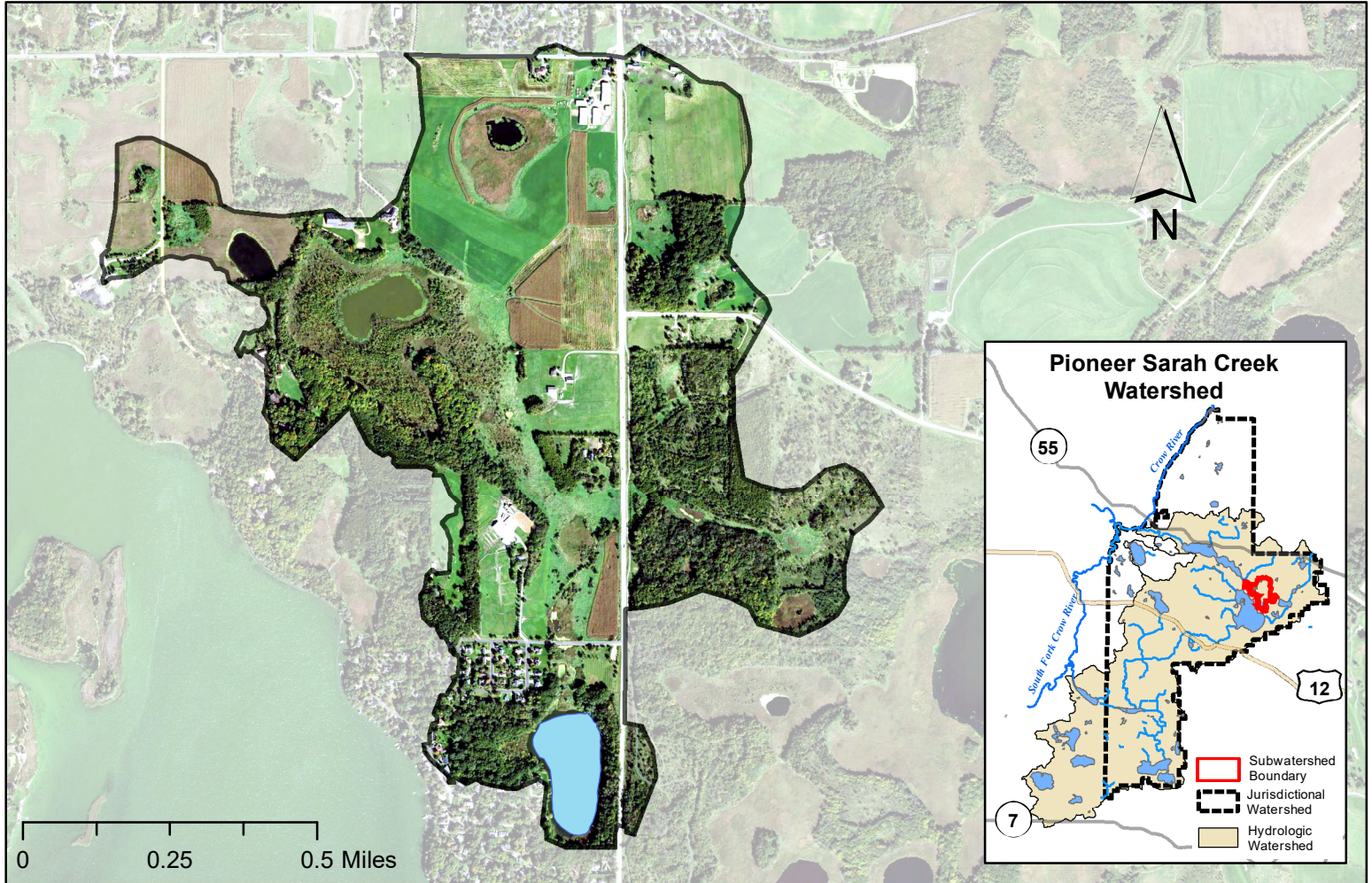
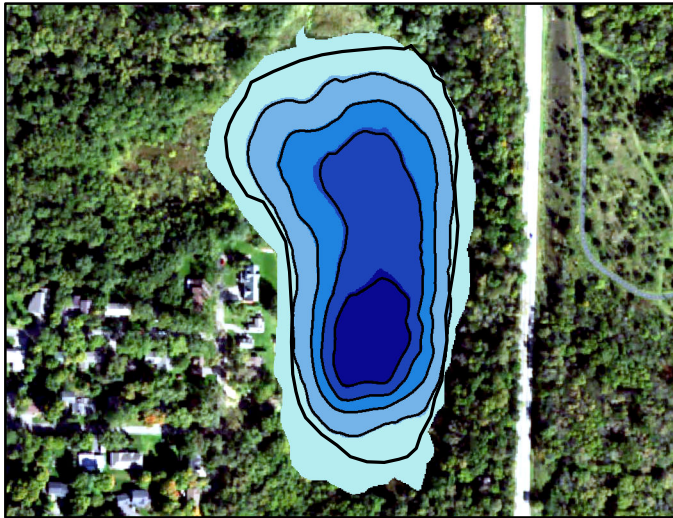


Lake Report Cards

Lake Ardmore Watershed Map

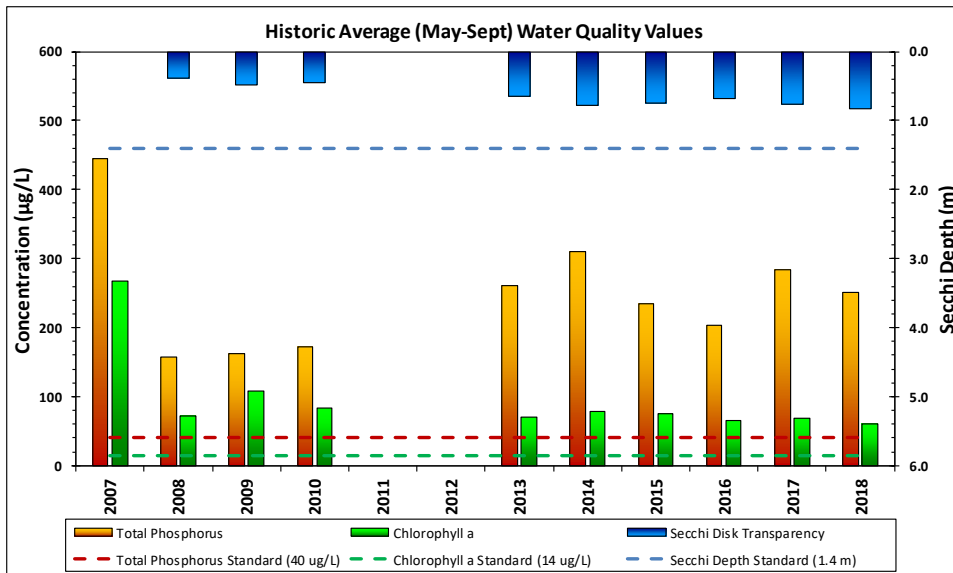


Lake Ardmore Bathymetry



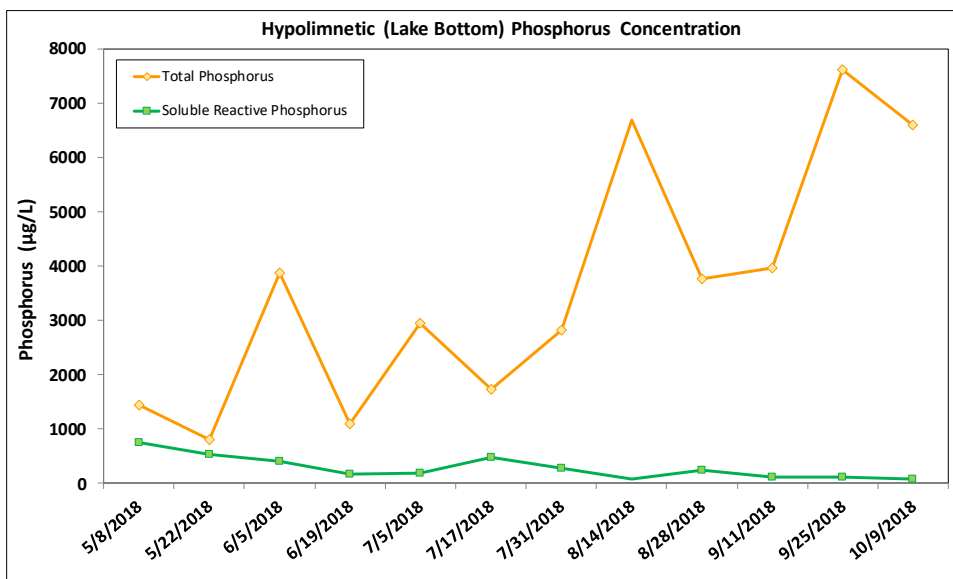
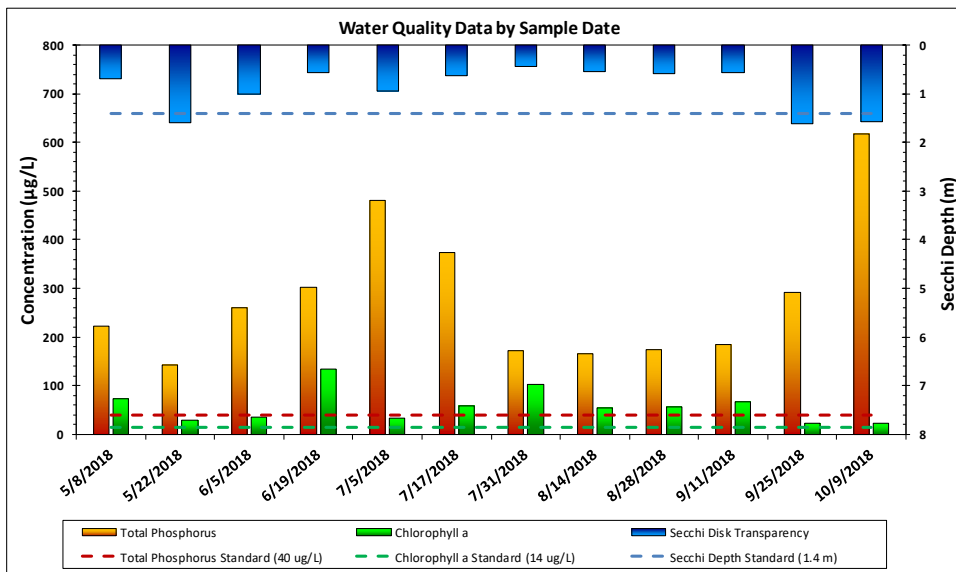
Lake and Watershed Characteristics

DNR #	27015300
Watershed Area	514 Acres
Lake Area	13.5 Acres
Percent Littoral Area	75%
Average Depth	9.4 ft.
Maximum Depth	24.4 ft.
Watershed Area:Lake Area	38:1
Impairment Classification	Needs Assessment
Classification	Deep Lake

**Ardmore Water Quality Report Card**

Year	TP	Chl-a	Secchi	Avg Grade
2007	F	F	F	F
2008	F	D	F	F
2009	F	F	F	F
2010	F	F	F	F
2011				
2012				
2013	F	D	F	F
2014	F	F	D	F
2015	F	D	D	D-
2016	F	D	F	F
2017	F	D	D	D-
2018	F	D	D	D-
MPCA Standard	C	B	C	C+

