

Appendix J. Wetlands



Detailed Wetland GIS Analysis Methodology

This analysis utilized a geographic information systems (GIS) analysis supplemented with a limited field review to evaluate wetland resources within the NLX study area, which includes stations maintenance and layover facilities, and the construction footprint plus a 0.25 mile buffer around the project centerline. The GIS analysis uses spatially referenced raster layers, which consist of a grid of equally sized pixels which represent a value of a characteristic at the location denoted by the pixel. Several different raster layers are overlain on top of each other to determine areas that are likely wetland. The USGS soil, National Wetland Inventory, landcover, topography, and Wisconsin Wetland Inventory layers were used for this GIS analysis. 64 sites were visited in the field between June 27 and June 29, 2016 to validate the wetland areas identified in the GIS analysis. Wetland impacts were identified where the wetland boundaries intersected the construction limits. Wetland impacts were then categorized by type based on Circular 39 Wetland Classification System which was published by the USFWS in 1956 and categorizes wetlands into eight types based on the water depth and vegetation type within a wetland, as shown in **Table 5**. This analysis utilized a geographic information systems (GIS) analysis supplemented with a limited field review to evaluate wetland resources within the NLX study area for wetlands, which includes the stations, maintenance and layover facilities and the footprint from preliminary engineering plus a 0.25-mile buffer around the existing railway. GIS raster layers consist of a grid of equally sized pixels which represent a value of a characteristic at the location denoted by the pixel. A GIS analysis involves the layering of different raster layers to create a new layer that identifies the areas that are likely wetland. This analysis augments the findings from the Tier 1 EA completed in 2013.

The following subsections detail the data sources and methodology used throughout the analysis.

Data Gathering

GIS layers relative to the analysis of wetland resources were gathered from a variety of sources including: the Natural Resources Conservation Service, MnDNR, WDNR, United States Geological Survey (USGS), county websites and the City of Superior, Wisconsin, website. Data were gathered from January 2016 to June 2016 to perform the GIS analysis (see GIS Analysis section below) prior to the majority of the field work. **Table 1** outlines the GIS layers used, their source and the website used to access them.

