
2A	*Below Cargill	891,800	13	8AC @ 15' & 5AC @ 10'	425	.04	.04
	Cargill	183,600	7	15'	NA		0
2B	*Kraemer	891,800	13	8AC @ 15' & 5AC @ 10'	400	.03	.03
	Cargill	183,600	7	15'	NA		0
2C	*Below Cargill	642,600	12	8AC @ 15' & 4AC @ 10'	425	.09	.04
	*Cargill East River	432,800	11	7AC @ 15' & 4AC @ 10'	700		.07
2D	*Kraemer	642,600	12	8AC @ 15' & 4AC @ 10'	400	.09	.03
	Cargill East River	432,800	11	7AC @ 15' & 4AC @ 10'	700		.07
2E	Kraemer	642,600	12	8AC @ 15' & 4AC @ 10'	400	.10	.03
	*Cargill West	432,800	11	7AC @ 15' & 4AC @ 10'	700		.08
2F	Below Cargill	642,600	12	8AC @ 15' & 4AC @ 10'	425	.10	.04
	Cargill West	432,800	11	7AC @ 15' & 4AC @ 10'	700		.08
2G	*NSP	486,800	5	10'	400-800	.02	.01
	*Kraemer	405,000	8	15'	350		.02
	Cargill	183,600	7	15'	NA		0


Alts. 2C, 2D
Alts 2C, 2D
4 Acres @ 10'
7 Acres @ 15'
St. Paul District
GIS CENTER
US Army Corps of Engineers
500 0 500 1000 Feet
N
W
E
S
Image Data: USGS Digital Orthophoto - April 1991
CARGILL EAST RIVER - MN-14.2-RMP
MINNESOTA RIVER DMMP
PLATE 9

D-48



No need to analyze this site because it is out of the floodway.

500 0 500 1000 Feet

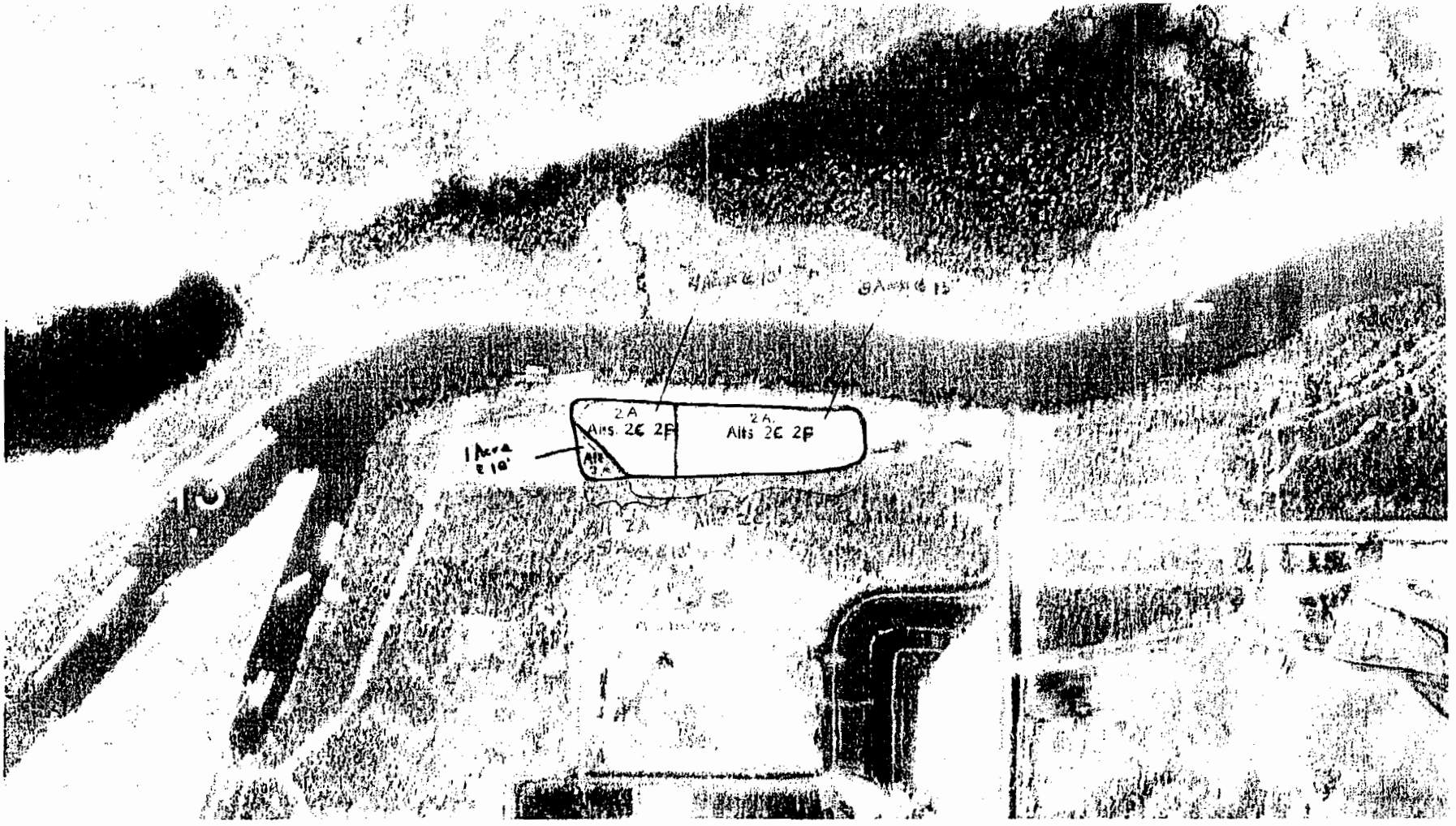
N
W E
S

US Army Corps of Engineers

Image Data: USGS Digital Orthophoto - April 1991

CARGILL EAST - MN-13.5-RMP
MINNESOTA RIVER DMMP
PLATE 10

D-19



St. Paul District
US Army Corps
of Engineers

500 0 500 1000 Feet

N
W E
S

Image Data: USGS Digital Orthophoto - April 1991

BELOW CARGILL - MN-12.4-RMP
MINNESOTA RIVER DMMP
PLATE 11

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Twin Cities Field Office
4101 East 80th Street
Bloomington, Minnesota 55425-1665

APR 13 2000

Mr. Robert J. Whiting
Chief, Environmental and
Economic Analysis Branch
St. Paul District, U.S. Army Corps of Engineers
Army Corps of Engineers Centre
190 Fifth Street East
St. Paul, Minnesota 55101-1638

Dear Mr. Whiting:

This concerns your April 7, 2000, letter requesting U.S. Fish and Wildlife Service comments on potential impacts to federally endangered or threatened species from the proposed Minnesota River Channel Maintenance Management Plan in Minnesota.

Based on information contained in your above referenced letter and the nature of the proposed project, its location, and the habitat requirements of the federally threatened bald eagle (*Haliaeetus leucocephalus*), and endangered Higgins' eye pearly mussel (*Lampsilis higginsi*), we concur with your determination that the proposed project is not likely to adversely affect federally listed threatened or endangered species. Should this project be modified or new information indicates that listed species may be affected, consultation with this office should be reinitiated.

We appreciate the opportunity to offer our comments on this project. Please contact Mr. Gary Wege at 612/725 3548, extension 207, if you have any questions on the above or require additional information. These comments have been prepared under the authority of and in accordance with provisions of the Endangered Species Act of 1973, as amended. Comments with respect to the Fish and Wildlife Coordination Act will be provided at the appropriate stage of planning.

Sincerely,

Russell D. Peterson
Field Supervisor

cc: Minnesota Department of Natural Resources, St. Paul, Minnesota
Minnesota Pollution Control Agency, St. Paul, Minnesota

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
ARMY CORPS OF ENGINEERS CENTRE
190 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

May 18, 2000

REPLY TO
ATTENTION OF

Environmental and Economic Analysis Branch
Planning, Programs and Project Management Division

Mr. Dennis A. Gimmestad
Government Review & Compliance Officer
State Historic Preservation Office
Minnesota Historical Society
345 Kellogg Boulevard West
Saint Paul, MN 55102-1906

Dear Mr. Gimmestad:

The St. Paul District, Corps of Engineers, is planning dredged material disposal sites on the upper Minnesota River near Savage, Minnesota. In accordance with Section 106 of the National Historic Preservation Act, four potential dredged material disposal sites (Kraemer, Below Cargill, Cargill East and Cargill East River) were considered for their effects on historic properties. No known sites listed on or eligible for the National Register of Historic Places are within the area of potential effect for the four placement sites. Many historic and archaeological sites are known for the lower Minnesota River, but most are on the higher ground on the north side of the river (21 HE 5, 21 HE 6, 21 HE 15, 21 HE 16, 21 HE 95). Two archaeological sites (21 DK 65 and 21 DK 35) are known in a similar setting on the south side of the river some two miles downstream from the Kraemer site.

None of the four proposed placement sites had previously been surveyed for cultural resources. None have standing structures. One site, the Kraemer site, has been significantly disturbed by the placement of dredged material over the last seven years. The entire site is covered with some 2 meters of dredged material. One site, the Cargill East site, is considered to have an extremely low potential for cultural resources since it is a wetland. The two others, Below Cargill and Cargill East River, were surveyed by Corps archaeologists. At the Cargill East River site, the 50 meters closest to the river was found to have about 0.5 - 1 meters of dredged material overlaying the old field surface. Shovel tests revealed deep (ca. 25-35 cm thick) silty clay topsoils underlain by stratified layers of fine sandy and clay soils, indicative of alluvial deposition from the Minnesota. Aside from modern materials in the recently deposited soils, no cultural material was found. The area

is below the 700-foot contour line above which other sites in this area occur, and is frequently flooded, providing no stable surface suitable for human habitation. Auger tests to 2.0 meters revealed no buried stable surfaces.

The Below Cargill site is also below the 700-foot contour line, and thus has low potential for containing archaeological deposits. The easternmost portion of the Below Cargill site has already been impacted by the placement of dredged material (ca. 2 meters thick). The soils in the shovel tests placed in the remainder revealed the same soils as at the Cargill East River site - deep silty clay topsoils underlain by banded alluvial deposits to at least 2.0 meters. The soils near the river are sandy overbank deposits. No cultural materials were found.

It is the St. Paul District's finding that the proposed dredged material disposal project will have no effect on any historic properties. No known historic properties are in the area of potential effect of any of the four sites. The Cargill East site has very low potential for cultural resources, being a wetland. The Kramemer site has already been significantly disturbed by the deposition of dredged material. The Cargill East River and Below Cargill sites are considered to have low potential as they are at a lower elevation than other sites in a similar Minnesota River floodplain setting. Nevertheless, they were both shovel-tested. No cultural material was encountered.

We would be grateful for your review of this project and a response by 22 June 2000. Please call Sissel Johannessen (651-290-5263)with any comments or questions.

Sincerely,

Robert J. Whiting
Chief, Environmental and Economic
Analysis Branch

Enclosure (map)

MINNESOTA HISTORICAL SOCIETY

STATE HISTORIC PRESERVATION OFFICE

June 26, 2000

Ms. Sissel Johannessen
U.S. Army Corps of Engineers
190 5th Street East
St. Paul, MN 55101-1638

RE: 4 potential dredged material disposal sites
Kraemer, Below Cargill, Cargill East & Cargill East River
T115 R21 S29, S30 & S31, Hennepin County
SHPO Number: 2000-3104

Dear Ms. Johannessen:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800).

Based on available information, we conclude that **no properties eligible for or listed on the National Register of Historic Places** will be affected by this project.

Please contact Dennis Gimmestad at (651)296-5462 if you have any questions regarding our review of this project.

Sincerely,

Britta L. Bloomberg
Deputy State Historic Preservation Officer

D - 55

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Twin Cities Field Office
4101 East 80th Street
Bloomington, Minnesota 55425-1665

JAN - 8 2001

Mr. Daniel J. Krumholz
Operations Manager
Channels & Harbors Project
U.S. Army Corps of Engineers
Fountain City Service Base
P.O. Box 397
Fountain City, Wisconsin 54629

Dear Mr. Krumholz:

This replies to your October 27, 2000, letter requesting U.S. Fish and Wildlife Service (Service) comments on the Minnesota River Dredged Material Management Plan. Based on discussions at the recent River Resources Forum meeting, the following comments are provided for your use in finalizing this project.

1 The Service supports the proposed implementation of Alternative 2D which proposes to use the Kramer and Cargill East River Sites. The Cargill East River Site is a former agricultural field having fewer habitat values than sites with more floodplain vegetation. Since a major portion of the Kramer Site has already been used for dredged material disposal, its use will also minimize adverse impacts to fish and wildlife resources in the project area.

2 We understand that the local sponsor, the Lower Minnesota River Watershed District (LMRWD), is in discussions with the property owner of the Kramer Site. We are hopeful that a successful negotiation takes place and the property is secured for long-term disposal. We agree with statements in the Plan that requires the LMRWD to document the negotiation process and results should the negotiations not be successful. We also concur with the selection of Alternative 2C (Below Cargill and Cargill East River Sites) for implementation should negotiations fail with the Kramer Site. We also agree that selection of any other alternative than 2D or 2C will need further agency coordination and environmental review.

3 Once a long-term agreement is secured by the LMRWD for use of these disposal sites, it is critical that dredged material be periodically removed to provide adequate storage capacity to meet future dredging needs. We understand that there is currently a disagreement between the Corps of Engineers and the LMRWD concerning the responsibility for such removal. This issue must be resolved to facilitate commercial navigation on the Minnesota River and to avoid additional habitat losses and potential impacts to lands within or adjacent to the Minnesota Valley National Wildlife Refuge. We recommend that the LMRWD establish these sites for free beneficial use of dredged material instead of attempting to sell the material. Free use of dredged

material by contractors, highway departments and other user groups has worked well at other beneficial use sites on the Upper Mississippi River. We assume similar results will occur for these sites as will given their proximity to the Twin Cities Metro Area. If dredged material is offered free of charge to users, it is likely that demand will exceed supply resulting in minimal maintenance of the sites for future disposal.

3 cont'd

We appreciate the opportunity to offer these comments. Please contact Mr. Gary Wege at 612/725-3548 ext. 207 if you have any questions on our comments or require additional information.

Sincerely,

Russell D. Peterson
Field Supervisor

cc: U.S. Environmental Protection Agency, Chicago, Illinois
Minnesota Department of Natural Resources, St. Paul, Minnesota
Minnesota Department of Natural Resources, Lake City, Minnesota
Minnesota Pollution Control Agency, St. Paul, Minnesota

Corps Responses to U.S. Fish & Wildlife Service Comments on the Draft Dredged Material Management Plan Minnesota River Above I-35W Bridge October 2000

This is a response to the 8 January 2001 letter from the U.S. Fish & Wildlife Service commenting on the draft Dredged Material Management Plan for the Minnesota River Above I-35W, dated October 2000.

1. Comment noted. No response required.

2. Comment noted. No response required.

3. Concur. The Corps of Engineers will continue to seek resolution with the Lower Minnesota River Watershed District. The Corps agrees that making dredged material available at no cost would provide the best opportunity for removal.

Minnesota Department of Natural Resources

500 Lafayette Road
St. Paul, Minnesota 55155-40__
DNR Waters, Box 32
651-296-4802
Fax: 651-296-0445
steve.johnson@dnr.state.mn.us

January 18, 2001

Daniel J. Krumholz
Operations Manager - Channel and Harbors Project
P.O. Box 397
Fountain City, Wisconsin 54629

Re: Draft Minnesota River Dredge Material Management Plan

Dear Mr. Krumholz:

Thank you for the opportunity to review the October 2000 draft of the Dredged Material Management Plan (DMMP), Minnesota River above I-35W Bridge. The Minnesota Department of Natural Resources (MDNR) has completed its review and is pleased to provide the following comments regarding the draft plan.

General Comments

The success of the DMMP is largely dependent on the Lower Minnesota River Watershed District completing the following major tasks:

1. Long Term Land Interest - A long-term agreement with the current landowners or fee title purchase of the Kraemer, Cargill East River and possibly the Below Cargill site must be acquired;

2. Placement Site Management - Appropriate, on-going management of the sites is required to assure the sites are ready for material placement before the next dredging event;

3. Wetland Mitigation (Compensation) - Mitigation for all wetland impacts must be completed in accordance with the requirements of the Wetland Conservation Act; and

4. Floodway Impacts - The community designated floodway maps must be revised so the containment sites are located outside of the floodway. In order to accomplish this, the Lower Minnesota River Watershed District must work with local governments to

model the floodplain, propose a new floodway, obtain formal acceptance by FEMA and the MDNR and then modify local floodplain ordinances to recognize the new floodway.

5 The Minnesota DNR will gladly endorse the DMMP once written assurances are provided by the Lower Minnesota River Watershed District that the major tasks listed above will be pursued promptly and completed in the near future. It is important to emphasize that regardless of historic legal commitments or lack thereof, the watershed district needs to accept responsibility for managing the disposal sites and getting rid of the material.

Specific Comments

6 Section 1.2 Economics, last paragraph, last sentence. We suggest you drop this sentence unless you add language that quantifies all other costs, including costs to the river environment, and then identify who is paying these additional costs.

7 Section 7.1 Please identify the agency or consulting firm that completed the wetland delineation and verify that the methods used followed the 1987 Corps wetland delineation manual.

8 The Wetland Conservation Act requires that a wetland mitigation plan be approved by the appropriate LGUs prior to impacting the wetlands.

9 Section 7.2, Table 7.1 Alternatives 2D (the preferred plan) and 2C (the next selected plan) both raise the 100-year flood stage by 0.09 feet by placing dredged material within the community designated floodway. Language should be added to the DMMP outlining the necessary steps to rectify the situation.

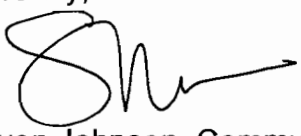
10 Appendix A - Section 404(b)1, A-8, table 4. Sediment Quality. A correction should be made to show that in 1999 at Cut 2 (4-Mile Cut-Off), manganese, cadmium and nickel all exceeded the Ministry of Ontario Low Effect Level.

11 Appendix B - Sediment Quality of Minnesota River Dredge Cuts, B-8. The Corps recommended sediment cores be taken between river miles 3.8 and 4.4 for additional contaminant analysis. We support this proposed action and suggest the work be completed before dredging 4-Mile Cut-Off next spring.

12 We recommend additional sediment quality work be completed at the private slips to augment and update information provided by the companies.

The MDNR looks forward to working with the Corps of Engineers and Lower Minnesota River Watershed District on implementation of the DMMP. Please contact Scot Johnson at 1801 South Oak, Lake City, MN 55041, or at 651-345-5601 if you would like additional assistance.

Sincerely,



Steven Johnson, Community Stewardship Supervisor
Water Management Section, DNR Waters

cc. Scot Johnson, DNR Waters, Lake City
Dale Homuth, DNR Waters, Metro
Pat Lynch, DNR Waters, Metro

Corps Responses to Minnesota Department of Natural Resources Comments on the Draft Dredged Material Management Plan Minnesota River Above I-35W Bridge October 2000

This is a response to the 18 January 2001 letter from the Minnesota Department of Natural Resources commenting on the draft Dredged Material Management Plan for the Minnesota River Above I-35W, dated October 2000.

1. Comment noted. The Lower Minnesota River Watershed District (WD) is responsible for acquiring agreements to provide dredged material placement sites for the Corps of Engineers. Long-term agreements are preferred, but terms of the agreements will be up to the WD and the landowners. Section 9.1 has been modified to reflect this.

2. Comment noted. Section 9.2 reflects this position.

3. Concur. The WD is aware of their responsibility.

4. The WD is currently working with other agencies to revise floodway maps. This is one way to locate the placement sites in the floodway. An alternative is to acquire a conditional use permit for temporary placement in the floodway. The narrative in Section 9.1 has been modified to reflect this.

5. Comment noted. Section 1.1 contains an explanation of authorization and responsibilities.

6. The referenced sentence has been removed.

7. The referenced section has been modified to reflect this.

8. Concur. The WD is aware of their responsibility.

9. Section 9.1 contains requirements for implementation and does address floodplain impacts.

10. The referenced table has been corrected.

11. Comment noted. The Corps will take recommended sediment cores when resources are available.

12. Comment noted. The Corps has no plans to complete additional sediment quality testing at the private slips. This will be up to the individual private slip owners. They will be responsible for meeting any regulatory requirements for dredging and disposal.

LOWER
MINNESOTA RIVER
WATERSHED DISTRICT

Scott County Government Center
200 4th Avenue West
Shakopee, MN 55379
Tel: (952) 496-8842, Fax: (952) 496-8844

Terry L. Schwalbe, *President*
Office: (612) 404-5312, Fax: (612) 404-5318
Wallace E. Neal, *Vice President*
Office: (952) 884-1632, Fax: (952) 884-7726
Glenda Spiotta, *Secretary*
Office: (952) 471-0590, ext. 285, Fax: (952) 471-0682
Edward A. Schlampp, *Treasurer*
Office: (612) 920-4398, Fax: (612) 920-0086
Ron Kraemer, *Asst. Treasurer*
Cell: (651) 335-8305, Fax: (952) 894-3235
Kevin D. Bigalke, *Administrator*
Office: (952) 496-8842, Fax: (952) 496-8844

December 28, 2000

Steve Tapp
US Army Corps of Engineers
431 North Shore Drive
PO Box 397
Fountain City, WI 54629-0397

Dear Mr. Tapp:

Thank you for giving the Lower Minnesota River Watershed District (District) the opportunity to review and comment on the Minnesota River Dredge Material Management Plan for the above I-35 bridge section of the river. We appreciate your efforts in the development of this plan. The plan will prove to be very valuable to the District as we fulfill our responsibility of provide dredge material placement sites for the Army Corps of Engineers (Corps). The District staff, managers, and consultants have thoroughly reviewed the plan and offer the following comments:

1. The District disagrees with the Corps' opinion on page 2 that the District is responsible for maintenance/management of the material placement sites. It is the District's opinion that this is the Corps' responsibility as part of their channel maintenance duties. I assume that the Corps has similar agreements elsewhere in the Country and perhaps there has been some judicial determination as to the meaning of such language. The District would appreciate any information the Corps could provide to help clarify and understand the issues concerning this matter. In any event, the District has and will continue to fulfill the requirements of providing placement sites to the Corps as stated in the agreement between the Lower Minnesota River Watershed District and the Corps.
2. Page 2 – Land Acquisition, Last statement: Content is not expressed in the District's accepted contract with the Corps. In the original resolution by the Board of Managers dated August 22, 1962 transmitted by Raymond Haik, Watershed District Attorney which details only three (3) items of local cooperation (items a, b, and c on page 3 of the District resolution). This is further acknowledged and accepted by the then District Engineer of the Corps, Colonel William B. Strandberg, in a letter to the District dated September 13, 1962 (see attached).
3. Page17ff – The use of the matrix previously used by the Corps of Engineers St. Paul District to evaluate and establish priorities for placement sites seemed to be cumbersome and confusing. The District commends the Corps decision to

3 cont'd develop a list of criteria by which to evaluate the alternative sites. This approach provided a clearer, more realistic determination of the potential impacts of each alternative placement site.

4. The District understands that each of the placement sites identified in the plan have been evaluated for cultural/archeological resources impacts and that no further testing is required. This will make the acquisition of these sites much easier.

5. The District is currently working with Waste Management to acquire an eight (8) acre easement at the Below Cargill site. There will also be approximately 7.5 acres available for private industry use. The District understands that we are required to provide a letter to the Corps justifying our reasons for not pursuing the Kraemer site any further. The Kraemer site has a number of issues that make it not feasible to continue to pursue this site. First, the cost to acquire this site is too expensive. Kraemer's also reserve the right to ownership of the dredged material. As part of this ownership, Kraemer's have in the past wanted to make a profit off the material. This has made it difficult to have the site cleaned out unless there is a buyer for the material. The District currently does not have access to the site to remove material and finally, the easement agreement is short term. These issues will be discussed further in a letter that will be sent at a later date.