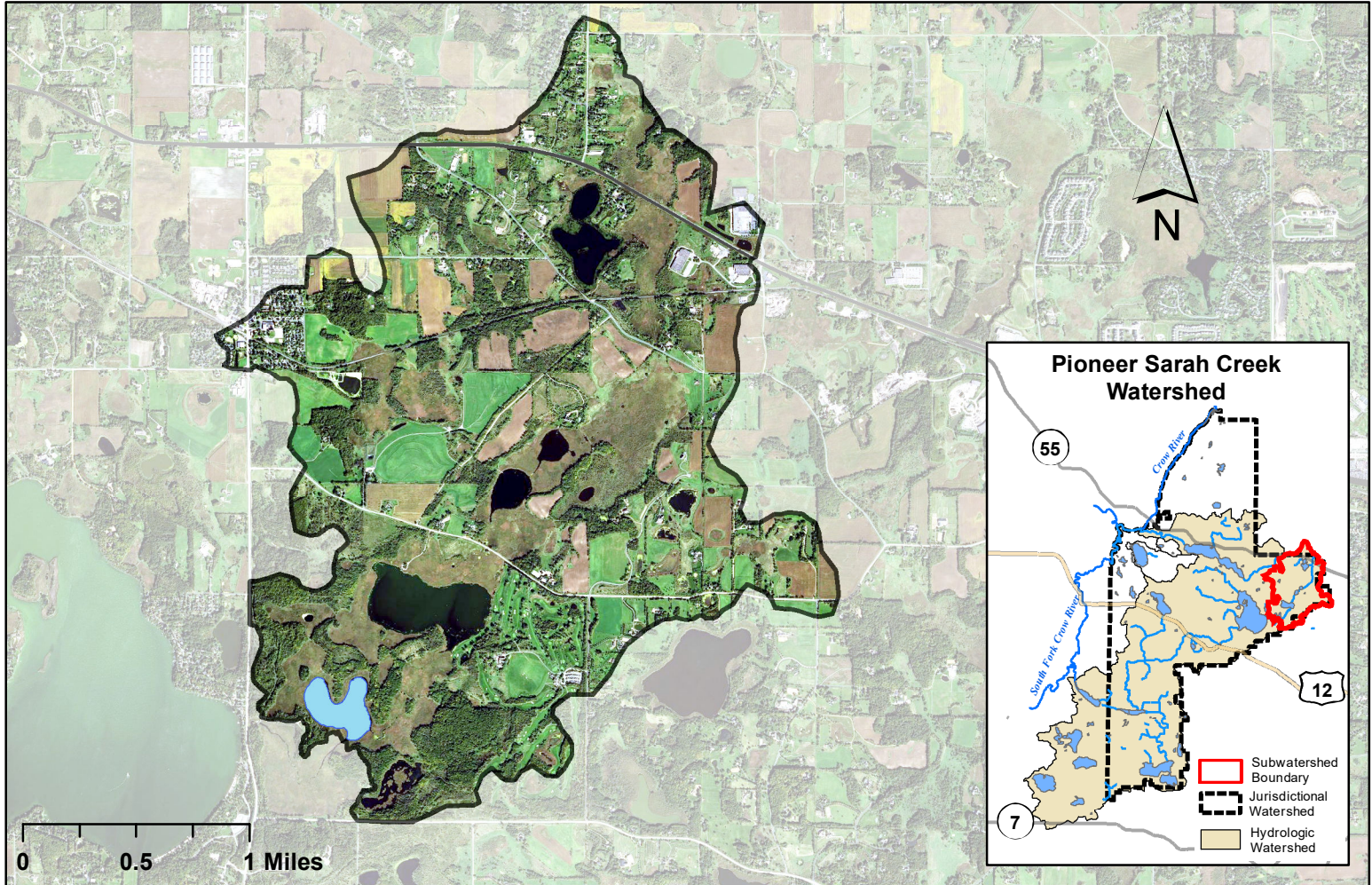
Met Council Grading System for Lake Water Quality



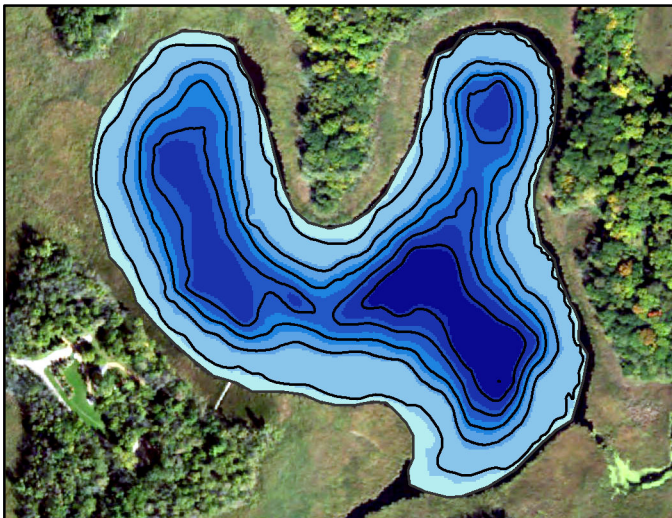
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Half Moon Lake Watershed Map

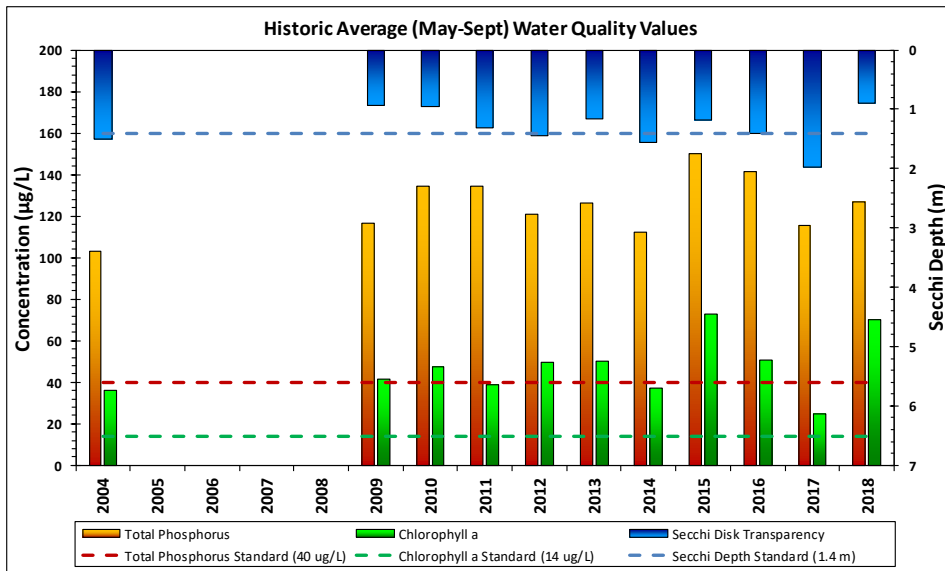


Half Moon Lake Bathymetry



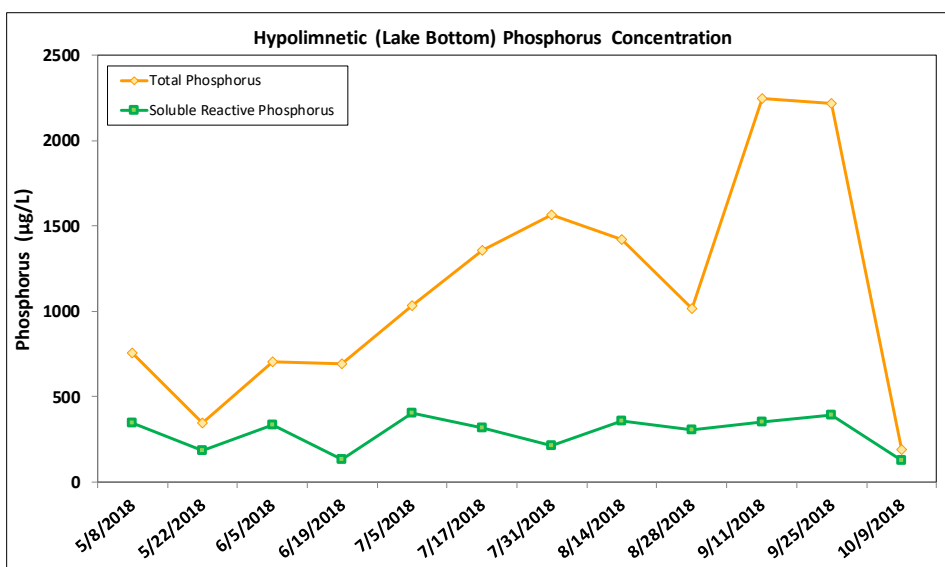
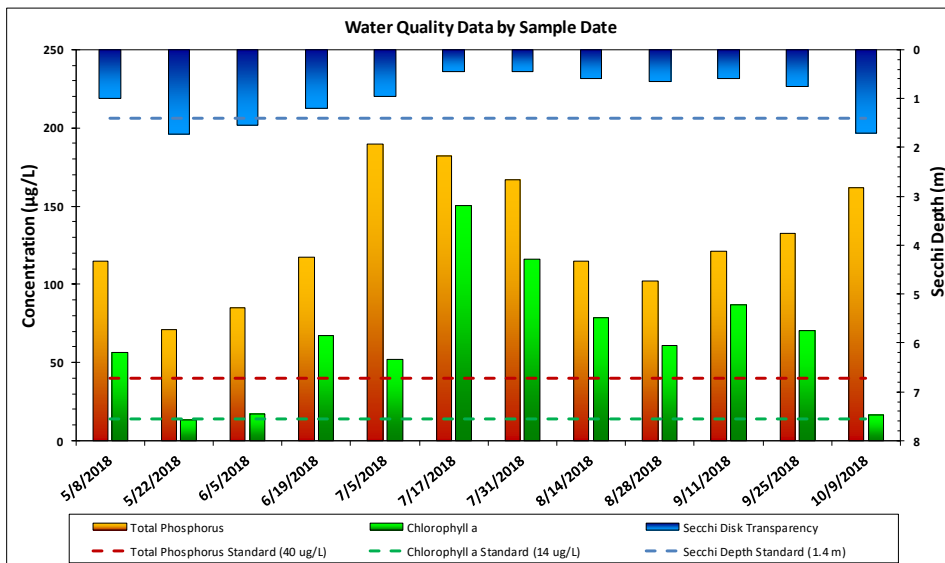
Lake and Watershed Characteristics

DNR #	27015200
Watershed Area	3,258 Acres
Lake Area	31.1 Acres
Percent Littoral Area	11%
Average Depth	13.4 ft.
Maximum Depth	30.3 ft.
Watershed Area:Lake Area	104.7:1
Impairment Classification	Proposed 2016
Classification	Deep Lake



Half Moon Lake Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
2004	D	C	C	C-
2005				
2006				
2007				
2008				
2009	D	C	D	D+
2010	D	C	D	D+
2011	D	C	C	C-
2012	D	D	C	D+
2013	D	D	D	D
2014	D	C	C	C-
2015	D	D	D	D
2016	D	D	C	D+
2017	D	C	C	C-
2018	D	D	D	D
MPCA Standard	C	B	C	C+

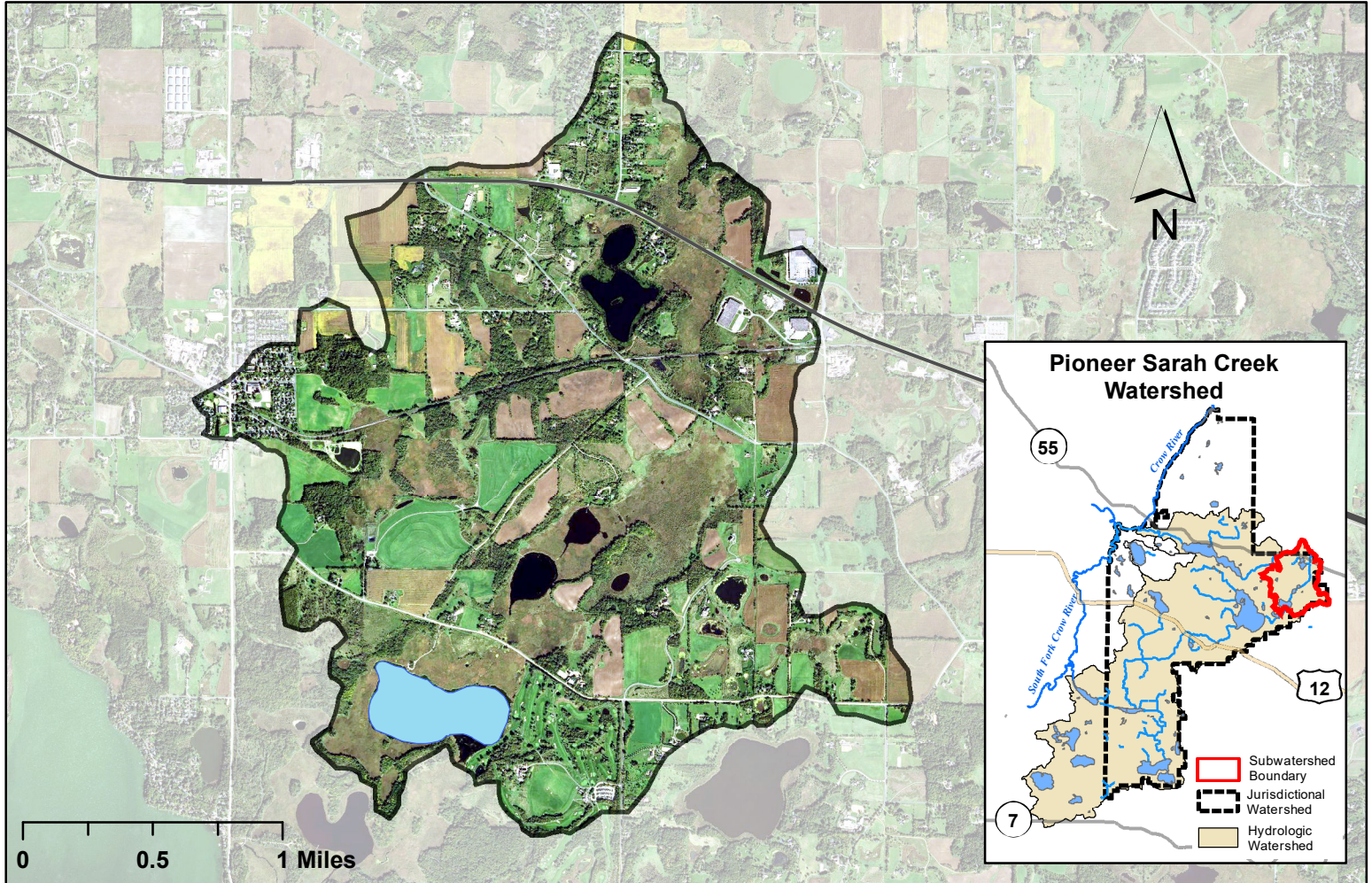
Met Council Grading System for Lake Water Quality