Table 1: GIS Analysis Layers

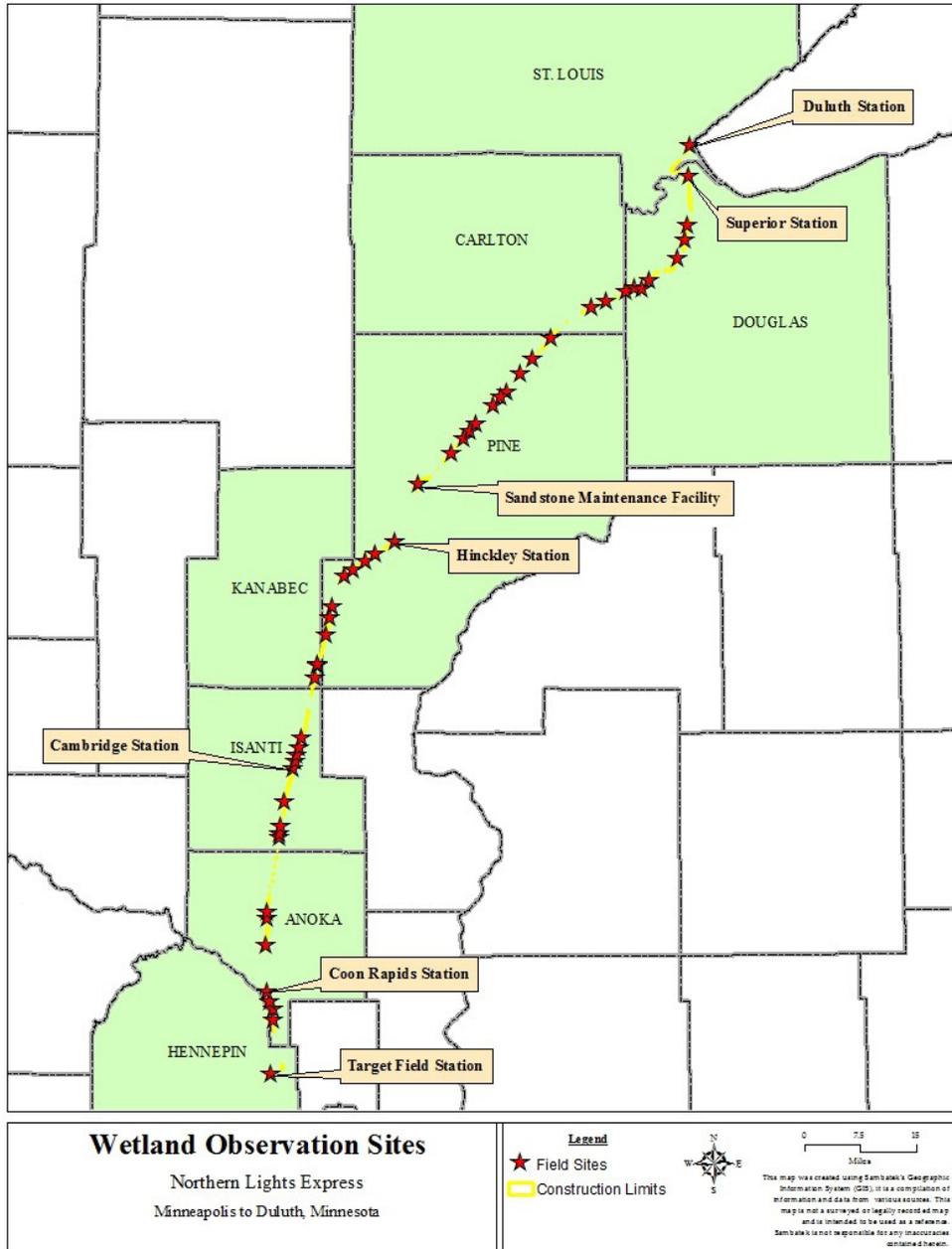
Feature Class	Source	Website
Minnesota Landcover	MnDNR	https://gisdata.mn.gov/dataset/biota-landcover-mlccs
Soil Layer	Natural Resources Conservation Service Web Soil Survey	http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Minnesota National Wetland Inventory Update	MnDNR	https://gisdata.mn.gov/dataset/water-nat-wetlands-inv-2009-2014
Minnesota 1980s National Wetland Inventory	MnDNR	https://gisdata.mn.gov/dataset/water-nat-wetlands-inventory
Wisconsin Wetland Inventory	WDNR	http://dnr.wi.gov/topic/wetlands/inventory.html
Minnesota Digital Elevation Model	MnDNR	http://arcgis.dnr.state.mn.us/maps/mntopo/
Wisconsin Digital Elevation Model	City of Superior, Wisconsin	http://www.ci.superior.wi.us/index.aspx?NID=620
National Land Cover Database 2011 Landcover	USGS	https://gisdata.mn.gov/dataset/biota-landcover-nlcd-mn-2011
Minnesota Aerial Photography	Minnesota Geospatial Information Office	http://www.mngeo.state.mn.us/chouse/airphoto/fsa.html
Wisconsin Aerial Photography	Wisconsin View	http://www.wisconsinview.org/
Minnesota Public Water Inventory	MnDNR	https://gisdata.mn.gov/dataset/water-mn-public-waters

Field Review

Field visits were performed along the NLX Corridor to verify potential wetland sites identified using the GIS analysis. Fifty sites were chosen based on three criteria: (1) areas where GIS analysis tends to be less accurate, (2) areas with large construction footprints and (3) areas easily accessible to field staff. The GIS analysis tends to be less accurate in areas such as wooded wetlands and partially drained agricultural fields where hydrology indicators are not easily identifiable. After a review of the available GIS data, it was evident that some of the

data available in other counties were not available in Pine County. Therefore, 14 additional field sites were added in Pine County for a total of 64 sites. The 64 sites were visited in the field between June 27 and June 29, 2016. **Figure 1** shows the approximate locations of the 64 field sites.

Figure 1: NLX Corridor Wetland Observation Sites



The approximate wetland boundaries at each field site were drawn into a 1"=500' scale sheet book and the dominant vegetation of each wetland was noted. These boundaries were compared to the wetland boundaries identified by the GIS analysis and used to adjust the model to obtain more accurate results (see the NLX Tier 2 EA, Appendix J). Based on the wetland boundaries observed in the field, a model that weighted the vegetation, soils and slope layers equally was a better representation of the actual wetland boundaries

GIS Analysis

Data Processing

The gathered data were transformed using several different processes in order to carry out the analysis. The analysis was performed in the North American Datum 1983, Universal Transverse Mercator Zone 15N coordinate system. First, all the data layers were clipped to a 0.25-mile buffer surrounding the railway center line and then to the county boundary. This made the large data files smaller and easier to process. Next, all layers were converted to raster datasets and reclassified into five categories with a numerical code in order to create interpretable results. A higher value numeric code represents a condition that is more likely to support wetland conditions.