On behalf of the Lower Minnesota River Watershed District Board of Managers, I would like to commend the US Army Corps of Engineers on your efforts to develop the Dredge Material Management Plan for the Minnesota River above I-35W bridge. As always, the District appreciates the opportunity to work with the Corps on these very important issues. If you have questions relating to the above, please contact me at (952)496-8842.

Very Truly Yours,

Kevin D. Bigalke

Kevin D. Bigalke
District Administrator

cc: Board of Managers of the LMRWD
Larry Samstad, District Consulting Engineer
Bruce Malkerson, District Legal Counsel

WHEREAS, these conditions include the requirement that a responsible local agency furnish assurances to the Chief of Engineers that it will:

(a) Provide without cost to the United States all lands, easements, and rights-of-way necessary for the construction of the project and for subsequent maintenance when and as required.

(b) Hold and save the United States free from damages due to the construction works.

(c) Make necessary changes in roads.

and

WHEREAS, the Board of Managers of the Lower Minnesota River Watershed District recognizes that improvement of the Minnesota River as provided by this project will be of great benefit to the Watershed District and the residents thereof; and

WHEREAS, the Lower Minnesota River Watershed District is a public body of the State of Minnesota, organized and existing under the Minnesota Watershed Act, Laws of 1955, C. 709, and is authorized and empowered by law to give the required assurances of cooperation to the Secretary of the Army, and has the legal authority and financial ability to comply with and accomplish all of the aforesaid requirements.

NOW, THEREFORE, in order to comply with the Act of Congress and to give required assurances of local cooperation, IT IS HEREBY RESOLVED by the Board of Managers of the Lower Minnesota River Watershed District that it does hereby undertake, agree and assure the Secretary of the Army acting through the Chief of Engineers that it will:

(a) Provide without cost to the United States all lands, easements, and rights-of-way necessary for the construction of the project and for subsequent maintenance when and as required.

(b) Hold and save the United States free from damages due to the construction works.

(c) Make necessary changes in roads.

39569

U. S. ARMY ENGINEER DISTRICT, ST. PAUL
CORPS OF ENGINEERS
1217 U. S. POST OFFICE AND CUSTOM HOUSE
ST. PAUL 1, MINNESOTA

IN REPLY REFER TO: NCPOC

13 September 1962

Mr. A. W. Hubbard
Chairman, Board of Managers
Lower Minnesota River Watershed District
7303 Auto Club Road
Minneapolis 20, Minnesota

Dear Mr. Hubbard:

This is to advise you that the Resolution of assurances of local cooperation adopted by the Board of Managers of the Lower Minnesota River Watershed District 22 August 1962 together with the supporting opinion of Raymond A. Haik, Esq., Attorney for the Board, has been examined and is considered acceptable by the Corps of Engineers.

I hereby approve and accept said Resolution as the binding obligation of the Lower Minnesota River Watershed District, the local sponsor of the project, to perform and fulfill requirements of local cooperation prescribed by the Congress in authorizing the project. Please note that acceptance of these assurances does not obligate the United States to construct the project.

Sincerely yours,

W. B. STRANDBERG
Colonel, Corps of Engineers
District Engineer

PTF'S
EXHIBIT 2
DFT'S
A. C. IVERSON Date 4-22-64

Exhibit "A"

Corps Responses to Lower Minnesota River Watershed Districts Comments on the Draft Dredged Material Management Plan Minnesota River Above I-35W Bridge October 2000

This is a response to the 28 December 2000 letter from the Lower Minnesota River Watershed District (WD) commenting on the draft Dredged Material Management Plan for the Minnesota River Above I-35W, dated October 2000.

1. The Corps of Engineers and the WD have had many discussions regarding responsibilities for maintenance/management of the dredged material placement sites. The Corps' position has not changed. Section 1.1 paragraph 3 has been modified to clarify that this is the Corps' position. The Corps will continue to work with the WD and provide information that may help clarify our position. However, implementation of this plan must proceed at this time. The Corps believes that the WD must assume the responsibility for maintenance/management of placement sites, to include removal of material if necessary to restore capacity. If the WD does not assume this responsibility and they can not provide a placement site with adequate capacity, dredging will be deferred until such time as a new site is provided, or capacity is restored by the WD.

2. The referenced section has been modified to clarify that this is the Corps of Engineers position.

3. Comment noted. No response required.

4. Comment noted. No response required.

5. The WD has provided further documentation regarding practicability of the Kraemer site (letters dated 29 January 2001 and 10 April 2001). Based on the information provided, the Corps believes that WD made a reasonable effort to implement the Kraemer site and that it is not practicable. Therefore, implementation of the Below Cargill site is acceptable.

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
431 NORTH SHORE DRIVE/PO BOX 397
FOUNTAIN CITY, WI 54629

5 April 2007

SUBJECT: Minnesota River Dredged Material Management Plan

To Whom It May Concern:

Enclosed for your review is the final Dredged Material Management Plan (DMMP) dated March 2007 for the Minnesota River above the I-35W Bridge. Included in the DMMP is the Environmental Assessment, draft Finding of No Significant Impact (FONSI), and preliminary Section 404(b)(1) Evaluation. The public notice for the DMMP is also enclosed. These documents have been provided as noted on the distribution list.

The DMMP provides a coordinated long-term plan for managing dredging and placement site requirements on the Minnesota River. Federal dredging and placement site requirements were combined with the requirements of private barge terminals. The development of dredged material placement sites that can accommodate both Federal and private dredging requirements is more cost effective than finding and developing separate sites.

An estimated 1,156,400 cubic yards of material will be dredged from the navigation channel and private barge slips (669,600 cubic yards and 486,800 cubic yards respectively) over the next 27 years. This material would be periodically placed at two sites selected in the DMMP. The Cargill East River site (11 acres) is located along the right descending bank at river mile 14.1. The other site (12 acres) will be the Kraemer site, located along the right descending bank at river mile 12.1. Some of the material placed at these sites would be removed for beneficial use, restoring the capacity of the sites.

Please provide any comments you may by 2 May 2007. If we have not received your comments by that time, we will assume that you concur with our findings and we will sign the FONSI. If you have any questions regarding the Environmental Assessment, draft Finding of No Significant Impact (FONSI), or preliminary Section 404(b)(1) Evaluation, please contact Dennis Anderson at (651) 290-5272. If you have any questions regarding the DMMP, please contact the undersigned at (608) 687-3112 ext. 8.

Sincerely,

Lisa J. Lund
Channel Maintenance Coordinator
Channels & Harbors Project

Enclosures

DISTRIBUTION:
Rep. Jim Ramstad (Bloomington)
Rep. John Kline
Rep. Betty McCollum
Rep. Keith Ellison
Sen. Norm Coleman
Sen. Amy Klobucher
Corps of Engineers (Whiting, Anderson, Foley, Hendrickson, Davidson, Verstegen, Boldon, Baumgard, Tapp, Lund, Machajewski, D. Krumholz, Norton, Otto)
Environmental Protection Agency (Fenedick, Franz)
U.S. Coast Guard (Kepper)
U.S. Geological Survey (Rogala)
National Park Service (Labovitz)
National Resource Conservation Service (Flynn)
U.S. Fish and Wildlife Service (Hultman, Wege)
U.S. Fish and Wildlife Service Minnesota Valley Refuge (Martinkovic)
Minnesota Department of Natural Resources (Homuth, Colvin, Zappetillo, Regenscheid, S. Johnson, Wooden)
Minnesota Pollution Control Agency (Mader)
Minnesota Department of Transportation (Lambert)
Minnesota State Historic Preservation Office (Gimmestad)
Minnesota Board of Water and Soil Resource (Watson, Lijewski, Beckius)
Wisconsin Department of Natural Resources (G. Benjamin, Fischer)
Wisconsin Department of Transportation (Kieck)
Iowa Department of Natural Resources (Konrad)
City of Savage, MN (Lucido)
City of Bloomington, MN (Gates)
City of Burnsville, MN (Schultz)
Lower Minnesota River Watershed District (Kremer, Kraemer, Schlampp, Samstad, Francis, Schwalbe)
Cenex Harvest States (Gergen)
Superior Minerals (Looman, Wilmshurst)
Edward Kraemer & Sons, Inc. (Edmunds)
Bunge Corp. (Erz)
Cargill (Reiff)
Excel Energy (Lahti)
Andrie Inc. (Andrie)
L&S Industrial Marine, Inc. (Chase)
Portable Barge Service (Noonan)
Upper River Services (Nelson)
Metropolitan Council, Park Planner (Stefferud)
Upper Mississippi Waterways Association (Genz)
Carver County Library (Chaska)
Scott County Library (Savage)
Dakota County Library (Eagan)
Hennepin County Library (Bloomington)

From: Lund, Lisa J MVP

To: "Al Fenedick (E-mail)"; Anderson, Dennis D MVP; Baumgard, Kevin L MVP; "Bill Franz - EPA (E-mail)"; "Carl Kepper"; Bauer, Shannon L MVP; Davidson, Mark D MVP; Verstegen, Peter E MVP; "Dale Homuth - MDNR (E-mail)"; "Dave Zappetillo - MDNR (E-mail)"; "Diana Regenscheid - MDNR (E-mail)"; "Dick Lambert - MDOT (E-mail)"; Foley, Patrick M MVP; "Gary Wege - FWS (E-mail)"; Hendrickson, Jon S MVP; "Judy Mader - MPCA (E-mail)"; Lund, Lisa J MVP; Machajewski, Paul R MVP; Norton, Bruce C MVP; Otto, Richard J MVP; "Scot Johnson - MDNR (E-mail)"; Tapp, Steven D MVP; "Terry Schwalbe - LMRWD (E-mail)"; Nelson, Lee MVS External Stakeholder; Whiting, Robert J MVP; Boldon, Bruce A MVP; Krumholz, Daniel J MVP; "USGS - Jim Rogala"; "Paul Labovitz (paul_labovitz@nps.gov)"; "Don_Hultman@fws.gov"; "Patricia Martinkovic - FWS MNR"; "Rebecca Wooden"; "dennis.gimmestad@mnhs.org"; "Brian Watson (brian.watson@co.dakota.mn.us)"; "S Lijewski (slijewski@hcd.hennepin.mn.us)"; "P Beckius (pbeckius@co.scott.mn.us)"; "WDNR - Gretchen Benjamin"; "James.Fischer@dnr.state.wi.us"; "lawrence.kieck@dot.state.wi.us"; "Konrad, Martin"; "PE Sam Lucido (slucido@ci.savage.mn.us)"; "Jim Gates (jgates@ci.bloomington.mn.us)"; "Terry Schultz (terry.schultz@ci.burnsville.mn.us)"; "Leonard Kremer (lkremer@barr.com)"; "Ron Kraemer (kraemerr@aol.com)"; "Ed Schlampp (ed@schlampp.com)"; "Larry Samstad (lsamstad@popp.net)"; "Kent Francis (rynemark@earthlink.net)"; "C Gergen (cgergen@harveststates.com)"; "Dave Edmunds (dave.edmunds@kraemermn.com)"; Dan Erz; "Jim Reiff (jim_reiff@cargill.com)"; "philandrie@andrie.com"; "fred@lametti.com"; "bargeman@aol.com"; Genz, Greg MVS External Stakeholder; "mn03@mail.house.gov"; "Paul Flynn (paul.flynn@mn.usda.gov)"; J Wilmshurst; M Looman; "Arne Stefferud (arne.stefferud@metc.state.mn.us)"; "Jon Lahti (jon.c.lahti@xcelenergy.com)";

Subject: MN River DMMP March 2007

Date: Monday, April 02, 2007 2:46:06 PM

Attachments: MN River DMMP public notice 2007.doc
Changes Mar 2007 MN DMMP.doc

The final Dredged Material Management Plan (DMMP) dated March 2007 for the Minnesota River above the I-35W Bridge has been posted to St. Paul District Corps of Engineers internet home page for your review. The document can be found on the St. Paul District Corps of Engineers internet home page (click on the River Resources Forum tab). It can also be found by clicking on the following link http://www.mvp.usace.army.mil/navigation/default.asp?pageid=1265&subpageid=398. Included in the DMMP is the Environmental Assessment, draft Finding of No Significant Impact (FONSI), and preliminary Section 404(b)(1) Evaluation. The public notice for the DMMP is attached to this email along with a table listing changes that were made to the March 2007 document based on review comments from the October 2000 document.

The DMMP provides a coordinated long-term plan for managing dredging and placement site requirements on the Minnesota River. Federal dredging and placement site requirements were combined with the requirements of private barge terminals. The development of dredged material placement sites that can accommodate both Federal and private dredging requirements is more cost

effective than finding and developing separate sites.
An estimated 1,156,400 cubic yards of material will be dredged from the navigation channel and private barge slips (669,600 cubic yards and 486,800 cubic yards respectively) over the next 27 years. This material would be periodically placed at two sites selected in the DMMP. The Cargill East River site (11 acres) is located along the right descending bank at river mile 14.1. The other site (12 acres) will be the Kraemer site, located along the right descending bank at river mile 12.1. Some of the material placed at these sites would be removed for beneficial use, restoring the capacity of the sites.
Please provide any comments you may have within 30 days. If we have not received your comments by that time, we will assume that you concur with our findings and we will sign the FONSI. If you have any questions regarding the Environmental Assessment, draft Finding of No Significant Impact (FONSI), or preliminary Section 404(b)(1) Evaluation, please contact Dennis Anderson at (651) 290-5272. If you have any questions regarding the DMMP, please contact the undersigned.

Lisa J Lund
Channel Maintenance Coordinator
Corps of Engineers, Channels and Harbors Section
431 N Shore Drive/PO Box 397
Fountain City, WI 54629
608-687-3112 x8
651-261-2905 (cell)

SUMMARY OF CHANGES

The following is a summary of changes to the Mar 2007 MN River DMMP. Most of these changes are based on review comments from the Oct 2000 MN River DMMP.

PARAGRAPH	CHANGE
1.1 – first paragraph	Added 2nd sentence.
1.1 – Land Acquisition	Added to 3rd and 5th sentences "The Corps' position".
1.1 – Clean Water Act	Added "for the placement site areas." at the end of the paragraph.
1.1 – Local Regulations	Added 11th sentence "Local units of government ....to annual spring flooding." Added to last sentence "or acquire conditional use permits for temporary placement."
1.2 – last paragraph	Deleted the last sentence "Comparing these costs….many times over."
2.1 – Recreation	Added the 2nd paragraph.
2.4 – Natural Resources	Deleted last part of last sentence "and the peregrine falcon (endangered)." Added the last sentence "Higgin's Eye Pearly mussel ….but not in recent times."
3.2.1 – Corps Dredging, second paragraph	7th sentence – changed "will be" to "was".
3.2.1 – Corps Dredging, third paragraph	2nd sentence – deleted "approximately 70% sand and 30% silt/clay" and added "predominantly sand ….on the dredge cut."
3.2.2 – Private Dredging	Added to 4th and 5th sentences "for the 27-year planning period."
6.0 – Cargill West Site	Added "(see Plate 1) to end of first sentence.
6.0 – Port Richards	Added "(see Plate 1) to end of first sentence.
6.0 – Gravel Pit Site	Added "(see Plate 2) to end of first sentence.
6.0 – NSP Loading Dock	Added "(see Plate 3) to end of first sentence.
6.0 – Transportation to sites in Pools 2, 3, and 4	Added paragraph
7.1 - Cargill West Field Site	Added the last five sentences starting with "Soils are predominately alluvial…."
7.1 – Cargill East River	Deleted the last sentence "It has been tilled … sedges, and herbs." Added the last six sentences starting with "The soils of the site are classified…."
7.1 - Cargill East	Deleted the last sentence "Vegetation consists of …". Added sentences 5, 6, and 7 starting with "The dominant vegetation consists …wildlife value is fairly high." and sentences 12 and 13 starting with "the Cargill East site is considered …back to the river."
7.1 – Below Cargill	Rewrote paragraph starting with "The soils are classified as Minneiska loan…"
7.1 – Kraemer	Added "Fish and wildlife habitat … nature of the site."
7.1 - NSP	Rewrote paragraph starting with "Vegetation consists of almost a complete…."

PARAGRAPH	CHANGE
7.2 – Alternative Plans for Above I-35W Bridge	Change the last sentence from "Table 7-**2**" to "Table 7-**1**"
7.2.4 – para 3	Added "and 4" to the first sentence.
7.2.4 – para 10	Changed 1st and 2nd sentences.
7.2.5 – para 6	Deleted "The Corps issued a permit…impacts to the compensation area."
7.2.5 – para 7	Deleted sentences from para 6 were created in a new para 7.
Table 7-1	Changed numbers to Alt 2B, 2C, 2D, and 2E
Table 7-2	Changed to "-" for Alt 2D for Impacts on Fish & Wildlife Resources. Added legend to table.
7.3 – Alternative 2D versus Alternative 2E	Added to end of first sentence "compared to Alternative 2D…Cargill East River site."
7.3 – Alternative 2B versus Alternative 2D	Added to end of first sentence "compared to Alternative 2D…Cargill East River site."
9.1 – para 1	Added to end of 3rd sentence "or acquire Interim Use Permits for temporary placement."
9.1 – para 2	Added 2nd sentence "Long-term agreements are preferred and should be pursued."
10.0 – para 2	Added 2nd sentence "The use of the Kramer site was covered in the FEIS and is incorporated by reference."
Table 10-1	Changed headings for table.
10.2.2 – Alternative 2D (the preferred alternative)	The paragraph was updated to reflect the actual conditions.
Table 10-2	Deleted column "Priority"
13.0 – para 3	4th sentence changed from "Between 0.25 to 1.25 acres…" to "Around 1.25 acres…". 5th sentence added "submitted for approval by the Corps and the State"
Plates	The cut numbers were labeled and identified non-evaluated sites.
App A - para I. B.	Updated and rewrote paragraph.
App A – para II.B.2.a.	Edited 2nd sentence.
App A – Table 3	Edited values in table.
App A – Table 4	Edited table.
App D	Added correspondence from review of Oct 2000 MN River DMMP and Permit application information from LMRWD.

US Army Corps of Engineers®
St. Paul District

Public Notice

Project: Dredged Material Management Plan for the Lower Minnesota River

Date: April 2, 2007

In Reply Refer to:
Environmental and Economic Analysis Branch

Project Proponent. St. Paul District, Corps of Engineers, 190 Fifth Street East, St. Paul, Minnesota 55101-1638

Project Location. The Minnesota River 9-Foot Channel Project consists of a 9-foot navigation channel extending from its confluence with the Mississippi River in St. Paul, Minnesota to Mile 14.7 in Savage, Minnesota. This section of the river is bordered by the Minnesota cities of St. Paul, Lilydale, Mendota, Mendota Heights, Bloomington, Eagan, Burnsville, and Savage.

Project Authority and Background. The Minnesota River Dredged Material Management Plan (DMMP) is a comprehensive long-term plan for managing dredging and placement site requirements on the Minnesota River. The original project on the Minnesota River was authorized in 1867, which provided for the removal of snags and boulders between its mouth and the mouth of the Yellow River at mile 237.0. Further authorization was obtained in 1892 to maintain a 4-foot navigation channel to mile 25.6. The existing 9-foot navigation channel on the Minnesota River was authorized by the River and Harbor Act of 1958, Public Law 85-500, in accordance with Senate Document 144, 84th Congress, 2nd Session. The enabling legislation required local interest contributions including provision of sites for placement of dredged material. The Lower Minnesota River Watershed District (LMRWD) was created to act as the local sponsor. In 1962, the LMRWD board of Managers passed a resolution of Assurances of Local Cooperation. Construction of the 9-foot channel was initiated in 1966 and was completed in 1968.

Project Purpose. It is the policy of the Corps of Engineers to develop and implement Dredged Material Management Plans (DMMP) that satisfy the long-term placement needs for Corps navigation projects. Several issues surfaced in 1998 concerning the Minnesota River including lack of capacity at a historically used placement site, lack of adequate placement sites for privately owned terminal dredged material, and complaints from the navigation industry on channel conditions. The Corps was concerned with these issues and initiated development of a comprehensive DMMP for the Minnesota River to address all dredging requirements, both private and Federal. A draft DMMP, integrated Environmental Assessment, and 404(b)(1) Evaluation was circulated for public review in October 2000. Comment letters received on the 2000 DMMP are contained in Appendix D of the revised DMMP. The LMRWD has now completed all required actions to implement the preferred Alternative 2D. Because of the long time that has elapsed since the initial public and agency review and because of some minor modifications to the Alternative 2D, the revised DMMP, integrated Environmental Assessment, and 404(b)(1) Evaluation are being circulated for public and agency review.

Proposed Action. The objective of the DMMP is to prepare a coordinated, long-term plan for managing dredging and placement site requirements on the Minnesota River. The DMMP emphasizes full implementation of the existing placement sites and focuses on selecting additional requirements to satisfy placement of all material projected for the planning period. Dredging to maintain the barge terminals by private companies is essential for continued operations. It is more cost effective to combine efforts and develop sites that can accommodate both Federal and private dredging requirements versus identifying sites strictly for Corps channel maintenance and then letting the private companies locate and acquire sites for their material.

An estimated 1,156,400 cubic yards of material will be dredged from the navigation channel and private barge slips (669,600 cubic yards and 486,800 cubic yards respectively) over the next 27 years. This material would be periodically placed on sites selected in the DMMP.

Dredged material would be periodically placed at two sites. The Cargill East River site (11 acres) is located along the right descending bank at river mile 14.1 The Kraemer site (12 acres) is located along the right descending bank at river mile 12.1. Material placed at these sites would be removed for beneficial use, restoring the capacity of the sites.

Schedule. The DMMP has a planning horizon of 27 years, which ties into the planning period covered in the Corps Channel Maintenance Management Plan. Dredged material would be placed at selected sites periodically over the next 27 years depending on the need for dredging at any particular time. An accurate projection of when sites will be used cannot be made because of the dynamic nature of sediment movement on the Minnesota River. The DMMP provides estimates of annual frequency of dredging based on historic dredging patterns.

Summary of Environmental Impacts. Sediments to be dredged from the main navigation channel are coarse, containing less than 5% silts and clays. Material from the private barge slips is generally finer. Contaminants were found only at relatively low values in the navigation channel and private barge slip sediments. Only minor impacts on water quality are anticipated. Use of the recommended placement sites would impact around 23 acres of old agricultural fields and an active placement site. Around 0.04 acres of wetlands at the Cargill East River site would be impacted to provide road access. The wetland is located along the existing road ditch. A culvert would be placed in the new road access to provide water exchange in the wetland and reduce impacts on the existing hydrology. The Lower Minnesota River Watershed District will construct a 0.08 acre (3,725 square feet) wetland on-site to compensate for the filling of the 0.04 acres of wetland. No impacts on Federally-listed endangered or threatened species would occur from either the dredging or placement. The placement sites have been surveyed and no cultural material was found. Dredging and placement of material at the selected sites would not have any effects on cultural resources. Placement of dredged material within the Minnesota River would have a minor impact on aesthetic qualities. The proposed actions should have long-term positive impacts on economics and commercial navigation. Some floodplain impacts might occur with the use of the placement sites; around 0.1 foot cumulative rise in the 100-year flood levels. The Watershed District has obtained the necessary floodway permit from the City of Savage, Minnesota. The local permit requires that “in the event of flooding, the

dredge material must be removed so as not impede the natural drainage or contribute to flooding upstream". In addition, removal of most of the dredged material before the next high water event will occur which will also minimize floodplain impacts.

Coordination. As required under the Fish and Wildlife Coordination Act, this project is being coordinated with the Minnesota Department of Natural Resources, the Minnesota Pollution Control Agency, Wisconsin Department of Natural Resources (WDNR), the U.S. Environmental Protection Agency, the Minnesota State Historic Preservation Officer and Historical Society, and the U.S. Fish and Wildlife Service.

