

Appendix B

Average Annual (1991-2009) Chlorophyll-*a* Lake Grades

Average Annual (1991-2009) Total Phosphorus and Total Phosphorus Lake Grades

Average Annual (1991-2009) Secchi Disk Transparency and Secchi Disk Transparency Lake Grades

Average Annual (1990-2009) Combined Lake Grades

Average Annual (1991-2009) Chlorophyll-*a* and Chlorophyll-*a* Lake Grades

Lake Name	DNR ID #	Parameter	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Region Value 5-22 ug/l Average
Barker	82-0076	CL-a (ug/l)							33	35	54	20	31								75	41
		Lake Grade								C	C	D	C	C								D
Bass	82-0035	CL-a (ug/l)						36	23	16	18	18	18		11	9	11	15	13			
		Lake Grade						C	C	B	B	B	B		B	B	B	B	B			
Big Carnelian	82-0049	CL-a (ug/l)				8		6	6	5	9	6	7	8	8	7	7	6	5			
		Lake Grade				A		A	A	A	A	A	A	A	A	A	A	A	A			
Big Marine	82-0052	CL-a (ug/l)				7		11	9	6	9	5	6	9	7	6	8	23	9			
		Lake Grade				A		B	A	A	A	A	A	A	A	A	A	C	B			
Carol	82-0017	CL-a (ug/l)						12	3	5	5	3	7		13	10	11	7	5			
		Lake Grade						B	A	A	A	A	A		B	B	B	A	A			
Cty Rd. 7 Wetland	82-0301W	CL-a (ug/l)														7	41	17	29			
		Lake Grade														A	C	B	C			
East Boot	82-0034	CL-a (ug/l)						10	14	11	27	32	19	30	33	16	14	26	20	13	9	20
		Lake Grade						B	B	B	C	C	B	C	C	B	B	C	C	B	A	A
Fish Lake	82-0064	CL-a (ug/l)									139	105	140	91	69	77	89	40	53	52	46	24
		Lake Grade									F	F	F	F	D	D	F	C	D	D	C	C
German Lake	82-0056	CL-a (ug/l)													8	5	6	5	15	6		7
		Lake Grade													A	A	A	A	B	A		A
Jellum's Lake	82-5202	CL-a (ug/l)						95	55	60	59	104	79	82	89	35	55	39	27	38	9	59
		Lake Grade						F	D	D	D	F	F	F	F	C	D	C	C	C	C	A
Little Carnelian	82-0014	CL-a (ug/l)						4	4	2	4	3	4	3	3	3	3	2	2			3
		Lake Grade						A	A	A	A	A	A	A	A	A	A	A	A			
Long Lake	82-0068	CL-a (ug/l)								8	65	228	47	36	72	62	36	19	30	5	43	54
		Lake Grade								A	D	F	D	C	D	D	C	B	C	A	C	D
Loon	82-0015	CL-a (ug/l)						91	121	126	105	75	73	77	118	98	83	124	129	168	112	107
		Lake Grade						F	F	F	F	D	D	D	F	F	F	F	F	F	F	F
Loon Wetland	82-0015W	CL-a (ug/l)														24	56	37	44			40
		Lake Grade														C	D	C	C			C
Louise	82-0025	CL-a (ug/l)						48	53	19	43	18	46	34						37	84	42
		Lake Grade						D	D	B	C	B	C	C	C						C	F
Maple Marsh	82-0038	CL-a (ug/l)							80	92	43	43	60									64
		Lake Grade								F	F	C	C	D								
Mud	82-0026	CL-a (ug/l)						76	89	109	95	172	129									112
		Lake Grade						D	F	F	F	F	F	F								
North Twin	82-0018	CL-a (ug/l)						25	13	12	6	3	16		5	4	7	7	3			9
		Lake Grade						C	B	B	A	A	B		A	A	A	A	A			
Silver	82-0016	CL-a (ug/l)						28	24	34	42	19	14			8	9	22	23	26	7	21
		Lake Grade						C	C	C	C	C	B			A	A	C	C	C	A	A
South Twin	82-0019	CL-a (ug/l)						54	64	76	79	39	64		13	14	35	32	38	40	25	44
		Lake Grade						D	D	D	F	C	D		B	B	C	C	C	C	C	C
Staples	82-0028	CL-a (ug/l)							12	7	9	19	16			7	4	4	11			10
		Lake Grade							B	A	A	C	B			A	A	A	B			
Turtle	82-0036	CL-a (ug/l)						36	30	30	15	16	13		13							22
		Lake Grade						C	C	C	B	B	B		B							
West Boot	82-0044	CL-a (ug/l)						12	24	7	4	6	7	5	8	4	4	3	4			7
		Lake Grade						B	C	A	A	A	A	A	A	A	A	A	A			
205th St. Wetland	82-0062W	CL-a (ug/l)														4	4	4	11			6
		Lake Grade														A	A	A	B			
Goose	82-0059	CL-a (ug/l)															49	38	56	37	30	42
		Lake Grade															D	C	D	D	C	C
Hay	82-0065	CL-a (ug/l)										115	81		32	63	92	20	40	33	26	56
		Lake Grade											F	F		C	D	F	C	C	C	D
Long Lake	82-0030	CL-a (ug/l)										12	20	16	8	4	16	10	10	9	7	11
		Lake Grade											B	C	B	A	A	B	B	B	A	A
Sand	82-0067	CL-a (ug/l)												13	34	19	55	13	15	37	12	25
		Lake Grade													B	C	C	D	B	B	B	B
Square	82-0046	CL-a (ug/l)										4	3	3	3	2	4	4	4			3
		Lake Grade										A	A	A	A	A	A	A	A			
Terrapin	82-0031	CL-a (ug/l)														3	4	4	4			4
		Lake Grade															A	A	A	A		
Clear	82-0045	CL-a (ug/l)																		3	3	3
		Lake Grade																			A	A
Mays	82-0033	CL-a (ug/l)																		3	3	3
		Lake Grade																			A	A
Twin	82-0048	CL-a (ug/l)																		5	5	5
		Lake Grade																			A	A