The soil layers were divided into five hydric categories as specified by the Natural Resources Conservation Service Web Soil Survey. **Table 2** outlines how these data were categorized and numerically coded for the analysis.

Table 2: Soil Classification

Classification	Hydric Rating (%)	Numerical Code
Non-hydric	0	0
Predominantly non-hydric	1–33	1
Partially hydric	34–66	2
Predominantly hydric	67–99	3
All hydric	100	4

Vegetation data layers were reclassified based on the described vegetation and broken into five categories, which were developed as part of the USFWS National Wetland Inventory. The U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory divides vegetation into five categories based on their probability of occurring in a wetland. The five categories are obligate upland, facultative upland, and facultative, facultative wetland and obligate wetland categories. Each category was given a numeric code. **Table 3** summarizes how vegetation data were classified and numerically coded.

Table 3: Vegetation Classification

Classification	Symbol	Probability of Occurrence in Wetlands (%)	Numerical Code
Obligate upland	UPL	<1	0
Facultative upland	FACU	1–33	1
Facultative	FAC	34–66	2
Facultative wetland	FACW	67–99	3
Obligate wetland	OBL	>99	4

A slope layer was created using digital elevation models for each county and was reclassified into five categories. **Table 4** summarizes how slope data were classified and numerically coded.

Table 4: Slope Classification

Percent Slope	Numerical Code
20% +	0
10% - 20%	1
5% - 10%	2
2% - 5%	3
0% - 2%	4

GIS Analysis

After all of the data was processed, each data layer was overlain on top of another and the three layers were added together using the Map Algebra tool in the Spatial Analyst extension in ArcMap. This process creates a new layer with values between 0 and 12 with higher values identifying areas more likely to be wetland than lower valued areas. These new data were compared to field observations, the published Minnesota National Wetland Inventory Update, the original National Wetlands Inventory (NWI), Wisconsin Wetland Inventory maps and aerial photography to determine the validity of the computer model. Based on the observations made in the field and a comparison to published data, it was determined that an area with a value of six or more designated by the model accurately predicted wetland areas. These areas were outlined and designated as approximate wetland boundaries. However, the model did have trouble predicting the long, narrow wetlands located between the rail and roadways (ditches) due to the small nature of the wetlands and the resolution of the available data sources. In instances where the model did not predict these long, narrow

wetlands field observations were used to georeference their boundaries and include them in the impact analysis. The boundaries identified by the GIS analysis and the georeferenced boundaries were combined into one file that represents the approximate wetland boundaries.

The wetlands identified during the GIS analysis were designated as a Circular 39 Wetland Type. The Circular 39 Wetland Classification System was published by the USFWS in 1956 and categorizes wetlands into eight types based on the water depth and vegetation type within a wetland, as shown in **Table 5**. The Circular 39 type designations for this analysis were determined using aerial photography and published NWI and Wisconsin Wetland Inventory maps. The NWI maps were initially published by the U.S. Fish and Wildlife Service between 1979 and 1984 to identify wetland resources throughout the United States. In an effort to improve the accuracy of these maps the Minnesota DNR began updating the NWI in 2013. Currently, the MnDNR update covers 54 counties, 3 of which are within the NLX Corridor. The Wisconsin Wetland Inventory maps were created by WDNR in an effort to produce wetland maps that are graphic representations of the type, size and location of wetlands in Wisconsin at a 1:2,400 scale.

Wetland areas were determined through the process of Data Processing and GIS Analysis of readily available GIS data and aerial imagery. Readily available data that was utilized in the data processing phase included soil survey data, vegetation species assessment and slope classification of LIDAR data. Within each data set a numerical code was assigned to from 0 to 5. The lower the number the less likely that wetland conditions would exist whereas the higher the number more likely that wetland conditions would exist. For example, if a soil type was known to be hydric, which is an indicator of wetland conditions, then that soil series would be assigned a "5." Likewise, regarding the slope data the shallower the slope an area exhibits the more likely it is to store water and therefore a higher value would be assigned to that area. Results of the three data sets were overlain atop each other on aerial imagery of the NLX Corridor, and ArcMap values between 0 and 12 were assigned to the whole NLX Corridor. The higher the value the more likely an area was to exhibit wetland conditions. These values were then compared to the National Wetland Inventory, the Wisconsin Wetland Inventory, observations made in the field and the review of multiple years of aerial imagery. Based on the GIS analysis, wetland areas were determined without having to traverse the entire NLX Corridor and provided an understanding of wetland areas within the NLX Corridor to use as an estimate for the preparation of the Tier 2 EA.

