

Lake of the Woods Draft Load Allocation Version 4 (February 19, 2018)		Existing Load (at Source)			Delivery to Lake of the Woods			Existing Load (at Lake of the Woods)			Allowable TP Load		Estimated Load Reduction		
		Total Load	Load originating in Canada	Load originating in US	Delivery to Rainy River	Delivery along Rainy River to Lake of the Woods	Total Delivery to Lake of the Woods	Total Load	Load originating in Canada	Load originating in US	Load at Source	Load to Lake	Load at Source	Load to Lake	Percent Change (at lake)
		kg/yr	kg/yr	kg/yr				kg/yr	kg/yr	kg/yr	kg/yr	kg/yr	kg/yr	kg/yr	
Total Load		886,850.9	326,453.3	560,397.6			815,813.9	294,886.8	520,927.1	724,652.6	665,689.3	162,198.3	150,124.6	-18.4%	
Wasteload	Total WLA	90,087.9	44,681.2	45,406.7			73,196.9	36,079.1	37,117.8	46,418.3	37,358.0	43,669.6	35,838.9	-49.0%	
	Wastewater¹	88,900.5	44,681.2	44,219.3			72,009.5	36,079.1	35,930.4	45,230.9	36,170.6	43,669.6	35,838.9	-49.8%	
	Point Sources in Lake of the Woods HUC 8	62.4	-	62.4			42.3	-	42.3	101.4	68.3	(39.0)	(26.0)	61.6%	
	<i>Marvin Windows & Doors</i>	4.0	-	4.0	N/A	N/A	100%	4.0	-	4.0	4.0	4.0	-	-	-
	<i>Springsteel Island Sanitary District</i>	5.4	-	5.4	N/A	N/A	100%	5.4	-	5.4	10.4	10.4	(5.0)	(5.0)	91.4%
	<i>Williams WWTP</i>	53.0	-	53.0	N/A	N/A	62%	32.8	-	32.8	87.0	53.9	(34.0)	(21.1)	64.2%
	Point Sources Discharging to Rainy River	88,838.1	44,681.2	44,156.9			71,967.2	36,079.1	35,888.1	45,129.5	36,102.3	43,708.5	35,865.0	-49.8%	
	Point Sources Discharging to Big Fork River	388.0	-	388.0			240.5	-	240.5	610.0	395.6	(222.0)	(155.1)	64.5%	
	<i>Big Falls WWTP</i>	19.7	-	19.7	86%	85%	73%	14.5	-	14.5	119.0	87.4	(99.3)	(72.9)	504.5%
	<i>Bigfork WWTP</i>	251.5	-	251.5	69%	85%	59%	147.2	-	147.2	216.0	126.4	35.5	20.8	-14.1%
	<i>Effie WWTP</i>	33.8	-	33.8	75%	85%	64%	21.7	-	21.7	102.0	65.5	(68.2)	(43.8)	202.2%
	<i>MDNR Scenic State Park</i>	14.4	-	14.4	105%	85%	89%	12.9	-	12.9	21.0	18.8	(6.6)	(5.9)	46.0%
	<i>Northome WWTP</i>	68.7	-	68.7	76%	85%	65%	44.3	-	44.3	122.0	78.7	(53.3)	(34.4)	77.6%
	<i>Berger Horticultural Products - Pine Island Bog</i>	-	-	-	73%	85%	63%	-	-	-	30.0	18.8	(30.0)	(18.8)	-
	Point Sources Discharging to Little Fork River	924.5	-	924.5			528.7	-	528.7	1,309.0	744.8	(384.5)	(216.0)	40.9%	
	<i>Cook WWTP</i>	398.4	-	398.4	82%	84%	69%	274.5	-	274.5	509.0	350.7	(110.6)	(76.2)	27.8%
	<i>ISD 2142 Pre-Kindergarten to Grade 12 N School</i>	11.8	-	11.8	66%	84%	55%	6.5	-	6.5	44.0	24.4	(32.2)	(17.8)	272.1%
	<i>Littlefork WWTP</i>	146.7	-	146.7	97%	84%	81%	118.6	-	118.6	229.0	185.1	(82.3)	(66.5)	56.1%