Lake grade system developed by Dick Osgood formerly of Metropolitan Council (A-F); Records from Metropolitan Council CAMP, MPCA's CLMP, and CMWD

Average Annual (1991-2009) Total Phosphorus and TP Lake Grades

Lake Name	DNR ID #	Parameter	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Region Value .025-.050 mg/l	
Barker	82-0076	TP (mg/l)							0.056	0.070	0.073	0.064	0.080								0.121	0.077	
		Lake Grade							C	D	D	C	D									D	D
Bass	82-0035	TP (mg/l)						0.050	0.062	0.051	0.060	0.052	0.044		0.042	0.030	0.035	0.041	0.031			0.045	
		Lake Grade						C	C	C	C	C	C		C	B	C	C	C				C
Big Carnelian	82-0049	TP (mg/l)				0.019		0.014	0.014	0.018	0.031	0.019	0.020	0.026	0.018	0.023	0.020	0.033	0.019			0.021	
		Lake Grade				A		A	A	A	B	A	A	B	A	B	A	C	A	A			A
Big Marine	82-0052	TP (mg/l)				0.019		0.020	0.018	0.019	0.023	0.018	0.016	0.029	0.021	0.020	0.018	0.035	0.024			0.021	
		Lake Grade				A		A	A	A	B	A	A	B	A	A	A	C	B				A
Carol	82-0017	TP (mg/l)						0.024	0.038	0.043	0.037	0.018	0.024		0.032	0.036	0.043	0.036	0.024			0.032	
		Lake Grade						B	C	C	C	A	B		C	C	C	C	B				C
Cty Rd. 7 Wetland	82-0301W	TP (mg/l)															0.049	0.093	0.101	0.082		0.081	
		Lake Grade															C	D	D	D			D
East Boot	82-0034	TP (mg/l)						0.030	0.038	0.038	0.036	0.047	0.034	0.047	0.045	0.038	0.040	0.072	0.056	0.038	0.024	0.042	
		Lake Grade						B	C	C	C	C	C	C	C	C	C	C	D	C	C	B	C
Fish Lake	82-0064	TP (mg/l)								0.108	0.098	0.118	0.087	0.094	0.098	0.118	0.095	0.129	0.125	0.089	0.074	0.103	
		Lake Grade								D	D	D	D	D	D	D	D	D	D	D	D	D	D
German Lake	82-0056	TP (mg/l)													0.032	0.025	0.028	0.036	0.022			0.028	
		Lake Grade													C	B	B	B	C	B			B
Jellum's Lake	82-5202	TP (mg/l)						0.090	0.070	0.085	0.082	0.112	0.071	0.082	0.111	0.075	0.112	0.132	0.061	0.076	0.053	0.087	
		Lake Grade						D	D	D	D	D	D	D	D	D	D	D	D	C	D	C	D
Little Carnelian	82-0014	TP (mg/l)						0.010	0.010	0.011	0.019	0.011	0.015	0.016	0.015	0.013	0.013	0.020	0.018			0.014	
		Lake Grade						A	A	A	A	A	A	A	A	A	A	A	A	A			A
Long Lake	82-0068	TP (mg/l)								0.099	0.115	0.150	0.059	0.053	0.096	0.087	0.091	0.084	0.064	0.035	0.048	0.082	
		Lake Grade								D	D	D	C	C	D	D	D	D	C	C	C	D	D
Loon	82-0015	TP (mg/l)						0.098	0.096	0.117	0.104	0.105	0.077	0.113	0.160	0.140	0.129	0.184	0.171	0.169	0.162	0.130	
		Lake Grade						D	D	D	D	D	D	D	D	F	D	D	F	F	F	F	D
Loon Wetland	82-0015W	TP (mg/l)														0.066	0.100	0.115	0.138			0.105	
		Lake Grade														C	D	D	D				D