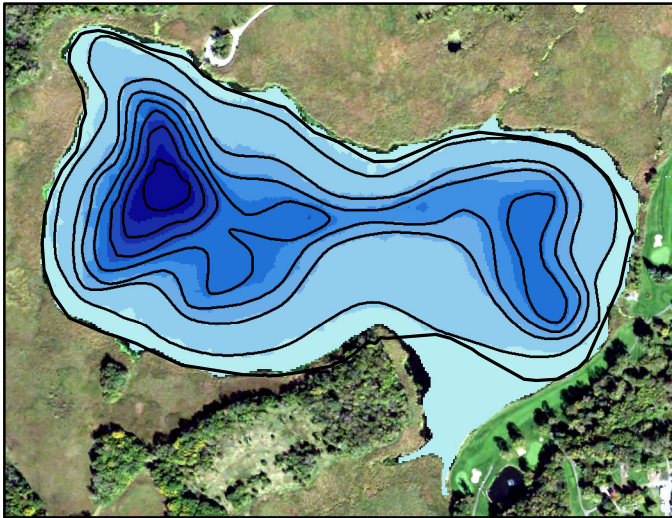
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Spurzem Lake Watershed Map

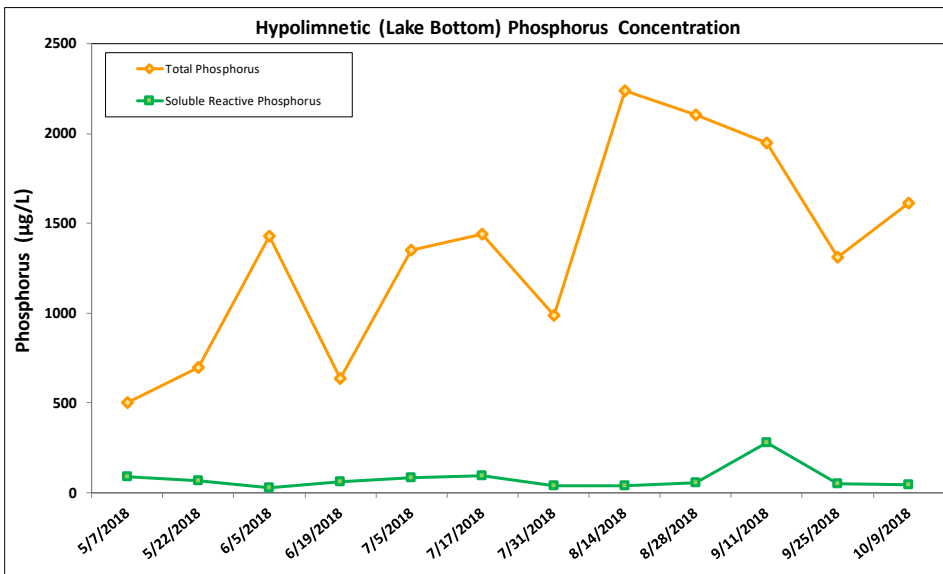
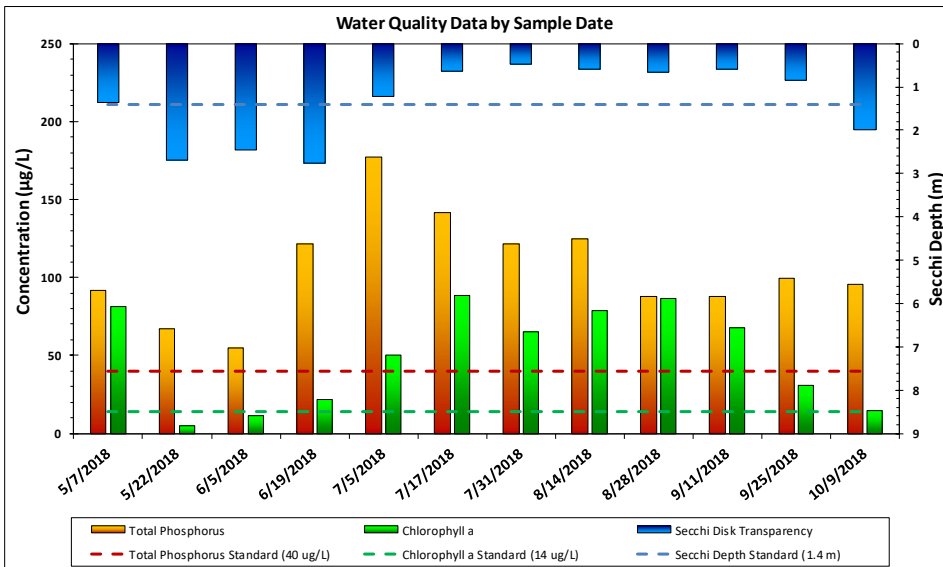
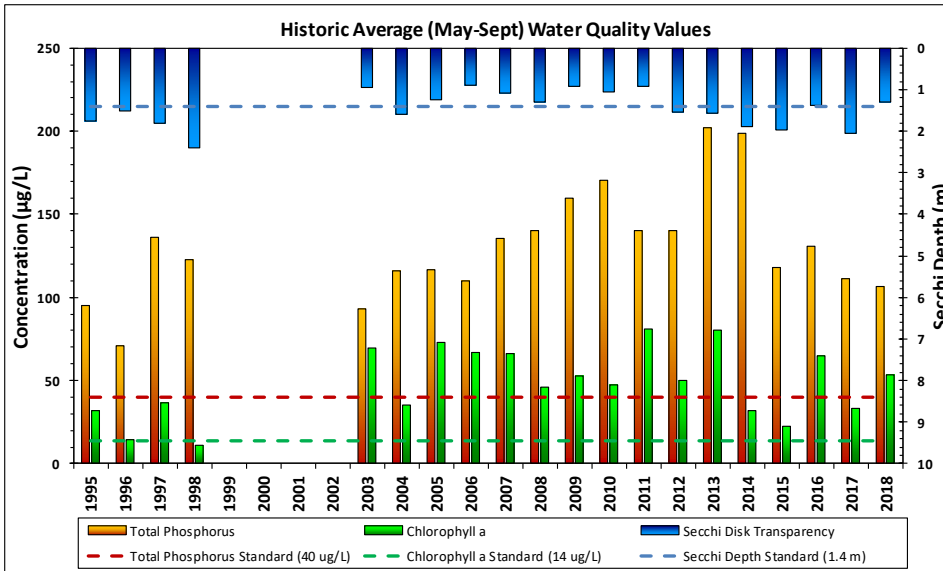


Spurzem Lake Bathymetry



Lake and Watershed Characteristics

DNR #	27014900
Watershed Area	2,915 Acres
Lake Area	78.6 Acres
Percent Littoral Area	70%
Average Depth	11.1 ft.
Maximum Depth	37.4 ft.
Watershed Area:Lake Area	37.1:1
Impairment Classification	Excess Nutrients 2008
Classification	Deep Lake



Spurzem Lake Water Quality Report Card				
Year	TP	Chl -a	Secchi	Avg Grade
1995	D	C	C	C-
1996	D	B	C	C
1997	D	C	C	C-
1998	D	B	B	C+
1999				
2000				
2001				
2002				
2003	D	D	D	D
2004	D	C	C	C-
2005	D	D	C	D+
2006	D	D	D	D
2007	D	D	D	D
2008	D	C	C	C-
2009	F	D	D	D-
2010	F	C	D	D
2011	D	F	D	D-
2012	D	D	C	D+
2013	F	F	C	D-
2014	F	C	C	D+
2015	D	C	C	C-
2016	D	D	C	D+
2017	D	C	C	C-
2018	D	D	C	D+
MPCA Standard	C	B	C	C+

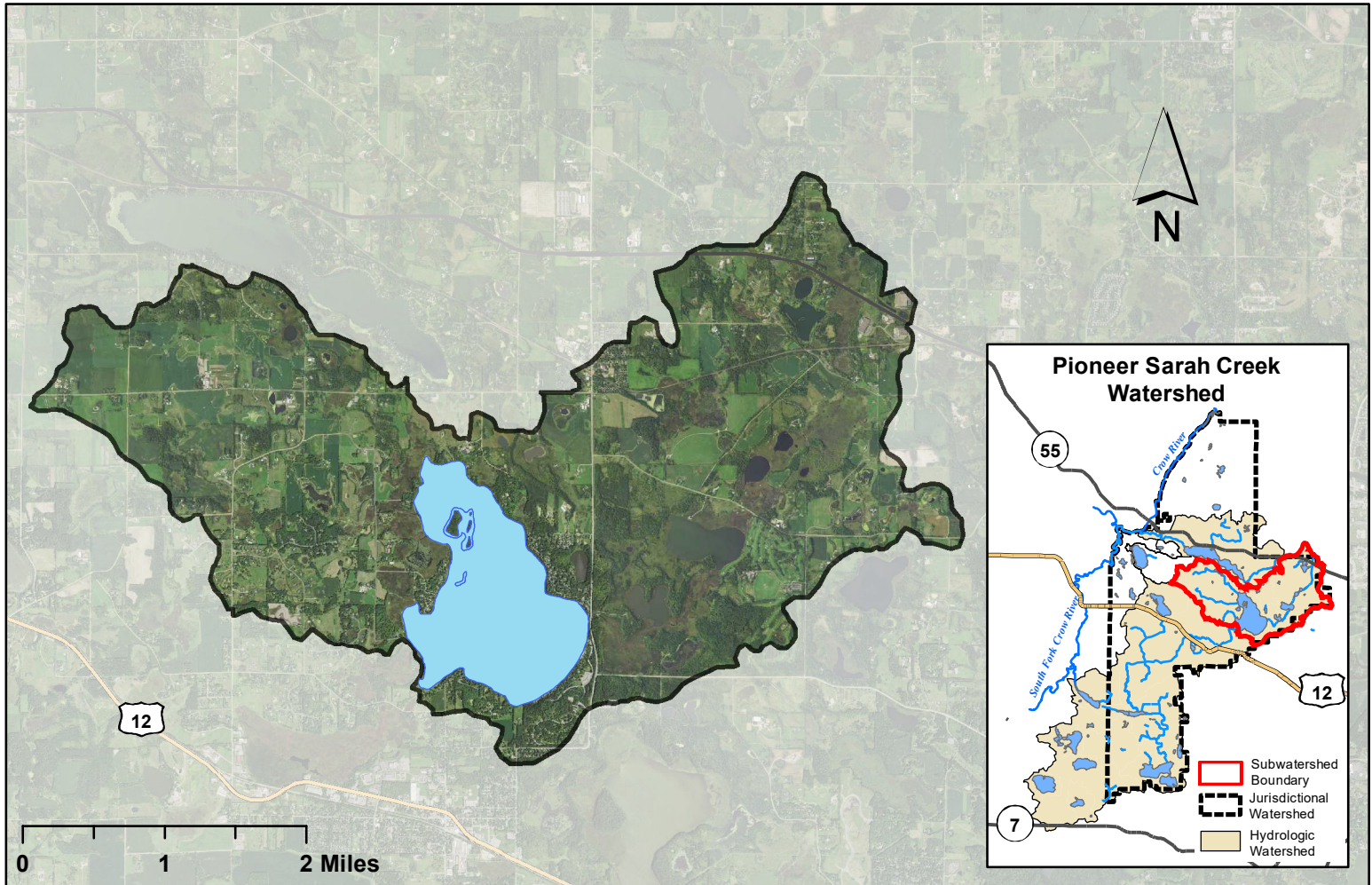
Met Council Grading System for Lake Water Quality