Who Should Reply? Any interested parties that may be affected by the proposed work are invited to submit to this office facts, arguments, or objections to the proposal within 30 days of this notice. These statements should bear upon the adequacy of plans and suitability of locations and should, if appropriate, suggest any changes considered desirable. Statements should indicate that they are in response to this public notice. All replies should be addressed to the District Engineer, St. Paul District, Corps of Engineers, ATTN: PM-E, 190 Fifth Street East Suite 401, St. Paul, Minnesota 55101-1638. Mr. Dennis Anderson, phone number (651) 290-5272 and email dennis.d.anderson@.usace.army.mil, can be contacted for additional information regarding the Environmental Assessment and 404(b)(1) Evaluation. Ms. Lisa Lund, phone number 608-687-3112 x8 and email lisa.j.lund@usace.army.mil , can be contacted for copies and additional information regarding the Dredged Material Management Plan. The document can be found on the St. Paul District Corps of Engineers internet home page (click on the River Resources Forum tab). It can also be found by clicking on the following link: MN River DMMP Mar 2007

Public Hearing. Anyone who has an interest that may be affected by the proposed project may request a public hearing. This request must be submitted in writing to the District Engineer within the comment period of this notice and must clearly set forth the interest that may be affected and the manner in which the interest may be affected by this activity. The District Engineer has the authority to modify the plan if comments and statements are received pursuant to this public notice that, in his or her judgment, reveal the necessity of modifying the proposed action, following appropriate consultation.

Steven Tapp
Operations Manager
Channels and Harbors Project

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
431 NORTH SHORE DRIVE/PO BOX 397
FOUNTAIN CITY, WI 54629

6 April 2007

SUBJECT: Minnesota River Dredged Material Management Plan

To Whom It May Concern:

There has been an update to the MN River DMMP March 2007. The FONSI (page 50) of the main document and Appendix A have been replaced with the enclosed documents. The MN River DMMP posted to the Corps of Engineers St. Paul District internet site has also been updated with the changes. http://www.mvp.usace.army.mil/docs/rrf/MN_River_DMMP_Draft.pdf

If you have any questions regarding the DMMP, please contact the undersigned at (608) 687-3112 ext. 8.

Sincerely,

Lisa J. Lund
Channel Maintenance Coordinator
Channels & Harbors Project

Enclosures

From: Lund, Lisa J MVP

To: "Al Fenedick (E-mail)"; Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; "Baylor, Sharonne "; Beatty, Richard J MVP; "Benjamin, Gretchen"; Berg, Kevin F MVP; Birkenstock, Terry MVP; Boldon, Bruce A MVP; Brownell, Kurt A MVP; "Catherine McCalvin (E-mail)"; "Clyde Male (E-mail)"; "Comstock, Paul"; Cox, Michael D MVR; Crump, Thomas L MVP; Dahlquist, Michael S MVP; "Daniel Higginbottom (E-mail)"; "Dennis Gimmestad (E-mail)"; DeZellar, Jeffrey T MVP; "Diane Ford-Shivvers (E-mail)"; "Dick Lambert (E-mail)"; "Don Hultman (E-mail)"; "Don Rogers (E-mail)"; "Eric Nelson (E-mail)"; Erickson, Christopher R MVP; Foley, Patrick M MVP; Frankosky, Gregory M MVP; "Franz, Bill"; "Frost, Neil"; "FWS - Mary Stefanski"; "Gary Wege (E-mail)"; Genz, Greg MVS External Stakeholder; "Grawe, Robin"; "Griffin, Michael"; Gulan, Jeffrey J MVP; Helming, Neil R MVP; Hendrickson, Jon S MVP; Jackson, Stuart P MVP; "James.Fischer@dnr.state.wi.us"; "joan_guilfoyle@nps.gov"; "Johnson, Scot"; "Johnson, Steve"; "Judy Mader (E-mail)"; "Kepper, Carl"; "Kieck, Larry"; Knoff, Michael R MVP; "Konrad, Martin"; Krumholz, Daniel J MVP; Krumholz, Marc F MVP; "Lynn Muench (awo_midcontinent@msn.com)"; Machajewski, Paul R MVP; "Mariner, Richard"; "Martinkovic, Patricia"; Mose, Marsha G MVP; "Nancy Duncan (Nancy_duncan@nps.gov)"; Nelson, Lee MVS External Stakeholder; Norton, Bruce C MVP; Novak, Tom MVP-PM-A; Otto, Richard J MVP; "Paul Labovitz (paul_labovitz@nps.gov)"; Perkl, Bradley E MVP; Powell, Donald L MVP; Hopkins, R MVS External Stakeholder; Reppe, Kurt J MVP; "Ronald Adams (E-mail)"; UMWA Qwest MVS External Stakeholder; Rydeen, David W MVP; Dickey, S S MVS External Stakeholder; "Schwinghammer, Roger"; "Senjem, Norman"; "Sherman Banker (E-mail)"; Sobiech, Jonathan J MVP; Soileau, Rebecca S MVP; "Sullins, Tony"; Tapp, Steven D MVP; "Ted Illston (E-mail)"; "terrys@lowermn.com"; "Thoreson, Randy"; Robinson, Tim MVS External Stakeholder; "Tim Schlagenhaft - MDNR"; Urich, Randall R MVP; Wilcox, Daniel B MVP; "Wooden, Rebecca"; "Yager, Tim"; "Al Fenedick (E-mail)"; Anderson, Dennis D MVP; Baumgard, Kevin L MVP; "Bill Franz - EPA (E-mail)"; "Carl Kepper"; Bauer, Shannon L MVP; Davidson, Mark D MVP; Verstegen, Peter E MVP; "Dale Homuth - MDNR (E-mail)"; "Dave Zappetillo - MDNR (E-mail)"; "Diana Regenscheid - MDNR (E-mail)"; "Dick Lambert - MDOT (E-mail)"; Foley, Patrick M MVP; "Gary Wege - FWS (E-mail)"; Hendrickson, Jon S MVP; "Judy Mader - MPCA (E-mail)"; Machajewski, Paul R MVP; Norton, Bruce C MVP; Otto, Richard J MVP; "Scot Johnson - MDNR (E-mail)"; Tapp, Steven D MVP; "Terry Schwalbe - LMRWD (E-mail)"; Nelson, Lee MVS External Stakeholder; Whiting, Robert J MVP; Boldon, Bruce A MVP; Krumholz, Daniel J MVP; "USGS - Jim Rogala"; "Paul Labovitz (paul_labovitz@nps.gov)";

"Don_Hultman@fws.gov"; "Patricia Martinkovic - FWS MNR"; "Rebecca Wooden"; "dennis.gimmestad@mnhs.org"; "Brian Watson (brian.watson@co.dakota.mn.us)"; "S Lijewski (slijewski@hcd.hennepin.mn.us)"; "P Beckius (pbeckius@co.scott.mn.us)"; "WDNR - Gretchen Benjamin"; "James.Fischer@dnr.state.wi.us"; "lawrence.kieck@dot.state.wi.us"; "Konrad, Martin"; "PE Sam Lucido (slucido@ci.savage.mn.us)"; "Jim Gates (jgates@ci.bloomington.mn.us)"; "Terry Schultz (terry.schultz@ci.burnsville.mn.us)"; "Leonard Kremer (lkremer@barr.com)"; "Ron Kraemer (kraemerr@aol.com)"; "Ed Schlampp (ed@schlampp.com)"; "Larry Samstad (lsamstad@popp.net)"; "Kent Francis (rynemark@earthlink.net)"; "C Gergen (cgergen@harveststates.com)"; "david.edmunds@kraemermm.com"; Dan Erz; "Jim Reiff (jim_reiff@cargill.com)"; "philandrie@andrie.com"; "fred@lametti.com"; "bargeman@aol.com"; Genz, Greg MVS External Stakeholder; "mn03@mail.house.gov"; "Paul Flynn (paul.flynn@mn.usda.gov)"; J Wilmshurst; M Looman; "Arne Stefferud (arne.stefferud@metc.state.mn.us)"; "Jon Lahti (jon.c.lahti@xcelenergy.com)";

Subject: MN River DMMP updates
Date: Friday, April 06, 2007 2:06:13 PM
Attachments: MN River DMMP Mar 2007 FONSI.pdf
MN River DMMP App A Mar 2007.pdf

There has been an update to the MN River DMMP. Please replace the FONSI (page 50) of the main document and Appendix A with the attached documents. The MN River DMMP posted to the internet site will be updated with the changes by 6:00 PM on Friday, 6 April. http://www.mvp.usace.army.mil/docs/rrf/MN_River_DMMP_Draft.pdf
If you have any questions, please contact the undersigned.

Lisa J Lund
Channel Maintenance Coordinator
Corps of Engineers, Channels and Harbors Section
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608-687-3112 x8
651-261-2905 (cell)

From: Lund, Lisa J MVP

To: "Al Fenedick (E-mail)"; Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; "Baylor, Sharonne "; Beatty, Richard J MVP; "Benjamin, Gretchen"; Berg, Kevin F MVP; Birkenstock, Terry MVP; Boldon, Bruce A MVP; Brownell, Kurt A MVP; "Catherine McCalvin (E-mail)"; "Clyde Male (E-mail)"; "Comstock, Paul"; Crump, Thomas L MVP; Dahlquist, Michael S MVP; "Daniel Higginbottom (E-mail)"; "Dennis Gimmestad (E-mail)"; DeZellar, Jeffrey T MVP; "Diane Ford-Shivvers (E-mail)"; "Dick Lambert (E-mail)"; "Don Hultman (E-mail)"; "Don Rogers (E-mail)"; "Eric Nelson (E-mail)"; Erickson, Christopher R MVP; "Fischer, Jim"; Foley, Patrick M MVP; Frankosky, Gregory M MVP; "Franz, Bill"; "Frost, Neil"; "Gary Wege (E-mail)"; Genz, Greg MVS External Stakeholder; "Grawe, Robin"; Griffin, Michael; Gulan, Jeffrey J MVP; Helming, Neil R MVP; Hendrickson, Jon S MVP; Jackson, Stuart P MVP; joan_guilfoyle@nps.gov; "Johnson, Scot"; "Johnson, Steve"; "Judy Mader (E-mail)"; "Kepper, Carl"; "Kieck, Larry"; Klingman, Jon A MVR; Knoff, Michael R MVP; Konrad, Martin; Krumholz, Daniel J MVP; Krumholz, Marc F MVP; Lund, Lisa J MVP; Lynn Muench (awo_midcontinent@msn.com); Machajewski, Paul R MVP; "Mariner, Richard"; "Martinkovic, Patricia"; Mose, Marsha G MVP; Nancy Duncan (Nancy_duncan@nps.gov); Nelson, Lee MVS External Stakeholder; Norton, Bruce C MVP; Novak, Tom MVP-PM-A; Otto, Richard J MVP; Paul Labovitz (paul_labovitz@nps.gov); Perkl, Bradley E MVP; Powell, Donald L MVP; Hopkins, R MVS External Stakeholder; Reppe, Kurt J MVP; "Ronald Adams (E-mail)"; UMWA Qwest MVS External Stakeholder; Rydeen, David W MVP; Dickey, S S MVS External Stakeholder; Schwinghammer, Roger; "Senjem, Norman"; "Sherman Banker (E-mail)"; Sobiech, Jonathan J MVP; Soileau, Rebecca S MVP; "Stefanski, Mary"; "Sullins, Tony"; Tapp, Steven D MVP; "Ted Illston (E-mail)"; terrys@lowermn.com; "Thoreson, Randy"; Robinson, Tim MVS External Stakeholder; Tim Schlagenhaft - MDNR; Urich, Randall R MVP; Wilcox, Daniel B MVP; "Wooden, Rebecca"; "Yager, Tim";

Subject: MN River DMMP Endorsed

Date: Wednesday, May 02, 2007 2:17:56 PM

RRF Members,

This is a follow-up to the email below requesting endorsement of the MN River DMMP proposed by the Corps of Engineers. All votes are in and it was a unanimous decision "FOR ENDORSEMENT." I would like to thank the voting members for your prompt attention to this and all of the members for your consideration and input.

Once the waiting period has closed for the public notice and any comments received have been addressed, the FONSI will be signed. I will send another email out when this has been completed and the signed, final document has been posted to our internet site.

Lisa J Lund
Channel Maintenance Coordinator
Corps of Engineers, Channels and Harbors Section

From: Paul_Labovitz@nps.gov
To: Lund, Lisa J MVP;
Subject: Re: FW: MN River DMMP Endorsement Request
Date: Wednesday, May 02, 2007 1:02:17 PM

The National Park Service endorses the MN River DMMP...sorry for the delay!
Paul
National Park Service
EXPERIENCE YOUR AMERICA
Paul Labovitz, Superintendent
Mississippi National River & Recreation Area
111 Kellogg Blvd. East, Suite 105
St. Paul, MN 55101
651-290-3030/222 651-290-3214 FAX
www.nps.gov/miss/

"Lund, Lisa J MVP" <Lisa.J.Lund@mvp02.usace.army.mil> 05/02/2007 11:42 AM EST

To: "Don Hultman \(E-mail\)" <Don_Hultman@fws.gov>, <paul_labovitz@nps.gov>
cc:
Subject: FW: MN River DMMP Endorsement Request

This is just a friendly reminder requesting your vote FOR or AGAINST endorsing the MN River DMMP. The deadline is today.
Thanks,
Lisa

-----Original Message-----
From: Lund, Lisa J MVP
Sent: Monday, April 02, 2007 3:14 PM
To: 'Al Fenedick (E-mail)'; Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; 'Baylor, Sharonne '; Beatty, Richard J MVP; 'Benjamin, Gretchen'; Berg, Kevin F MVP; Birkenstock, Terry MVP; Boldon, Bruce A MVP; Brownell, Kurt A MVP; 'Catherine McCalvin (E-mail)'; 'Clyde Male (E-mail)'; 'Comstock, Paul'; Cox, Michael D MVR; Crump, Thomas L MVP; Dahlquist, Michael S MVP; 'Daniel Higginbottom (E-mail)'; 'Dennis Gimmestad (E-mail)'; DeZellar, Jeffrey T MVP; 'Diane Ford-Shivvers (E-mail)'; 'Dick Lambert (E-mail)'; 'Don Hultman (E-mail)'; 'Don Rogers (E-mail)'; 'Eric Nelson (E-mail)'; Erickson, Christopher R MVP; Foley, Patrick M MVP; Frankosky, Gregory M MVP; 'Franz, Bill'; 'Frost, Neil'; FWS - Mary Stefanski; 'Gary Wege (E-mail)'; Genz, Greg MVS External Stakeholder; 'Grawe, Robin'; Griffin, Michael; Gulan, Jeffrey J MVP; Helming, Neil R MVP; Hendrickson, Jon S MVP; Jackson, Stuart P MVP; James.Fischer@dnr.state.wi.us; joan_guilfoyle@nps.gov; 'Johnson, Scot';

From: Rebecca Wooden

To: Dickey, S S MVS External Stakeholder; Robinson, Tim MVS External Stakeholder; Hopkins, R MVS External Stakeholder; Genz, Greg MVS External Stakeholder; Don Rogers (E-mail); Daniel Higginbottom (E-mail); Diane Ford-Shivvers (E-mail); Martin Konrad; Michael Griffin; Scot Johnson; Tim Schlagenhaft; Gretchen Benjamin; James.Fischer@dnr.state.wi.us; Paul Comstock; Dick Lambert (E-mail); Larry Kieck; Ronald Adams (E-mail); Al Fenedick (E-mail); Bill Franz; Richard Mariner; Neil Frost; Clyde Male (E-mail); Don Hultman (E-mail); Eric Nelson (E-mail); Gary Wege (E-mail); FWS - Mary Stefanski; Patricia Martinkovic; Sharonne Baylor; Tim Yager; Tony Sullins; Robin Grawe; terrys@lowermn.com; Dennis Gimmestad (E-mail); awo_midcontinent@msn.com; Perkl, Bradley E MVP; Boldon, Bruce A MVP; Norton, Bruce C MVP; Erickson, Christopher R MVP; Wilcox, Daniel B MVP; Krumholz, Daniel J MVP; Rydeen, David W MVP; Anderson, Dennis D MVP; Powell, Donald L MVP; Frankosky, Gregory M MVP; Gulan, Jeffrey J MVP; DeZellar, Jeffrey T MVP; Hendrickson, Jon S MVP; Sobiech, Jonathan J MVP; Berg, Kevin F MVP; Baumgard, Kevin L MVP; Brownell, Kurt A MVP; Reppe, Kurt J MVP; Lund, Lisa J MVP; Krumholz, Marc F MVP; Mose, Marsha G MVP; Bart, Michael J MVP; Knoff, Michael R MVP; Dahlquist, Michael S MVP; Helming, Neil R MVP; Foley, Patrick M MVP; Machajewski, Paul R MVP; Urich, Randall R MVP; Soileau, Rebecca S MVP; Beatty, Richard J MVP; Otto, Richard J MVP; Tapp, Steven D MVP; Jackson, Stuart P MVP; Birkenstock, Terry MVP; Crump, Thomas L MVP; Novak, Tom MVP-PM-A; Cox, Michael D MVR; joan_guilfoyle@nps.gov; Nancy_duncan@nps.gov; paul_labovitz@nps.gov; Randy Thoreson; Steve Johnson; Judy Mader (E-mail); Norman Senjem; UMWA Qwest MVS External Stakeholder; Roger Schwinghammer; Catherine McCalvin (E-mail); Ted Illston (E-mail); Nelson, Lee MVS External Stakeholder; Carl Kepper; Sherman Banker (E-mail);

Subject: Re: MN River DMMP Endorsement Request - for Endorsement

Date: Friday, April 27, 2007 10:46:37 AM

Minnesota is "FOR ENDORSEMENT". Thank you.

Rebecca Wooden
Division of Waters
MN Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155-4032
651-259-5717

>>> "Lund, Lisa J MVP" <Lisa.J.Lund@mvp02.usace.army.mil> 4/2/2007 >>>
RRF Members -
The final Dredged Material Management Plan (DMMP) dated March 2007 for the Minnesota River above the I-35W Bridge has been posted to St. Paul District Corps of Engineers internet home page for your review. The document can be

From: Tony_Sullins@fws.gov
To: Lund, Lisa J MVP;
cc: awo_midcontinent@msn.com; Perkl, Bradley E MVP; Boldon, Bruce A MVP; Norton, Bruce C MVP; Kepper, Carl; Erickson, Christopher R MVP; Clyde Male (E-mail); Catherine McCalvin (E-mail); Wilcox, Daniel B MVP; Daniel Higginbottom (E-mail); Krumholz, Daniel J MVP; Rydeen, David W MVP; Anderson, Dennis D MVP; Dennis Gimmestad (E-mail); Diane Ford-Shivvers (E-mail); Dick Lambert (E-mail); Powell, Donald L MVP; Don Hultman (E-mail); Don Rogers (E-mail); Eric Nelson (E-mail); Al Fenedick (E-mail); Franz, Bill; Gary Wege (E-mail); Genz, Greg MVS External Stakeholder; Frankosky, Gregory M MVP; Benjamin, Gretchen; James.Fischer@dnr.state.wi.us; Gulan, Jeffrey J MVP; DeZellar, Jeffrey T MVP; joan_guilfoyle@nps.gov; Sobiech, Jonathan J MVP; Hendrickson, Jon S MVP; Judy Mader (E-mail); Berg, Kevin F MVP; Baumgard, Kevin L MVP; Brownell, Kurt A MVP; Reppe, Kurt J MVP; Kieck, Larry; Nelson, Lee MVS External Stakeholder; Lund, Lisa J MVP; Krumholz, Marc F MVP; Mariner, Richard; Mose, Marsha G MVP; Konrad, Martin; FWS - Mary Stefanski; Cox, Michael D MVR; Griffin, Michael; Bart, Michael J MVP; Knoff, Michael R MVP; Dahlquist, Michael S MVP; Nancy_duncan@nps.gov; Frost, Neil; Helming, Neil R MVP; Senjem, Norman; Martinkovic, Patricia; Foley, Patrick M MVP; Comstock, Paul; Machajewski, Paul R MVP; paul_labovitz@nps.gov; Grawe, Robin; Urich, Randall R MVP; Thoreson, Randy; Soileau, Rebecca S MVP; Wooden, Rebecca; Beatty, Richard J MVP; Otto, Richard J MVP; Schwinghammer, Roger; Ronald Adams (E-mail); Hopkins, R MVS External Stakeholder; Johnson, Scot; Baylor, Sharonne ; Sherman Banker (E-mail); Dickey, S S MVS External Stakeholder; Tapp, Steven D MVP; Johnson, Steve; Jackson, Stuart P MVP; terrys@lowermn.com; Birkenstock, Terry MVP; Crump, Thomas L MVP; Ted Illston (E-mail); Yager, Tim; Tim Schlagenhaft - MDNR; Novak, Tom MVP-PM-A; Robinson, Tim MVS External Stakeholder; UMWA Qwest MVS External Stakeholder;
Subject: Re: MN River DMMP Endorsement Request
Date: Wednesday, May 02, 2007 12:59:40 PM
Attachments: Changes Mar 2007 MN DMMP.doc

The U.S. Fish and Wildlife Service votes "FOR ENDORSEMENT."
Tony Sullins
Field Supervisor
Twin Cities Ecological Services Field Office

"Lund, Lisa J MVP" <Lisa.J.Lund@mvp02.usace.army.mil> To "Al Fenedick \(E-mail\)"

From: Martin Konrad
To: Lund, Lisa J MVP;
cc: Michael Griffin;
Subject: Re: MN River DMMP Endorsement Request
Date: Thursday, April 19, 2007 4:02:12 PM

Lisa,
Iowa endorses the Dredged Material Management Plan (DMMP) dated March 2007 for the Minnesota River above the I-35W Bridge.
Martin Konrad
>>> "Lund, Lisa J MVP" <Lisa.J.Lund@mvp02.usace.army.mil> 4/2/2007 3:13 PM >>>
RRF Members -
The final Dredged Material Management Plan (DMMP) dated March 2007 for the Minnesota River above the I-35W Bridge has been posted to St. Paul District Corps of Engineers internet home page for your review. The document can be found on the St. Paul District Corps of Engineers internet home page (click on the River Resources Forum tab). It can also be found by clicking on the following link
http://www.mvp.usace.army.mil/navigation/default.asp?pageid=1265&subpageid=398. The attachment includes a table listing the changes that were made to the March 2007 document based on review comments from the October 2000 document.
The plan is on the agenda to be discussed at the RRF on April 24. Please review the document prior to the RRF and discuss with your voting representative if necessary.