Louise	82-0025	TP (mg/l)						0.098	0.097	0.077	0.242	0.090	0.102	0.100							0.151	0.180	0.126
		Lake Grade						D	D	D	F	D	D	D							D	F	D
Maple Marsh	82-0038	TP (mg/l)							0.140	0.176	0.189	0.138	0.146									0.158	
		Lake Grade							D	F	F	D	D										F
Mud	82-0026	TP (mg/l)						0.098	0.100	0.172	0.130	0.264	0.142									0.151	
		Lake Grade						D	D	F	D	F	D										D
North Twin	82-0018	TP (mg/l)						0.080	0.036	0.089	0.027	0.028	0.032		0.026	0.022	0.026	0.037	0.027			0.039	
		Lake Grade						D	C	D	B	B	C	C		B	B	B	C	B			C
Silver	82-0016	TP (mg/l)						0.040	0.049	0.060	0.071	0.055	0.036			0.029	0.036	0.068	0.049	0.041	0.036	0.048	
		Lake Grade						C	C	C	D	C	C				B	C	D	C	C	C	C
South Twin	82-0019	TP (mg/l)						0.058	0.040	0.089	0.077	0.066	0.070		0.057	0.044	0.064	0.094	0.082	0.080	0.070	0.068	
		Lake Grade						C	C	D	D	C	D		C	C	C	D	D	D	D	D	D
Staples	82-0028	TP (mg/l)							0.038	0.029	0.031	0.042	0.032			0.035	0.020	0.037	0.028			0.032	
		Lake Grade							C	B	B	C	C			C	A	C	B				C
Turtle	82-0036	TP (mg/l)						0.070	0.076	0.096	0.062	0.074	0.056		0.095							0.076	
		Lake Grade						D	D	D	C	D	C	D		D							D
West Boot	82-0044	TP (mg/l)						0.016	0.028	0.039	0.022	0.020	0.020	0.016	0.027	0.020	0.020	0.020	0.026			0.023	
		Lake Grade						A	B	C	A	A	A	A	A	B	A	A	A	B			B
205th St. Wetland	82-0062W	TP (mg/l)														0.024	0.026	0.022	0.044			0.029	
		Lake Grade															B	B	A	C			B
Goose	82-0059	TP (mg/l)															0.070	0.093	0.051	0.049	0.054	0.063	
		Lake Grade															D	D	C	C	C	C	C
Hay	82-0065	TP (mg/l)										0.143	0.084		0.091	0.087	0.098	0.086	0.092	0.052	0.057	0.088	
		Lake Grade										D	D		D	D	D	D	D	D	D	C	D
Long Lake	82-0030	TP (mg/l)										0.051	0.054	0.048	0.045	0.028	0.044	0.053	0.037	0.035	0.031	0.043	
		Lake Grade										C	C	C	C	B	C	C	C	C	C	B	C
Sand	82-0067	TP (mg/l)											0.052	0.060	0.032	0.068	0.055	0.032	0.041	0.038		0.047	
		Lake Grade												C	C	C	C	D	C	C	C	C	C
Square	82-0046	TP (mg/l)										0.011	0.013	0.018	0.011	0.013	0.012	0.021	0.015			0.014	
		Lake Grade										A	A	A	A	A	A	A	A	A			A
Terrapin	82-0031	TP (mg/l)														0.024	0.023	0.044	0.027			0.030	
		Lake Grade															B	B	C	B			B
Clear	82-0045	TP (mg/l)																		0.022	0.017	0.020	
		Lake Grade																		A	A	A	A
Mays	82-0033	TP (mg/l)																		0.012	0.018	0.015	
		Lake Grade																		A	A	A	A
Twin	82-0048	TP (mg/l)																		0.017	0.017	0.017	
		Lake Grade																		A	A	A	A