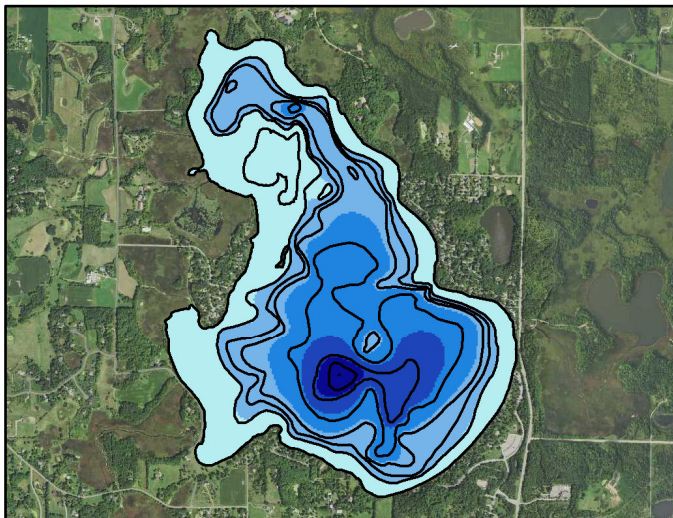
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Lake Independence Watershed Map

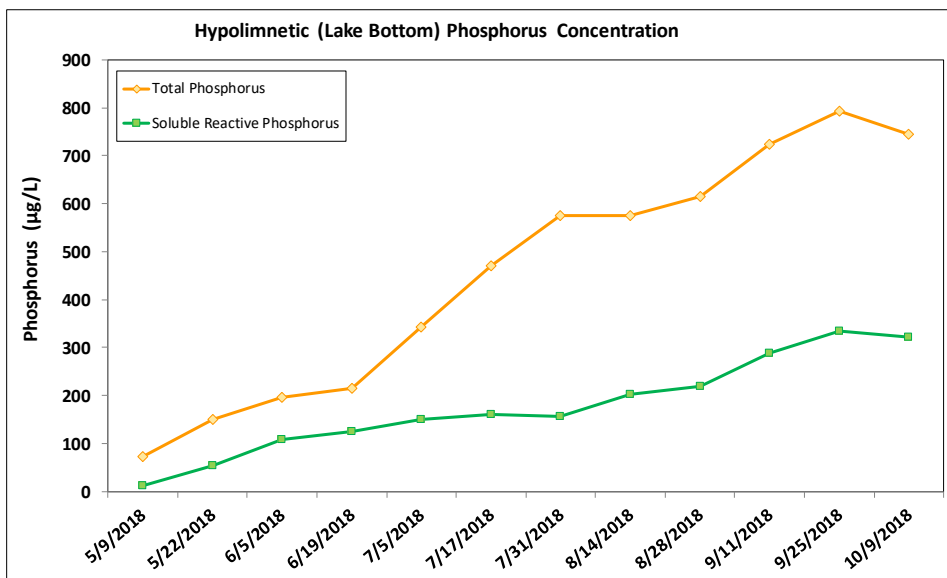
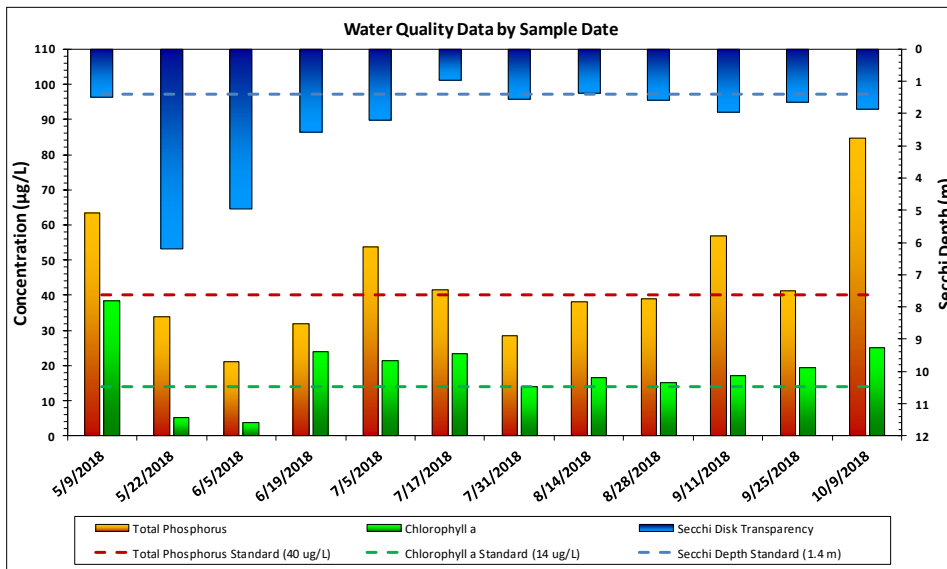
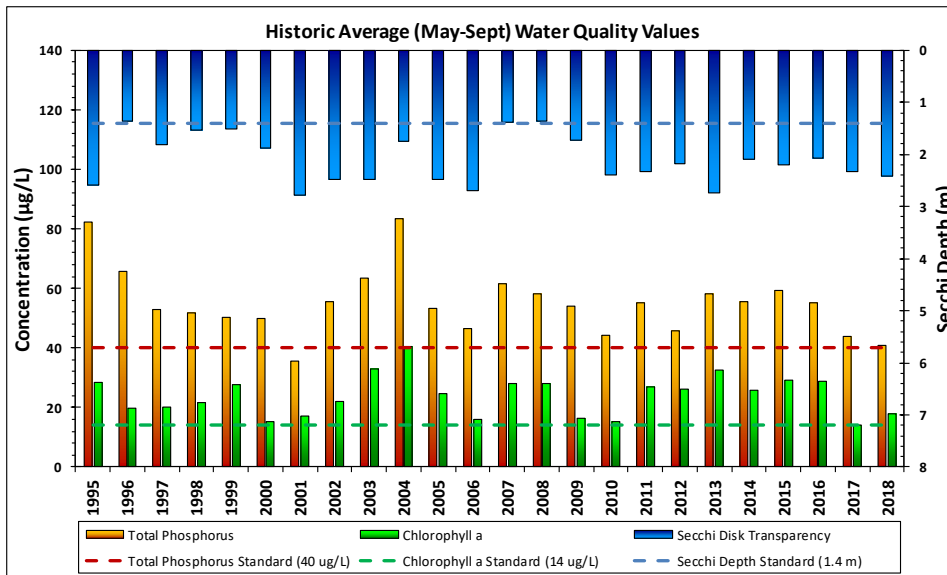


Lake Independence Bathymetry



Lake and Watershed Characteristics

DNR #	27017600
Watershed Area	7,632 Acres
Lake Area	832 Acres
Percent Littoral Area	51%
Average Depth	15.9 ft.
Maximum Depth	58 ft.
Watershed Area:Lake Area	9.2:1
Impairment Classification	Excess Nutrients 2002
Classification	Deep Lake



Lake Independence Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
1995	D	C	B	C
1996	C	B	C	C+
1997	C	B	C	C+
1998	C	C	C	C
1999	C	C	C	C
2000	C	B	C	C+
2001	C	B	B	B-
2002	C	C	B	C+
2003	C	C	B	C+
2004	D	C	C	C-
2005	C	C	B	C+
2006	C	B	B	B-
2007	C	C	C	C
2008	C	C	C	C
2009	C	B	C	C+
2010	C	B	B	B-
2011	C	C	B	C+
2012	C	C	C	C
2013	C	C	B	C+
2014	C	C	C	C
2015	C	C	C	C
2016	C	C	C	C
2017	C	B	B	B-
2018	C	B	B	B-
MPCA Standard	C	B	C	C+

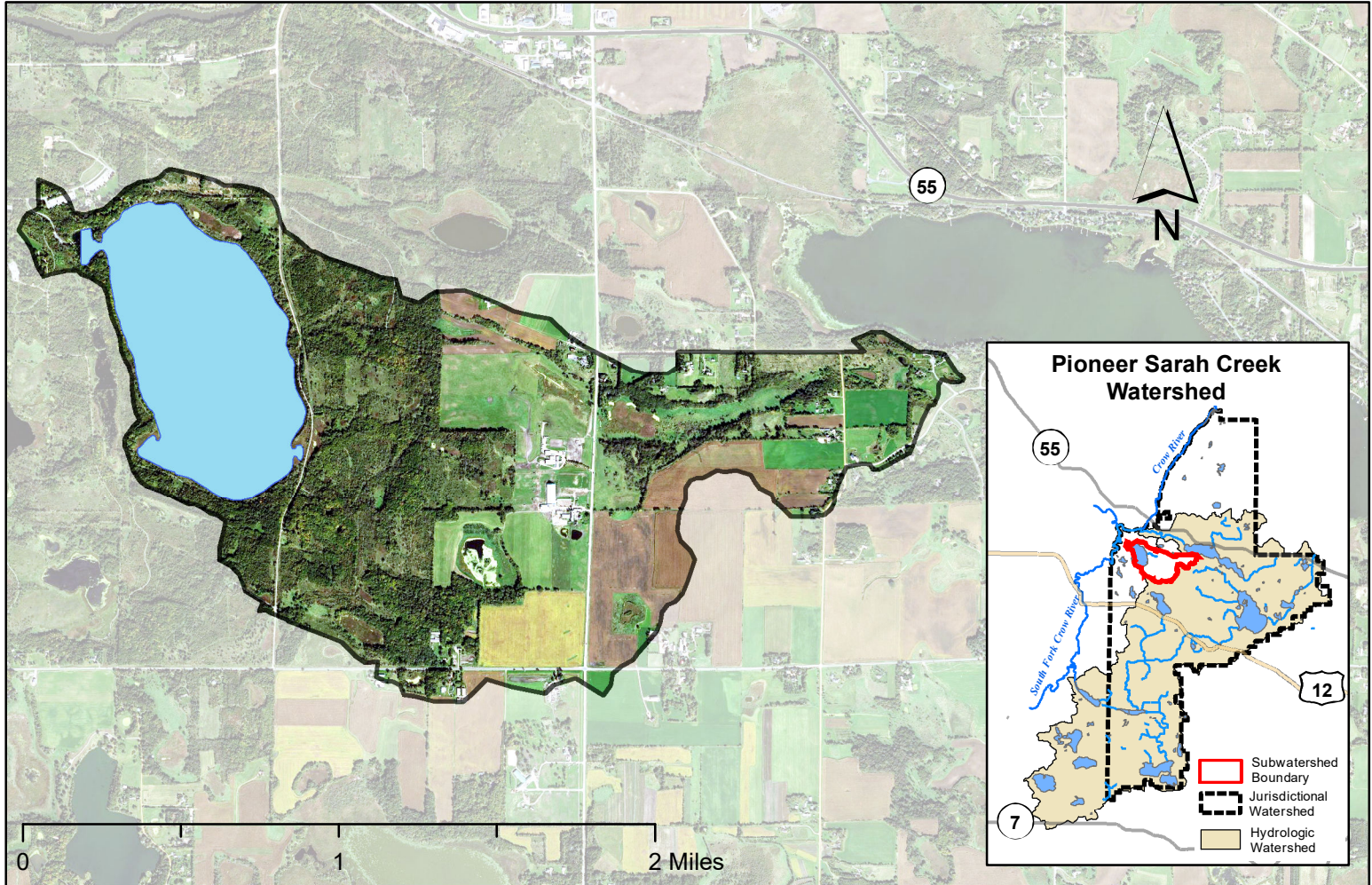
Met Council Grading System for Lake Water Quality



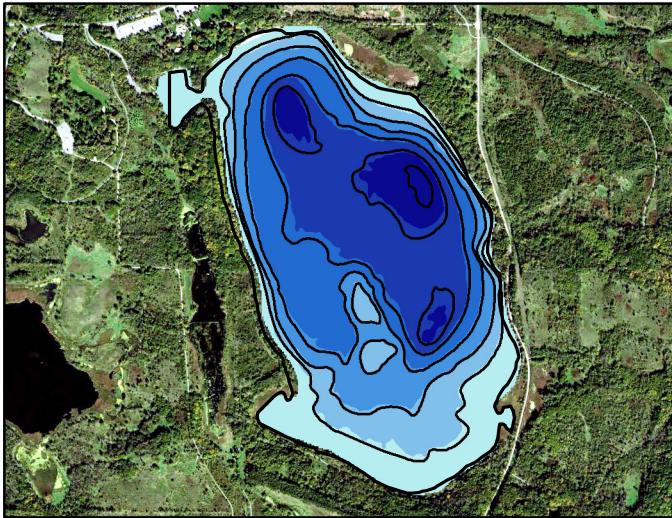
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Lake Rebecca Watershed Map