RRF Voting Members -
The following is a list of current RRF voting members. If you are no longer the official voting member for the agency or state listed, please pass this information on to the correct person and also let me know so our mailing and distribution can be changed. Please note that there is one vote per State. The voting member for each State will need to coordinate with all appropriate State agencies to make a consolidated response.
US Army Corps of Engineers Steve Tapp
US Fish & Wildlife Service Don Hultman
US Coast Guard Lt. Carl Kepper
US National Park Service Paul Labovitz
State of Iowa Martin Konrad
State of Minnesota Rebecca Wooden
State of Wisconsin Gretchen Benjamin
A hard copy of the DMMP will be mailed to each of the RRF Voting Members. Please reply to this email by 2 May 2007 with your vote "FOR ENDORSEMENT" or "AGAINST ENDORSEMENT."
If you have any questions regarding the DMMP or would like to request a hard copy, please contact the undersigned.
Lisa J Lund
Channel Maintenance Coordinator
Corps of Engineers, Channels and Harbors Section
431 N Shore Drive/PO Box 397
Fountain City, WI 54629
608-687-3112 x8
651-261-2905 (cell)

From: Kepper, Carl LT
To: Lund, Lisa J MVP;
Subject: RE: MN River DMMP Endorsement Request
Date: Tuesday, April 03, 2007 1:16:54 PM

Lisa,
The Coast Guard votes "FOR ENDORSEMENT" in favor of the proposal.
v/r
LT Carl Kepper
MSD ST. Paul
-----Original Message-----
From: Lisa.J.Lund@mvp02.usace.army.mil [mailto:Lisa.J.Lund@mvp02.usace.army.mil]
Sent: Monday, April 02, 2007 3:14 PM
To: Al Fenedick (E-mail); Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; Baylor, Sharonne ; Beatty, Richard J MVP; Benjamin, Gretchen; Berg, Kevin F MVP; Birkenstock, Terry MVP; Boldon, Bruce A MVP; Brownell, Kurt A MVP; Catherine McCalvin (E-mail); Clyde Male (E-mail); Comstock, Paul; Cox, Michael D MVR; Crump, Thomas L MVP; Dahlquist, Michael S MVP; Daniel Higginbottom (E-mail); Dennis Gimmestad (E-mail); DeZellar, Jeffrey T MVP; Diane Ford-Shivvers (E-mail); Dick Lambert (E-mail); Don Hultman (E-mail); Rogers, Donald BMCS; Eric Nelson (E-mail); Erickson, Christopher R MVP; Foley, Patrick M MVP; Frankosky, Gregory M MVP; Franz, Bill; Frost, Neil; FWS - Mary Stefanski; Gary Wege (E-mail); Genz, Greg MVS External Stakeholder; Grawe, Robin; Griffin, Michael; Gulan, Jeffrey J MVP; Helming, Neil R MVP; Hendrickson, Jon S MVP; Jackson, Stuart P MVP; James.Fischer@dnr.state.wi.us; joan_guilfoyle@NPS.Gov; Johnson, Scot; Johnson, Steve; Judy Mader (E-mail); Kepper, Carl LT; Kieck, Larry; Knoff, Michael R MVP; Konrad, Martin; Krumholz, Daniel J MVP; Krumholz, Marc F MVP; Lund, Lisa J MVP; awo_midcontinent@msn.com; Machajewski, Paul R MVP; Mariner, Richard; Martinkovic, Patricia; Mose, Marsha G MVP; Nancy_duncan@NPS.Gov; Nelson, Lee MVS External Stakeholder; Norton, Bruce C MVP; Novak, Tom MVP-PM-A; Otto, Richard J MVP; paul_labovitz@NPS.Gov; Perkl, Bradley E MVP; Powell, Donald L MVP; Hopkins, R MVS External Stakeholder; Reppe, Kurt J MVP; Ronald Adams (E-mail); UMWA Qwest MVS External Stakeholder; Rydeen, David W MVP; Dickey, S S MVS External Stakeholder; Schwinghammer, Roger; Senjem, Norman; Sherman Banker (E-mail); Sobiech, Jonathan J MVP; Soileau, Rebecca S MVP; Sullins, Tony; Tapp, Steven D MVP; Ted Illston (E-mail); terrys@lowermn.com; Thoreson, Randy; Robinson, Tim MVS External Stakeholder; Tim Schlagenhaft - MDNR; Urich, Randall R MVP; Wilcox, Daniel B MVP; Wooden, Rebecca; Yager, Tim
Subject: MN River DMMP Endorsement Request
RRF Members -
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http://www.mvp.usace.army.mil/navigation/default.asp?pageid=1265&subpageid=398. The attachment includes a table listing the changes that were made to the March 2007 document based on review comments from the October 2000 document.
The plan is on the agenda to be discussed at the RRF on April 24. Please review the document prior to the RRF and discuss with your voting representative if necessary.

RRF Voting Members -
The following is a list of current RRF voting members. If you are no longer the official voting member for the agency or state listed, please pass this information on to the correct person and also let me know so our mailing and distribution can be changed. Please note that there is one vote per State. The voting member for each State will need to coordinate with all appropriate

From: Benjamin, Gretchen L - DNR

To: Lund, Lisa J MVP; Al Fenedick (E-mail); Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; Baylor, Sharonne ; Beatty, Richard J MVP; Berg, Kevin F MVP; Birkenstock, Terry MVP; Boldon, Bruce A MVP; Brownell, Kurt A MVP; Catherine McCalvin (E-mail); Clyde Male (E-mail); Comstock, Paul; Cox, Michael D MVR; Crump, Thomas L MVP; Dahlquist, Michael S MVP; Daniel Higginbottom (E-mail); Dennis Gimmestad (E-mail); DeZellar, Jeffrey T MVP; Diane Ford-Shivvers (E-mail); Dick Lambert (E-mail); Don Hultman (E-mail); Don Rogers (E-mail); Eric Nelson (E-mail); Erickson, Christopher R MVP; Foley, Patrick M MVP; Frankosky, Gregory M MVP; Franz, Bill; Frost, Neil; FWS - Mary Stefanski; Gary Wege (E-mail); Genz, Greg MVS External Stakeholder; Grawe, Robin; Griffin, Michael; Gulan, Jeffrey J MVP; Helming, Neil R MVP; Hendrickson, Jon S MVP; Jackson, Stuart P MVP; Fischer, James R - DNR; joan_guilfoyle@nps.gov; Johnson, Scot; Johnson, Steve; Judy Mader (E-mail); Kepper, Carl; Kieck, Lawrence - DOT; Knoff, Michael R MVP; Konrad, Martin; Krumholz, Daniel J MVP; Krumholz, Marc F MVP; awo_midcontinent@msn.com; Machajewski, Paul R MVP; Mariner, Richard; Martinkovic, Patricia; Mose, Marsha G MVP; Nancy_duncan@nps.gov; Nelson, Lee MVS External Stakeholder; Norton, Bruce C MVP; Novak, Tom MVP-PM-A; Otto, Richard J MVP; paul_labovitz@nps.gov; Perkl, Bradley E MVP; Powell, Donald L MVP; Hopkins, R MVS External Stakeholder; Reppe, Kurt J MVP; Adams, Ron - DOT; UMWA Qwest MVS External Stakeholder; Rydeen, David W MVP; Dickey, S S MVS External Stakeholder; Schwinghammer, Roger; Senjem, Norman; Banker, Sherman J - WHS; Sobiech, Jonathan J MVP; Soileau, Rebecca S MVP; Sullins, Tony; Tapp, Steven D MVP; Ted Illston (E-mail); terrys@lowermn.com; Thoreson, Randy; Robinson, Tim MVS External Stakeholder; Tim Schlagenhaft - MDNR; Urich, Randall R MVP; Wilcox, Daniel B MVP; Wooden, Rebecca; Yager, Tim;

Subject: RE: MN River DMMP Endorsement Request

Date: Monday, April 23, 2007 2:05:26 PM

Wisconsin votes for endorsement.

Gretchen Benjamin
Mississippi River Team Leader
WDNR
3550 Mormon Coulee RD
La Crosse, WI 54601
608-785-9982

-----Original Message-----
From: Lund, Lisa J MVP [mailto:Lisa.J.Lund@mvp02.usace.army.mil]
Sent: Monday, April 02, 2007 3:14 PM
To: Al Fenedick (E-mail); Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; Baylor, Sharonne ; Beatty, Richard J MVP;

From: Tapp, Steven D MVP
To: Lund, Lisa J MVP;
cc: "Al Fenedick (E-mail)"; Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; "Baylor, Sharonne "; Beatty, Richard J MVP; "Benjamin, Gretchen"; Berg, Kevin F MVP; Birkenstock, Terry MVP; Boldon, Bruce A MVP; Brownell, Kurt A MVP; "Catherine McCalvin (E-mail)"; "Clyde Male (E-mail)"; "Comstock, Paul"; Cox, Michael D MVR; Crump, Thomas L MVP; Dahlquist, Michael S MVP; "Daniel Higginbottom (E-mail)"; "Dennis Gimmestad (E-mail)"; DeZellar, Jeffrey T MVP; "Diane Ford-Shivvers (E-mail)"; "Dick Lambert (E-mail)"; "Don Hultman (E-mail)"; "Don Rogers (E-mail)"; "Eric Nelson (E-mail)"; Erickson, Christopher R MVP; Foley, Patrick M MVP; Frankosky, Gregory M MVP; "Franz, Bill"; "Frost, Neil"; "FWS - Mary Stefanski"; "Gary Wege (E-mail)"; Genz, Greg MVS External Stakeholder; "Grawe, Robin"; "Griffin, Michael"; Gulan, Jeffrey J MVP; Helming, Neil R MVP; Hendrickson, Jon S MVP; Jackson, Stuart P MVP; "James.Fischer@dnr.state.wi.us"; "joan_guilfoyle@nps.gov"; "Johnson, Scot"; "Johnson, Steve"; "Judy Mader (E-mail)"; "Kepper, Carl"; "Kieck, Larry"; Knoff, Michael R MVP; "Konrad, Martin"; Krumholz, Daniel J MVP; Krumholz, Marc F MVP; "Lynn Muench (awo_midcontinent@msn.com)"; Machajewski, Paul R MVP; "Mariner, Richard"; "Martinkovic, Patricia"; Mose, Marsha G MVP; "Nancy Duncan (Nancy_duncan@nps.gov)"; Nelson, Lee MVS External Stakeholder; Norton, Bruce C MVP; Novak, Tom MVP-PM-A; Otto, Richard J MVP; "Paul Labovitz (paul_labovitz@nps.gov)"; Hopkins, R MVS External Stakeholder; Reppe, Kurt J MVP; "Ronald Adams (E-mail)"; UMWA Qwest MVS External Stakeholder; Rydeen, David W MVP; Dickey, S S MVS External Stakeholder; "Schwinghammer, Roger"; "Senjem, Norman"; "Sherman Banker (E-mail)"; Sobiech, Jonathan J MVP; Soileau, Rebecca S MVP; "Sullins, Tony"; Perkl, Bradley E MVP; Powell, Donald L MVP; "Ted Illston (E-mail)"; "terrys@lowermn.com"; "Thoreson, Randy"; Robinson, Tim MVS External Stakeholder; "Tim Schlagenhaft - MDNR"; Urich, Randall R MVP; Wilcox, Daniel B MVP; "Wooden, Rebecca"; "Yager, Tim";
Subject: RE: MN River DMMP Endorsement Request
Date: Tuesday, May 01, 2007 12:58:54 PM

The Corps votes "FOR ENDORSEMENT."
-----Original Message-----
From: Lund, Lisa J MVP
Sent: Monday, April 02, 2007 3:14 PM
To: 'Al Fenedick (E-mail)'; Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; 'Baylor, Sharonne '; Beatty, Richard J MVP; 'Benjamin, Gretchen'; Berg, Kevin F MVP; Birkenstock, Terry MVP; Boldon, Bruce A MVP; Brownell, Kurt A MVP; 'Catherine McCalvin (E-mail)'; 'Clyde Male (E-mail)'; 'Comstock, Paul'; Cox, Michael D MVR; Crump, Thomas L MVP; Dahlquist, Michael S MVP; 'Daniel Higginbottom (E-mail)'; 'Dennis Gimmestad (E-mail)'; DeZellar, Jeffrey T MVP; 'Diane Ford-Shivvers (E-mail)'; 'Dick Lambert (E-mail)'; 'Don Hultman (E-mail)'; 'Don Rogers (E-mail)'; 'Eric Nelson (E-mail)';

City of
BURNSVILLE
952-895-4400
100 Civic Center Parkway • Burnsville, Minnesota 55337-3817
www.burnsville.org

May 1, 2007

District Engineer
St. Paul District, Corps of Engineers
ATTN: PM-E
190 Fifth Street East, Suite 401
St. Paul, MN 55101-1638

RE: City of Burnsville Comments on Proposed Dredged Material Management Plan (DMMP) for the Lower Minnesota River -- Above I-35W Bridge

To Whom It May Concern:

The purpose of this letter is to provide comments in response to the Minnesota River DMMP public notice, and provide an update on the development and zoning approvals which recently occurred for the Burnsville Sanitary Landfill site (referred to as the "Below Cargill" site and the "Kraemer" site in the DMMP).

The entire DMMP site labeled "Below Cargill MN-12.4 RMP", as well as, the western two thirds of the site labeled "Kraemer –MN-12.1-RMP" is located on the northerly part of a 362 acre site that is currently owned by Burnsville Sanitary Landfill Incorporated (BSLI). BSLI recently purchased this property for purposes of expanding their existing nearby landfill, and Cargill Company no longer owns this property as noted in the DMMP. This site received Comprehensive Plan, zoning and platting approvals from the City of Burnsville on October 2, 2006 for expansion of the existing landfill. Specifically the 362 acre site Comprehensive Plan land use designation was changed from General Industry to Commercial Recreation Business, the site was rezoned from I-2/PUD (General Industry/Planned Unit Development) to CRD/PUD (Commercial Recreation District/Planned Unit Development) and the preliminary and final plat of BSLI Addition was approved. The zoning approval included Development Stage PUD approval allowing the landfill operation to continue as an interim use with the final end use plan of an 18 hole championship golf course on top of the landfill, public park land, and open space in the area platted as Outlot A (see BSLI plat map). A public trail system will be constructed around the landfill/future golf course within the 43 acre Outlot A area, to be transferred to the City of Burnsville to satisfy park dedication requirements. The anticipated closure dated for the landfill is 2018.

Further, several acres of wetland will be filled in connection with expansion of the landfill and permits were issued from both the US Army Corps of Engineers and the City of Burnsville identifying the proposed "Below Cargill" and western two thirds of the "Kraemer" site as future wetland mitigation area (see BSLI wetland credit figure). It is anticipated in the permits that this area will be restored to wetland in the year 2012. As such, the vast majority of Outlot A will be contained in a Conservation Easement to ensure that it remains in a natural state as wetland mitigation in perpetuity.

Accordingly the City of Burnsville supports the use of the "Below Cargill" and western two thirds of the "Kraemer" site through the year 2011 for dredge material. After that time, use of the "Below Cargill MN – 12.4 – RMP" site is inconsistent with the approved wetland permits, City of Burnsville Comprehensive Plan, and end use plan for the Burnsville Sanitary Landfill Inc., PUD.

Thank you for the opportunity to comment on the revised DMMP. Obviously, much has changed in our community since the last draft DMMP was considered in 2000. We appreciate your willingness to work with all the local communities in development of this plan.

Sincerely,

CITY OF BURNSVILLE

Craig Ebeling
City Manager

CITY OF BURNSVILLE

Terry Schultz
Director of Natural Resources

Attachments:

- BSLI Site map
- BSLI Plat Map
- BSLI Wetland Credit Areas
- MN River DMMP Plate # 1

c: Deb Garross – City Planner
Terry Schwalbe – LMRWD
Dave Edmunds – Kraemer Mining & Materials Inc.
Deb Walters – Burnsville Sanitary Landfill Inc.

Source: 2006 Orthophoto
Projection: NAD 83 UTM Zone 15N

0 500 1,000 Feet
1:7,800 1 Inches equals 650 Feet

N

c:\gis\U\59073\Fig1.mxd

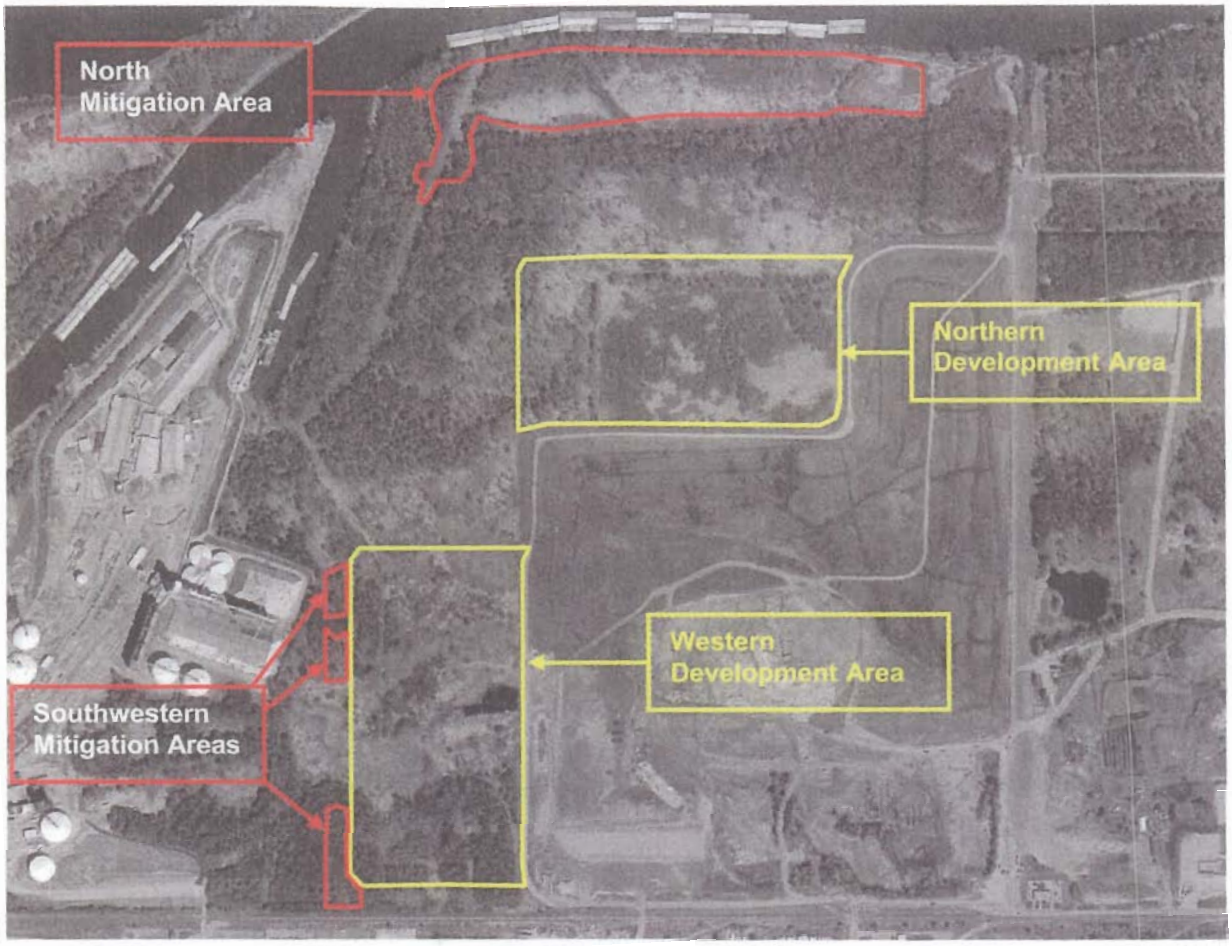
LIESCH Hydrogeologist Engineers Environmental Scientists

6000 Gisholt Drive, Suite 203
Madison, WI 53719
(608)223-1532

13400 15th Ave. N
Minneapolis, MN 55441
(763)489-3100

4300 N. Miller Rd. Suite 211
Phoenix, AZ 85251
(480)421-0853

Burnsville Sanitary Landfill	Jun 06
Current BSLI Property For Proposed PUD	Figure #1



N

Not to Scale

Figure 8. 2000 Aerial Photo
On-Site New Wetland Credit Areas
Burnsville Sanitary Landfill
Burnsville, Minnesota

GES

Graham Environmental Services, Inc.

GES Project No. 2005.010

St. Paul District
GIS CENTER
US Army Corps of Engineers®

Scale: 1 : 1000 Feet

1000 0 1000 2000 Feet

Image Data: 2003 USDA Farm Service Agency Orthophoto

N
W E
S

MINNESOTA RIVER DMMP

PLATE 1

BSLI ADDITION

City of Burnsville
Dakota County, MN

MINNESOTA RIVER

OUTLOT A

LOT 1

BLOCK 1

Gov't Lot 8

Gov't Lot 7

N 89°50'07" E 622.83

S00°10'51"W 1070.00

S89°50'07"W 50.00

South line of the North 600 feet of the NE 1/4 of the NE 1/4

East line of the West 50 feet of the NE 1/4 of the NE 1/4

N 89°52'45" E 300.00

N 89°33'19" E 1647.70

S00°10'51"W 2046.39

S00°12'35"W 1322.45

S89°45'48"W 1018.07

S89°45'33"W 2647.71

124th Street West

North line of Chicago, St. Paul, Minneapolis and Omaha Railway Company Right of Way

Chicago, St. Paul, Minneapolis and Omaha Railway Co. (A.K.A. Chicago and Northwestern Transportation Co.)

NW SEC. COR., SEC. 32, TWP. 27, RNG. 24 Found Dakota Co. Alum. Disk

NE. SEC. COR. SEC. 32, TWP. 27, RNG. 24,

E. 1/4 COR. SEC. 32, T27, R24 Mon not found

W. 1/4 COR. SEC. 32, T27, R24,

N. 1/4 COR., SEC. 32, TWP. 27, RNG. 24 Found Dakota Co. CIM

REF. CIM

See Detail A

See Detail B

Detail A

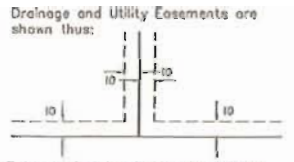
Detail B

City of Burnsville
Dakota County, MN

VICINITY MAP

0 300 600 900
SCALE IN FEET
SCALE: 1 INCH = 300 FEET

Drainage and Utility Easements are shown thus:



Being 10 feet in width and adjoining right-of-way lines, also being 10 feet in width and adjoining lot lines, unless otherwise indicated, as shown on the plat.

BEARING ORIENTATION:

Bearings are assumed. The West line of the Northwest Quarter of Sec. 32, Twp. 27, Rng. 24 which bears North 00°05'48" East.

LEGEND:

- O Denotes a Set 1/2 inch x 14 inch Iron Monument, capped LS 18095
- ● Denotes a Found Iron Monument.

Bogart, Pederson & Associates, Inc.

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
431 NORTH SHORE DRIVE/PO BOX 397
FOUNTAIN CITY, WI 54629

24 May 2007

City of Burnsville
100 Civic Center Parkway
Burnsville, MN 55337-3817

SUBJECT: Response to City of Burnsville Comments on Proposed MN River DMMP

To Whom It May Concern:

Thank you for taking the time to review the Minnesota River Dredged Material Management plan and providing comments. We appreciate the notification for the update on the development and zoning for the Burnsville Sanitary Landfill which affects our placement site activities. Thank you for supporting the use of the Below Cargill and western two thirds of the Kraemer placement sites through 2011 for dredged material.

Sincerely,

Lisa J. Lund
Channel Maintenance Coordinator
Channels & Harbors Project

UPPER MISSISSIPPI WATERWAY ASSOCIATION
INCORPORATED 1932
P.O. Box 7006
St. Paul, Minnesota 55107
651-776-3108
651-774-7049 FAX
umwa@qwest.net
Dedicated to navigation and sound water resource management

May 2, 2007

U.S. Army Corps of Engineers
Channels and Harbor Branch
431 North Shore Drive, PO Box 397
Fountain City, WI 54629-0397
Attn: Ms. Lisa Lund, Channel Maintenance Coordinator
Email: lisa.j.lund@usace.army.mil

Subject: Dredged Material Management Plan / Environmental Assessment
Minnesota River, Above I-35W Bridge, March 2007

These comments are filed in response to the above Minnesota River 9-foot channel project.

General comments

Members of our Association support the Corps' recommended Alternative 2D. This Alternative involves the use of the Kraemer (MN-12.1-RMP) and the Cargill East River (MN-14.2-RMP) placement sites. Alternative 2D provides for the placement of main channel sandy material as well as the lighter, finer material dredged from private slips, either mechanically or hydraulically. Beneficial use of all material placed at this site is expected and a good access road from the main highway exists for this purpose. As the site is adjacent to the main channel, effects on water quality would be short term and localized with no appreciable impact.

Cultural resources surveys have been conducted on both the Kraemer and Cargill East River placement sites with no significant findings. Coordination of both sites with the State Historic Preservation Office (SHPO) has been completed.

This Alternative will have very minor social impacts, as both sites are located in industrial areas. Material removed for beneficial use would have some minor impacts to transportation.

Finally, this Alternative ranks negative for impacts on fish and wildlife, positive on cultural resources, beneficial use, and dredging costs and neutral on all other criteria. The reason for the negative rank on fish and wildlife impacts is that approximately .25 acres of wetlands will be impacted for developing road access to the Cargill East River site.