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Average Annual (1991-2009) Secchi Disk Transparency and Secchi Disk Transparency Lake Grades

Lake Name	DNR ID #	Parameter	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Eco-Region Value 4.9 - 10.5 ft Average	
Barker	82-0076	Transparency (ft)							3.9	4.1	5.0	6.5	6.0	4.5	4.9	4.5	4.1	5.3	3.5	2.8	2.3	4.4	
		Lake Grade							D	C	C	C	C	C	C	C	C	C	C	D	D	F	C
Bass	82-0035	Transparency (ft)	5.3	5.3	4.0	6.3	5.3	6.1	5.1	5.0	5.7	6.8	6.4	7.6	7.2	8.5	7.4	6.9	6.7	7.4	6.9	6.3	
		Lake Grade	C	C	C	C	C	C	C	C	C	C	C	B	B	B	B	B	C	C	B	C	C
Big Carnelian	82-0049	Transparency (ft)	8.9	9.4	13.0	8.3	8.5	8.1	7.7	11.9	8.9	11.5	12.4	9.8	9.8	12.3	14.2	11.5	14.8	11.6	21.9	11.3	
		Lake Grade	B	B	A	B	B	B	B	A	B	A	A	A	B	B	A	A	A	A	A	A	A
Big Marine	82-0052	Transparency (ft)	10.0	11.3	11.7	9.2		11.7	13.0	10.6	9.2	12.5	12.5	10.1	10.7	11.2	12.5	9.9	8.6	11.6	11.1	10.8	
		Lake Grade	A	A	A	B		A	A	A	B	A	A	A	A	A	A	A	A	B	A	A	A
Carol*	82-0017	Transparency (ft)							4.8	4.3	4.4	3.4	3.8	4.0	3.9	4.0	3.5	3.6	3.4	3.9	3.6	4.0	3.9
		Lake Grade							B	B	B	C	C	B	B	B	C	D	D	C	D	C	B
Cty Rd. 7 Wetland	82-0301W	Transparency (ft)															6.9	5.1	4.9			5.6	
		Lake Grade															C	C	C	C			C
East Boot	82-0034	Transparency (ft)						8.4	13.3	8.7	5.4	6.6	7.0	9.5	7.4	10.2	10.6	7.2	8.1	8.6	8.1	8.5	
		Lake Grade						B	A	B	C	C	C	B	B	A	A	B	B	B	B	B	B
Fish	82-0064	Transparency (ft)								1.8	1.7	1.4	3.3	2.5	2.1	2.5	3.4	2.5	3.6	5.3	5.0	2.9	
		Lake Grade								F	F	F	D	D	D	F	D	D	D	C	C	D	
German	82-0056	Transparency (ft)												7.6	8.0	8.6	7.7	7.3	5.8	6.0	4.3	6.9	
		Lake Grade													B	B	B	B	B	C	C	C	C
Jellum's	82-5202	Transparency (ft)						3.8	2.6	2.2	1.8	1.6	2.4	2.6	2.6	4.1	3.4	3.6	5.6	5.4	8.9	3.6	
		Lake Grade						D	F	F	F	F	D	D	D	D	C	D	D	C	C	B	D
Little Carnelian	82-0014	Transparency (ft)	13.3	18.8	14.0	12.0	13.9	15.9	15.9	19.2	14.8	18.2	19.2	14.7	16.4	19.9	22.3	21.5	23.4	21.0	23.0	17.8	
		Lake Grade	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Long	82-0068	Transparency (ft)								1.6	1.5	1.2	3.5	3.6	2.0	2.9	3.6	4.5	4.8	7.4	3.8	3.4	
		Lake Grade								F	F	F	D	D	D	F	D	D	C	B	D	D	
Loon	82-0015	Transparency (ft)						2.1	1.6	1.5	1.8	2.3	2.3	1.8	1.4	1.8	2.4	1.5	1.4	0.9	1.8	1.7	
		Lake Grade						F	F	F	F	F	D	F	F	F	F	D	F	F	F	F	F
Loon Wetland	82-0015W	Transparency (ft)															4.9	3.5	4.5	3.1		4.0	
		Lake Grade															C	D	C	D		C	
Louise	82-0025	Transparency (ft)						7.8	6.1	5.1	4.0	6.3	3.3	5.3	7.9	7.1	3.1	2.9	2.3	2.5	4.2	4.8	
		Lake Grade						B	C	C	C	C	D	C	B	C	D	D	D	D	C	C	C
Maple Marsh	82-0038	Transparency (ft)							3.1	1.6	3.3	3.2	3.3	5.3	4.1	4.3	3.6	2.9	3.8			3.5	
		Lake Grade							D	F	D	D	D	C	C	C	D	D	D				D
Mud	82-0026	Transparency (ft)					1.5	1.5	1.8	1.5	1.3	0.8	1.4	2.7	4.1	4.1	2.9	2.6	2.9			2.2	
		Lake Grade					F	F	F	F	F	F	F	D	C	C	D	D	D				F
North Twin*	82-0018	Transparency (ft)						4.6	5.2	3.9	4.2	3.8	4.5	4.3	4.4	4.1	3.9	3.9	3.6	3.5	3.0	4.1	
		Lake Grade						B	B	C	B	C	B	B	B	B	C	D	B	B	B	B	B
Silver	82-0016	Transparency (ft)						6.2	3.4	3.9	3.2	5.4	6.8	6.7	8.8	7.7	7.4	6.2	5.8	6.9	5.4	6.0	
		Lake Grade						C	D	D	D	C	C	C	B	B	C	C	C	C	C	C	C
South Twin	82-0019	Transparency (ft)						3.1	2.8	2.2	2.1	3.3	2.0	3.1	7.1	6.8	4.6	3.3	2.8	3.0	4.5	3.6	
		Lake Grade						D	D	F	F	D	F	D	C	C	C	D	D	D	C	D	D
Staples	82-0028	Transparency (ft)							8.3	9.8	8.7	8.7	8.8	8.9	7.1	8.6	9.6	9.8	9.4	8.2	8.2	8.8	
		Lake Grade							B	B	B	B	B	B	C	B	B	B	B	B	B	B	B
Turtle*	82-0036	Transparency (ft)	1.0	2.0	3.6	4.8	3.7	3.6	2.9	3.4	4.4	5.3	5.3	4.9	5.0	4.4	4.3	4.0	9.4	4.2	1.2	4.1	
		Lake Grade	F	F	D	C	D	D	D	D	C	C	C	C	C	C	C	C	C	B	C	C	C
West Boot	82-0044	Transparency (ft)						8.2	6.9	8.3	10.1	10.4	12.5	10.6	10.9	14.1	14.9	12.3	12.0	15.0	12.5	11.3	
		Lake Grade						B	C	B	A	A	A	A	A	A	A	A	A	A	A	A	A
26th St. Wetland	82-0062W	Transparency (ft)														10.1	9.5	9.7	7.5			9.2	
		Lake Grade															A	B	B	B			B
Goose	82-0059	Transparency (ft)															5.7	4.4	3.6	5.3	4.8	4.8	
		Lake Grade															C	C	D	D	C	C	C
Hay*	82-0065	Transparency (ft)										2.2	2.6			4.7	3.5	2.7	5.5	4.5	6.0	5.6	4.2
		Lake Grade											F	D			C	D	D	C	C	C	B
Long	82-0030	Transparency (ft)										8.0	7.0	6.7	7.5	8.9	8.0	8.5	7.5	7.5	7.6	7.7	
		Lake Grade											B	C	C	B	B	B	B	B	B	B	B
Sand	82-0067	Transparency (ft)												5.8	4.1	6.5	4.1	5.2	8.0	6.0	9.5	6.2	
		Lake Grade													C	C	C	C	C	B	B	B	C
Square	82-0046	Transparency (ft)										19.5	19.8	18.2	18.0	17.1	16.2	16.0	17.8	16.0	21.6	18.0	
		Lake Grade											A	A	A	A	A	A	A	A	A	A	A
Terrapin	82-0031	Transparency (ft)														10.5	9.2	11.9	9.0	10.8	9.6	10.2	
		Lake Grade															A	B	A	B	B	B	A
Clear	82-0045	Transparency (ft)																		18.6	19.7	18.6	
		Lake Grade																			A	A	A
Mays	82-0033	Transparency (ft)																			17.9	19.0	17.9
		Lake Grade																			A	A	A
Twin	82-0048	Transparency (ft)																			15.2	14.4	15.2
		Lake Grade																				A	A

* Lake grade adjusted for shallow lake

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Average Annual (1990-2009) Combined Lake Grades

Lake Name	DNR ID #	Parameter	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	1990-2009 Average		
Barker	82-0076	CL-a								C	C	D	C	C							D		C-		
		TP									C	D	D	C	D							D		D+	
		SD									D	C	C	C	C	C	C	C	C	C	D	D	F	C-	
		Average									C-	C-	D+	C	C-	C	C	C	C	C	D	D	F	C-	
Bass	82-0035	CL-a							C	C	B	B	B	B		B	B	B	B	B				B	
		TP							C	C	C	C	C	C		C	B	C	C	C	C			C	
		SD		C	C	C	C	C	C	C	C	C	C	C	B	B	B	B	C	C	C	B	C	C+	
		Average								C	C+	C+	C+	C+	B	B-	B	B-	C+	C+	C+	B	C	C+	
Big Carnelian	82-0049	CL-a					A		A	A	A	A	A	A	A	A	A	A	A	A				A	
		TP					A		A	A	A	B	A	A	B	A	B	A	C	A				A-	
		SD		B	B	A	B	B	B	B	A	B	A	A	B	B	A	A	A	A	A	A	A	A	A-
		Average		B	B	A	A-	B	A-	A-	A	B+	A	A	B+	A-	A-	A	A	B+	A	A	A	A	A-
Big Marine	82-0052	CL-a					A		B	A	A	A	A	A	A	A	A	A	C	B				A-	
		TP					A		A	A	A	B	A	A	B	A	A	A	C	B				A-	
		SD	C	A	A	A	B		A	A	A	B	A	A	A	A	A	A	A	B	A	A	A	A-	
		Average	C	A	A	A	A-		A-	A	A	B+	A	A	A-	A	A	A	B-	B	B	A	A	A	A-
Carol *	82-0017	CL-a							B	A	A	A	A	A		B	B	B	A	A				A-	
		TP							B	C	C	C	A	B		C	C	C	C	B				C+	
		SD							B	B	B	C	C	B	B	B	C	D	D	C	D	C	C	C	
		Average							B	B	B	B-	B+	B+	B	B-	C+	C	C+	B	D	C	C	B-	
Cty Rd. 7 Wetland	82-0301W	CL-a															A	C	B	C				B	
		TP																C	D	D	D				D+
		SD																C	C	C	C				C
		Average																B-	C-	C	C-				C
East Boot	82-0034	CL-a							B	B	B	C	C	B	C	C	B	B	C	C	B	A		B-	
		TP							B	C	C	C	C	C	C	C	C	C	D	C	C	B		C	
		SD							B	A	B	C	C	C	B	B	A	A	B	B	B	B	B	B	
		Average							B	B	B-	C	C	C+	C+	C+	B	B	C	C+	B-	B+			B-
Fish Lake	82-0064	CL-a									F	F	F	F	D	D	F	C	D	D	C	C		D	
		TP									D	D	D	D	D	D	D	D	D	D	D	D	D	D	
		SD									F	F	F	D	D	D	F	D	D	D	C	C	C	D	
		Average									F+	F+	F+	D-	D	D-	D-	D+	D	D	C-	C-	C-		D
German Lake	82-0056	CL-a													A	A	A	A	B	A				A	
		TP														C	B	B	B	C	B			B-	
		SD														B	B	B	B	B	C	C	C	B-	
		Average														B	B+	B+	B+	B-	B	C	C		B
Jellum's Lake	82-5202	CL-a							F	D	D	D	F	F	F	F	C	D	C	C	C	A		D	
		TP							D	D	D	D	D	D	D	D	D	D	D	C	D	C	D	D	
		SD							D	D	F	F	F	D	D	D	C	D	D	C	C	B		D	
		Average							D-	D	D-	D-	F+	D-	D-	D-	C-	D	D+	C	C-	C+		D	
Little Carnelian	82-0014	CL-a							A	A	A	A	A	A	A	A	A	A	A	A				A	
		TP							A	A	A	A	A	A	A	A	A	A	A	A				A	
		SD		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		Average		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Long Lake	82-0068	CL-a									A	D	F	D	C	D	D	C	B	C	A	C		C	
		TP									D	D	D	C	C	D	D	D	D	C	C	C		D+	
		SD									F	F	F	D	D	F	D	D	C	C	B	D		D	
		Average									C-	D-	F+	D+	C-	D-	D	D+	C	C	C+	C-		D+	