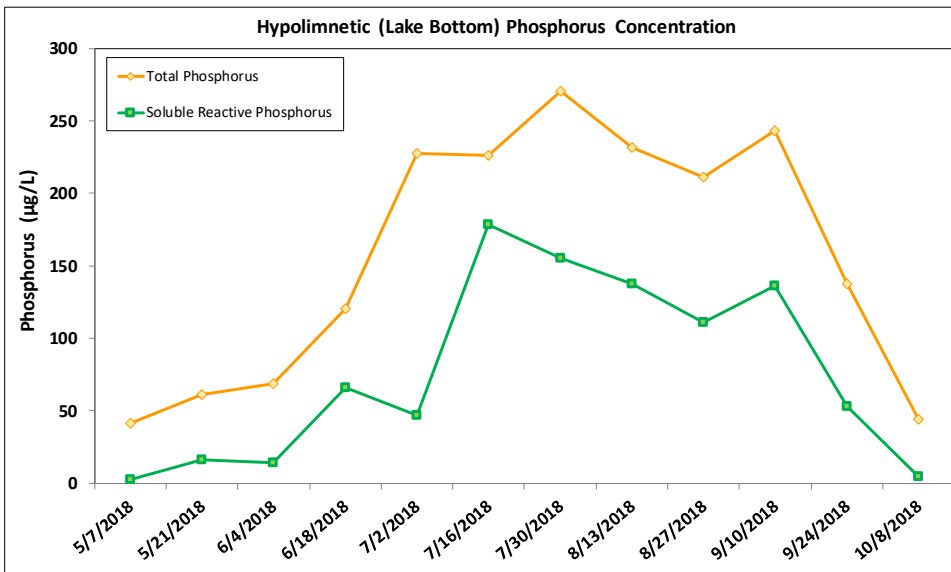
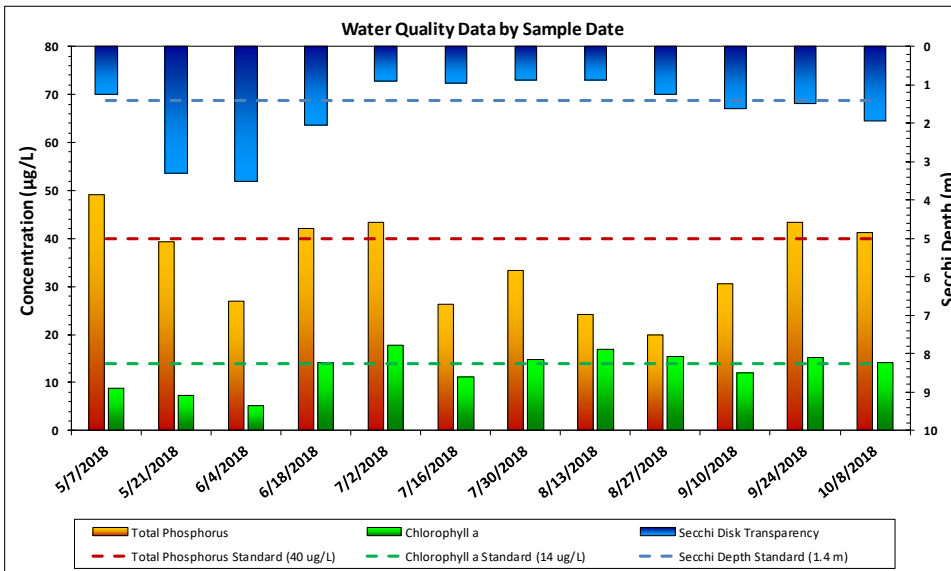
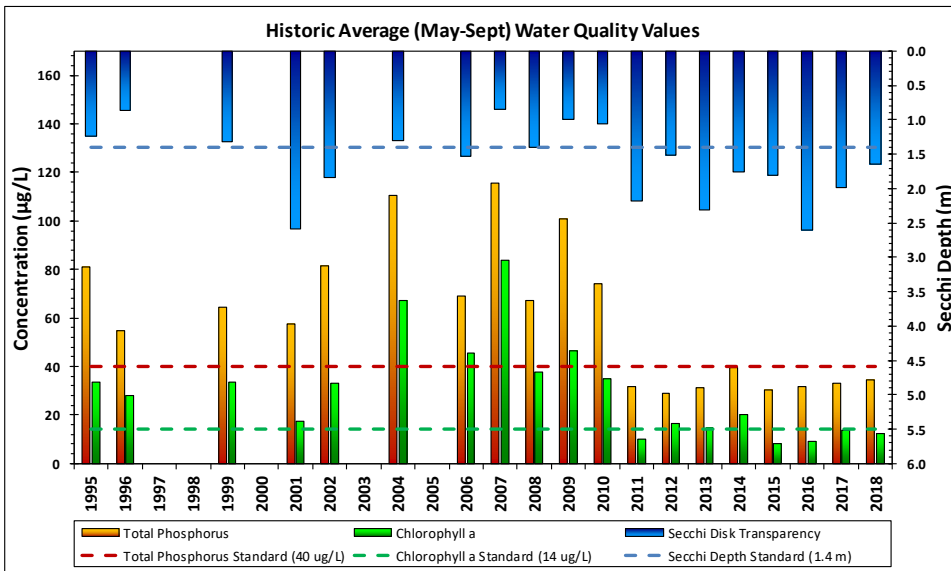


Lake Rebecca Bathymetry



Lake and Watershed Characteristics

DNR #	27019200
Watershed Area	1,277 Acres
Lake Area	261 Acres
Percent Littoral Area	50%
Average Depth	14.4 ft.
Maximum Depth	31.1 ft.
Watershed Area:Lake Area	4.9:1
Impairment Classification	Excess Nutrients 2008
Classification	Deep Lake



Lake Rebecca Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
1995	D	C	C	C-
1996	C	C	D	C-
1997				
1998				
1999	C	C	C	C
2000				
2001	C	B	B	B-
2002	D	C	C	C-
2003				
2004	D	D	C	D+
2005				
2006	D	C	C	C-
2007	D	F	D	D-
2008	C	C	C	C
2009	D	C	D	D+
2010	D	C	D	D+
2011	B	B	C	B-
2012	B	B	C	B-
2013	B	B	B	B
2014	C	C	C	C
2015	B	A	C	B
2016	B	A	B	B+
2017	C	B	C	C+
2018	C	B	C	C+
MPCA Standard	C	B	C	C+

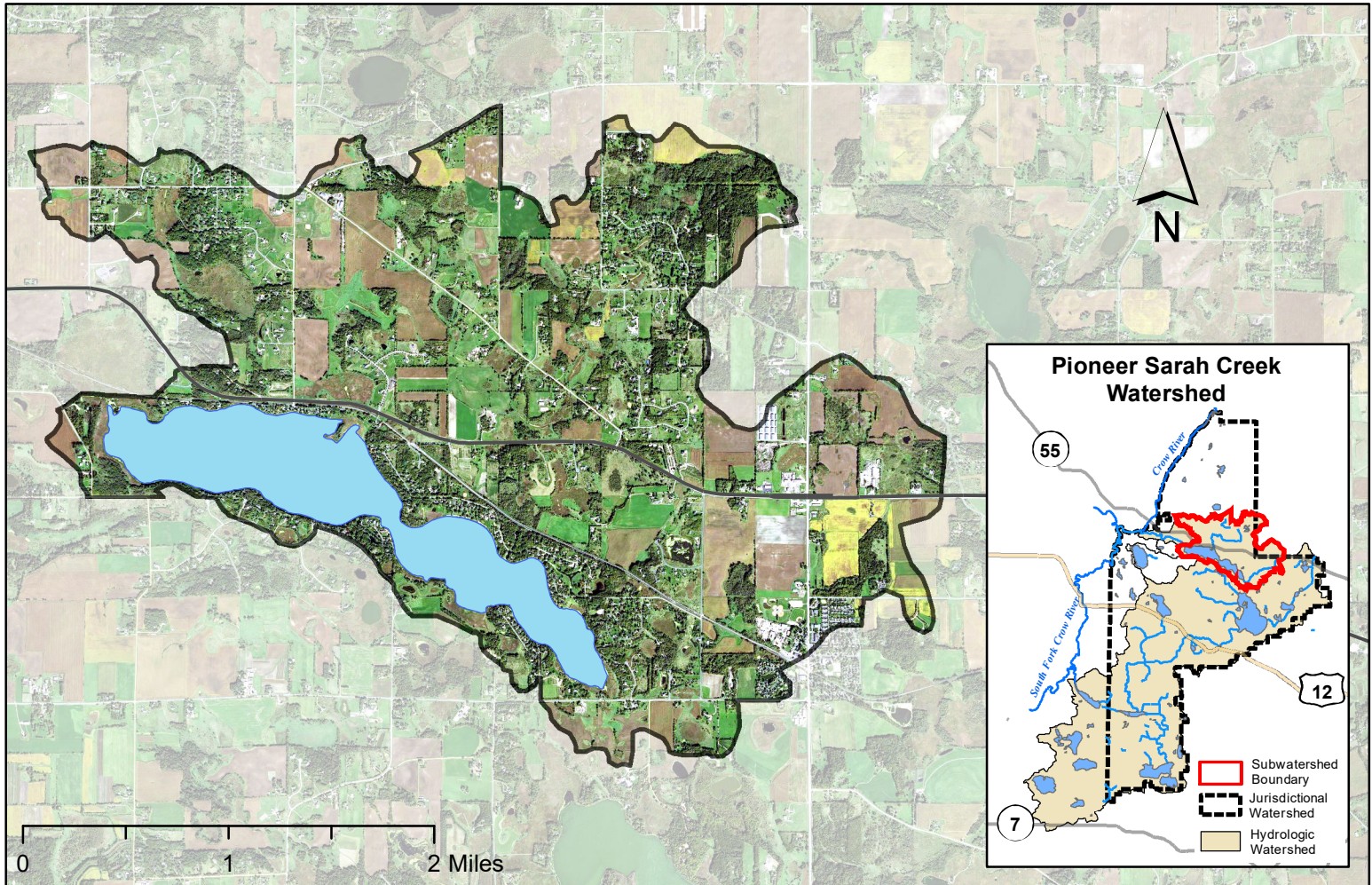
Met Council Grading System for Lake Water Quality