Channel maintenance funding

In preparing our comments for this filing we found it difficult to separate the issues of dredge material *management* as focused on in the above referenced Plan from the channel maintenance budget allocation process itself, which makes the entire maintenance enterprise possible.

Our immediate concern is a system requiring separate funding accounts for the Minnesota and Mississippi rivers. This separate funding arises from the fact that the 9-foot navigation channel on the Minnesota River was not authorized until the 1958 River and Harbor Act, some 28 years after the Mississippi River's 9-foot channel was authorized. Thus the two rivers, one a tributary of the other, flowing through the same state and serving the same agricultural, economic and commercial interests, are, for budgetary purposes, treated as separate accounts.

While not normally a critical operational issue, this genesis difference is the cause of a current and serious maintenance funding issue on the Minnesota River.

Currently, only $7,000 is available to maintain the Minnesota River for the 2007 shipping season, an effort requiring in excess of $180,000. This funding deficiency is due to the unfortunate intersection of FY07 Continuing Resolution Authority (CRA) and the fact that no funds were allocated to perform 2006 dredging on the Minnesota River. The St. Paul District reported the average annual funding for the maintenance of the navigation channel on the Minnesota River for fiscal years 2003-2005 was $160,000. Had the CRA not occurred in FY 07, the President's budget for the Minnesota River was $188,000 and in FY 08 it is $194,000.

In an effort to correct this situation, (1) our Association has brought this matter to the attention of the Minnesota Congressional Delegation, (2) the St. Paul District is submitting a request for a waiver from reprogramming restrictions, and (3) we have written Brigadier General Robert Crear supporting this waiver and asking for his support.

Recognizing the nation's current domestic and international obligations, our Association is not asking for additional money. We are asking that money be reprogrammed from Mississippi River funds to the Minnesota River, a major agricultural tributary that transports approximately a one-fourth of the 13 million tons annually shipped in and out of the state of Minnesota having a value of $344 million (2006).

It is our belief that the current shortage of maintenance funding for the Minnesota River would not be an issue if it were not for the fact that separate accounting regimens are required.

Some may argue that comments directed at a dredge material management plan should not include maintenance funding issues, however UMWA maintains that without flexible funding options for critical, albeit, local projects, entire shipping seasons can be lost as an unintended consequence of program rigidity.

It is in this spirit of meaningful participation that our comments are offered.

Sincerely,

Richard Kreider
President

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
431 NORTH SHORE DRIVE/PO BOX 397
FOUNTAIN CITY, WI 54629

24 May 2007

Upper Mississippi Waterway Association
PO Box 7006
St. Paul, MN 55107

SUBJECT: Response to comments on MN River DMMP/EA

To Whom It May Concern:

Thank you for taking the time to review the Minnesota River Dredged Material Management plan and providing comments. We appreciate your support in Alternative 2D, the Cargill East River and Kraemer placement sites for dredged material.

We also appreciate your concerns for the Minnesota River funds. As you are aware, we recognize the need for funding on the Minnesota River and have submitted a waiver to reprogram money from the Mississippi River to the Minnesota River. At this time, we are still waiting word on the additional funds.

Sincerely,

Lisa J. Lund
Channel Maintenance Coordinator
Channels & Harbors Project

From:	Mader, Judy
To:	Lund, Lisa J MVP;
cc:	Anderson, Dennis D MVP; Benjamin, Gretchen; Dick Lambert (E-mail); Fischer, Jim; Gary Wege (E-mail); Genz, Greg MVS External Stakeholder; Johnson, Scot; Johnson, Steve; paul_labovitz@nps.gov; Sullins, Tony; Tapp, Steven D MVP; terrys@lowermn.com; Wooden, Rebecca; Gunderson, Larry;
Subject:	MN River DMMP
Date:	Wednesday, May 02, 2007 4:24:50 PM

RE: Comments on the Dredged Material Management Plan/Environmental Assessment
Minnesota River
Above I-35W Bridge

Lisa:
Thank you for the opportunity to review the St. Paul District of the U.S. Army Corps of Engineers' (COE) Dredged Material Management Plan/Environmental Assessment (DMMP/EA) for the Minnesota River Above the I-35W bridge. The MPCA has reviewed the DMMP/EA and provides the comments below for your consideration.
The MPCA believes that information in the first paragraph under Table 1-2 on page 5 may have changed since the paragraph was first written given the growth of the ethanol market in recent years.
At the end of the Beneficial Use section on page 13 it is mentioned that a 1998 marketing study indicated that fine material was not desirable. Was there an indication as to why fine material was undesirable? If so, please include that information in the DMMP.
It is stated on page A-8 under Contaminant Determinations that only low levels of contaminants were found in the 1999 sediment samples. Please define low levels.
The statement on page A-10 that the water quality standard for total suspended solids for this stretch of the Minnesota River is 30 milligrams per liter is in error. The water quality standard is for turbidity and the limit is 25 nephelometric (sp?) turbidity units (NTU). (The designated use class of this stretch of the River is 2C, 3B.) The Minnesota River is on the 303(d) list as impaired for turbidity from River Mile 22 to the mouth and work on formulating the Total Maximum Daily Load (TMDL) is slated to begin in 2008.
Miscellaneous comments
Please check all references to Continental Grain and Cargill West to ensure consistency in how the site is labeled.
It would be nice to see more recent shipping data in Table 1-2 on page 5. Similarly, the dredging needs mentioned on page 6 discuss a five-year period that ended in 1998.
Comparisons between Tables 3-1 and 3-2 would be easier if both tables used avg.(amount of dredged material)/job or avg./year.
What does MPFWG stand for as used in Table 3-2 on page 9? Perhaps a glossary of all of the acronyms used in the Plan could be included following the table of contents.
The MPCA does not recall receiving a copy of the report on the sediment quality of Minnesota River dredge cut material that constitutes the contents of Appendix B. The MPCA found several apparent typographical errors in the references to sampling sites in the discussions of the analytical results.

Sincerely,
Judy Mader
Minnesota Pollution Control Agency
520 Lafayette Road N.
St. Paul, MN 55155-4194
phone: (651) 296-7315
FAX: (651) 297-8683
-----Original Message-----
From: Lund, Lisa J MVP [mailto:Lisa.J.Lund@mvp02.usace.army.mil <mailto:Lisa.J.Lund@mvp02.usace.army.mil>]
Sent: Wednesday, May 02, 2007 2:18 PM

From: Lund, Lisa J MVP
To: "Mader, Judy";
Subject: RE: MN River DMMP
Date: Friday, May 25, 2007 1:19:49 PM

Judy -
Thank you for taking the time to review the MN River DMMP and providing comments. The following is a list of responses to your comments. I numbered your comments to correspond to the Corps responses.
1. The MN DMMP was originally drafted and sent out for review in Oct 2000. The document was never finalized and the FONSI was not signed at that time. In order to construct the new Cargill East River site, we realized we needed to finalize the document so we updated the detailed information on the Cargill East River site and included comments and responses from the Oct 2000 review, but did not feel the need to totally revise and update the document. Therefore, the information is still accurate, but it was written in 2000.
2. Potential users were contacted and most of them had more of a need for sand than fine material. The sand can be used for road construction, backfill, new development fill, winter road maintenance, cattle bedding, etc.
3. The sediment report in appendix B compares the sediment quality to past results from the Mississippi River and various sediment quality guidelines. Most of the samples had contaminate levels below the guidelines and the mean values for the Mississippi River above Lake Pepin.
4. Thank you for the correction on the water quality limits. The changes will be made in the final document.
5. Thank you for providing the comment on the consistency in labeling Continental Grain and Cargill West. The changes will be made in the final document.
6. We understand your comment regarding the time frame of the data. However, the response will refer back to item 1.
7. Table 3-1 and Table 3-2 are providing data for the long term, 27-year projection using two different methods. Table 3-1 projects the 27-year quantity based on historical records and Table 3-2 projects the 27-year quantity based on the GREAT study and adjustments that are based on avg/year.
8. MPFWG stands for Most Probable Future With GREAT. A note will be added below Table 3-2.
9. We apologize that the Sediment Quality Report was not sent out for a separate review. The report was provided in the draft Oct 2000 DMMP. We have reviewed the report and made editorial corrections.
Lisa J Lund
Channel Maintenance Coordinator
Corps of Engineers, Channels and Harbors Section
608-687-3112 x8
651-261-2905 (cell)

-----Original Message-----
From: Mader, Judy [mailto:Judy.Mader@state.mn.us]
Sent: Wednesday, May 02, 2007 4:24 PM
To: Lund, Lisa J MVP
Cc: Anderson, Dennis D MVP; Benjamin, Gretchen; Dick Lambert (E-mail); Fischer, Jim; Gary Wege (E-mail); Genz, Greg MVS External Stakeholder; Johnson, Scot; Johnson, Steve; paul_labovitz@nps.gov; Sullins, Tony; Tapp, Steven D MVP; terrys@lowermn.com; Wooden, Rebecca; Gunderson, Larry
Subject: MN River DMMP
RE: Comments on the Dredged Material Management Plan/Environmental Assessment
Minnesota River
Above I-35W Bridge

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Miscellaneous comments
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Sincerely,
Judy Mader
Minnesota Pollution Control Agency
520 Lafayette Road N.
St. Paul, MN 55155-4194
phone: (651) 296-7315
FAX: (651) 297-8683
-----Original Message-----
From: Lund, Lisa J MVP [mailto:Lisa.J.Lund@mvp02.usace.army.mil <mailto:Lisa.J.Lund@mvp02.usace.army.mil>]
Sent: Wednesday, May 02, 2007 2:18 PM
To: Al Fenedick (E-mail); Anderson, Dennis D MVP; Bart, Michael J MVP; Baumgard, Kevin L MVP; Baylor, Sharonne ; Beatty, Richard J MVP; Benjamin, Gretchen; Berg, Kevin F MVP; Birkenstock, Terry MVP; Boldon, Bruce A MVP; Brownell, Kurt A MVP; Catherine McCalvin (E-mail); Clyde Male (E-mail); Comstock, Paul; Crump, Thomas L MVP; Dahlquist, Michael S MVP; Daniel Higginbottom (E-mail); Dennis Gimmestad (E-mail); DeZellar, Jeffrey T MVP; Diane Ford-Shivvers (E-mail); Dick Lambert (E-mail); Don Hultman (E-mail); Don Rogers (E-mail); Eric Nelson (E-mail); Erickson, Christopher R MVP; Fischer, Jim; Foley, Patrick M MVP; Frankosky, Gregory M MVP; Franz, Bill; Frost, Neil; Gary Wege (E-mail); Genz, Greg MVS External Stakeholder; Grawe, Robin; Griffin, Michael; Gulan, Jeffrey J MVP; Helming, Neil R MVP; Hendrickson, Jon S MVP; Jackson, Stuart P MVP; joan_guilfoyle@nps.gov; Johnson, Scot; Johnson, Steve; Mader, Judy; Kepper, Carl; Kieck, Larry; Klingman, Jon A MVR; Knoff, Michael R MVP; Konrad, Martin; Krumholz, Daniel J MVP; Krumholz, Marc F MVP; Lund, Lisa J MVP; awo_midcontinent@msn.com; Machajewski, Paul R MVP; Mariner, Richard; Martinkovic, Patricia; Mose, Marsha G MVP; Nancy_duncan@nps.gov; Nelson, Lee MVS External Stakeholder; Norton, Bruce C MVP; Novak, Tom MVP-PM-A; Otto, Richard J MVP; paul_labovitz@nps.gov; Perkl, Bradley E MVP; Powell, Donald L MVP; Hopkins, R MVS External Stakeholder; Reppe, Kurt J MVP; Ronald Adams (E-mail); UMWA Qwest MVS External Stakeholder; Rydeen, David W MVP; Dickey, S S MVS External Stakeholder; Schwinghammer, Roger; Senjem, Norman; Sherman Banker (E-mail); Sobiech, Jonathan J MVP; Soileau, Rebecca S MVP; Stefanski, Mary; Sullins, Tony; Tapp, Steven D MVP; Ted Illston (E-mail); terrys@lowermn.com; Thoreson, Randy; Robinson, Tim MVS External Stakeholder; Tim Schlagenhaft - MDNR; Urich, Randall R MVP; Wilcox, Daniel B MVP; Wooden, Rebecca; Yager, Tim
Subject: MN River DMMP Endorsed

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
190 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

REPLY TO
ATTENTION OF:
Operations
Regulatory (2006-3365-JMK)

JUL 19 2006

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

Dear Mr. Schwalbe:

We have reviewed your permit application to discharge fill material over 1,795 square feet of wetlands adjacent to the Minnesota River during the construction of an access/haul road with a culvert. The project site is in the NW 1/4 of Sec. 31, T. 27N., R. 24W., Scott County, Minnesota.

The authorized work is shown on the enclosed drawings labeled 2006-3365-JMK, Page 1 of 2 and Page 2 of 2 hereby incorporated as part of this Letter of Permission. This authorization is issued under the provisions of GP/LOP-98-MN (MN LOP-B).

This action is based upon the recommendation of the Chief of Engineers and under the provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344). The authorization is subject to the enclosed General and Standard Conditions.

We understand that, in compliance with the Minnesota Wetland Conservation Act, wetland impacts will be compensated on-site with the construction of 3,725 square feet of wetland adjacent to the existing wetland channel.

The time limit for completing this authorized work ends two years from the date of this letter.

If your project will require off-site fill material that is **not** obtained from a licensed commercial facility, you must notify us at least five working days before start of work. A cultural resources survey may be required if a licensed commercial facility is not used.

This Federal authorization does not obviate the need to obtain other Federal, state or local authorizations required by law.

If you disagree with the enclosed jurisdictional determination, you may provide new information. Please follow the directions in Section D of the enclosed Notification of Administrative Appeal Options and Process and Request for Appeal.

If this letter of permission is not acceptable and you would like to appeal the permit decision, please follow the directions in Section A of the enclosed Notification of Administrative Appeal Options and Process and Request for Appeal.

The June 19, 2006, joint U.S. Supreme Court decision on *Rapanos vs. U.S.* and *Carabell vs. Corps of Engineers* addresses the scope of Clean Water Act jurisdiction over certain waters of the United States, including wetlands. If you believe this decision may affect the extent of our jurisdiction over aquatic areas impacted by your project or the compensatory mitigation requirements of your permit, you may exercise the following option. You may ask for a delay in the issuance of the permit until the St. Paul District receives substantive guidance from our headquarters regarding any possible impacts of the court decision. That guidance might require us to re-evaluate our jurisdiction and our permit conditions, including extent of compensatory mitigation. Otherwise, you can accept this permit now with its existing terms and conditions and proceed with your project.

The decision regarding this action is based on information found in the administrative record, which documents the District's decision-making process, the basis for the decision, and the final decision.

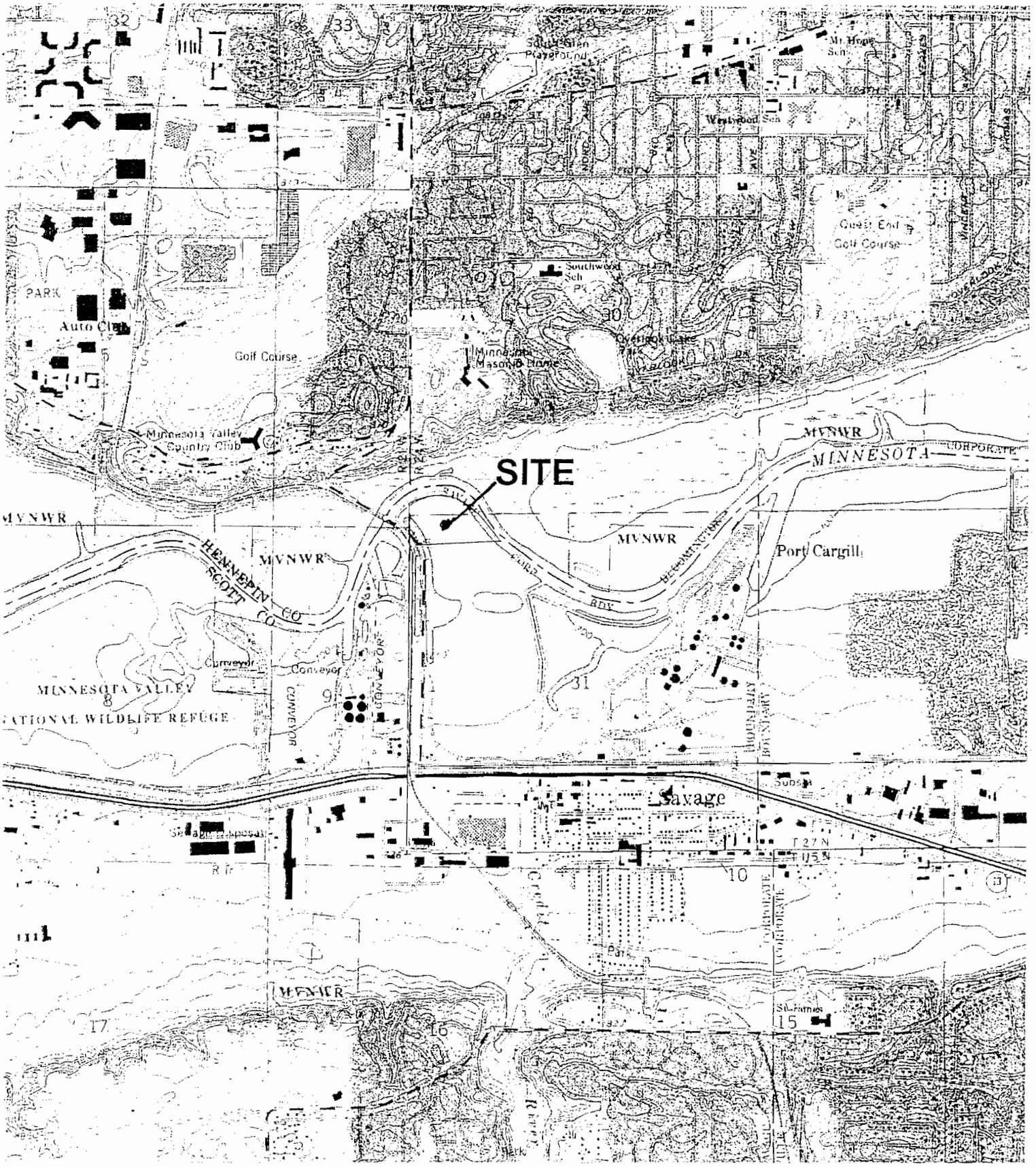
If you have any questions, contact Judith A. Kolb in our office at (651) 290-5361. In any correspondence or inquiries, please refer to the Regulatory number shown above.

Sincerely,

Marie L. DesHarnais

Judith L. A. DesHarnais
for Acting District Commander

Enclosures



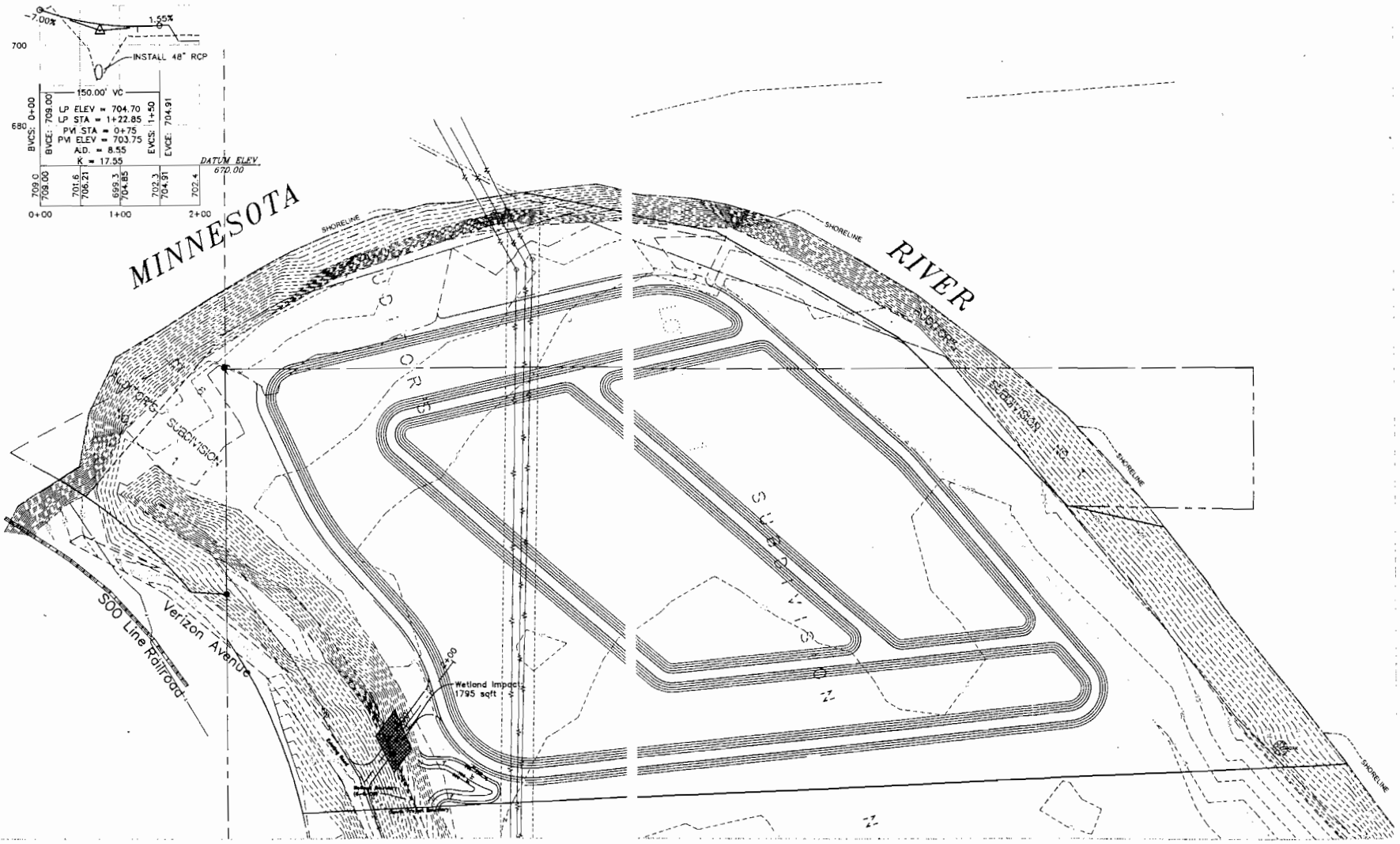
PROJECT LOCATION

2006-3365-JMK
Page 1 of 2

EXHIBIT A

LOWER MN RIVER WATERSHED DIST.
CARGILL DREDGE MATERIAL STORAGE SITE

Bonestroo Rosene Anderlik & Associates
Engineers & Architects



SITE PLAN AND WETLAND IMPACT LOCATION

EXHIBIT B

LOWER MN RIVER WATERSHED DIST.

CARGILL DREDGE MATERIAL STORAGE SITE

2006-3365-JMK

0 120

Scale in feet

Bonestroo Rosene Anderlik & Associates

Engineers & Architects

Operations
Regulatory-(2006-3365-JMK)

GP/LOP-98-MN CONDITIONS

General Information.

As a general rule, all discharges of fill or dredged material into any wetland or water area require a Section 404 permit from the Corps of Engineers. Persons proposing such work should especially note that, in ALL cases including the non-reporting general permits , GP/LOP-98-MN requires that adverse impacts on water and wetland resources be avoided and minimized to the maximum extent practical. Discharges that would adversely affect Federal endangered plant or animal species or certain cultural or archaeological resources, or that would impinge or abrogate reserved Native American treaty rights including, but not limited to, reserved water rights and treaty fishing and hunting rights, are not eligible for authorization under GP/LOP-98-MN.

The St. Paul District WWW site (http://www.mvp.usace.army.mil) will contain information that is helpful for applicants.

General Conditions.