*Lake grade adjusted for shallow lake

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Average Annual (1990-2009) Combined Lake Grades (continued)

Lake Name	DNR ID #	Parameter	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	1990-2009 Average			
Loon	82-0015	CL-a							F	F	F	F	D	D	D	F	F	F	F	F	F	F	F	F		
		TP							D	D	D	D	D	D	D	D	F	D	D	F	F	F	F	F	D-	
		SD							F	F	F	F	F	D	F	F	F	F	D	F	F	F	F	F	F	
		Average							F+	F+	F+	F+	D-	D	D-	F	F+	D-	F	F	F	F	F	F	F+	
Loon Wetland	82-0015W	CL-a															C	D	C	C				C		
		TP																C	D	D	D				D+	
		SD																C	D	C	D				C-	
		Average																C	D	C-	D+				C-	
Louise	82-0025	CL-a							D	D	B	C	B	C	C										C	
		TP							D	D	D	F	D	D	D											D
		SD							B	C	C	C	C	D	C	B	C	D	D	D	D	D	C	C		C
		Average							C-	D+	C	D+	C	D+	C-	B	C	D	D	D	D	D	C	C		C-
Maple Marsh	82-0038	CL-a								F	F	C	C	D												D
		TP							D	F	F	D	D													D-
		SD							D	F	D	D	D	C	C	C	C	D	D	D	D					D
		Average							D-	F	D	D+	D	C	C	C	D	D	D	D						D
Mud	82-0026	CL-a							D	F	F	F	F	F												F
		TP							D	D	F	D	F	D												D-
		SD						F	F	F	F	F	F	F	D	C	C	D	D	D						D-
		Average						F	D-	F+	F	F+	F	F+	D	C	C	D	D	D						D
North Twin *	82-0018	CL-a							C	B	B	A	A	B		A	A	A	A	A					A-	
		TP							D	C	D	B	B	C		B	B	B	C	B					C+	
		SD							B	B	C	B	C	B	B	B	B	C	D	B	B	B	B		B-	
		Average							C	B-	C	B+	B	B-	B	B+	B+	B	C+	B+	B	B	B		B	
Silver	82-0016	CL-a							C	C	C	C	C	B			A	A	C	C	C	C	A		B-	
		TP							C	C	C	D	C	C			B	C	D	C	C	C	C	C	C	
		SD							C	D	D	D	C	C	C	B	B	B	C	C	C	C	C	C	C	
		Average							C	C-	C-	D+	C	C+	C	B	B+	B	C-	C	C	C	C	B-	C	
South Twin	82-0019	CL-a							D	D	D	F	C	D		B	B	C	C	C	C	C	C	C	C-	
		TP							C	C	D	D	C	D		C	C	C	D	D	D	D	D	D	D+	
		SD							D	D	F	F	D	F	D	C	C	C	D	D	D	D	C	C	D	
		Average							D+	D+	D-	F+	C-	D-	D	C+	C+	C	D+	D+	D+	C-			D+	
Staples	82-0028	CL-a								B	A	A	C	B			A	A	A	B					B+	
		TP								C	B	B	C	C			C	A	C	B					B-	
		SD								B	B	B	B	B	B	C	B	B	B	B	B	B	B	B	B	B
		Average								B-	B+	B+	C+	B-	B	C	B	A-	B	B	B	B	B	B		B
Turtle	82-0036	CL-a							C	C	C	B	B	B		B									B-	
		TP							D	D	D	C	D	C		D									D+	
		SD		F	F	D	C	D	D	D	D	C	C	C	C	C	C	C	C	C	B	C	C	C	C-	
		Average		F	F	D	C	D	D+	D+	D+	C+	C	C+	C	C	C	C	C	C	B	C	C	C	C-	
West Boot	82-0044	CL-a							B	C	A	A	A	A	A	A	A	A	A	A					A	
		TP							A	B	C	A	A	A	A	B	A	A	A	A	B				A-	
		SD							B	C	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A-	
		Average							B+	C+	B	A	A	A	A	A-	A	A	A	A	A-	A	A	A		A-
205th St. Wetland	82-0062W	CL-a															A	A	A	B					A	
		TP															B	B	A	C					B	
		SD															A	B	B	B					B+	
		Average															A-	B+	A-	B-					B+	