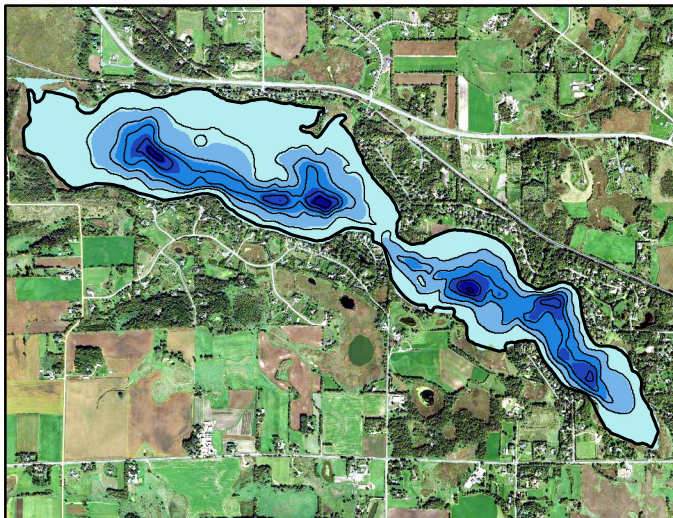
Division of Water Resources

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Lake Sarah Watershed Map

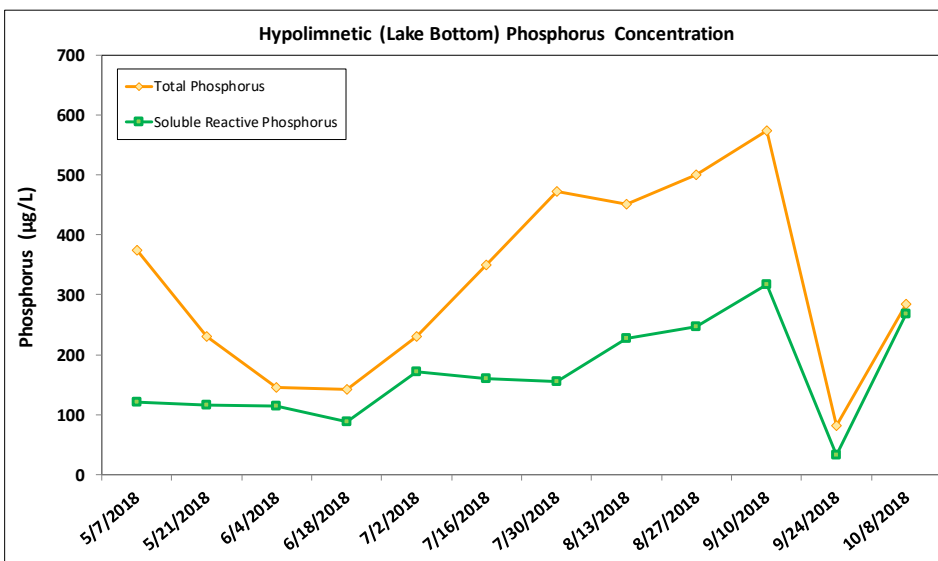
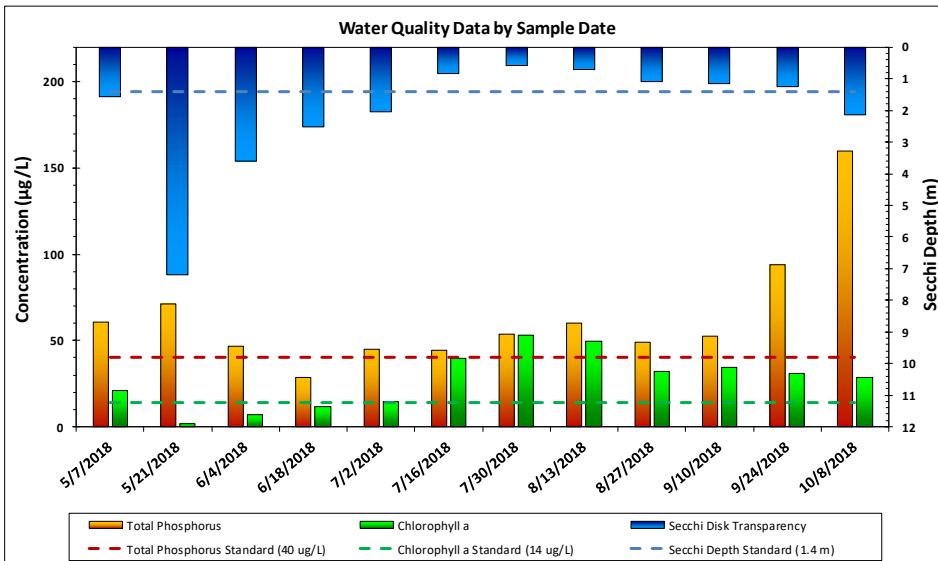
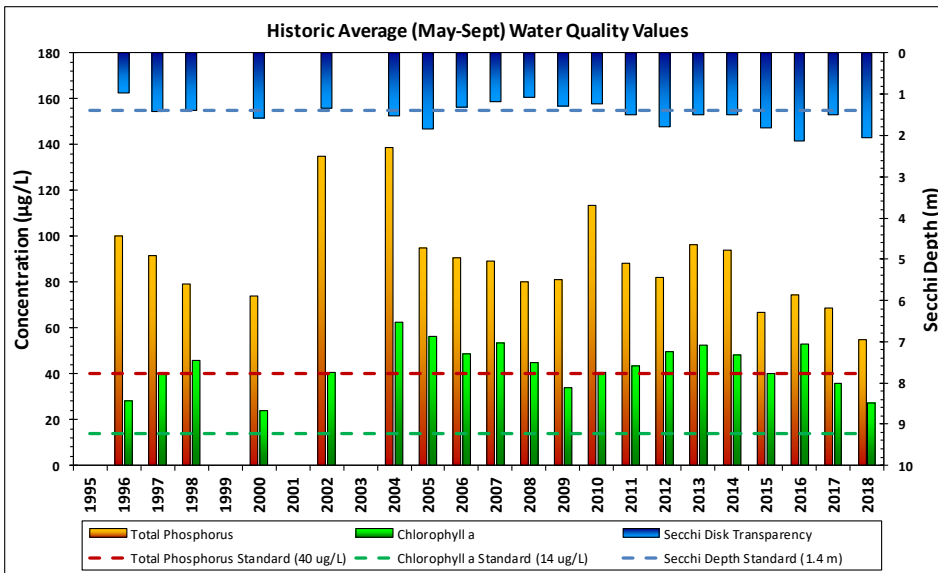


Lake Sarah Bathymetry



Lake and Watershed Characteristics

DNR #	27019100
Watershed Area	4,519 Acres
Lake Area	536 Acres
Percent Littoral Area	61%
Average Depth	13.7 ft.
Maximum Depth	49.9 ft.
Watershed Area:Lake Area	8.4:1
Impairment Classification	Excess Nutrients 2006
Classification	Deep Lake



Lake Sarah Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
1995				
1996	D	C	D	D+
1997	D	C	C	C-
1998	D	C	C	C-
1999				
2000	D	C	C	C-
2001				
2002	D	C	C	C-
2003				
2004	D	D	C	D+
2005	D	D	C	D+
2006	D	D	C	D+
2007	D	D	D	D
2008	D	C	D	D+
2009	D	C	C	C-
2010	D	C	C	C-
2011	D	C	C	C-
2012	D	D	C	D+
2013	D	D	C	D+
2014	D	D	C	D+
2015	C	C	C	C
2016	D	D	C	D+
2017	D	C	C	C-
2018	C	C	C	C
MPCA Standard	C	B	C	C+

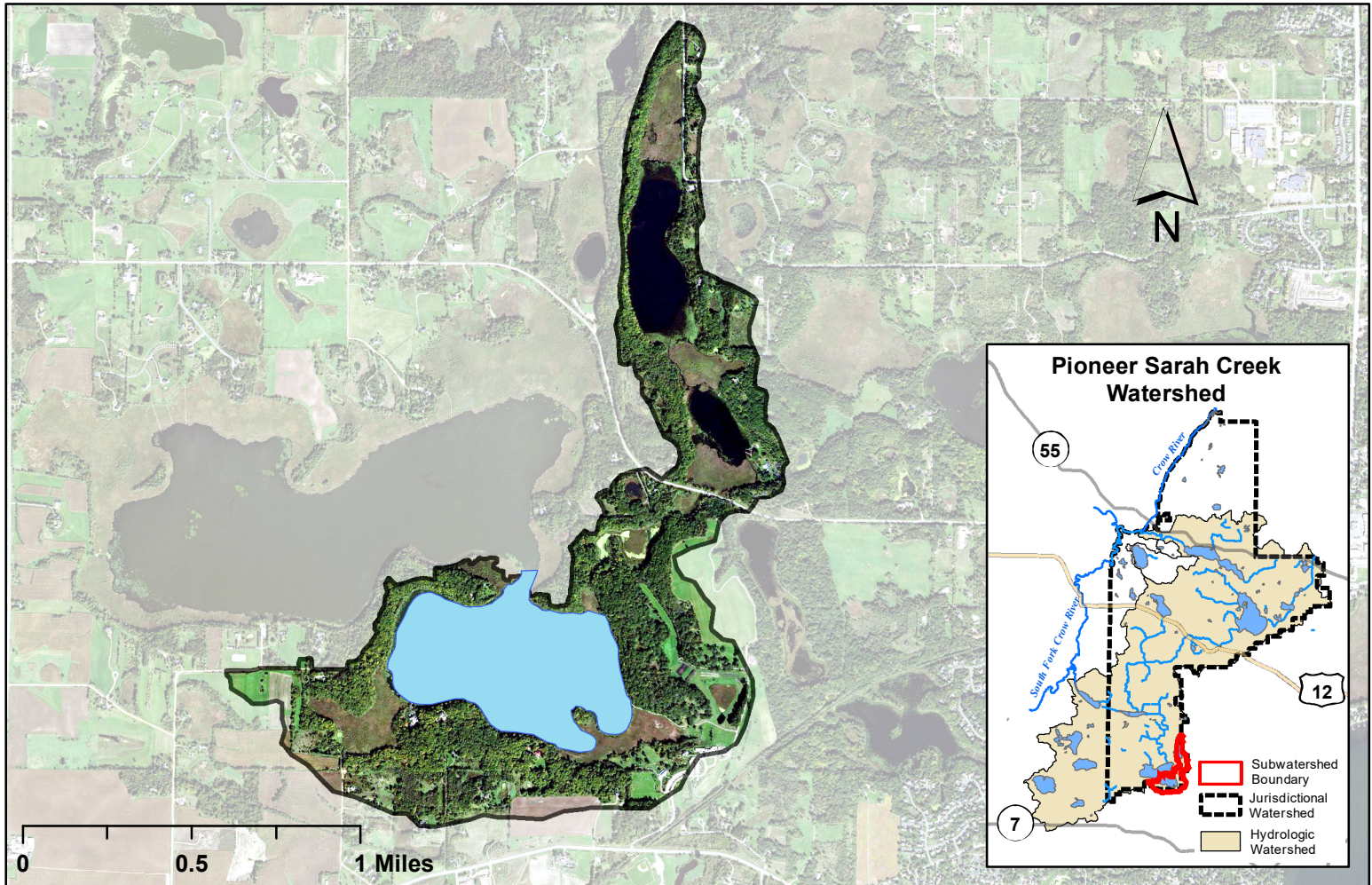
Met Council Grading System for Lake Water Quality



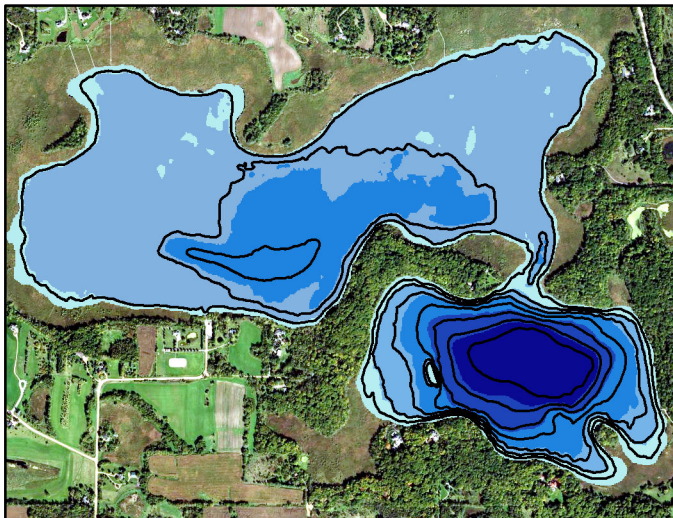
Division of Water Resources

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Whaletail South Watershed Map

