



November 8, 2006

Mr. Jon Ahlness  
Corps of Engineers  
Department of the Army  
190 East Fifth Street  
St. Paul, MN 55101-1638

Mr. Steve Dewar  
Minnesota Department of Natural Resources  
Division of Lands and Minerals  
1525 East Third Street  
Hibbing, MN 55746

**Re: 20-Year Wetland Mitigation Plan Update – Minnesota Steel Industries, LLC**

Dear Messrs. Ahlness and Dewar:

On behalf of Minnesota Steel Industries, LLC, we are hereby submitting an update to the 20-year wetland mitigation plans for the project. The 5-year wetland mitigation plan includes the restoration of 553 acres of wetland at a farm in Aitkin County, Minnesota (Table 1). The 20-year plan includes additional off-site measures along with on-site restoration measures.

The preliminary wetland mitigation plan, submitted May, 2006, has been revised to include the following mitigation measures.

1. Restoration of 140 acres of a farmed wetland near Aitkin, Site 1981-NW,
2. Restoration of 150 acres of wetlands on the project site during reclamation,
3. Establishment and restoration of 755.5 acres of deepwater habitats on the project site during reclamation,
4. Restoration of wetlands through the decommissioning of roads within the Chippewa National Forest, and
5. The restoration of approximately 50-60 acres of wetlands on tribal lands.

**Aitkin Site 1981-NW**

Minnesota Steel is currently in discussions with a landowner (Site 1981-NW) regarding potential wetland restoration near Aitkin. Site 1981-NW encompasses approximately 155 acres of a larger 353 acre property located in Township 47 North, Range 26 West, Section 8, Aitkin County (Figure 1). The other 198 acres of the larger 353 acre property was restored to wetlands and was part of the state wetland bank between 1995 and 2003. The land was originally developed for farming in 1980-81 when a drain tile system (tiles approximately every 100 feet) was installed throughout the property. There is an approximately 10 foot deep ditch (at the outlet from the property) that runs along the north side of the parcel, into which the tile system discharges. Prior to agricultural development, the land contained a mix of tamarack, willow, and aspen, according to the landowner.

Preliminary wetland restoration planning for the 155 acres was conducted between 2003 and 2005, but permitting was not completed and no restoration work has been conducted. As part of that preliminary planning, 1-foot aerial topography was developed for the property. In addition, a map of the drain tile system is available. It is estimated that approximately 140 acres of wetland mitigation

credits may be possible through restoring wetlands within the property (Figure 2). Assuming discussions with the landowner are successful, Minnesota Steel will develop detailed wetland restoration plans for the property to be included as part of the 20-year wetland mitigation plan. It is anticipated that Type 2, 6, and 7 wetlands could be restored at the site, but the exact proportion of each has not been determined at this time. An equal area of each wetland type was assumed for planning purposes, as depicted in Table 2.

### **On-Site Wetland Restoration**

There are approximately 90 acres of wetlands that will be utilized for holding tailings basin reclaim water during operation of the project. Since tailings will have settled out of the water prior to its discharge into the reclaim basin, it is not anticipated that significant sediment will be deposited in the reclaim basin wetlands. These wetlands were previously used for the same purpose and have redeveloped into functioning wetlands, with minimal human intervention. Therefore, it is anticipated that restoration of the wetlands at the end of the Minnesota Steel project will be equally successful. Approximately 90 acres of primarily Type 4 and 5 wetlands are planned for restoration during reclamation activities at the end of the project.

Also during reclamation, it is anticipated that wetlands will be developed on the tailings basin. The planned surface drainage area of the tailings basin is estimated to be 1,000 acres, upon completion of the project. Based on wetland development at United Taconite's closed tailings basin, it is estimated that approximately 60 acres of Type 3, 4, and 5 wetlands will be developed on the tailings basin. Specific plans for wetland establishment will be developed and submitted for review and approval prior to beginning reclamation.

### **On-Site Deepwater Habitat Development**

At the completion of the project, the dewatered mine pits and newly developed mine pits will be allowed to fill with water. It is anticipated that over 755 acres of deepwater habitats will be developed following completion of the project while only 315 acres of deepwater habitats are expected to be impacted by the project.

### **Chippewa National Forest Road Decommissioning**

The U.S. Forest Service (USFS) has identified approximately 140 miles of forest roads that are ready for decommissioning in the Chippewa National Forest. Many of the roads have impacted wetlands; either directly through filling or by indirect drainage or impoundment. Several particular sites have been briefly evaluated in the field and one particular site was reviewed with the Corps. Minnesota Steel plans to identify and evaluate specific sites for decommissioning and develop restoration plans in conjunction with the USFS. Plans for individual road projects will be submitted for regulatory review and approval prior to starting construction. It is anticipated that approximately 88 acres of wetlands will be restored as a result of road decommissioning.

### **Tribal Land Wetland Restoration**

Minnesota Steel is in discussions with tribal entities that have an interest in restoring wetlands on their property. It is anticipated that Minnesota Steel will restore approximately 50 acres of wetlands on tribal lands, but no specific projects have been identified at this time. Wetland restoration plans will be submitted for regulatory review and approval before initiating construction.