1. The time limit for completing work authorized by the GP provisions of GP/LOP-98-MN ends upon the expiration date of GP/LOP-98-MN. The time limit for completing work authorized by the LOP provisions herein ends upon the expiration date of GP/LOP-98-MN or two years after the date of the Corps authorization of the work under GP/LOP-98-MN, whichever occurs later. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least three months before the expiration date is reached.

2. You must maintain the activity authorized by GP/LOP-98-MN in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archaeological remains while accomplishing the activity authorized by GP/LOP-98-MN, you must immediately stop work and notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of GP/LOP-98-MN.

5. Refer to the GP/LOP-98-MN Standard Conditions at the end of this document.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).

2. Limits of this authorization.
a. GP/LOP-98-MN does not obviate the need to obtain other Federal, state, or local authorizations required by law.
b. GP/LOP-98-MN does not grant any property rights or exclusive privileges.
c. GP/LOP-98-MN does not authorize any injury to the property or rights of others.
d. GP/LOP-98-MN does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In authorizing work, the Federal Government does not assume any liability, including for the following:
a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
d. Design or construction deficiencies associated with the permitted work.
e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
a. You fail to comply with the terms and conditions of this permit.
b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
c. Significant new information surfaces which this office did not consider in reaching the original public interest decision. Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1., above, establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Standard Conditions.

In addition to the preceding general conditions, GP/LOP-98-MN authoriza tions are subject to the following standard conditions, as applicable. These conditions must be satisfied for any GP/LOP-98 authorization, both GPs and LOPs, including the non-reporting GPs, to be valid:

1. **Compliance Certification**. Under all LOP authorizations of GP/LOP-98-MN authorizations the permittee must submit a compliance certification to the St. Paul District within 30 days of completion of the work. The District will include a certification form with its authorization letters. Permittees may also obtain this form by contacting the St. Paul District. This requirement does not apply to GP authorizations under GP/LOP-98-MN.

2. **Case-by-case conditions**. The activity must comply with any special conditions which may have been added by the District or by a state, tribe, or the U.S. Environmental Protection Agency in its section 401 water quality certification or consistency determination under the Coastal Zone Management Act. Such conditions will be specifically identified in any LOP issued for the project.

3. Mitigation/Sequencing. Discharges of dredged or fill material into waters of the United States **must be minimized or avoided to the maximum extent practicable**, unless the District approves a compensation plan that the District determines is more beneficial to the environment than minimization or avoidance measures.

4. State/Tribal Water quality certification and Coastal zone management (CZM) consistency determination. Some GP/LOP-98-MN authorizations may not be valid unless and until an individual Section 401 water quality certification or CZM consistency determination is obtained from or waived by the appropriate agency. If this condition applies, it will be so noted in the District letter of permission.

5. Suitable material. No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.,) and material discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

6. Proper maintenance. Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.

7. Erosion and siltation controls. Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark must be permanently stabilized at the earliest practicable date. Work should be done in accordance with state-approved, published practices, such as defined in Minnesota Pollution Control Agency Document, PROTECTING WATER QUALITY IN URBAN AREAS - BEST MANAGEMENT PRACTICES FOR MINNESOTA.

8. Removal of temporary fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

9. Endangered Species.
a. No activity is authorized which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District if any listed species or critical habitat might be affected or is in the vicinity of the project, and shall not begin work on the activity until notified by the District that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized.
b. Authorization of an activity under GP/LOP-98 does not authorize the take of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with incidental take provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal takes of protected species are in violation of the Endangered Species Act. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world wide web pages on the Internet.
c. If it becomes apparent that a Federally listed endangered plant or animal species will be affected by work authorized by this permit, work must be stopped immediately and the St. Paul District of the Corps of Engineers must be contacted for further instruction.

10. Historic properties, cultural resources. No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the District has complied with the provisions of 33 CFR Part 325, Appendix C. The prospective permittee must include notification to the District in the permit application if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places.

11. Spawning areas. Discharges in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

12. Obstruction of high flows. To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

13. Adverse effects from impoundments. If the discharge creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

14. Waterfowl breeding areas. Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

15. Navigation. No activity may cause more than a minimal adverse effect on navigation.

16. Aquatic life movements. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species, which normally migrate through the area, unless the activity's primary purpose is to impound water.

17. Equipment. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

18. Tribal rights. No activity or its operation may impinge or abrogate reserved treaty rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

19. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely effect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service.)

20. Water quality standards. All work or discharges to a watercourse resulting from permitted construction activities, particularly hydraulic dredging, must meet applicable Federal, State, and local water quality and effluent standards on a continuing basis.

21. Preventive measures. Measures must be adopted to prevent potential pollutants from entering the watercourse. Construction materials and debris, including fuels, oil, and other liquid substances, will not be stored in the construction area in a manner that would allow them to enter the watercourse as a result of spillage, natural runoff, or flooding.

22. Disposal sites. If dredged or excavated material is placed on an upland disposal sight (above the ordinary high-water mark), the site must be securely diked or contained by some other acceptable method that prevents the return of potentially polluting materials to the watercourse by surface runoff or by leaching. The containment area, whether bulkhead or upland disposal sight, must be fully completed prior to the placement of any dredged material.

23. Erosion control. Upon completion of earthwork operations, all exposed slopes, fills, and disturbed areas must be given sufficient protection by appropriate means such as landscaping, or planting and maintaining vegetative cover, to prevent subsequent erosion. Coffer dams shall be constructed and maintained so as to prevent erosion into the water. If earthen material is used for coffer dam construction, sheet piling, riprap or a synthetic cover must be used to prevent dam erosion.

24. Suitable fill material. All fill (including riprap), if authorized under this permit, must consist of suitable material free from toxic pollutants in other then trace quantities. In addition, rock or fill material used for activities dependent upon this permit and obtained by excavation must either be obtained from existing quarries or, if a new borrow site is opened up to obtain fill material, the State Historic Preservation Officer (SHPO) must be notified prior to the use of the new site. Evidence of this consultation with the SHPO will be forwarded to the St Paul District Office.

25. Cultural resources. If cultural, archaeological, or historical resources are unearthed during activities authorized by this permit, work must be stopped immediately and the State Historic Preservation Officer must be contacted for further instruction.

26. Water intakes/activities. An investigation must be made to identify water intakes or other activities that may be affected by suspended solids and turbidity increases caused by work in the watercourse. Sufficient notice must be given to the owners of property where the activities would take place to allow them to prepare for any changes in water quality.

27. Spill contingency plan. A contingency plan must be formulated that would be effective in the event of a spill. This requirement is particularly applicable in operations involving the handling of petroleum products. If a spill of any potential pollutant should occur, it is the responsibility of the permittee to remove such material, to minimize any contamination resulting from this spill, and to immediately notify the State Duty Officer at 1-800-422-0798 and the U.S. Coast Guard at telephone number 1-800-424-8802.

28. Other permit requirements. No Corps GP/LOP-98-MN authorization eliminates the need for other local, state or Federal authorizations, including but not limited to National Pollutant Discharge Elimination System (NPDES) or State Disposal System (SDS) permits the Minnesota Pollution Control Agency.

29. State Section 401 Certification Conditions. The Minnesota Pollution Control Agency (MPCA) has certified GP/LOP-98-MN on the condition that activities are conducted in accordance with all applicable provisions of Minnesota Rule 7001.0150, subp. 3. As required by Federal regulation, this condition is incorporated as a condition of GP/LOP-98-MN

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Lower Minnesota River Watershed	File Number: 2006-3365-JMK	Date: JUL 19 2006
Attached is:		See Section below
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A. INITIAL PROFERRED PERMIT: You may accept or object to the permit.

• ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approve jurisdictional determinations associated with the permit.

• OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B. PROFFERED PERMIT: You may accept or appeal the permit.

• ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

• APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D. APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

• ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

• APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E. PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION.

If you have questions regarding this decision and/or the appeal process you may contact:	If you only have questions regarding the appeal process you may also contact:
Judi Kolb U. S. Army Corps of Engineers, Regulatory Branch 190 Fifth Street East, Saint Paul, MN 55101-1638 Telephone (651) 290-5361	Division Engineer c/o Martha S. Chieply, Appeal Review Office CEMVD P. O. Box 80 Vicksburg, MS 39181-0080 Telephone (601) 634-5820

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
Signature of appellant or agent.		

DISTRICT OFFICE: St. Paul District
FILE NUMBER: 2006-3365-JMK
PROJECT LOCATION INFORMATION:
State: Minnesota
County: Scott
Center coordinates of site (latitude/longitude): 44.78863 -93.348776
Approximate size of area (parcel) reviewed, including uplands: 19.42 acres.
Name of nearest waterway: Minnesota River
Name of watershed: Lower Minnesota River, MN
JURISDICTIONAL DETERMINATION
Completed: Desktop determination ☒ Date: July 12, 2006
Site visit(s) ☐ Date(s):

Jurisdictional Determination (JD):
☐ Preliminary JD - Based on available information, ☐ *there appear to be* (or) ☐ *there appear to be no* "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).

☒ Approved JD – An approved JD is an appealable action (Reference 33 CFR part 331).
Check all that apply:

☐ *There are* "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area. Approximate size of jurisdictional area:

☒ *There are* "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area. Approximate size of jurisdictional area: 1.5 acres

☐ *There are "isolated, non-navigable, intra-state* waters or wetlands" within the reviewed area.
☐ Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination of No Jurisdiction.

BASIS OF JURISDICTIONAL DETERMINATION:
A. Waters defined under 33 CFR part 329 as "navigable waters of the United States":
☐ The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

B. Waters defined under 33 CFR part 328.3(a) as "waters of the United States":
☐ (1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
☐ (2) The presence of interstate waters including interstate wetlands[1].
☐ (3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):
  ☐ (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
  ☐ (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
  ☐ (iii) which are or could be used for industrial purposes by industries in interstate commerce.
☐ (4) Impoundments of waters otherwise defined as waters of the US.
☐ (5) The presence of a tributary to a water identified in (1) – (4) above.
☐ (6) The presence of territorial seas.
☒ (7) The presence of wetlands adjacent[2] to other waters of the US, except for those wetlands adjacent to other wetlands.

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above). *If the jurisdictional water or wetland is not itself a navigable water of the United States, describe connection(s) to the downstream navigable waters. If B(1) or B(3) is used as the Basis of Jurisdiction, document navigability and/or interstate commerce connection (i.e., discuss site conditions, including why the waterbody is navigable and/or how the destruction of the waterbody could affect interstate or foreign commerce). If B(2, 4, 5 or 6) is used as the Basis of Jurisdiction, document the rationale used to make the determination. If B(7) is used as the Basis of Jurisdiction, document the rationale used to make adjacency determination:* The affected wetland is adjacent to the Minnesota River, a navigable water of the United States.

FILE NUMBER: 2006-3365-JMK

Lateral Extent of Jurisdiction: (Reference: 33 CFR parts 328 and 329)

☒ Ordinary High Water Mark indicated by:
- ☐ clear, natural line impressed on the bank
- ☐ the presence of litter and debris
- ☐ changes in the character of soil
- ☐ destruction of terrestrial vegetation
- ☐ shelving
- ☐ other:

☒ High Tide Line indicated by:
- ☐ oil or scum line along shore objects
- ☐ fine shell or debris deposits (foreshore)
- ☐ physical markings/characteristics
- ☐ tidal gages
- ☐ other:

☒ Mean High Water Mark indicated by:
☐ survey to available datum; ☐ physical markings; ☐ vegetation lines/changes in vegetation types.

☐ Wetland boundaries, as shown on the attached wetland delineation map and/or in a delineation report prepared by:

Basis For Not Asserting Jurisdiction:

☒ The reviewed area consists entirely of uplands.
☒ Unable to confirm the presence of waters in 33 CFR part 328(a)(1, 2, or 4-7).
☒ Headquarters declined to approve jurisdiction on the basis of 33 CFR part 328.3(a)(3).
☒ The Corps has made a case-specific determination that the following waters present on the site are not Waters of the United States:
- ☐ Waste treatment systems, including treatment ponds or lagoons, pursuant to 33 CFR part 328.3.
- ☐ Artificially irrigated areas, which would revert to upland if the irrigation ceased.
- ☐ Artificial lakes and ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
- ☐ Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
- ☐ Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States found at 33 CFR 328.3(a).
- ☐ Isolated, intrastate wetland with no nexus to interstate commerce.
- ☐ Prior converted cropland, as determined by the Natural Resources Conservation Service. Explain rationale:
- ☐ Non-tidal drainage or irrigation ditches excavated on dry land. Explain rationale:
- ☐ Other (explain):

DATA REVIEWED FOR JURSIDICTIONAL DETERMINATION (mark all that apply):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant.
☒ Data sheets prepared/submitted by or on behalf of the applicant.
- ☐ This office concurs with the delineation report, dated , prepared by (company):

- ☐ This office does not concur with the delineation report, dated p repared by (company):

☒ Data sheets prepared by the Corps.
☒ Corps' navigable waters' studies:
☒ U.S. Geological Survey Hydrologic Atlas:
☒ U.S. Geological Survey 7.5 Minute Topographic maps:
☒ U.S. Geological Survey 7.5 Minute Historic quadrangles:
☒ U.S. Geological Survey 15 Minute Historic quadrangles:
☒ USDA Natural Resources Conservation Service Soil Survey:
☒ National wetlands inventory maps:
☒ State/Local wetland inventory maps:
☒ FEMA/FIRM maps (Map Name & Date):
☒ 100-year Floodplain Elevation is: (NGVD)
☒ Aerial Photographs (Name & Date): FSA 2003
☒ Other photographs (Date):
☒ Advanced Identification Wetland maps:
☒ Site visit/determination conducted on:
☒ Applicable/supporting case law:
☒ Other information (please specify):

[1]Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

[2]The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.

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. l, Savage, Minnesota, a duly recorded plat, Scott County, Minnesota and that part of Lot l, 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 l a distance of 55.48 feet; thence southeasterly 237.76 feet along the westerly line of said Lot l 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 l, 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		

Combined Application for Water/Wetland Projects
Basic Application

Lower MN River Watershed District

Cargill Dredge Material Storage Site

June 7, 2006

Bonestroo
Rosene
Anderlik &
Associates
Engineers & Architects

Bonestroo
Natural Resources
Preserving Nature's Resources

MN Application for Wetland Projects – Basic Application

Lower MN River Watershed District
Cargill Dredge Material Storage Site
Savage, Minnesota

June 7, 2006

CONTENTS

PREPARED FOR
Lower MN Watershed District
Terry Schwalbe
1600 Bavaria Road
Chaska, MN 55318
Phone: (952) 227-1037

LOCAL GOVERNMENTAL UNIT
City of Savage
Jon Allen
6000 McColl Drive
Savage, MN 55378-1800
Phone: (952) 882-2678

PREPARED BY
Bonestroo Rosene Anderlik & Assoc.
Benjamin L. Meyer
2335 West Highway 36
St. Paul, MN 55113
Phone: (651) 604-4767

COE REPRESENTATIVE
Christina Carballal
Dept. of the Army, Corps of Engineers
St. Paul District
190 Fifth Street East
St. Paul, MN 55105-1638
Phone: (651) 290-5372

Minnesota Local/State/Federal Application Form for Water/Wetland Projects

For Internal Use Only			
Application No.	Field Office Code	Date Initial Application Received	Date initial Application Deemed Complete

PART I: BASIC APPLICATION

"See HELP" **directs you to important additional information and assistance in Instructions, Page 1.**

1. LANDOWNER/APPLICANT CONTACT INFORMATION *(See Help 1)*

Name: Terry Schwalbe, Lower MN River Watershed Phone: 952-227-1037

Complete mailing address: 1600 Bavaria Road, Chaska, MN 55318

1A. AUTHORIZED AGENT *(See Help 1A) (Only if applicable;* ***an agent is not required)***

Name: Ben Meyer, Bonestroo & Assoc. Phone: 651-604-4767

Complete mailing address: 2335 W. Hwy 36, St. Paul, MN 55113

2. NAME, TYPE AND SIZE OF PUBLIC WATERS or WETLANDS IMPACTED (Attach *Additional Project Area* sheets if needed)

Name or I.D. # of Waters Impacted (if applicable; if known):

(Check all that apply): ☐Lake ☐River ☒Wetland type ☐ 1 ☒ 1L ☐ 2 ☐ 3 ☐4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

Indicate size of entire lake or wetland (check one): ☒ Less than 10 acres (indicate size: 1.5 acre) ☐10 to 40 acres ☐ Greater than 40 acres

3. PROJECT LOCATION *(Information can be found on property tax statement, property title or title insurance):*

Project street address: Fire #: City (if applicable): Savage

¼ Section: NW Section: 31 Township #: 115N Range #: 24W County: Scott

Lot #: Block: Subdivision: Watershed (name or #) MN River-Shakopee/#33

Attach a simple site locator map. If needed, include on the map written directions to the site from a known location or landmark, and provide distances from known locations. Label the sheet *SITE LOCATOR MAP.*

4. TYPE OF PROJECT: Describe the type of proposed work. Attach *TYPE OF PROJECT* sheet if needed.

Construction of a dredge material storage site and access road.

5. PROJECT PURPOSE, DESCRIPTION AND DIMENSIONS: Describe what you plan to do and why it is needed, how you plan to construct the project with dimensions (length, width, depth), area of impact, and when you propose to construct the project. **This is the most important part of your application. See HELP 5 before completing this section; see What To Include on Plans** (Instructions, page 1). Attach *PROJECT DESCRIPTION* sheet.

SEE ATTACHED

Footprint of project: acres or 1795 square feet drained, filled or excavated.

6. PROJECT ALTERNATIVES: What alternatives to this proposed project have you considered that would avoid or minimize impacts to wetlands or waters? List at least **TWO** additional alternatives to your project in Section 5 that avoid wetlands (one of which may be "no build" or "do nothing"), and explain why you chose to pursue the option described in this application over these alternatives. Attach *PROJECT ALTERNATIVES* sheet if needed.

SEE ATTACHED

7. ADJOINING PROPERTY OWNERS: For projects that impact more than 10,000 square feet of water or wetlands, list the complete mailing addresses of adjacent property owners on an attached separate sheet. (See **HELP 7**)

8. PORTION OF WORK COMPLETED: Is any portion of the work in wetland or water areas already completed? ☐ Yes ☒No. If yes, describe the completed work on a separate sheet of paper labeled **WORK ALREADY COMPLETED**. (See **HELP 8**)

9. STATUS OF OTHER APPROVALS: List any other permits, reviews or approvals related to this proposed project that are either **pending** or **have already been approved or denied on a separate attached sheet. See HELP 9.**

10. I am applying for state and local authorization to conduct the work described in this application. I am familiar with the information contained in this application. To the best of my knowledge and belief, all information in Part I is true, complete, and accurate. I possess the authority to undertake the work described, or I am acting as the duly authorized agent of the applicant.

Signature of applicant (Landowner)	*Date*	*Signature of agent (if applicable)*	*Date*

This block must be signed by the person who desires to undertake the proposed activity and has the necessary property rights to do so. If only the Agent has signed, please attach a separate sheet signed by the landowner, giving necessary authorization to the Agent.

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT (33 CFR 325) **OMB APPROVAL NO. 0710-003 Expires Dec 31, 2004**

ITEMS 1 THROUGH 4 TO BE FILLED IN BY THE CORPS

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED

YOU *DO NOT* NEED TO COMPLETE ITEMS 6-10 and 12-25 in the SHADED AREAS.

All applicants must complete **non-shaded** items 5 and 26. If an agent is used, **also** complete items 8 and 11. This optional Federal form is valid for use ***only*** when included as part of this entire state application packet.

5. APPLICANT'S NAME Terry Schwalbe, Lower MN River WD	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required) Ben Meyer, Bonestroo & Assoc.
6. APPLICANT'S ADDRESS	9. AGENT'S ADDRESS
7. APPLICANT'S PHONE NO.	10. AGENT'S PHONE NO.

11. STATEMENT OF AUTHORIZATION *(if applicable; complete* **only** *if authorizing an agent)*

I hereby authorize Ben Meyer - Bonestroo & Assoc. to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT"S SIGNATURE: _____ DATE: _____

12. PROJECT NAME OR TITLE (see instructions)	
13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
15. LOCATION OF PROJECT	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)	
17. DIRECTIONS TO THE SITE	18. NATURE OF ACTIVITY
19. PROJECT PURPOSE	20. REASON(S) FOR DISCHARGE
21. TYPES OF MATERIAL BEING DISCHARGED AND THE AMOUNT OF EACH TYPE IN CUBIC YARDS	
22. SURFACE AREA IN ACRES OF WETLANDS OR OTHER WATERS FILLED	
23. IS ANY PORTION OF THE WORK ALREADY COMPLETE? YES _____ NO ___ IF YES, DESCRIBE COMPLETED WORK.	
24. ADDRESSES OF ADJOINING PROPERTY OWNERS,	
25. LIST OF OTHER CERTIFICATIONS OR APPROVALS/DENIALS RECEIVED FROM OTHER FEDERAL, STATE OR LOCAL AGENCIES FOR WORK DESCRIBED IN THIS APPLICATION.	

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Signature of applicant _____ Date _____ Signature of agent (if any) _____ Date _____

The application must be signed by the person who desires to undertake the proposed activity (applicant), or it may be signed by a duly authorized agent if the statement in Block 11 has been filled out and signed. **18 U.S.C. Section 1001** provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up with any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

ENG FORM 4345, Jul 97 EDITION OF FEB 94 IS OBSOLETE. (Proponent: CECW-OR)

FOR LGU USE ONLY:

Determination for Part 1:
- ☐ No WCA Jurisdiction
- ☐ Exempt: No. ____ (per MN Rule 8420.0122)
- ☐ No Loss: ____ (A,B,. . .G, per MN Rule 8420.0220)
- ☐ Replacement required – applicant must complete Part II

COMPLETE THE SECTION BELOW ONLY IF REPLACEMENT IS NOT REQUIRED:

Application is (check one): ☐ Approved ☐ Approved with conditions (conditions attached) ☐ Denied

Comments/Findings: _____

_____ _____

LGU official signature *Date*

_____

Name and Title

For Agricultural and Drainage exemptions (MN Rule 8420.0122 Subps. 1 and 2B), LGU has received proof of recording of restrictions (per MN Rule 8420.0115):

_____ _____ _____

County where recorded *Date* *Document # assigned by recorder*

_____ _____

LGU official signature *Date*

PART II: REPLACEMENT PLAN SUPPLEMENT

For assistance in completing Part II, contact your Local Government Unit or a professional consultant

11. DESCRIPTION OF WETLAND IMPACTS: Complete the chart below: 1) Use one row of boxes for each wetland impact; 2) If your project has more than one wetland impact, reference your overhead view (part of Section 5) to this chart by identifying and labeling "first impact" and "second impact" **on your overhead view;** 3) If you are identifying only one wetland type within a given wetland impact area, use the first dotted line and leave the others blank; 4) If you have chosen to identify more than one wetland type within a given wetland impact area, use the extra dotted lines to indicate each wetland type, and identify predominant vegetation and size of impacted area **for each separate wetland type within that impact area;** 5) If you do not have access to some of this information, call your LGU or SWCD office for assistance. *(Photocopy chart for more impacts, if needed.)*

DESCRIPTION OF WETLAND IMPACTS

Wetland impact *(as noted on overhead view)*	Watershed name or number *(if known)*	County, Section, Township, Range	Wetland type[1]	Predominant vegetation in impacted wetland area	Size of area impacted (in acres or square feet)	Existing land use in project area (check all that apply)
First impact	33	Scott, 31, 115,24	1L	Silver maple, E. cottonwood	1795 sqft	☐ Housing ☐ Commercial ☐ Industrial ☐ Parks/recreation areas ☐ Highways and associated rights-of-way ☒ Forested ☐ Farmsteads/agricultural ☒ Vacant lands ☐ Public and semi-public (schools/gov't facilities) ☐ Airports ☐ Extractive (gravel pits/quarries) ☐ Other:
Second impact						

[1]If you are identifying only one wetland type within a given wetland impact area, use the first dotted line and leave the others blank. If you have chosen to identify more than one wetland type within a given wetland impact area, use the extra dotted lines to indicate each separate wetland type, and identify predominant vegetation and size of impacted area **for each separate wetland type with that impact area.**

***TOTALS* OF AREA(S) IMPACTED FOR EACH WETLAND TYPE ON CHART** (*indicate acres* ☐ *or square feet* ☒)

Type: 1: _____ 1L: 1795 2: _____ 3: _____ 4: _____ 5: _____ 6: _____ 7: _____ 8: _____ R:_____

12. SPECIAL CONSIDERATIONS: Are you aware of any special considerations that apply to either the impact site(s) or the replacement site(s)? ☐ Yes ☒ No (Examples: the presence of endangered species, special fish and wildlife resources, sensitive surface waters, or waste disposal site.) If YES, list and describe briefly.