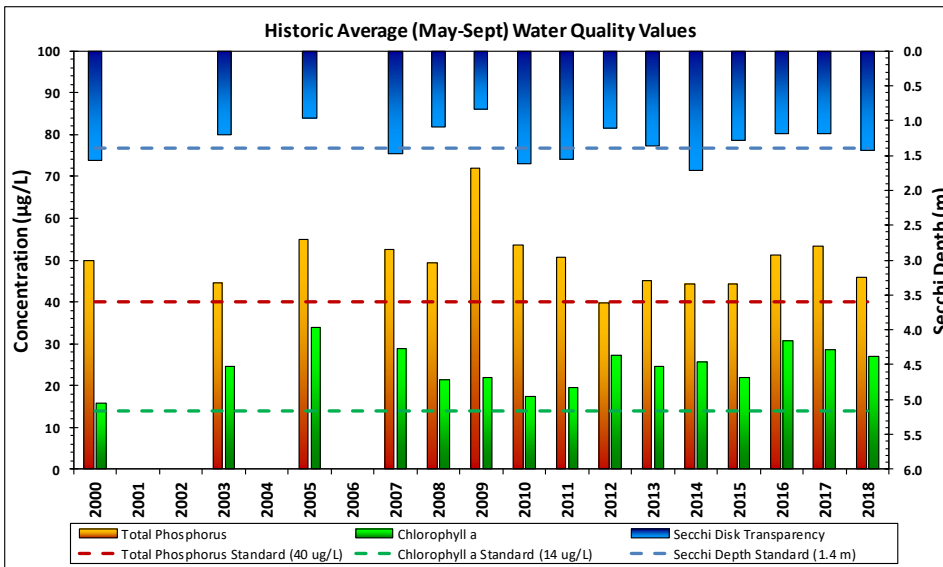


Whaletail South Bathymetry



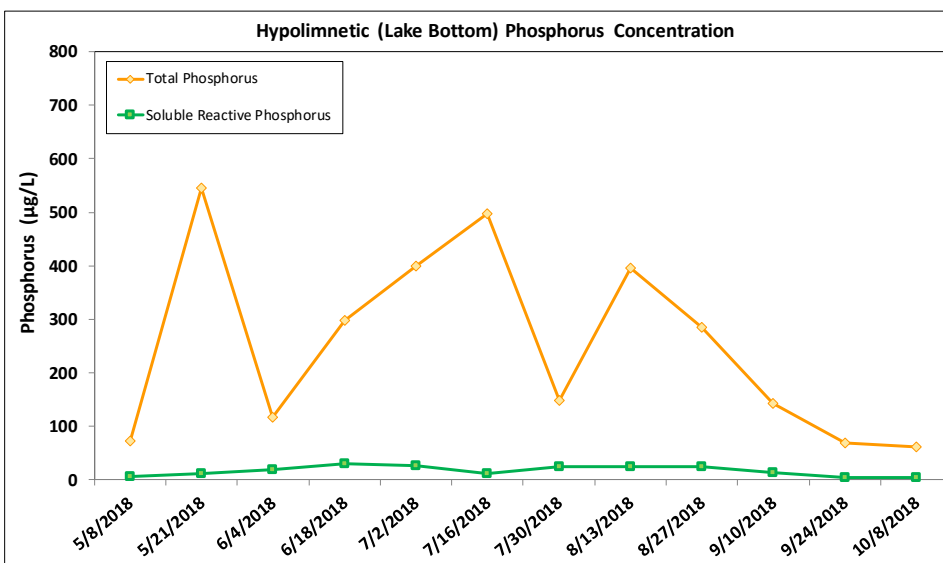
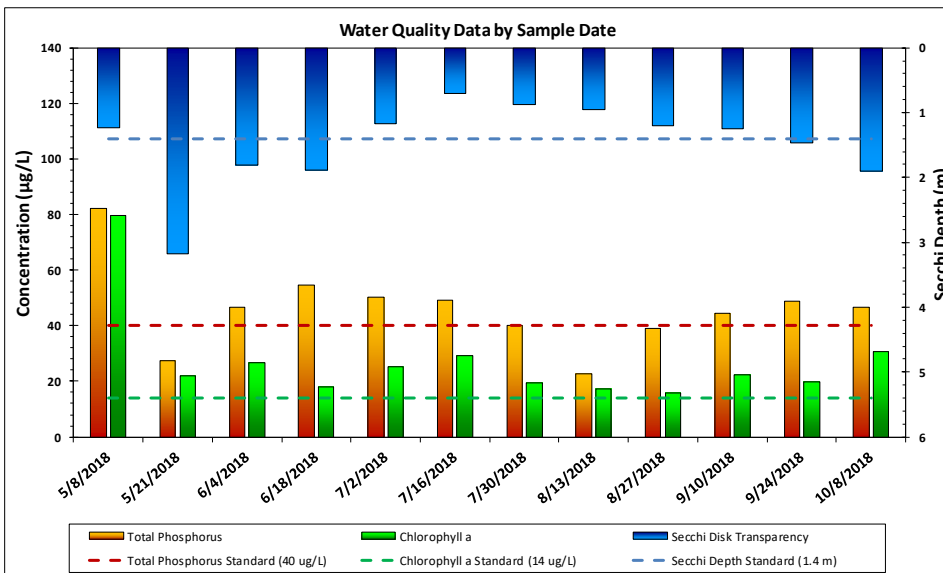
Lake and Watershed Characteristics

DNR #	27018402
Watershed Area	661 Acres
Lake Area	156 Acres
Percent Littoral Area	66%
Average Depth	12.1 ft.
Maximum Depth	23.3 ft.
Watershed Area:Lake Area	4.2:1
Impairment Classification	Proposed 2016
Classification	Provisional Deep Lake

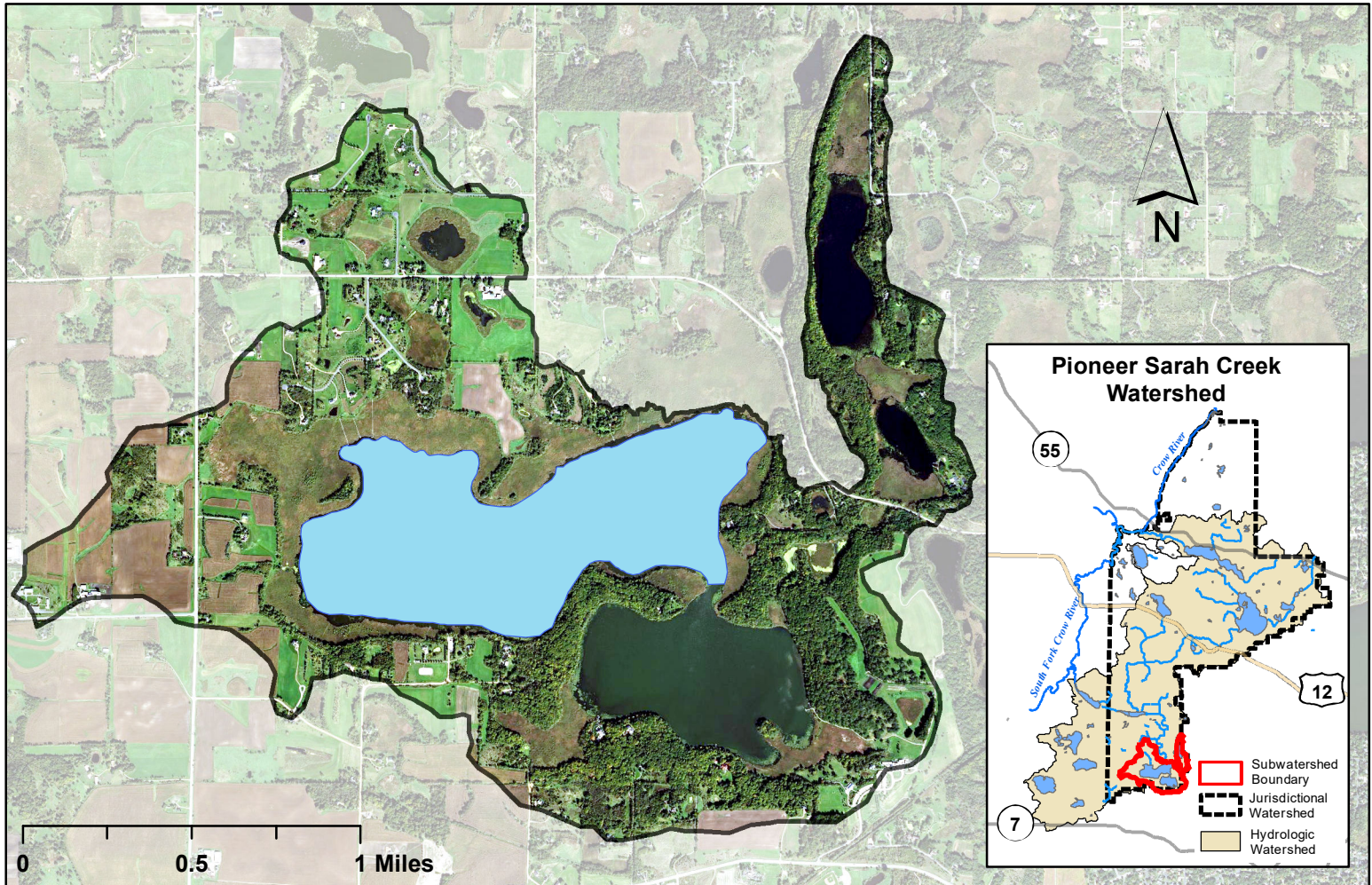


Whaletail South Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
2000	C	B	C	C+
2001				
2002				
2003	C	C	C	C
2004				
2005	C	C	D	C-
2006				
2007	C	C	C	C
2008	C	C	D	C-
2009	D	C	D	D+
2010	C	B	C	C+
2011	C	B	C	C+
2012	C	C	D	C-
2013	C	C	C	C
2014	C	C	C	C
2015	C	C	C	C
2016	C	C	D	C-
2017	C	C	D	C-
2018	C	C	C	C
MPCA Standard	C	B	C	C+

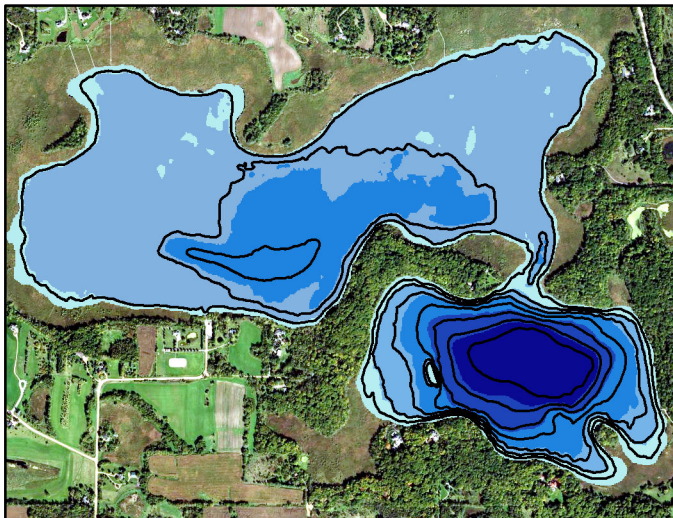
Met Council Grading System for Lake Water Quality



Whaletail North Watershed Map

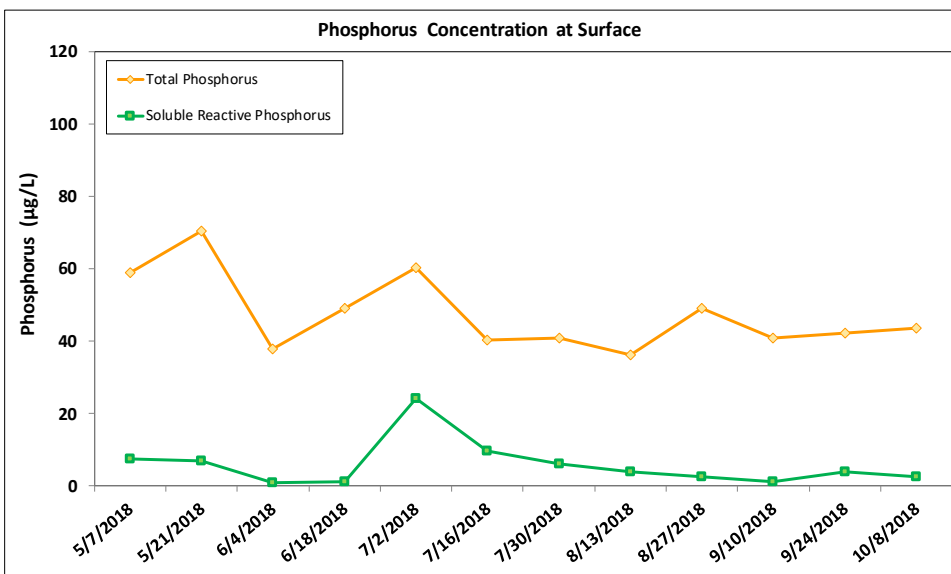
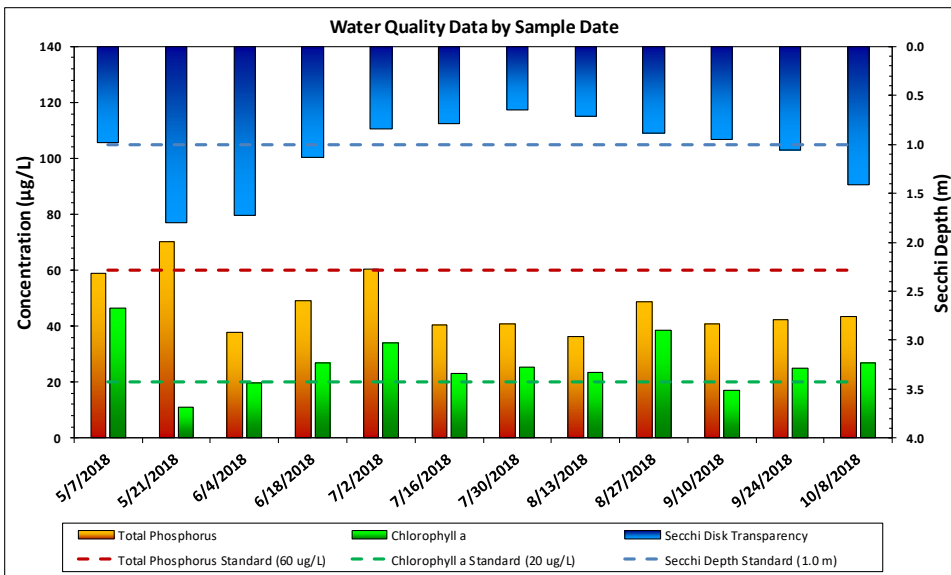
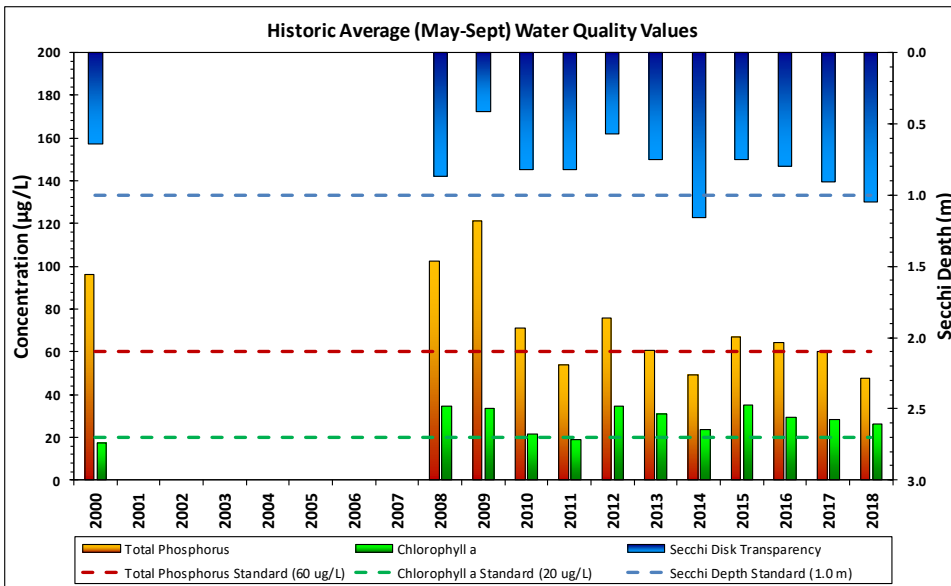