	<i>US Steel - Minntac Tailings Basin Area</i>	27.1	-	27.1	48%	84%	40%	10.9	-	10.9	30.0	12.1	(2.9)	(1.2)	10.7%
	<i>Hibbing Taconite Co - Tails Basin Area</i>	340.5	-	340.5	42%	84%	35%	118.2	-	118.2	497.0	172.5	(156.5)	(54.3)	46.0%
	Point Sources Discharging to Rainy River	87,525.6	44,681.2	42,844.3			71,198.0	36,079.1	35,118.9	43,210.5	34,961.9	44,315.0	36,236.1	-50.9%	
	<i>Anchor Bay Mobile Home Park</i>	68.7	-	68.7	100%	97%	97%	66.7	-	66.7	44.0	42.8	24.7	24.0	-35.9%
	<i>Barwick WWTP</i> 🍁	6.0	6.0	-	100%	90%	90%	5.4	5.4	-	6.0	5.4	-	-	-
	<i>Baudette WWTP</i>	3,244.5	-	3,244.5	100%	97%	97%	3,152.6	-	3,152.6	367.0	356.6	2,877.5	2,796.0	-88.7%
	<i>Boise White Paper LLC - Intl Falls</i>	35,541.2	-	35,541.2	100%	81%	81%	28,679.2	-	28,679.2	33,100.0	26,709.3	2,441.2	1,969.9	-6.9%
	<i>Emo WWTP</i> 🍁	353.9	353.9	-	100%	86%	86%	304.9	304.9	-	353.9	304.9	-	-	-
	<i>Fort Frances WWTP</i> 🍁	779.6	779.6	-	100%	81%	81%	629.1	629.1	-	779.6	629.1	-	-	-
	<i>ISD 363 - Indus School</i>	13.6	-	13.6	100%	86%	86%	11.7	-	11.7	34.0	29.3	(20.4)	(17.6)	149.6%
	<i>NKASD WWTP</i>	3,976.3	-	3,976.3	100%	81%	81%	3,208.6	-	3,208.6	3,318.0	2,677.4	658.3	531.2	-16.6%
	<i>Rainy River WWTP</i> 🍁	28.0	28.0	-	100%	97%	97%	27.2	27.2	-	28.0	27.2	-	-	-
	<i>Resolute (Abitibi)</i> 🍁	43,513.7	43,513.7	-	100%	81%	81%	35,112.5	35,112.5	-	5,180.0	4,179.9	38,333.7	30,932.6	-88.1%
Industrial Stormwater	798.0	-	798.0	N/A	N/A	100%	798.0	-	798.0	798.0	798.0	-	-	-	
Construction Stormwater	389.4	-	389.4	N/A	N/A	100%	389.4	-	389.4	389.4	389.4	-	-	-	
Total LA	796,763.0	281,772.1	514,990.9				742,617.0	258,807.7	483,809.3	677,347.3	627,786.3	119,415.7	114,830.7	-15.5%	
Tributaries	373,527.2	141,072.3	232,455.0				319,381.2	118,107.9	201,273.4	336,441.2	286,880.2	37,086.0	32,501.1	-10.2%	
Rainy River Drainage	344,838.9	131,209.7	213,629.2				290,692.9	108,245.3	182,447.6	314,957.7	265,396.7	29,881.2	25,296.2	-8.7%	
Rainy Lake Drainage	148,302.6	103,470.2	44,832.4				119,669.7	83,493.1	36,176.6	148,302.6	119,669.7	-	-	-	
<i>Rainy Lake</i> 🍁	148,302.6	103,470.2	44,832.4	100%	81%	81%	119,669.7	83,493.1	36,176.6	148,302.6	119,669.7	-	-	-	
Little Fork River HUC8	72,512.8	-	72,512.8				60,607.7	-	60,607.7	46,410.2	38,790.6	26,102.6	21,817.1	-36.0%	
<i>Little Fork River</i>	72,512.8	-	72,512.8	100%	84%	84%	60,607.7	-	60,607.7	46,410.2	38,790.6	26,102.6	21,817.1	-36.0%	
Big Fork River HUC8	48,120.8	-	48,120.8				41,002.4	-	41,002.4	46,700.5	39,792.2	1,420.2	1,210.2	-3.0%	
<i>Big Fork River</i>	48,120.8	-	48,120.8	100%	85%	85%	41,002.4	-	41,002.4	46,700.5	39,792.2	1,420.2	1,210.2	-3.0%	