13. SHORELAND IMPACT ZONE: Please identify each wetland impact site noted in Section 15 that is within 1000 feet of a lake or 300 feet of a river.

Impact is approx. 400 feet from the Minnesota River.

14. HOW PROPOSED REPLACEMENT WILL BE ACCOMPLISHED: Indicate how proposed replacement will be accomplished (check only **one** box below and continue as indicated):

☐ A. Wetland banking only
Complete *Application for Withdrawal of Wetland Credits Form* and include with your application. Copies of this form are available from your LGU, or download a copy from www.bwsr.state.mn.us
Skip to Section 19, page 6 (You do not need to complete Sections 15-18).

☒ B. Project-specific replacement only
Continue with Section 15 below.

☐ C. A Combination of wetland banking and project-specific replacement
Complete *Application for Withdrawal of Wetland Credits Form* and include with your application. Copies of this form are available from your LGU, or download a copy from www.bwsr.state.mn.us
Continue with Section 15 below.

15. DESCRIPTION OF REPLACEMENT WETLAND(S) CONSTRUCTION (Complete this section only if you marked Box B or Box C in Section 14 above):
Describe in detail how replacement wetland(s) will be constructed. If several methods will be used, describe each method. Details should include the following: 1) type of construction (such as excavated in upland, restored by tile break, restored by ditch block or revegetated); 2) type, size and specifications of outlet structures; 3) elevations relative to Mean Sea Level or established benchmarks or key features (such as sill, emergency overflow or structure height); 4) what best management practices will be implemented to prevent erosions or site degradation; 5) proposed timetable for starting and ending the project; and 6) a vegetation management plan. Write this description on a separate sheet of paper labeled *DESCRIPTION OF REPLACEMENT WETLAND CONSTRUCTION.*
SEE ATTACHED

16. SURPLUS WETLAND CREDITS: If using project-specific replacement (Box B or Box C in Section 14 above), will the replacement result in any surplus wetland credits that you wish to have deposited in the State Wetland Bank for future use? ☐ Yes ☒ No. If yes, **submit a Wetland Banking Application directly to your LGU.** Copies are available from your LGU, or download a copy from www.bwsr.state.mn.us

17. DESCRIPTION OF REPLACEMENT WETLANDS: Complete the chart below: 1) Use one row of boxes for each wetland replacement site; 2) If your project has more that one wetland replacement site, reference your overhead view (part of Section 5) to this chart by identifying and labeling "first replacement site" and "second replacement site" **on your overhead view;** 3) If you are identifying only one wetland type within a given replacement site, use the first dotted line(s) and leave the others blank; 4) If you have chosen to identify more than one wetland type in a given replacement site, use the extra dotted lines to indicate each separate wetland type, and identify type(s) of replacement credits and "restored or created" **for each separate wetland type with that replacement site;** 5) If you do not have access to some of the information, or if you do not know your replacement ratio, call your LGU or SWCD office for assistance. *Photocopy chart for more wetland replacements, if needed.)*

DESCRIPTION OF REPLACEMENT WETLANDS

Identify Wetland replacement site *(as noted on overhead view)*	Watershed name or number *(if known)*	County	Section, Township, Range	Wetland Type[1]	Type(s) of replacement credits *(in acres or square feet)*		Restored or created? Indicate R or C
					New Wetland Credits (NWC)	Public Value Credits (PVC)	
Name of First replacement site	33	Scott	31,115,24	1	3725 sqft	0	C
Name of Second replacement site							
					3725 sqft TOTAL NWC	TOTAL PVC	

[1]**Circular 39 wetland types:** Indicate1, 1L, 2, 3, 4, 5, 6, 7, 8, R, or U. If you are identifying only one wetland type within a given wetland impact area, use the first dotted line and leave the others blank. If you have chosen to identify more than one wetland type within a given wetland impact area, use the extra dotted lines to indicate each separate wetland type, and identify predominant vegetation and size of impacted area **for each separate wetland type within that impact area.**

REQUIRED REPLACEMENT RATIO: *(If known)* 2:1

18. ADDITIONAL INFORMATION REQUIRED FOR PROJECT-SPECIFIC REPLACEMENT (Required *only* if you marked Box B or Box C in Section 14):
For projects involving at least some project-specific replacement, include the following additional information:

☐ **Two drawings to scale** of the replacement wetland. Include both overhead view and profile (side view or cross-sectional view). See *What to Include on Plans* (Instructions, Page 3) for a detailed description of what should be included in these drawings. Without drawings, **your application will be considered incomplete.**

☐ **For created replacement wetlands,** include additional soils information (if available) that indicates the capability of the site to produce and maintain wetland characteristics.

Note 1: For replacement wetlands located on pipeline easements, you need to receive endorsement of your project from both the easement holder and the Minnesota Department of Public Safety's Office of Pipeline Safety. Before start of construction, the owner of any utilities must be notified. The landowner or contractor is responsible for giving this notice by calling "Gopher State One-Call" at 652–454-0002 (Twin Cities Metro Area) or 1-800-252-1166 (all other locations).

Note 2: For extensive or complex projects supplementary information may be requested at a later dated from one or more of the responding agencies. Such information may include (but not be limited to) the following: topographic map, water table map, soil borings, depth soundings, aerial photographs, environmental assessment and/or engineering reports.

19. SIGNED AFFIRMATION:

FOR PROJECTS INVOLVING REPLACEMENT BY WETLAND BANKING ONLY. To the best of my knowledge and belief, all information in Part II is true, complete and accurate; and I affirm that the wetland losses will be replaced via withdrawal from an account in the State Wetland Bank.

FOR PROJECTS INVOLVING EITHER PROJECT-SPECIFIC REPLACEMENT ONLY OR A COMBINATION OF WETLAND BANKING AND PROJECT-SPECIFIC REPLACEMENT:

Part A: The replacement wetland. I affirm that the replacement wetland was not:
Previously restored or created under a prior approved replacement plan or permit; **AND**
Drained or filled under an exemption during the previous 10 years; **AND**
Restored with financial assistance from public conservation programs; **AND**
Restored using private funds, other than landowner funds, unless the funds are paid back with interest to the individual or organization that funded the restoration; and the individual or organization notifies the local government unit in writing that the restored wetland may be considered for replacement.

Part B: Additional assurances (check **all** that apply):
☒ The wetland will be replaced before or concurrent with the actual draining or filling of a wetland.
☐ An irrevocable bank letter of credit, performance bond, or other acceptable security has been provided to guarantee successful completion of the wetland replacement.
☐ The wetland losses will be replaced via withdrawal from an account in the State Wetland Bank.

Part C. For projects involving any project-specific replacement: Within 30 days of either receiving approval of this application or beginning work on the project, I will record the Declaration of Restrictions and Covenants on the deed for the property on which the replacement wetland(s) will be located; and I will at the same time submit proof of such recording to the LGU.

To the best of my knowledge and belief, all information in Part II is true, complete and accurate; and I affirm all statements in Part A and C, as well as checked assurance(s) in Part B.

_____ _____
Signature or applicant or agent *Date*

FOR LGU USE ONLY

Replacement plan is (check one): ☐ Approved ☐ Approved with conditions (conditions attached) ☐ Denied

_____ _____
LGU official signature *Date*

LGU has receive evidence of title and proof of recording of Declaration of Restrictions and Covenants for Replacement Wetland:

_____ _____ _____
County where recorded *Date* *Document # assigned by recorder*

_____ _____
LGU official signature *Date*

Minnesota Local/State/Federal Application Form
For Water/Wetland Projects

APPLICATION SUPPLEMENT

4. *Type of Project*

Project will construct berms and an access road for a long-term dredge material storage site on the property adjacent to the Cargill docks.

5. *Project Description*

The proposed project is to establish an 19.42-acre dredged material storage site (approximately 12 acres for placement of displaced material, the balance of the site is for use as open space, screening, road access, and access to the Minnesota River ("River")) to place materials removed from the Minnesota River to maintain the 9-foot navigation channel maintained by the US Army Corps of Engineers ("Corps") and from barge slips along the River. According to the Corps' Dredge Material Management Plan, the River is a significant branch of the inland navigation system. Several of the world's largest grain-marketing companies operate terminals on the River. The 9-foot channel is of great importance to the economy of the State of Minnesota, the Twin Cities Metropolitan Area, the City of Savage and other communities along the River. Because companies use the 9-foot navigation channel to transport their goods, traffic volumes on local and regional roads are reduced by lowering the number of trucks hauling grain and other goods on the Twin Cities' highways. Please refer to the Dredge Material Management Plan for further details.

As part of the District's request for a Conditional Use Permit, the District will be responsible for the on-going management of this site. To gain access to this site, the District will use the existing paved access road, known as Vernon Avenue (formerly, County Road 34), which extends from Highway 13 northerly to the River. The District will build an access road from the edge of the abandoned road to the area on the site, which will be used for placement of dredge materials. Approximately 1795 square feet of wetlands will be impacted as a result of this construction. Unfortunately, there is no other way to construct the access road from the abandoned road to the area on the site where the materials will be placed. The District is responsible for all wetland mitigation that may be required. The dredge materials placement site was formerly used as row crop agriculture and has already been significantly impacted. The wetland delineation analysis done by the Corps in 1999 shows no wetlands in the area where dredged materials will be placed. A copy is on file with the City.

The District is currently investigating beneficial uses for the dredge materials. The District anticipates that the dredge materials will be used as fill material for landfills and construction sites, as well as for topsoil.

To reduce erosion and sedimentation, low berms (3'-4' in height) will be constructed with materials on site, which will then be seeded, to contain dredged materials. The site will be used to place dredged materials within the bermed areas and the materials may be moved/managed between cells to speed up drying times. The District is responsible for the site and has extensive experience managing dredge material placement sites.

Erosion and Sedimentation Plan: The site will be surrounded by containment berms not to exceed 3-4 feet in height so as to avoid any flood stage increases. The berms will serve to prevent erosion and sedimentation of the dredge material piles to the River. The berms will be seeded to prevent erosion from the berms.

At such time should the District and Corps determine the site is no longer to be utilized, the District shall remove material to a height not to exceed 705 feet and seed the site with native vegetative species. It is anticipated that the site will be used as long as the 9 foot navigation channel needs to be maintained to service industries in the area.

6. *Project Alternatives*

This site was chosen in accordance with the U.S. Army Corps of Engineers DREDGE MANAGEMENT PLAN MINNESOTA RIVER ABOVE I-35W BRIDGE dated October 2000. A copy of which is on file at the offices of the City of Savage. This site has the least impact to wetland of the sites discussed in the PLAN and is strategically located with relation to the dredging which occurs above the 35W Bridge.

9. *Status of other Approvals*

1) Conditional Use Permit - City of Savage: Pending
2) Section 404 Permit LOP B - USACE: To be applied for.
3) MN WCA Replacement Plan Appl. – City of Savage: To be applied for.
4) The Corps has completed an Environmental Impact Statement with the signing of a Record of Decision and an Environmental Assessment has been completed with the signing of a Finding of No Significant Impact. For more details, please refer to the Corps' Dredge Material Management Plan on file with the City.
5) The Corps also has a long-term agreement with the Minnesota Pollution Control Agency ("MPCA") for water quality certification when material or effluent is discharged below the ordinary high water mark. The Corps is responsible for acquiring water quality certification from the MPCA for its use of the site and dredging in the River.

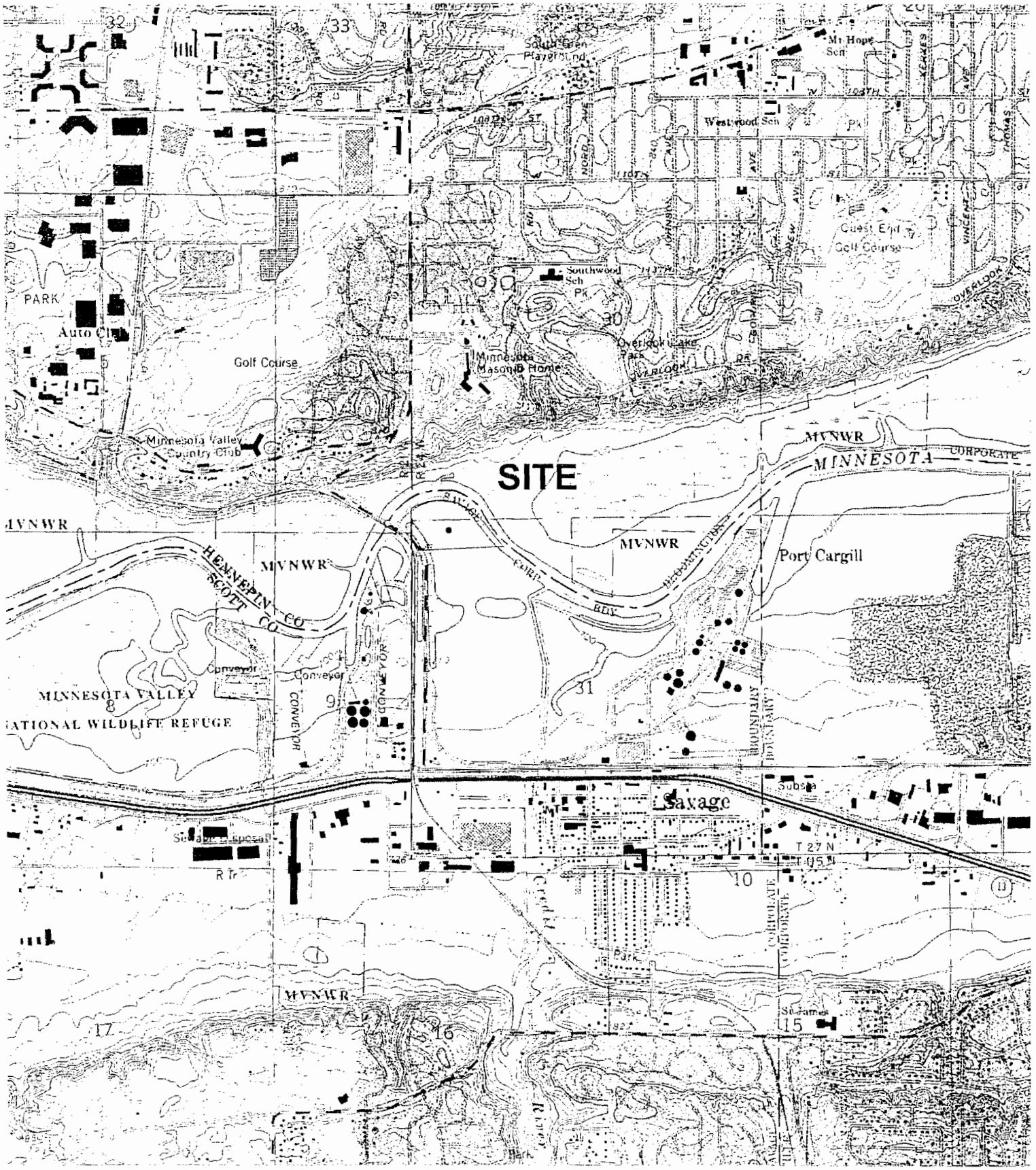
11. *Description of Wetland Impacts*

Wetland impacts are proposed as a result of construction of a haul road access from the existing road on the west side of the site. The site has been delineated by the Corps in 1999. The Corps has determined the berm construction site to be non-wetland, except for areas that are along the drainage ditch along the paved road. To gain access to the site, an access road will need to be constructed from the abandoned paved Vernon Avenue to the area on the site where the dredged material will be placed. This construction will impact 1795 square feet of wetland. A wetland delineation was conducted in 2006 for the specific area of impact of the access road construction. During construction of the access road, erosion and sedimentation best management practices, such as a silt fence, will be used to prevent any additional impacts to the surrounding wetlands. See attached wetland delineation report for existing conditions description.

15. ***Description of Replacement Wetland Construction***

The wetland impacts will be mitigated on-site with the construction of a "finger" off of the existing wetland channel near the impact site. This will allow for the creation of 3725 square feet of New Wetland Credit which exceeds the replacement ratios of 2:1 and 1.5:1 by both WCA and the Corps respectively. The existing wetland boundary is around the 702.00 elevation. The proposed wetland mitigation will pull back this 702 contour to create the new wetland area (Exhibit C). Inundation was observed at or near the 702 elevation on May 15, 2006 and standing water was still observed in the bottom of the channel and saturation was within 12 inches of the surface near the 702 elevation on a June 6, 2006 site visit. The wetland is expected meet the Corps target hydrology guidelines for a Seasonally Flooded Basin: having inundation for a minimum 14 consecutive days during the growing season under normal conditions. The site will initially be seeded with a native wetland seed mix: MnDOT 310. Eventually the site may take on characteristics similar to the adjacent existing wetland which is dominated by silver maple and cottonwood, as these species may colonize on their own.

Wetland monitoring shall be consistent with the requirements per MN Rules 8420.0600 – 8420.0620.



PROJECT LOCATION

EXHIBIT A

LOWER MN RIVER WATERSHED DIST.

CARGILL DREDGE MATERIAL STORAGE SITE

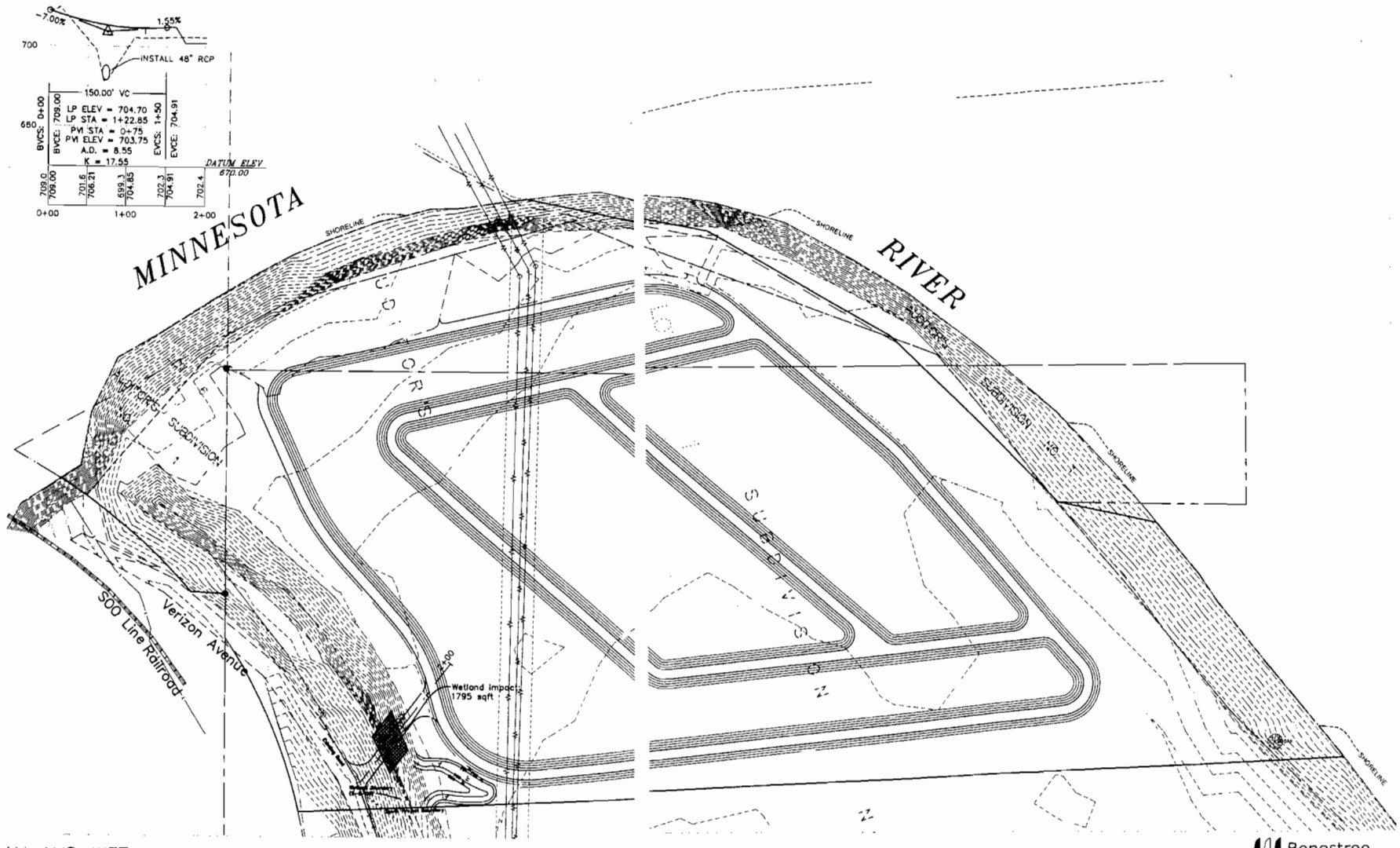
N

W E

S

Bonestroo Rosene Anderlik & Associates

Engineers & Architects



SITE PLAN AND WETLAND IMPACT LOCATION

EXHIBIT B

LOWER MN RIVER WATERSHED DIST.

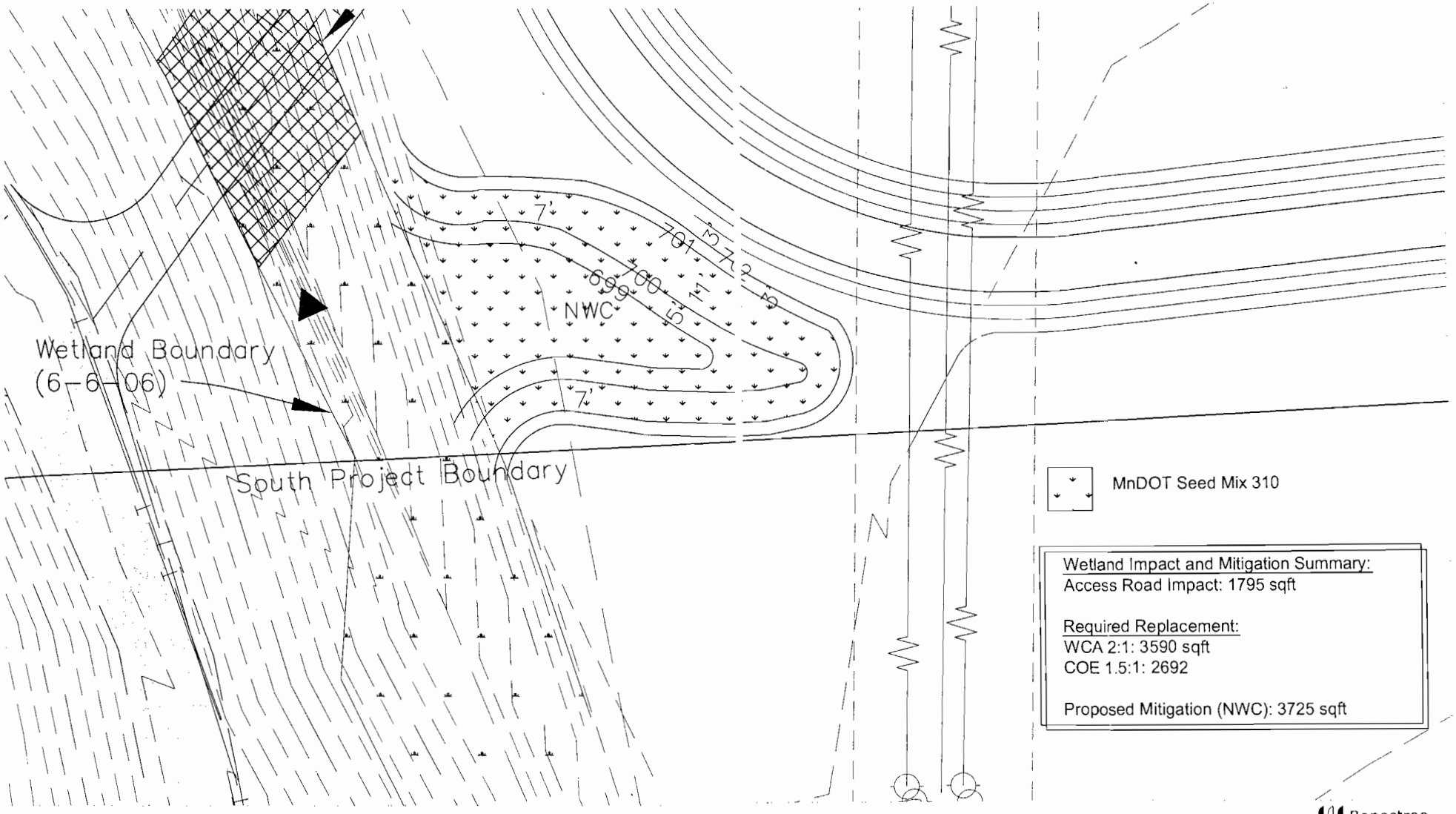
CARGILL DREDGE MATERIAL STORAGE SITE

0 120

Scale in feet

Bonestroo
Rosene
Anderlik &
Associates

Engineers & Architects



WETLAND MITIGATION PLAN – GRADING & SEEDING

EXHIBIT C

LOWER MN RIVER WATERSHED DIST.