Whaletail North Bathymetry



Lake and Watershed Characteristics

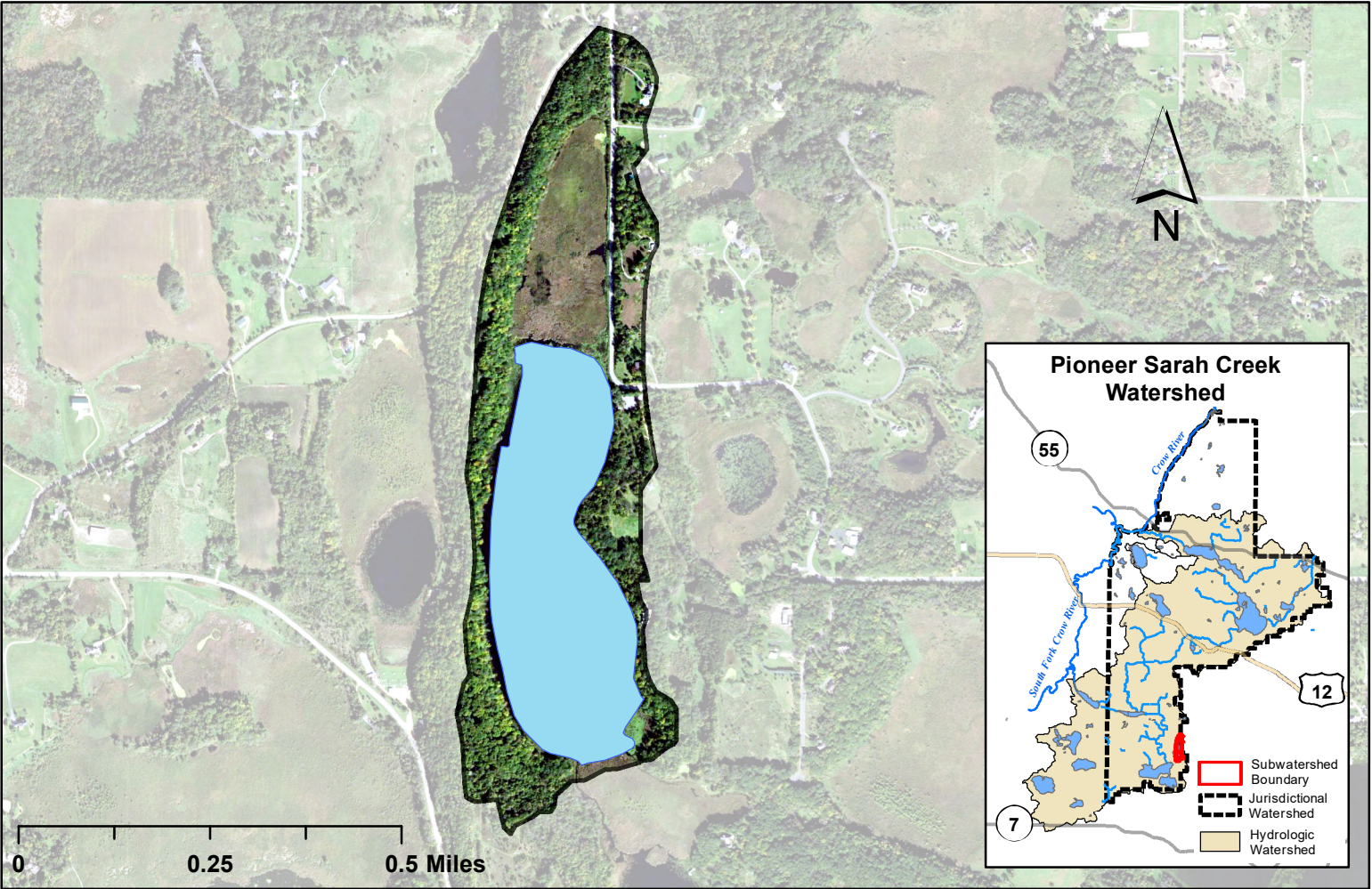
DNR #	27018401
Watershed Area	1,585 Acres
Lake Area	370 Acres
Percent Littoral Area	100%
Average Depth	5.2 ft.
Maximum Depth	10.3 ft.
Watershed Area:Lake Area	4.3:1
Impairment Classification	Proposed 2016
Classification	Provisional Shallow Lake



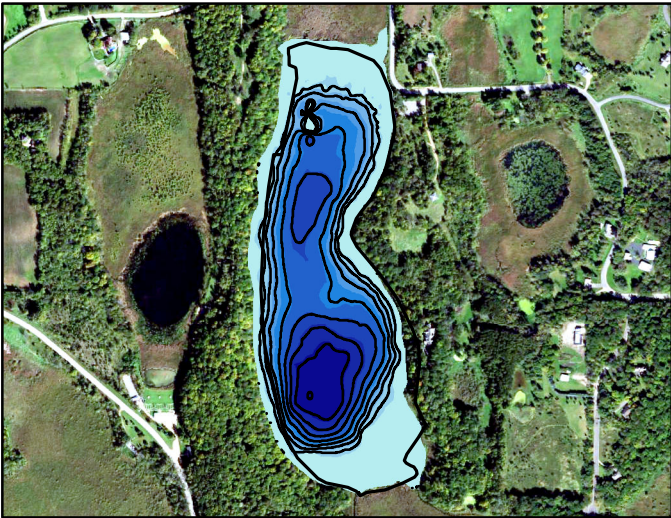
Whaletail North Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
2000	D	B	F	D+
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008	D	C	D	D+
2009	D	C	F	D
2010	D	C	D	D+
2011	C	B	D	C
2012	D	C	F	D
2013	C	C	D	C-
2014	C	C	D	C-
2015	C	C	D	C-
2016	C	C	D	C-
2017	C	C	D	C-
2018	C	C	D	C-
MPCA Standard	C	C	D	C

Met Council Grading System for Lake Water Quality

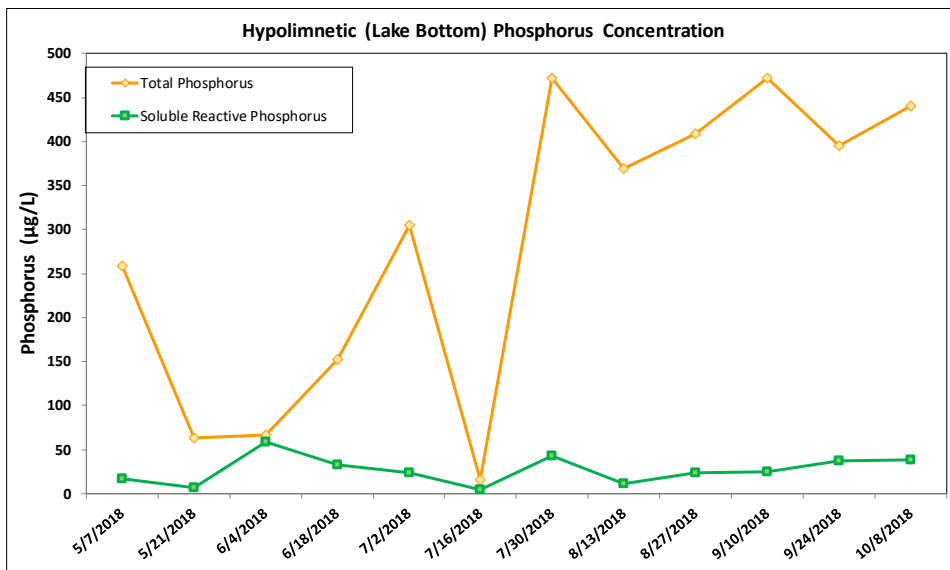
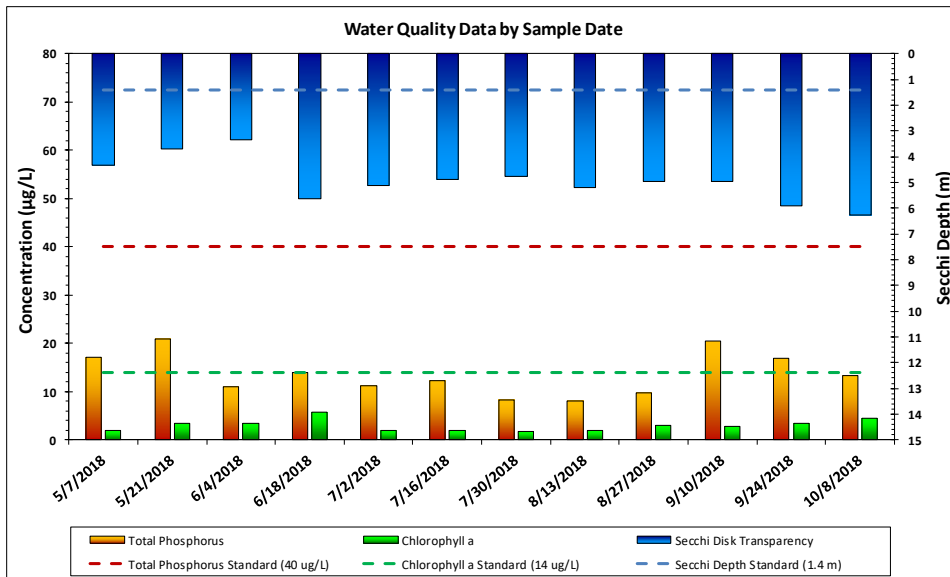
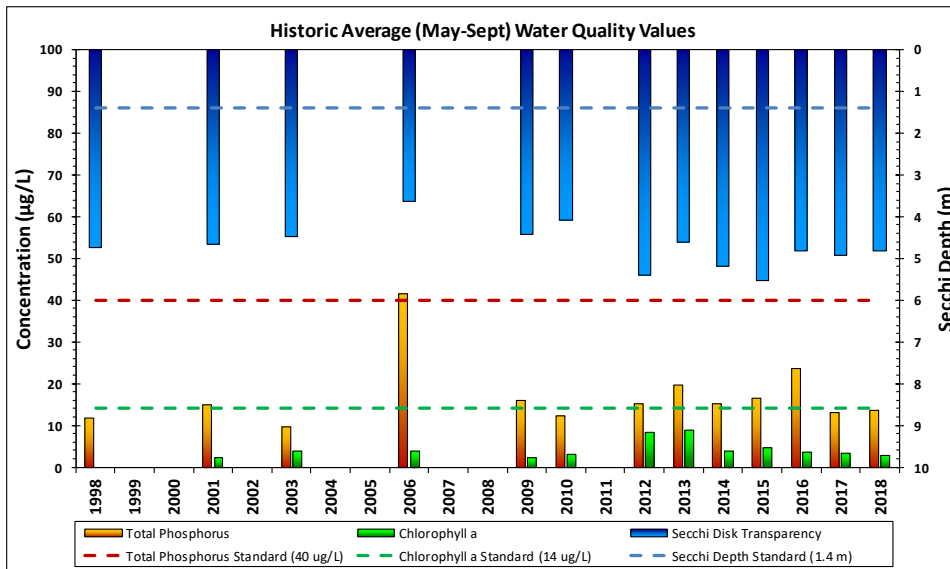
Little Long Lake Watershed Map



Little Long Lake Bathymetry



Lake and Watershed Characteristics	
DNR #	27017900
Watershed Area	92 Acres
Lake Area	53.5 Acres
Percent Littoral Area	40%
Average Depth	27.8 ft.
Maximum Depth	80.5 ft.
Watershed Area:Lake Area	1.7:1
Impairment Classification	None
Classification	Deep Lake



Little Long Lake Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
1998	A	A	A	A
1999				
2000				
2001	A	A	A	A
2002				
2003	A	A	A	A
2004				
2005				
2006	C	A	A	B+
2007				
2008				
2009	A	A	A	A
2010	A	A	A	A
2011				
2012	A	A	A	A
2013	A	A	A	A
2014	A	A	A	A
2015	A	A	A	A
2016	B	A	A	A-
2017	A	A	A	A
2018	A	A	A	A
MPCA Standard	C	B	C	C+

Met Council Grading System for Lake Water Quality



Division of Water Resources

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