Appendix B

Tables and Maps for Minnesota

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Tables and Maps for Minnesota

The tables in this section were generated by the Minnesota Geospatial Information Office (MnGeo) using publicly available data available on the Minnesota Department of Natural Resources Data Deli (http://deli.dnr.state.mn.us/) and provided by the DNR. Also included are maps and data provided by DNR and the Minnesota Department of Health. The tables indicate the potential affects of each system alternative (in the two-mile corridor) on resources in Minnesota. As with other tables in this document, these data provide a broad overview of potential affects.

Total Acres/System Alternative	
System Alternative	**Acres**
SA-Applicant	382,670
SA-03	476,346
SA-04	318,078
SA-05	164,052
SA-06	505,087
SA-07	555,838
SA-08	340,055

Ground Water Susceptibility (See Ground Water Contamination Susceptibility In Minnesota Map on page B-11 in this Appendix)							
System Alternative	**0 - Insufficient Data to Rank**	**1 - Highest**	**2 - High**	**3 - Medium**	**4 - Low**	**5 - Lowest**	**Grand Total**
SA-Applicant	5,907	71,163	70,889	126,920	97,573	10,110	382,562
SA-03	7,976	95,011	79,659	201,816	87,044	4,732	476,238
SA-04	2,291	5,802	22,813	111,181	152,508	23,331	317,925
SA-05	2,417	1,500	5,941	118,787	35,350		163,994
SA-06	10,634	72,527	72,319	197,647	138,480	13,596	505,204
SA-07	18,972	70,126	92,301	268,582	101,370	4,605	555,957
SA-08	12,650	69,895	60,868	133,967	57,269	5,561	340,211

Karst Features	
System Alternative	Count
SA-03	7
SA-06	61
SA-07	61
SA-08	7

Minnesota Sites of Biological Diversity (MBS)					
System Alternative	Below	High	Moderate	Outstanding	Grand Total
SA-Applicant	7,291	6,883	52,117	2,459	68,750
SA-03	13,891	5,828	26,320	1,914	47,954
SA-04	2,099	1,277	1,724	1,112	6,211
SA-05	5,759	368	2,405		8,531
SA-06	5,273	1,598	18,052	94	25,016
SA-07	5,978	2,086	19,592	3,690	31,347
SA-08	4,315	1,824	3,258	1,969	11,366

Native Prairie				
System Alternative	Complex community	Upland Prairie System	Wetland Prairie System	Total
SA-Applicant	440	118	213	772
SA-03	279	882	973	2,135
SA-04	177	651	35	863
SA-05	223	914		1,137
SA-06		428	123	551
SA-07	92	1,684	1,637	3,414
SA-08	165	117	34	317

Calcareous Fens	
System Alternative	Total
SA-Applicant	1
SA-03	2
SA-04	1
SA-05	1
SA-06	1
SA-07	11

Old Growth Forest	
System Alternative	**Acres**
SA-Applicant	191
SA-06	153
SA-07	153

School Trust Land	
System Alternative	**Acres**
SA-Applicant	7,880
SA-03	2,004
SA-06	997
SA-07	1,022
SA-08	9

State Trails		
System Alternative	**Count**	**Miles**
SA-Applicant	8	15
SA-03	11	33
SA-04	10	8
SA-06	16	29
SA-07	15	28
SA-08	7	8

Mineral Leases	
System Alternative	**Number of Leases**
SA-Applicant	72
SA-03	110
SA-04	20
SA-05	28
SA-06	98
SA-07	139
SA-08	141

Mines and Minerals				
	Mine by Type			
System Alternative	Industrial Silica Sand	Limestone	Reed-Sedge	Total
SA-Applicant			1	1
SA-04		2		2
SA-06	1			1
SA-07	1			1

National Wetlands Inventory (NWI)							
	Wetland type						
System Alternative	3	4	5	6	7	8	Total
SA-Applicant	8,073	506	8,370	31,869	11,626	16,152	76,597
SA-03	16,740	616	9,961	24,004	9,992	6,228	67,541
SA-04	5,103	109	505	285	599		6,602
SA-05	4,066	190	2,208	47	170		6,681
SA-06	18,376	565	14,145	11,355	7,456	4,293	56,190
SA-07	25,699	1,185	22,261	12,158	7,851	4,293	73,446
SA-08	21,767	1,023	13,331	2,513	2,278	36	40,946

Water Basins (acres)			
System Alternative	Public Water Basin	Public Water Wetland	Grand Total
SA-Applicant	10,220	2,372	12,592
SA-03	10,047	2,792	12,838
SA-04	2,000	461	2,461
SA-05	3,415	419	3,834
SA-06	16,738	4,633	21,371
SA-07	24,823	6,815	31,637
SA-08	14,921	5,491	20,412

Water Courses (Rivers and Streams) or Public Waters		
System Alternative	**Count**	**Miles**
SA-Applicant	112	240
SA-03	197	407
SA-04	96	204
SA-05	54	124
SA-06	200	355
SA-07	210	352
SA-08	129	243

Trout Streams		
System Alternative	**Count**	**Miles**
SA-Applicant	46	32
SA-03	54	42
SA-04	4	4
SA-05	8	8
SA-06	43	30
SA-07	46	34
SA-08	3	6

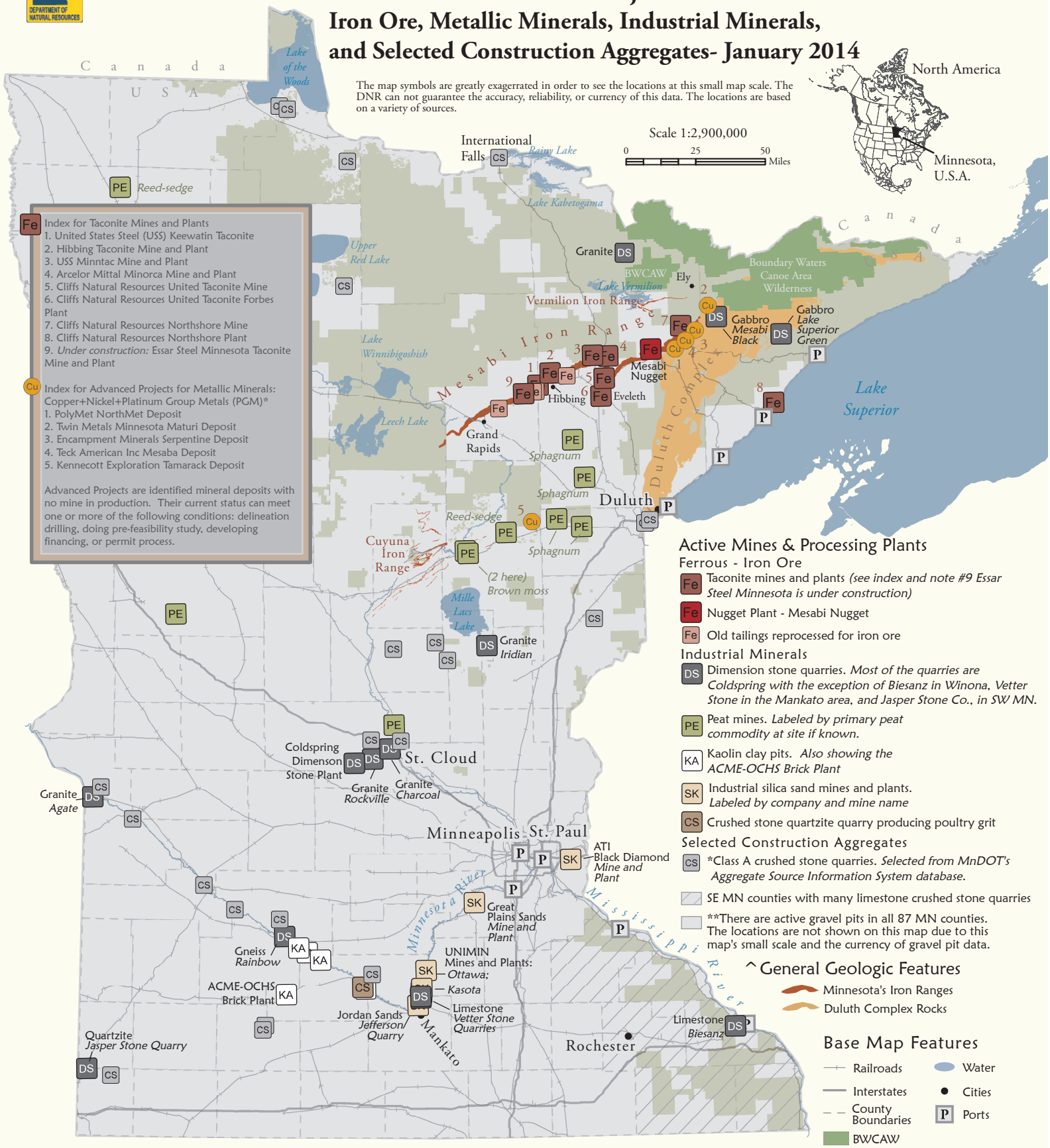
Wild Rice Lakes		
System Alternative	**Count**	**Acres**
SA-Applicant	29	3,621
SA-03	11	1,182
SA-06	7	1,867
SA-07	7	1,867
SA-08	8	916

Wild and Scenic Rivers	
System Alternative	**Acres**
SA-03	6,813
SA-06	1,595
SA-07	1,595
SA-08	5,556

MINNESOTA MINERALS

Active Mines & Advanced Projects of Iron Ore, Metallic Minerals, Industrial Minerals, and Selected Construction Aggregates- January 2014

The map symbols are greatly exagerrated in order to see the locations at this small map scale. The DNR can not guarantee the accuracy, reliability, or currency of this data. The locations are based on a variety of sources.



*According to the Minnesota Department of Transportation (Mn/DOT) Class A quarries consist of basalt, diabase, gabbro, quartzite, or granite.**For more information about aggregate resources visit the DNR's aggregate resource mapping webpage or MnDOT's ASIS database webpage. ^Geologic features sourced from Minnesota Geological Survey's State Map Series S-21, 2011.

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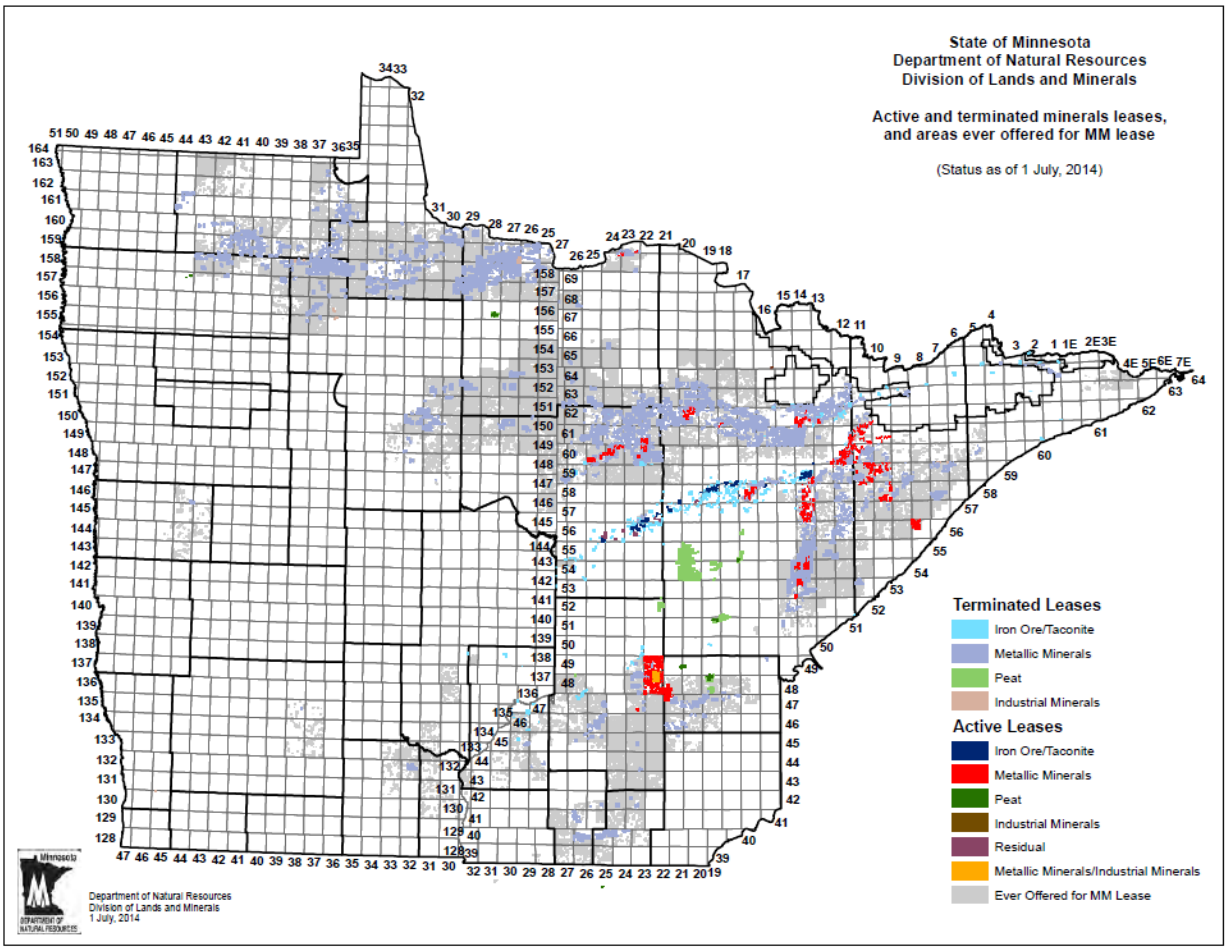
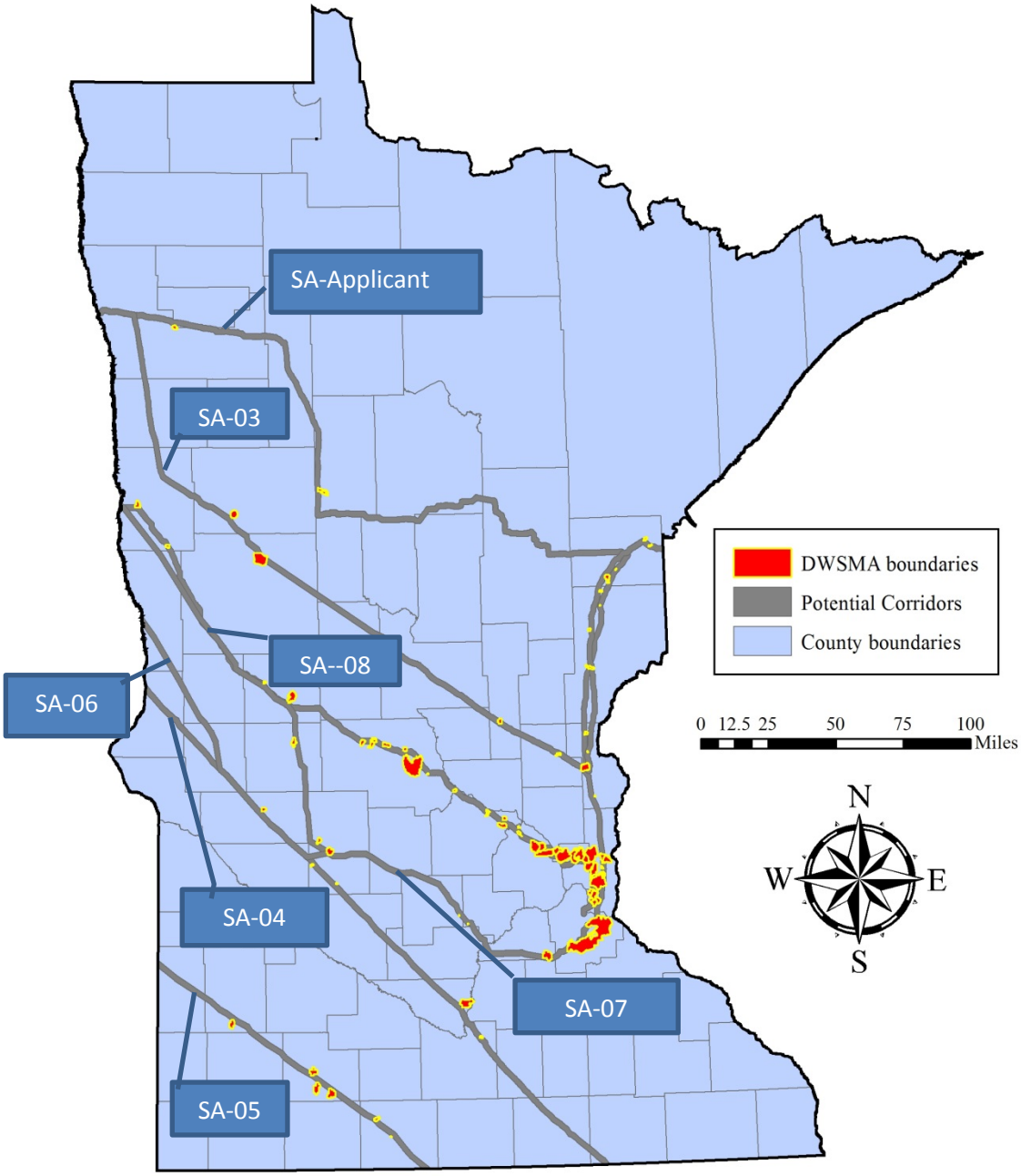

State of Minnesota
Department of Natural Resources
Division of Lands and Minerals
Active and terminated minerals leases,
and areas ever offered for MM lease
(Status as of 1 July, 2014)
Terminated Leases
Iron Ore/Taconite
Metallic Minerals
Peat
Industrial Minerals
Active Leases
Iron Ore/Taconite
Metallic Minerals
Peat
Industrial Minerals
Residual
Metallic Minerals/Industrial Minerals
Ever Offered for MM Lease
Department of Natural Resources
Division of Lands and Minerals
1 July, 2014

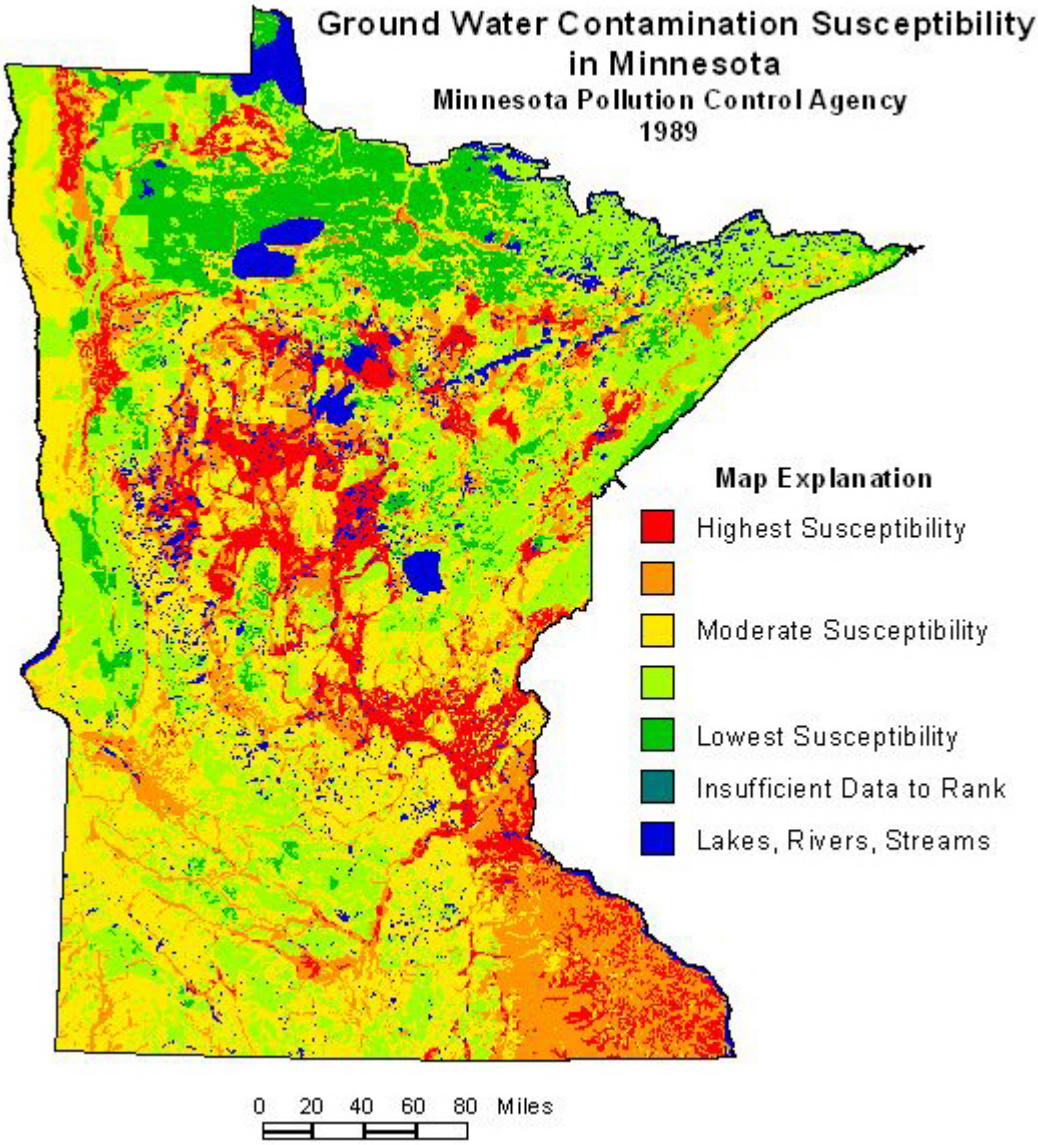
Proposed Sandpiper Pipeline Routing Options and Drinking Water Supply Management Areas

Prepared by Minnesota Department of Health, November 2014



Seven potential routes are shown, including a two-mile wide corridor. DWSMAs are drinking water supply management areas. Only DWSMAs that are partly or entirely within the corridors are shown (88 DWMSAs).

System Alternative	Drinking Water Supply Management Areas (See Corresponding Map)
SA-Applicant	Crookston East, Sundsrud Court, Park Rapids, Carlton, Wrenshall
SA-03	Detroit Lakes, Perham, Milaca, Cambridge NE, Cambridge 4, Cambridge 1, North Branch, Harris, Hinckley, Finlayson, Sturgeon Lake, Moose Lake, Carlton, Wrenshall
SA-04	Benson, Raymond 5, Blomkest, St. Peter, Eagle Lake
SA-05	Balaton, Jeffers-Red Rock Rural Water-Augusta Lake, Red Rock Rural Water-Great Bend, Windom, Trimont, Welcome
SA-06	Benson, Raymond 5, Willmar SW, Plato, Hamburg, Elko-New Market, Hastings, Farmington SE, Cottage Grove 10, Cottage Grove Central, Woodbury Central, Oak-Land Junior High, Stillwater, Lake Elmo 1, Lake Elmo 2, Oak Park Heights, Cimarron Park, Chisago City West, North Branch, Harris, Rush City, Hinckley, Willow River, Minnesota Correctional Facility--Moose Lake, Moose Lake, Barnum, Carlton, Wrenshall
SA-07	Alexandria, Glenwood, Pine Hill MHP, Pennock, Willmar SW, Plato, Hamburg, Elko-New Market, Hastings, Farmington SE, Cottage Grove 10, Cottage Grove Central, Woodbury Central, Oak-Land Junior High, Stillwater, Lake Elmo 1, Lake Elmo 2, Oak Park Heights, Cimarron Park, Chisago City West, North Branch, Harris, Rush City, Hinckley, Willow River, Minnesota Correctional Facility--Moose Lake, Moose Lake, Barnum, Carlton, Wrenshall
SA-08	Moorhead-Buffalo Aquifer South, Barnesville, Brandon, Alexandria, Melrose, New Munich, Freeport, Albany, Avon, St. Joseph, Rockville NE, Clearwater, Otsego West, Joint Power Board System, Rogers North, Rogers South, Maple Grove, Brooklyn Park Central, Brooklyn Center, Brooklyn Park 12, Fridley, New Brighton, St. Anthony Village, St. Paul, Vadnais Heights, Mahtomedi, Oakdale North, North St. Paul, White Bear Lake, Oakdale South, Woodbury 1,Woodbury Central, Cottage Grove 10, Newport, Cottage Grove 1, Cottage Grove 2, St. Paul Park


Ground Water Contamination Susceptibility
in Minnesota
Minnesota Pollution Control Agency
1989
Map Explanation
Highest Susceptibility
Moderate Susceptibility
Lowest Susceptibility
Insufficient Data to Rank
Lakes, Rivers, Streams
0 20 40 60 80 Miles