CARGILL DREDGE MATERIAL STORAGE SITE

0 20
Scale in feet

Bonestroo Rosene Anderlik & Associates
Engineers & Architects

Wetland Delineation Report

Lower MN River Watershed District

Cargill Dredge Material Storage Site

June 6, 2006

Bonestroo
Rosene
Anderlik &
Associates
Engineers & Architects

Bonestroo Natural Resources
Preserving Nature's Resources

WETLAND DELINEATION REPORT

Lower Minnesota River Watershed District
Cargill Dredge Material Storage Site
NW ¼, NW ¼, Section 31, T27, R24W, Savage, MN

June 6, 2006

CONTENTS

PREPARED FOR

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LOCAL GOVERNMENTAL UNIT

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COE REPRESENTATIVE

Christina Carballal
Dept. of the Army Corps of Engineers
St. Paul District
190 Fifth Street East
St. Paul, MN 55105-1638
Phone: (651) 290-5372

INTRODUCTION

This report is prepared for the Lower Minnesota River Watershed District to identify wetlands for construction of an access road to a dredge material storage site on the site located in the NW ¼, Section 31, T27, R24W, Savage, MN. The field investigation for this wetland delineation was completed on June 6, 2006. Figure 1 shows the location of the project area. US Army Corps of Engineers (USACE) have delineated the open field area that will potentially be the location of the dredge material storage site. However, the USACE delineation did not incorporate any treed areas or the channel adjacent to Vernon Avenue. This delineation report provides the required documentation for wetland boundary determinations in conformance with the Minnesota Wetland Conservation Act and Section 404 of the Clean Water Act.

METHODS

Preliminary Investigation:

The National Wetlands Inventory Map (NWI) was examined with the 2003 aerial photograph to identify potential wetlands on the site (Figure 2). The NWI identified two wetlands adjacent to the site. Additionally, the Minnesota DNR Public Waters Inventory (PWI) was examined but identified no public waters on the site (Figure 3). The Scott County Soil Survey was examined to determine additional areas of potential wetlands (Figure 4). Whole Unit Hydric Soils are good indicators of wetlands, but none were identified on the site. One jurisdictional wetlands was identified and delineated on the site (Figure 5).

Wetland Delineation:

Wetlands were identified using standard delineation methodology described in the 1987 Army Corps of Engineers (COE) Wetland Delineation Manual as required by both the Minnesota Wetland Conservation Act and Section 404 of the Clean Water Act. To verify a site is wetland, three technical criteria are examined and documented. A combination of the hydric soil, hydrophytic vegetation, and hydrology criteria defines wetlands as described in the National Food Security Act Manual (Soil Conservation Service, 1994) and the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Therefore, an area that meets the hydric soil criteria must also meet the hydrophytic vegetation and wetland hydrology criteria in order for it to be classified as a jurisdictional wetland.

A *hydric soil* is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part. The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. Also, soils in which the hydrology has been artificially modified are hydric if the soil, in an unaltered state, was hydric (USDA, NRCS 1999). A hydric soil list provided by the National Technical

Committee for Hydric Soils (NTTCHS) and the County Soil Survey was used to determine the potential locations of hydric soils for this site (Fig. 4).

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. Plant species within the wetland/upland ecotone were recorded as to their percent cover and wetland indicator status according to the National List of Plant Species that occur in wetlands; North Central Region 3 (USFWS Biological Report 88, 26.3; May 1988).

The term *wetland hydrology* encompasses all hydrologic characteristics for areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. COE hydrology criteria consist of inundation or saturation to the surface for at least 5% of the growing season in most years. Areas with evident characteristics for wetland hydrology are those where the presence of water has an overriding influence on the characteristics of vegetation and soils (COE Delineation Manual, 1987).

Soils, vegetation, and hydrology were documented at representative transect locations along the wetland edge. At each transect, the first plot was placed in an area that met the criteria to be a jurisdictional wetland. Subsequent plots were placed upslope until jurisdictional wetland criteria were not met. At least one upland plot and one wetland plot are documented on the Routine Wetland Delineation Data Form filled out for each transect. In some cases, additional plots were needed to clearly establish wetland boundaries. The transect and plot locations are shown on Figure 4. Plant species cover was based on the percent aerial coverage visually estimated within a 30-foot radius of the plot for the sapling and shrub layers and a 5-foot radius for the herbaceous layer within the community type being sampled. Estimate of basal area for dominant trees was determined by using a 10-factor prism. Total vegetation dominance for all strata was determined using the "50/20 rule" (COE Delineation Manual, 1987). Soils observations were made immediately below the A horizon. Primary and secondary hydrology indicators were generally evaluated to a depth of 16 inches. Wetland boundaries were marked using pink pin flags labeled "wetland delineation" and surveyed using a Trimble PROXH sub-meter GPS unit.

Site Specific Methods and Results:

Wetland A

This is primarily a Type 1 seasonally flooded floodplain wetland. Two transects were completed at this wetland site. For the first transect, vegetation at the wetland pit was dominated by silver maple and cottonwood. In the upland pit, vegetation was comprised primarily of silver maple, cottonwood, and Canada goldenrod. In the wetland pit, free standing water was measured at 1 inch below the ground surface and soils were saturated to the surface. In the upland pit,

neither saturated soils nor free standing water was observed. Soils in the wetland were dark gray gleyed (3/N) mucky sand over gray gleyed (4/N) sand. In the upland, soils were very dark grayish brown (10YR 3/2) loamy sand over brown (10YR 4/3) loamy fine sand over very dark grayish brown (10YR 3/2) fine sandy clay loam. Both hydrology and hydric soils criteria were not met in the upland pit.

In the second transect, the vegetation at the wetland pit was dominated by silver maple and cottonwood. Vegetation at the upland pit was comprised primarily of silver maple, false nettle, and reed canary grass. In the wetland pit, free standing water was measured at 1 inch below the ground surface and soils were saturated to the surface. In the upland pit, neither saturated soils nor free standing water was observed. Soils in the wetland were dark gray gleyed (3/N) mucky sand over gray gleyed (4/N) sand. In the upland, soils were very dark grayish brown (10YR 3/2) loamy sand over brown (10YR 4/3) loamy fine sand over very dark grayish brown (10YR 3/2) fine sandy clay loam. Both hydrology and hydric soils criteria were not met in the upland pit.

The boundary for this wetland follows primarily a topographic break along the channel banks, as well as a vegetative break between dominant wetland species and upland species.

See delineation data sheets for more information on each wetland.

CONCLUSION

The procedures followed for this Wetland Delineation Report are in accordance with the 1987 Federal Manual for Identifying and Delineating Jurisdictional Wetlands. This delineation describes conditions for narrowly defined periods of time.

If unavoidable impacts are proposed for the wetland, permits or exemptions must first be obtained from the proper agencies. These could include: Local Governmental Unit (City), State (DNR), Federal (Army Corps of Engineers), and/or other applicable entities.

Bonestroo Rosene Anderlik and Associates

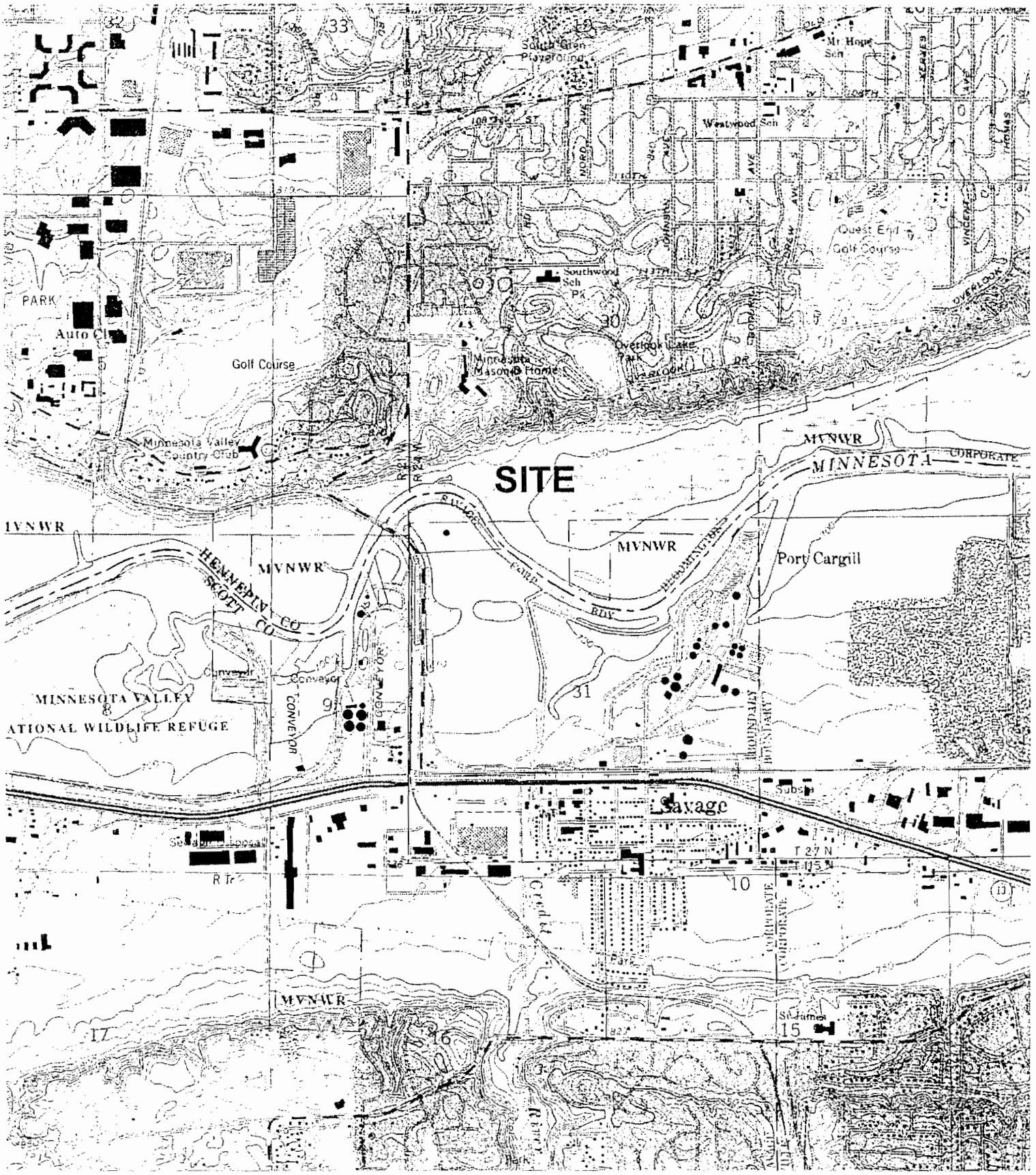
Benjamin Meyer
Wetland Delineator, Certified

6-7-06
Date

Daniel Terstoeg
Wetland Scientist

06/07/2006
Date

FIGURES



PROJECT LOCATION

FIGURE 1

LOWER MN RIVER WATERSHED DIST.

CARGILL DREDGE MATERIAL STORAGE SITE

Bonestroo Rosene Anderlik & Associates

Engineers & Architects

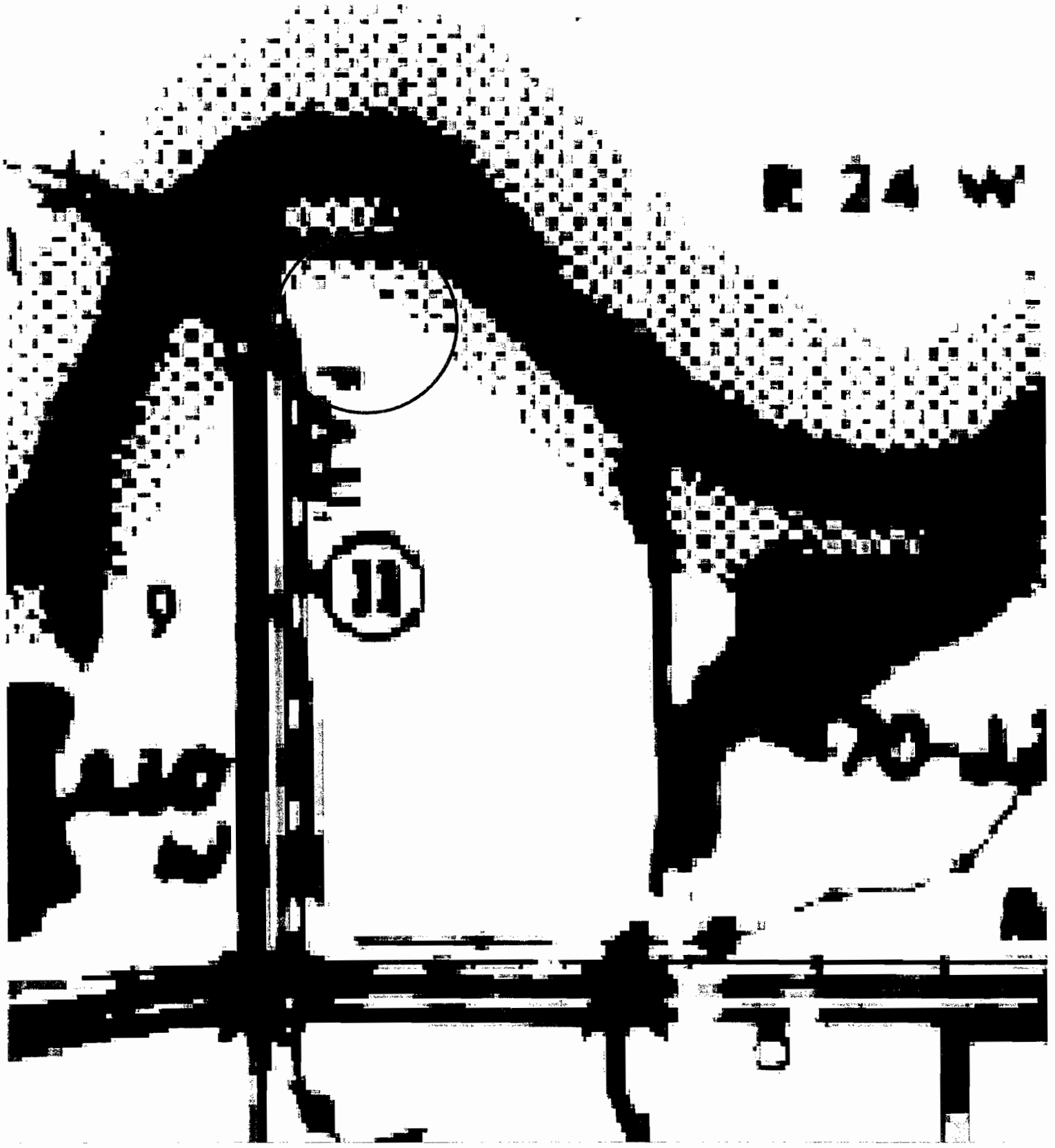
NATIONAL WETLANDS INVENTORY

FIGURE 2

LOWER MN RIVER WATERSHED DIST.

CARGILL DREDGE MATERIAL STORAGE SITE

Bonestroo
Rosene
Anderlik &
Associates
Engineers & Architects



DNR PUBLIC WATERS INVENTORY

FIGURE 3

LOWER MN RIVER WATERSHED DIST.

CARGILL DREDGE MATERIAL STORAGE SITE

Bonestroo Rosene Anderlik & Associates

Engineers & Architects

SCOTT COUNTY SOILS

FIGURE 4

LOWER MN RIVER WATERSHED DIST.

CARGILL DREDGE MATERIAL STORAGE SITE

N

W E

S

Bonestroo
Rosene
Anderlik &
Associates

Engineers & Architects

DELINEATION WETLAND BOUNDARIES

FIGURE 5

LOWER MN RIVER WATERSHED DIST.

CARGILL DREDGE MATERIAL STORAGE SITE

N

W E

S

Bonestroo
Rosene
Anderlik &
Associates

Engineers & Architects

ATTACHMENT A

WETLAND DELINEATION DATA FORMS

Project: Cargill Dredge Material Storage Site

Basin : A | ***Date:*** 6/6/2006 | ***Investigator:*** DPT

☑ *This site is a jurisdictional wetland* | ***Date 2***

Comments
Floodplain.

Transect Information

Transect # 1

Normal Conditions: ☑
Atypical Situation: ☐
Problem Area: ☑

Wetland Vegetation Present: ☑
Hydric Soils Present: ☑
Hydrology Present: ☑

Cowardin: PUBGx
NWI Mapped: Yes
Topographic Setting: Floodplain
Aerial Photo Year: 2003
Gauge: ☐

Comments

Pit Descriptions

Pit #: 1

Vegetation Wetland Vegetation Present? ☑

Scientific Name	Common Name	Stratum	Indicator Status	% Cover	Dominant According to 50/20
Acer saccharinum	Silver maple	T	FACW	60.00%	☑
Acer saccharinum	Silver maple	H	FACW	1.00%	☑
Populus deltoides	Cottonwood	T	FAC+	30.00%	☑

% of dominant species that are OBL, FACW or FAC in Pit: 100

Hydrology Hydrology Present ☑

Depth of Surface Water	Depth to Free Water	Depth to Saturated Soil
N/A	1"	0"

Hydrology Primary Indicators	Hydrology Secondary Indicators	Hydrologic Alterations
Saturated in upper 12 inches	FAC-neutral test	No

Soil Hydric Soils Present: ☑ Map Symbol: Dd

Depth (in)	Matrix Color	Mottle Color	Mottle Quantity	Mottle Contrast	Texture
0-2	3/N				Mucky sand
2-24	4/N				Sand

Hydric Soil Indicator:
Gleyed

Pit #: 2

Vegetation Wetland Vegetation Present? ☑

Scientific Name	Common Name	Stratum	Indicator Status	% Cover	Dominant According to 50/20
Acer negundo	Box elder	T	FACW-	5.00%	☐
Acer saccharinum	Silver maple	T	FACW	70.00%	☑
Acer saccharinum	Silver maple	H	FACW	4.00%	☑
Fraxinus pennsylvanica	Green ash	H	FACW	1.00%	☐
Phalaris arundinacea	Reed canary grass	H	FACW+	2.00%	☑
Populus deltoides	Cottonwood	T	FAC+	40.00%	☑
Rhamnus cathartica	Common buckthorn	H	FAC-	1.00%	☐
Solidago canadensis	Tall goldenrod	H	FACU	3.00%	☑

% of dominant species that are OBL, FACW or FAC in Pit: 80

Hydrology Hydrology Present ☐

Depth of Surface Water	Depth to Free Water	Depth to Saturated Soil
N/A	N/A	N/A

Hydrology Primary Indicators	Hydrology Secondary Indicators	Hydrologic Alterations
	FAC-neutral test	No

Soil Hydric Soils Present: ☐ Map Symbol: Dd

Depth (in)	Matrix Color	Mottle Color	Mottle Quantity	Mottle Contrast	Texture
0-1	10YR3/2				Loamy sand
1-30	10YR4/3				Loamy fine sand
30-36	10YR3/2				Sandy clay loam

Hydric Soil Indicator:

Project: Cargill Dredge Material Storage Site

Basin : A **Date:** 6/6/2006 **Investigator:** DPT

☑ *This site is a jurisdictional wetland* *Date 2*

Comments
Floodplain.

Transect Information

Transect # 2

Normal Conditions: ☑
Atypical Situation: ☐
Problem Area: ☑

Wetland Vegetation Present: ☑
Hydric Soils Present: ☑
Hydrology Present: ☑

Cowardin: PUBGx
NWI Mapped: Yes
Topographic Setting: Floodplain
Aerial Photo Year: 2003
Gauge: ☐

Comments

Pit Descriptions

Pit #: 1

Vegetation Wetland Vegetation Present? ☑

Scientific Name	Common Name	Stratum	Indicator Status	% Cover	Dominant According to 50/20
Acer saccharinum	Silver maple	T	FACW	60.00%	☑
Acer saccharinum	Silver maple	H	FACW	1.00%	☑
Populus deltoides	Cottonwood	T	FAC+	30.00%	☑

% of dominant species that are OBL, FACW or FAC in Pit: 100

Hydrology Hydrology Present ☑

Depth of Surface Water	Depth to Free Water	Depth to Saturated Soil
N/A	1"	0"

Hydrology Primary Indicators	Hydrology Secondary Indicators	Hydrologic Alterations
Saturated in upper 12 inches	FAC-neutral test	No

Soil Hydric Soils Present: ☑ Map Symbol: Dd

Depth (in)	Matrix Color	Mottle Color	Mottle Quantity	Mottle Contrast	Texture
0-2	3/N				Mucky sand
2-24	4/N				Sand

Hydric Soil Indicator:
Gleyed

Pit #: 2

Vegetation Wetland Vegetation Present? ☑

Scientific Name	Common Name	Stratum	Indicator Status	% Cover	Dominant According to 50/20
Acer negundo	Box elder	T	FACW-	5.00%	☐
Acer negundo	Box elder	H	FACW-	1.00%	☐
Acer saccharinum	Silver maple	T	FACW	70.00%	☑
Acer saccharinum	Silver maple	H	FACW	5.00%	☑
Boehmeria cylindrica	False nettle	H	OBL	3.00%	☑
Fraxinus pennsylvanica	Green ash	T	FACW	10.00%	☐
Fraxinus pennsylvanica	Green ash	H	FACW	1.00%	☐
Phalaris arundinacea	Reed canary grass	H	FACW+	2.00%	☑
Populus deltoides	Cottonwood	T	FAC+	15.00%	☐

% of dominant species that are OBL, FACW or FAC in Pit: 100

Hydrology Hydrology Present ☐

Depth of Surface Water	Depth to Free Water	Depth to Saturated Soil
N/A	N/A	N/A

Hydrology Primary Indicators	Hydrology Secondary Indicators	Hydrologic Alterations
	FAC-neutral test	No

Soil Hydric Soils Present: ☐ Map Symbol: Dd

Depth (in)	Matrix Color	Mottle Color	Mottle Quantity	Mottle Contrast	Texture
0-1	10YR3/2				Loamy sand
1-32	10YR4/3				Loamy fine sand
32-36	10YR3/2				Sandy clay loam

Hydric Soil Indicator: