

6.18.26

# Lake Mallalieu Drawdown - Public Comment

Key points from the Conservancy's written comment on the LMA Lake Mallalieu  
Drawdown Proposal



**WILD RIVERS**  
ST. CROIX CONSERVANCY NAMEKAGON

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# The Lake Mallalieu drawdown authorization is a permission slip for what will be the largest point source discharge of a regulated pollutant into the St. Croix River in documented history!

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# Drawdowns to sluice sediment through a dam are point-source discharges. All other point source discharges are regulated by TMDL Waste Load Allocations.

Facility	Permit No.	Category	WLA (lbs/yr)	Estimated Phosphorus Loading (lbs/yr)										Mean P Loading (lbs/yr)
				2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
T. Thompson Hatchery	49191	H	672.41	248.14	9.13	113.44	139.80	178.15	120.63	272.44	297.07	145.03	195.30	171.91
W DNR St. Croix Falls Hatchery	4201	H	105.82	7.75	1.99	7.26	6.61	7.18	7.64	7.64	7.91	7.39	5.67	6.70
WI DNR Osceola Fish Hatchery	4197	H	540.13	3.13	2.99	3.34	2.32	2.90	2.35	2.75	3.43	2.76	3.13	2.91
Advanced Food Products	39781	I1	121.25	64.00	73.91	61.04	80.00	108.00	99.87	128.00	104.23	86.04	168.03	97.31
Lakeside Foods, Inc.	2836	I1	97.00	0.17	11.26	2.64	4.20	3.72	0.29	6.09	7.35	2.42	2.40	4.05
Emerald Dairy CAFO	59315	I2	8.82	No Est.	No Est.	No Est.	No Est.	No Est.	No Est.	No Est.	No Est.	No Est.	No Est.	No Est.
Burnett Dairy Cooperative	39039	I2	760.59	84.42	71.00	49.00	18.60	25.00	24.75	27.11	15.54	16.07	31.60	36.31
Amani Sanitary District	31861	SM1	194.01	No Est.	6.67	5.33	8.52	35.17	11.40	4.24	4.85	4.22	7.20	9.73
Clayton, Village of	36706	SM1	529.11	894.00	588.00	523.00	470.20	369.00	224.32	213.00	160.48	235.21	229.50	390.67
Webster, Village of	28843	SM1	518.09	492.50	327.00	539.40	593.36	499.81	436.22	354.05	310.67	520.90	503.00	457.69
Deer Park WWTF	25356	SM2	544.54	No Est.	95.00	208.00	174.55	97.04	70.93	262.00	176.34	111.65	18.30	134.87
Frederic WWTF	29254	SM2	1973.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Star Prairie WWTF	60984	SM2	1642.44	513.00	501.20	501.00	455.22	489.10	479.98	551.00	541.50	542.71	526.50	510.12
<b>Hudson WWTF</b>	<b>24279</b>	<b>LM</b>	<b>5939.25</b>	<b>1969.00</b>	<b>1652.22</b>	<b>1776.00</b>	<b>3989.76</b>	<b>2329.50</b>	<b>3010.23</b>	<b>3731.00</b>	<b>2544.74</b>	<b>1777.80</b>	<b>1488.40</b>	<b>2426.87</b>
New Richmond WWTF	21245	LM	3161.43	1391.02	1587.00	1211.20	1191.07	1702.30	943.23	1643.00	1398.19	1247.14	1248.00	1356.22
River Falls WWTF	29394	LM	5793.75	969.64	1233.00	949.00	886.70	914.00	949.52	1563.33	773.32	1443.60	1781.30	1146.34
Amery, City of	20125	MM	1629.22	289.00	564.10	501.30	692.45	806.37	225.53	569.00	201.56	240.31	419.40	450.90
Clear Lake, Village of	23639	MM	1230.18	255.07	231.10	164.00	173.35	217.10	176.83	365.00	205.97	209.92	87.10	208.54
Grantsburg, Village of	60429	MM	1157.43	668.00	969.23	987.00	968.91	556.80	421.81	456.30	359.51	266.57	305.70	595.98
Hammond WWTF	24171	MM	1371.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Luck, Village of	21482	MM	1108.93	1190.00	788.24	839.00	415.20	466.07	335.41	165.00	125.57	106.37	177.40	460.83
Osceola, Village of	25020	MM	2283.99	270.00	203.00	267.00	259.80	355.21	460.95	383.30	379.90	453.29	243.10	327.56
Somerset WWTF	30252	MM	1141.99	245.42	258.40	266.12	225.06	205.00	151.38	97.07	120.23	136.77	129.20	183.47
St. Croix Falls, City of	20796	MM	1510.17	417.09	568.00	563.00	476.81	484.50	430.14	486.00	536.02	503.54	446.50	491.16
<b>TOTALS</b>			<b>34,034.97</b>	<b>9,971.35</b>	<b>9,742.44</b>	<b>9,537.07</b>	<b>11,232.49</b>	<b>9,851.92</b>	<b>8,583.41</b>	<b>11,287.32</b>	<b>8,274.38</b>	<b>8,059.71</b>	<b>8,016.73</b>	<b>9,455.68</b>
<b>% of Permitted Annual Phosphorus WLA</b>				<b>29.3%</b>	<b>28.6%</b>	<b>28.0%</b>	<b>33.0%</b>	<b>28.9%</b>	<b>25.2%</b>	<b>33.2%</b>	<b>24.3%</b>	<b>23.7%</b>	<b>23.6%</b>	
2015-24 Mean Annual P Loading (lbs/yr)				<b>9455.68</b>										
2015-24 Mean Annual P Loading as a percent of the total WLA				<b>27.8%</b>										

## **5 Factors are needed to calculate the pounds of P that will be released downstream from the proposed drawdown - the importance of **dry bulk density**.**

1. **Volume of consolidated sediment mobilized (15,000 – 30,000 yds<sup>3</sup>) x**
2. **Convert to cm<sup>3</sup> (764,555 cm<sup>3</sup>/yd<sup>3</sup>) x**
3. **Mass of Phosphorus to mass of dry sediment (0.000539:1) x**
4. **Mass of dry sediment / volume of saturated sediment (1.55 to 1.75 g/cm<sup>3</sup>) x**
5. **Convert to pounds (0.00220462 lbs/g) =**

**21,123 to 47,697 Pounds of Phosphorus Transported Downstream**

## **Is 0.49g/cm<sup>3</sup> a valid dry bulk density estimate?**

We asked Adam Heathcote, PhD - the Director of the Department of Water and Climate Change for the St. Croix Watershed Research Station if he believed that Lake Pepin sediment should be used as a scientifically valid analog to the sediment in the delta region of Lake Mallalieu? Adam's reply:

*I do not understand why Lake Pepin would be chosen as an analog for Mallalieu as they are very different lake systems with significantly different watersheds. The most defensible approach would be to collect bulk sediments from the site in question and measure dry bulk density directly to ensure that any potential sediment load estimates are accurate.*

## **The DNR has tentatively approved this project and the public comment period has expired.**

From the public notice published in the Star \_observer on August 14, 2025:

*The Department has made a tentative determination that it will authorize the proposed drawdown activity.*

*If you are submitting general comments on the proposal, they must be emailed, verbalized, or postmarked within 30 days after the date this notice is published on the Department's website.*