Rapid River HUC8	20,876.0	-	20,876.0				19,986.1	-	19,986.1	20,876.0	19,986.1	-	-	-	
<i>Rapid River</i>	20,876.0	-	20,876.0	100%	96%	96%	19,986.1	-	19,986.1	20,876.0	19,986.1	-	-	-	
Lower Rainy HUC8	55,026.6	27,739.4	27,287.2				49,427.1	24,752.2	24,674.9	52,668.3	47,158.1	2,358.3	2,268.9	-4.6%	
<i>La Vallee River</i> 🍁	3,633.9	3,633.9	-	100%	84%	84%	3,037.3	3,037.3	-	3,633.9	3,037.3	-	-	-	
<i>Black River</i>	11,253.3	-	11,253.3	100%	86%	86%	9,695.9	-	9,695.9	11,253.3	9,695.9	-	-	-	
<i>Sturgeon River</i> 🍁	3,155.9	3,155.9	-	100%	90%	90%	2,838.4	2,838.4	-	3,155.9	2,838.4	-	-	-	
<i>McCloud Creek</i>	382.0	-	382.0	100%	92%	92%	352.9	-	352.9	239.8	221.6	142.2	131.4	-37.2%	
<i>Whitefish Creek</i>	569.0	-	569.0	100%	93%	93%	531.2	-	531.2	343.7	320.8	225.3	210.3	-39.6%	
<i>Pinewood River</i> 🍁	5,695.6	5,695.6	-	100%	93%	93%	5,316.7	5,316.7	-	5,695.6	5,316.7	-	-	-	
<i>Silver Creek</i>	1,163.8	-	1,163.8	100%	96%	96%	1,114.2	-	1,114.2	659.2	631.1	504.6	483.1	-43.4%	
<i>Unnamed (391)</i>	470.4	-	470.4	100%	97%	97%	457.1	-	457.1	362.3	352.0	108.2	105.1	-23.0%	
<i>Baudette River</i>	1,658.5	-	1,658.5	100%	97%	97%	1,611.5	-	1,611.5	1,324.5	1,287.0	334.0	324.5	-20.1%	
<i>Miller Creek</i>	432.6	-	432.6	100%	97%	97%	420.4	-	420.4	221.6	215.3	211.0	205.0	-48.8%	
<i>Winter Road River</i>	3,376.4	-	3,376.4	100%	97%	97%	3,280.7	-	3,280.7	3,231.4	3,139.9	145.0	140.9	-4.3%	
<i>Wabanica Creek</i>	1,404.6	-	1,404.6	100%	97%	97%	1,364.8	-	1,364.8	716.5	696.2	688.1	668.7	-49.0%	
<i>Direct Drainage</i> 🍁	21,830.6	15,254.1	6,576.5	100%	89%	89%	19,405.9	13,559.8	5,846.1	21,830.6	19,405.9	-	-	-	

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		Total Load	Load originating in Canada	Load originating in US	Delivery to Rainy River	Delivery along Rainy River to Lake of the Woods	Total Delivery to Lake of the Woods	Total Load	Load originating in Canada	Load originating in US	Load at Source	Load to Lake	Load at Source	Load to Lake	Percent Change (at lake)
		kg/yr	kg/yr	kg/yr				kg/yr	kg/yr	kg/yr	kg/yr	kg/yr	kg/yr	kg/yr	
Load	Lake of the Woods HUC8	28,688.3	9,862.6	18,825.8				28,688.3	9,862.6	18,825.8	21,483.4	21,483.4	7,204.9	7,204.9	-25.1%
	<i>Sabaskong River</i> *	2,232.6	2,232.6	-	N/A	N/A	100%	2,232.6	2,232.6	-	2,232.6	2,232.6	-	-	-
	<i>Splitrock River</i> *	1,228.0	1,228.0	-	N/A	N/A	100%	1,228.0	1,228.0	-	1,228.0	1,228.0	-	-	-
	<i>Thompson Creek</i> *	779.8	779.8	-	N/A	N/A	100%	779.8	779.8	-	779.8	779.8	-	-	-
	<i>Obabikon Lake</i> *	457.7	457.7	-	N/A	N/A	100%	457.7	457.7	-	457.7	457.7	-	-	-