Wetland impacts were identified where the wetland boundaries intersected the construction limits. Wetland impacts were categorized by wetland type. Therefore, in cases where large wetland complexes consisting of multiple wetland types intersected the construction limits, multiple wetland impact areas were identified. Each wetland impact was given a unique numeric identifier and the acreage was recorded.

Table 5: Description of Circular 39 Wetland Types

Wetland Type	Description
Type 1/2	Type 1 wetlands are seasonally flooded basins or flats in which soil is covered with water or is waterlogged during variable seasonal periods but usually is well drained during much of the growing season. Type 2 wetlands are inland fresh meadows in which soil is usually without standing water during most of the growing season but is waterlogged within at least a few inches of the surface. Vegetation can include grasses, sedges, rushes and various broad-leaved plants.
Type 3/4	Type 3 wetlands are shallow fresh marshes in which soil is usually waterlogged early during a growing season and often covered with as much as 6 inches or more of water. Vegetation includes grasses, bulrushes, spike rushes and various other marsh plants. Type 4 wetlands are deep fresh water marshes in which the soil is usually covered with 6 inches to 3 feet or more of water during the growing season. Vegetation includes cattails, reeds, bulrushes, spike rushes and wild rice.
Type 5	Type 5 wetlands are open fresh water, shallow ponds and reservoirs in which water is usually less than 10 feet deep and is fringed by a border of emergent vegetation.
Type 6/7/8	Type 6 wetlands are shrub swamps in which soil is usually water logged during the growing season and often covered with as much as 6 inches of water. Vegetation includes alders, willows, buttonbush and dogwoods. Type 7 wetlands are wooded swamps in which soil is waterlogged at least within a few inches of the surface during the growing season and is often covered with as much as 1 foot of water. Trees include tamarack, white cedar, black spruce, balsam, red maple and black ash. Type 8 wetlands are bogs in which soil is usually waterlogged and supports a spongy covering of mosses. Vegetation is woody and herbaceous and often includes heath shrubs, sphagnum moss, sedges, black spruce, tamarack and cranberries.
Riverine	Riverine wetlands include all wetlands and deepwater habitats contained within a channel that periodically or continuously contains moving water.

Potential Wetland Impact Table

The following table provides more information about the potential wetland areas throughout the NLX Corridor. **Table 6** lists each potential wetland impact area by a numeric identifier. Wetland impact areas were separated by wetland type. Therefore, in cases where a large wetland complex consisting of multiple wetland types intersects the construction limits, multiple wetland impact areas will be identified. The table lists the potential wetland impact areas from south to north starting in Minneapolis and ending in Duluth, Minnesota. See Appendix D of this NLX Tier 2 Service Level EA for the locations of potential wetland impact areas.

Table 6: GIS Analysis Layers

Wetland Impact Area	Approximate Impact Acreage	Wetland Type	County
1	0.08	1/ 2	Anoka
2	0.43	1/ 2	Anoka
3	0.05	Riverine	Anoka
4	0.01	1/ 2	Anoka
5	0.13	1/ 2	Anoka
6	0.28	3/ 4	Anoka
7	0.06	1/ 2	Anoka
8	0.03	1/ 2	Anoka
9	1.87	3/ 4	Anoka
10	0.01	1/ 2	Anoka
11	0.01	1/ 2	Anoka
12	0.06	1/ 2	Anoka
13	0.02	1/ 2	Anoka
14	0.16	1/ 2	Anoka
15	0.44	1/ 2	Anoka
16	0.01	1/ 2	Anoka
17	0.14	1/ 2	Anoka
18	0.15	1/ 2	Anoka
19	0.08	Riverine	Anoka
20	0.01	1/ 2	Anoka
21	0.01	1/ 2	Anoka
22	0.01	1/ 2	Anoka
23	0.01	1/ 2	Anoka
24	0.03	1/ 2	Anoka
25	0.10	1/ 2	Anoka
26	0.36	1/ 2	Anoka
27	0.01	1/ 2	Anoka
28	0.33	1/ 2	Anoka
29	0.01	3/ 4	Anoka
30	0.55	1/ 2	Anoka
31	1.07	3/ 4	Anoka

Wetland Impact Area	Approximate Impact Acreage	Wetland Type	County
32	0.50	1/ 2	Anoka
33	0.02	1/ 2	Anoka
34	0.18	1/ 2	Anoka
35	0.26	6/7/8	Anoka
36	0.26	1/ 2	Anoka
37	0.22	1/ 2	Anoka
38	0.05	1/ 2	Anoka
39	0.01	1/ 2	Anoka
40	0.01	1/ 2	Anoka
41	0.16	6/7/8	Anoka
42	0.18	1/ 2	Anoka
43	0.30	1/ 2	Anoka
44	0.12	1/ 2	Isanti
45	0.26	1/ 2	Isanti
46	0.11	6/7/8	Isanti
47	0.57	3/ 4	Isanti
48	0.03	3/ 4	Isanti
49	0.02	1/ 2	Isanti
50	0.05	1/ 2	Isanti
51	0.02	6/7/8	Isanti
52	0.18	3/ 4	Isanti
53	0.18	1/ 2	Isanti
54	0.30	1/ 2	Isanti
55	0.13	1/ 2	Isanti
56	0.05	1/ 2	Isanti
57	0.01	1/ 2	Isanti
58	0.04	1/ 2	Isanti
59	0.15	3/ 4	Isanti
60	0.01	6/7/8	Isanti
61	0.01	3/ 4	Isanti
62	0.18	1/ 2	Isanti
63	0.08	3/ 4	Isanti
64	0.04	3/ 4	Isanti
65	0.06	3/ 4	Isanti
66	0.04	3/ 4	Isanti
67	0.02	6/7/8	Isanti
68	0.07	1/ 2	Isanti
69	0.01	1/ 2	Isanti
70	0.02	3/ 4	Isanti
71	0.01	1/ 2	Isanti
72	0.01	5	Isanti
73	0.06	3/ 4	Isanti
74	0.01	1/ 2	Isanti
75	0.13	3/ 4	Isanti

Wetland Impact Area	Approximate Impact Acreage	Wetland Type	County
76	0.01	1/ 2	Isanti
77	0.01	3/ 4	Isanti
78	0.14	1/ 2	Isanti
79	0.01	3/ 4	Isanti
80	0.05	1/ 2	Isanti
81	0.01	3/ 4	Isanti
82	0.01	1/ 2	Isanti
83	0.03	3/ 4	Isanti
84	0.02	1/ 2	Isanti
85	0.01	1/ 2	Isanti
86	0.02	3/ 4	Isanti
87	0.07	3/ 4	Isanti
88	0.10	3/ 4	Isanti
89	0.08	6/7/8	Isanti
90	0.01	1/ 2	Isanti
91	0.46	6/7/8	Isanti
92	0.01	1/ 2	Isanti
93	0.99	6/7/8	Isanti
94	0.09	1/ 2	Isanti
95	0.02	1/ 2	Isanti
96	0.15	6/7/8	Isanti
97	0.16	6/7/8	Isanti
98	0.10	6/7/8	Isanti
99	0.20	1/ 2	Isanti
100	0.03	3/ 4	Isanti
101	0.07	3/ 4	Isanti
102	0.17	6/7/8	Isanti
103	0.56	3/ 4	Isanti
104	0.32	3/ 4	Isanti
105	0.09	1/ 2	Isanti
106	0.18	3/ 4	Isanti
107	1.35	3/ 4	Isanti
108	0.15	6/7/8	Isanti
109	0.73	3/ 4	Isanti
110	0.55	1/ 2	Isanti
111	0.12	3/ 4	Isanti
112	0.13	5	Isanti
113	0.12	6/7/8	Isanti
114	0.14	3/ 4	Isanti
115	0.60	6/7/8	Isanti
116	0.58	6/7/8	Isanti
117	0.02	1/ 2	Kanabec
118	0.03	6/7/8	Kanabec
119	0.01	6/7/8	Kanabec

Wetland Impact Area	Approximate Impact Acreage	Wetland Type	County
120	0.06	1/ 2	Kanabec
121	0.03	3/ 4	Kanabec
122	0.13	1/ 2	Kanabec
123	0.01	1/ 2	Kanabec
124	0.01	1/ 2	Kanabec
125	0.01	1/ 2	Kanabec
126	0.05	6/7/8	Kanabec
127	0.11	1/ 2	Kanabec
128	0.28	6/7/8	Pine
129	0.05	6/7/8	Pine
130	0.53	6/7/8	Pine
131	0.07	1/ 2	Pine
132	0.01	6/7/8	Pine
133	2.08	1/ 2	Pine
134	1.23	1/ 2	Pine
135	0.25	3/ 4	Pine
136	0.20	3/ 4	Pine
137	0.41	6/7/8	Pine
138	0.54	1/ 2	Pine
139	0.77	3/ 4	Pine
140	0.63	3/ 4	Pine
141	0.33	6/7/8	Pine
142	0.01	1/ 2	Pine
143	0.03	1/ 2	Pine
144	0.23	1/ 2	Pine
145	0.01	1/ 2	Pine
146	0.01	1/ 2	Pine
147	0.08	1/ 2	Pine
148	0.02	1/ 2	Pine
149	0.08	1/ 2	Pine
150	0.01	1/ 2	Pine
152	0.01	1/ 2	Pine
152	0.05	1/ 2	Pine
153	0.02	1/ 2	Pine
154	0.01	3/ 4	Pine
155	0.09	6/7/8	Pine
156	0.01	6/7/8	Pine
157	0.27	1/ 2	Pine
158	0.06	1/ 2	Pine
159	0.11	6/7/8	Pine
160	0.67	6/7/8	Pine
161	0.30	6/7/8	Pine
162	1.21	1/ 2	Pine
163	0.08	1/ 2	Pine

Wetland Impact Area	Approximate Impact Acreage	Wetland Type	County
164	0.37	1/ 2	Pine
165	0.01	1/ 2	Pine
166	0.12	1/ 2	Pine
167	0.23	6/7/8	Pine
168	0.20	1/ 2	Pine
169	0.20	1/ 2	Pine
170	0.01	1/ 2	Pine
171	0.03	1/ 2	Pine
172	0.41	1/ 2	Pine
173	0.07	3/ 4	Pine
174	0.38	1/ 2	Pine
175	0.10	3/ 4	Pine
176	0.49	1/ 2	Pine
177	0.34	1/ 2	Pine
178	0.91	1/ 2	Pine
179	0.05	1/ 2	Pine
180	0.17	1/ 2	Pine
181	0.50	3/ 4	Pine
182	0.49	3/ 4	Pine
183	0.01	3/ 4	Pine
184	0.13	Riverine	Pine
185	0.78	6/7/8	Pine
186	0.12	6/7/8	Pine
187	0.52	6/7/8	Pine
188	0.06	3/ 4	Pine
189	0.04	3/ 4	Pine
190	0.02	6/7/8	Pine
191	0.01	1/ 2	Pine
192	0.67	6/7/8	Pine
193	0.33	6/7/8	Pine
194	0.71	1/ 2	Pine
195	0.10	3/ 4	Pine
196	0.16	3/ 4	Pine
197	0.49	3/ 4	Pine
198	0.39	6/7/8	Pine
199	0.12	3/ 4	Pine
200	0.09	3/ 4	Pine
201	0.79	3/ 4	Pine
202	0.60	1/ 2	Pine
203	1.90	1/ 2	Pine
204	0.48	6/7/8	Pine
205	0.01	3/ 4	Pine
206	0.11	3/ 4	Pine
207	0.01	6/7/8	Pine

Wetland Impact Area	Approximate Impact Acreage	Wetland Type	County
208	0.10	3/ 4	Pine
209	0.01	3/ 4	Pine
210	0.02	3/ 4	Pine
211	0.12	3/ 4	Pine
212	0.29	3/ 4	Pine
213	0.14	6/7/8	Pine
214	0.03	3/ 4	Pine
215	0.06	1/ 2	Pine
216	0.03	1/ 2	Pine
217	0.02	1/ 2	Pine
218	0.05	3/ 4	Pine
219	0.04	1/ 2	Pine
220	0.89	6/7/8	Pine
221	1.40	6/7/8	Pine
222	0.02	1/ 2	Pine
223	0.02	1/ 2	Pine
224	3.13	1/ 2	Pine
225	0.70	6/7/8	Pine
226	0.04	6/7/8	Pine
227	0.22	3/ 4	Pine
228	0.02	3/ 4	Pine
229	0.11	6/7/8	Pine
230	0.15	6/7/8	Pine
231	0.04	3/ 4	Pine
232	0.03	1/ 2	Pine
233	0.03	1/ 2	Pine
234	0.42	6/7/8	Pine
235	0.15	1/ 2	Pine
236	0.12	6/7/8	Pine
237	0.08	1/ 2	Pine
238	0.12	3/ 4	Pine
239	0.12	6/7/8	Pine
240	0.11	3/ 4	Pine
241	0.11	6/7/8	Pine
242	0.51	1/ 2	Pine
243	0.01	6/7/8	Pine
244	0.05	6/7/8	Carlton
245	0.03	3/ 4	Carlton
246	0.15	6/7/8	Carlton
247	0.05	6/7/8	Carlton
248	0.02	1/ 2	Carlton
249	0.18	6/7/8	Carlton
250	0.02	1/ 2	Carlton
251	0.13	6/7/8	Carlton

Wetland Impact Area	Approximate Impact Acreage	Wetland Type	County
252	0.35	6/7/8	Carlton
253	0.04	1/ 2	Carlton
254	0.01	1/ 2	Carlton
255	0.02	6/7/8	Douglas
256	1.32	6/7/8	Douglas
257	1.01	6/7/8	Douglas
258	0.24	1/ 2	Douglas
259	0.04	Riverine	Douglas
260	0.29	6/7/8	Douglas
261	0.72	6/7/8	Douglas
261	0.36	6/7/8	Douglas
262	0.03	6/7/8	Douglas
263	0.01	6/7/8	Douglas
264	0.19	6/7/8	Douglas
265	0.26	6/7/8	Douglas
266	0.31	3/ 4	Douglas
267	0.04	6/7/8	Douglas
268	0.03	6/7/8	Douglas
269	0.01	6/7/8	Douglas
270	0.02	3/ 4	Douglas
271	0.01	6/7/8	Douglas
272	0.03	6/7/8	Douglas
273	0.04	6/7/8	Douglas
274	0.03	6/7/8	Douglas
275	0.02	6/7/8	Douglas
276	0.27	6/7/8	Douglas
277	1.16	6/7/8	Douglas
278	0.43	6/7/8	Douglas
279	0.08	6/7/8	Douglas
280	0.01	6/7/8	Douglas
281	0.04	6/7/8	Douglas
282	0.16	6/7/8	Douglas
283	0.09	6/7/8	Douglas
284	0.23	1/ 2	Douglas
285	0.35	6/7/8	Douglas
286	3.94	6/7/8	Douglas
287	0.06	6/7/8	Douglas
288	2.83	3/ 4	Douglas
289	0.29	6/7/8	Douglas
290	0.59	3/ 4	Douglas
291	1.02	6/7/8	Douglas
292	0.90	6/7/8	Douglas
293	0.39	6/7/8	Douglas
294	1.11	6/7/8	Douglas

Wetland Impact Area	Approximate Impact Acreage	Wetland Type	County
295	0.27	6/7/8	Douglas
296	0.44	6/7/8	Douglas
297	0.56	6/7/8	Douglas
298	0.29	6/7/8	Douglas
299	0.91	6/7/8	Douglas
300	0.06	6/7/8	Douglas
301	0.07	6/7/8	Douglas
302	0.16	6/7/8	Douglas
303	0.69	1/ 2	Douglas
304	0.18	6/7/8	Douglas
305	0.01	6/7/8	Douglas
306	0.59	6/7/8	Douglas
307	3.81	6/7/8	Douglas
308	0.10	6/7/8	Douglas
309	0.23	6/7/8	Douglas
310	0.01	6/7/8	Douglas
311	2.28	6/7/8	Douglas
312	1.40	1/ 2	Douglas
313	1.29	6/7/8	Douglas
314	0.13	6/7/8	Douglas
315	0.90	6/7/8	Douglas
316	0.52	6/7/8	Douglas
317	1.63	6/7/8	Douglas
318	0.09	6/7/8	Douglas
319	0.16	6/7/8	Douglas
320	0.01	6/7/8	Douglas
321	0.40	1/ 2	St. Louis