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Average Annual (1990-2009) Combined Lake Grades (continued)

Lake Name	DNR ID #	Parameter	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	1990 -2009 Average	
Goose	82-0059	CL-a																D	C	D	D	C	D+	
		TP																	D	D	C	C	C	C-
		SD																	C	C	D	D	C	C-
		Average																	D+	C-	D+	D+	C	C-
Hay	82-0065	CL-a											F	F		C	D	F	C	C	C	C	D	
		TP											D	D		D	D	D	D	D	D	D	C	D
		SD											F	D		C	D	D	C	C	C	C	B	C-
		Average											F+	D-		C-	D	D-	C-	C-	C-	C-	C+	D+
Long Lake	82-0030	CL-a											B	C	B	A	A	B	B	B	B	A	B	
		TP											C	C	C	C	B	C	C	C	C	B	C	
		SD											B	C	C	B	B	B	B	B	B	B	B	B
		Average											B-	C	C+	B	B+	B-	B-	B-	B-	B+	B-	B-
Sand	82-0067	CL-a													B	C	C	D	B	B	B	B	B-	
		TP													C	C	C	D	C	C	C	C	C	C
		SD													C	C	C	C	C	B	B	B	B	C+
		Average														C+	C	C	D+	C+	B-	B-	B-	C+
Square	82-0046	CL-a											A	A	A	A	A	A	A	A			A	
		TP											A	A	A	A	A	A	A	A			A	A
		SD											A	A	A	A	A	A	A	A	A	A	A	A
		Average											A	A	A	A	A	A	A	A	A	A	A	A
Terrapin	82-0031	CL-a															A	A	A	A			A	
		TP															B	B	C	B			B	B
		SD															A	B	A	B	B	B	B	B+
		Average															A-	B+	B+	B+	B	B	B	B+
Clear	82-0045	CL-a																				A	A	A
		TP																				A	A	A
		SD																				A	A	A
		Average																				A	A	A
Mays	82-0033	CL-a																				A	A	A
		TP																				A	A	A
		SD																				A	A	A
		Average																				A	A	A
Twin	82-0048	CL-a																				A	A	A
		TP																				A	A	A
		SD																				A	A	A
		Average																				A	A	A

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