## Conclusion

The overall goal of the 20-year wetland mitigation plan is to replace wetland impacts in-kind and at least one growing season ahead of impacts, where feasible. The 20-year plan described herein includes 981 acres of wetland mitigation during the life of the project, while it is expected that 749 acres of wetlands will be impacted (Tables 1 and 2). This plan would result in an average replacement ratio of 1.3:1. In addition, the 20-year plan anticipates the development of 755 acres of deepwater habitat at the end of the project, while only 315 acres of deepwater habitats are expected to be dewatered during the project.

Accounting for the actual impacts and compensatory mitigation during the project is proposed to be accomplished as part of the annual permit-to-mine reporting and through approximately 5-year increment wetland mitigation plans. The annual permit-to-mine reports would include a tabulation of wetland impacts and mitigation that was conducted during that year along with a summary of overall project totals.

We hope this information will help you in meeting the project timeline. If you or other Corps staff have any questions concerning this information, please contact either myself at 952-832-2764 or Deb McGovern at 651-209-7707.

Sincerely,



Mark Jacobson  
Senior Environmental Scientist

## Enclosures

c:     Deb McGovern  
       Scott Ek  
       Steve Menden  
       Jeff Udd  
       Howard Hilshorst  
       Jim Payne

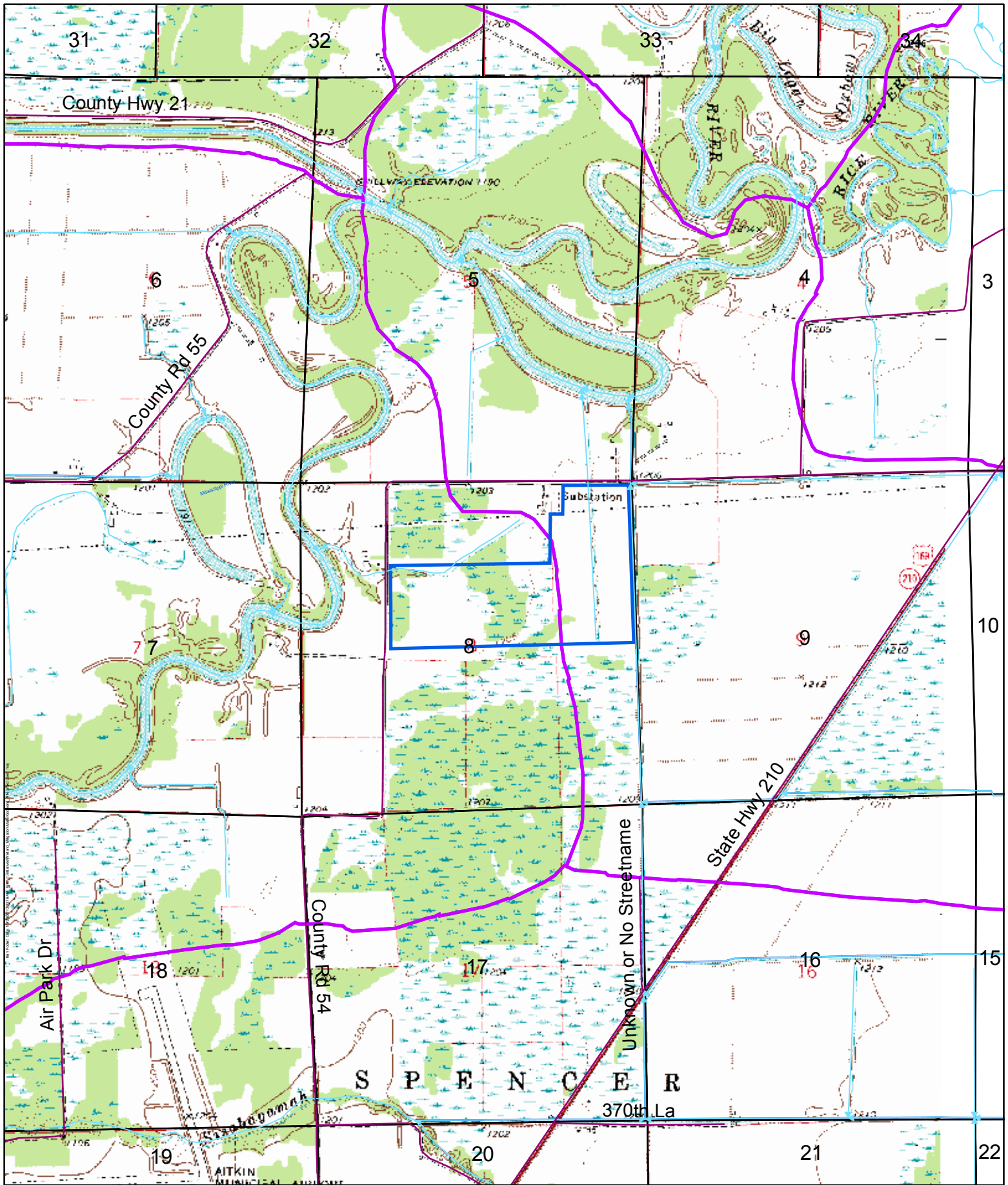
Table 1  
Wetland Mitigation Summary - 20 Year Plan  
Minnesota Steel Industries  
November 8, 2006