	<i>Big Grassy River</i> *	1,108.2	1,108.2	-	N/A	N/A	100%	1,108.2	1,108.2	-	1,108.2	1,108.2	-	-	-
	<i>Little Grassy River</i> *	2,333.7	2,333.7	-	N/A	N/A	100%	2,333.7	2,333.7	-	2,333.7	2,333.7	-	-	-
	<i>Bostic River (231)</i>	1,783.9	-	1,783.9	N/A	N/A	100%	1,783.9	-	1,783.9	1,283.8	1,283.8	500.1	500.1	-28.0%
	<i>County Ditch 1 (211)</i>	1,101.8	-	1,101.8	N/A	N/A	100%	1,101.8	-	1,101.8	650.5	650.5	451.3	451.3	-41.0%
	<i>South Branch Zippel Creek (213)</i>	744.0	-	744.0	N/A	N/A	100%	744.0	-	744.0	214.9	214.9	529.1	529.1	-71.1%
	<i>West Branch Zippel Creek (203)</i>	1,887.6	-	1,887.6	N/A	N/A	100%	1,887.6	-	1,887.6	879.3	879.3	1,008.3	1,008.3	-53.4%
	<i>Judicial Ditch 24 (201)</i>	420.2	-	420.2	N/A	N/A	100%	420.2	-	420.2	259.4	259.4	160.8	160.8	-38.3%
	<i>Judicial Ditch 24 (191)</i>	1,256.2	-	1,256.2	N/A	N/A	100%	1,256.2	-	1,256.2	465.5	465.5	790.7	790.7	-62.9%
	<i>Judicial Ditch 22 (181)</i>	708.3	-	708.3	N/A	N/A	100%	708.3	-	708.3	333.3	333.3	375.1	375.1	-53.0%
	<i>Reach 171</i>	164.5	-	164.5	N/A	N/A	100%	164.5	-	164.5	52.5	52.5	112.0	112.0	-68.1%
	<i>Willow Creek (161)</i>	1,352.6	-	1,352.6	N/A	N/A	100%	1,352.6	-	1,352.6	641.7	641.7	711.0	711.0	-52.6%
	<i>County Ditch 26 (151)</i>	272.9	-	272.9	N/A	N/A	100%	272.9	-	272.9	102.7	102.7	170.2	170.2	-62.4%
	<i>County Ditch 26 (141)</i>	457.7	-	457.7	N/A	N/A	100%	457.7	-	457.7	193.3	193.3	264.4	264.4	-57.8%
	<i>County Ditch 26 (131)</i>	295.1	-	295.1	N/A	N/A	100%	295.1	-	295.1	83.8	83.8	211.3	211.3	-71.6%
	<i>County Ditch 20 (121)</i>	460.5	-	460.5	N/A	N/A	100%	460.5	-	460.5	193.4	193.4	267.1	267.1	-58.0%
	<i>County Ditch 25 (113)</i>	1,003.7	-	1,003.7	N/A	N/A	100%	1,003.7	-	1,003.7	341.7	341.7	662.0	662.0	-66.0%
	<i>Warroad River</i> *	6,565.7	220.3	6,345.4	N/A	N/A	100%	6,565.7	220.3	6,345.4	5,574.2	5,574.2	991.5	991.5	-15.1%
	<i>Stony Creek</i> *	746.0	438.7	307.3	N/A	N/A	100%	746.0	438.7	307.3	746.0	746.0	-	-	-
	<i>Northwest Angle Inlet</i> *	1,327.7	1,063.7	264.0	N/A	N/A	100%	1,327.7	1,063.7	264.0	1,327.7	1,327.7	-	-	-
	Lakeshed	17,112.1	14,771.5	2,340.7				17,112.1	14,771.5	2,340.7	17,112.1	17,112.1	-	-	-
	<i>Sabaskong East</i> *	2,058.1	2,058.1	-	N/A	N/A	100%	2,058.1	2,058.1	-	2,058.1	2,058.1	-	-	-
	<i>Sabaskong West</i> *	1,824.3	1,824.3	-	N/A	N/A	100%	1,824.3	1,824.3	-	1,824.3	1,824.3	-	-	-
	<i>Four Mile</i> *	1,988.5	1,988.5	-	N/A	N/A	100%	1,988.5	1,988.5	-	1,988.5	1,988.5	-	-	-
	<i>Big Traverse</i> *	6,140.9	5,526.8	614.1	N/A	N/A	100%	6,140.9	5,526.8	614.1	6,140.9	6,140.9	-	-	-
	<i>Muskeg</i> *	364.2	145.7	218.5	N/A	N/A	100%	364.2	145.7	218.5	364.2	364.2	-	-	-
	<i>Little Traverse South</i> *	2,804.3	1,682.6	1,121.7	N/A	N/A	100%	2,804.3	1,682.6	1,121.7	2,804.3	2,804.3	-	-	-
	<i>Little Traverse North</i> *	1,931.9	1,545.5	386.4	N/A	N/A	100%	1,931.9	1,545.5	386.4	1,931.9	1,931.9	-	-	-
	Septic Systems	721.7	410.7	311.0				721.7	410.7	311.0	410.7	410.7	311.0	311.0	-43.1%
	<i>Sabaskong East</i> *	22.4	22.4	-	N/A	N/A	100%	22.4	22.4	-	22.4	22.4	-	-	-
	<i>Sabaskong West</i> *	130.4	130.4	-	N/A	N/A	100%	130.4	130.4	-	130.4	130.4	-	-	-
	<i>Four Mile</i> *	107.4	21.5	85.9	N/A	N/A	100%	107.4	21.5	85.9	21.5	21.5	85.9	85.9	-80.0%
<i>Big Traverse</i> *	331.8	165.9	165.9	N/A	N/A	100%	331.8	165.9	165.9	165.9	165.9	165.9	165.9	-50.0%	
<i>Muskeg</i>	19.7	-	19.7	N/A	N/A	100%	19.7	-	19.7	-	-	19.7	19.7	-100.0%	
<i>Little Traverse South</i> *	87.4	52.4	34.9	N/A	N/A	100%	87.4	52.4	34.9	52.4	52.4	34.9	34.9	-40.0%	
<i>Little Traverse North</i> *	22.6	18.1	4.5	N/A	N/A	100%	22.6	18.1	4.5	18.1	18.1	4.5	4.5	-20.0%	
Shoreline Erosion	72,000.0	-	72,000.0				72,000.0	-	72,000.0	60,480.0	60,480.0	11,520.0	11,520.0	-16.0%	
<i>Four Mile</i>	9,395.4	-	9,395.4	N/A	N/A	100%	9,395.4	-	9,395.4	7,892.2	7,892.2	1,503.3	1,503.3	-16.0%	
<i>Big Traverse</i>	36,000.0	-	36,000.0	N/A	N/A	100%	36,000.0	-	36,000.0	30,240.0	30,240.0	5,760.0	5,760.0	-16.0%	
<i>Muskeg</i>	26,604.6	-	26,604.6	N/A	N/A	100%	26,604.6	-	26,604.6	22,347.8	22,347.8	4,256.7	4,256.7	-16.0%	
Atmospheric deposition	51,407.3	27,804.9	23,602.4	N/A	N/A	100%	51,407.3	27,804.9	23,602.4	51,407.3	51,407.3	-	-	-	
Internal load	281,994.7	97,712.7	184,281.9	N/A	N/A	100%	281,994.7	97,712.7	184,281.9	211,496.0	211,496.0	70,498.7	70,498.7	-25.0%	
Reserve Capacity	Total Reserve Capacity	-	-	-			-	-	-	887.0	545.1	(887.0)	(545.1)	-	
	<i>Unsewered Communities</i>	-	-	-	N/A	N/A	100%	-	-	-	167.0	167.0	(167.0)	(167.0)	-
	<i>Fort Frances</i> *	-	-	-	100%	81%	81%	-	-	-	300.0	242.1	(300.0)	(242.1)	-
	<i>New Gold Mine</i> *	-	-	-	35%	93%	32%	-	-	-	420.0	136.0	(420.0)	(136.0)	-
TOTAL		886,850.9	326,453.3	560,397.6	-	-	-	815,813.9	294,886.8	520,927.1	724,652.6	665,689.3	162,198.3	150,124.6	-18.4%
MOS (5%)¹											46,310.67				
LOADING CAPACITY											712,000				

1: Point source loads for First Nations wastewater treatment plants in Canada are not reflected in the wasteload allocation due to insufficient discharge information. The loads from these point sources are assumed to be small due to the relatively small population served and probable low delivery of effluent loads to Lake of the Woods. These loads have thus been included in the margin of safety; a more detailed explanation is included in the draft TMDL document.