<b>WETLANDS</b>			
<b>Impacts</b>	Total Project (acres)	First 5 Years (acres)	Years 6-20 (acres)
Mine Area	29	11	18
Plant Area	109	109	0
Stockpile Area	215	150	65
Tailings Basin Pipeline	2	2	0
Stage I Tailings Basin	395	257	138
<b>Total</b>	<b>749</b>	<b>529</b>	<b>221</b>
<b>Mitigation</b>			
Aitkin Sites 229 and 248	553	553	0
Aitkin Site 1981-NW	140	0	140
Chippewa Forest Road Removals	88	0	88
Tribal Wetland Restorations	50	0	50
Tailings Basin Wetlands	60	0	60
Reclaim Water Wetlands	90	0	90
<b>Total</b>	<b>981</b>	<b>553</b>	<b>428</b>
<b>DEEPWATER HABITATS</b>			
<b>Impacts</b>	Total Project (acres)	First 5 Years (acres)	Years 6-20 (acres)
Pits 1 and 2	111.5	111.5	0
Pit 5	204	204	0
<b>Total</b>	<b>315.5</b>	<b>315.5</b>	<b>0</b>
<b>Mitigation</b>			
Pits 1 and 2	111.5	0	111.5
Pit 5	408	0	408
Pit 6	236	0	236
<b>Total</b>	<b>755.5</b>	<b>0</b>	<b>755.5</b>

Table 2  
 Summary of Wetland Impacts and Mitigation by Circular 39 Wetland Type  
 20-Year Wetland Mitigation Plan  
 November 8, 2006  
 Minnesota Steel Industries

Project Area	Circular 39 Type									Wetland Total
	1	2	3	4	5	6	7	8	Deepwater	
	<b>Impact Area (acres)</b>									
Mine Area	0.50	7.40	0.37	3.03	8.57	5.98	3.18	0.00	315.7	29.0
Plant Area	0.21	24.15	0.00	17.50	0.71	57.33	8.80	0.00	0.00	108.7
Stockpile Area	9.80	11.21	0.70	38.90	73.35	65.90	15.33	0.00	0.06	215.2
Tailings Basin Pipeline	0.00	0.02	0.26	0.00	0.36	0.47	0.28	0.00	0.00	1.4
Stage I Tailings Basin	0.00	66.80	92.29	6.34	123.24	101.85	3.35	1.16	0.00	395.0
<b>Total with Stage I Tailings Basin</b>	10.5	109.6	93.6	65.8	206.2	231.5	30.9	1.2	315.7	749
	<b>Mitigation Area Goal (acres)</b>									
<b>Mitigation Project</b>										
Sites 229 & 248	0.00	39.00	120.00	120.00	120.80	153.20	0.00	0.00	0.0	553.0
Site 1981-NW	0.00	47.00	0.00	0.00	0.00	47.00	46.00	0.00	0.00	140.0
On-site Wetland Restoration	0.00	0.00	20.00	40.00	90.00	0.00	0.00	0.00	0.00	150.0
On-site Deepwater Habitat Development	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	755.50	0.0
Chippewa Forest Road Decommissioning	10.00	10.00	20.00	3.00	0.00	35.00	10.00	0.00	0.00	88.0
Tribal Land Wetland Restorations	0.00	25.00	0.00	0.00	0.00	15.00	10.00	0.00	0.00	50.0
<b>Project Total</b>	10.0	121.0	160.0	163.0	210.8	250.2	66.0	0.0	755.5	981
<b>In-Kind Replacement Difference<sup>1</sup></b>	-0.5	11.4	66.4	97.2	4.6	18.7	35.1	-1.2	439.8	232

<sup>1</sup> Positive values represent more than 1:1 replacement of that wetland type, negative values represent less than 1:1 replacement of that type.



- Legend**
- Watershed Boundaries
  - Public Land Survey
  - Mitigation Site 1981-NW
  - Roads
  - MnDNR Ditches



Feet

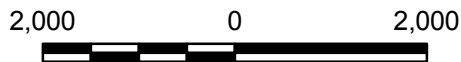





Figure 1

LOCATION MAP  
 MITIGATION SITE 1981-NW  
 Aitkin County  
 Minnesota Steel Industries





**Legend**

-  Public Land Survey
-  Mitigation Site 1981-NW
-  Roads



Feet  
400 0 400




Figure 2

POTENTIAL WETLAND  
MITIGATION SITE 1981-NW  
140 acres  
Aitkin County  
Minnesota Steel Industries





**Legend**

-  Public Land Survey
-  Mitigation Site 1981-NW
-  Roads

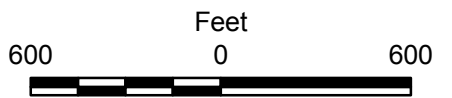


Figure 3  
POTENTIAL WETLAND  
MITIGATION SITE 1981-NW  
1991 Aerial Photograph  
Aitkin County  
Minnesota Steel Industries