

## **MUD HEN LAKE REHABILITATION DISTRICT MEETING**

**October 10, 2020**

Meeting was called to order at Daniels Town Hall at 10a by Mike Huber on Saturday October 10<sup>th</sup>, 2020. There were 19 members in attendance.

Secretary's report was read by Ryan Tjader, Motion was made to approve secretary's report by Katie Tjader. Motion was seconded by Steve Hoffman. Motion carried.

Treasures report was read by Kandy Unger.

Current balances: Checking \$594.94 Savings \$10,189.50

Expenses: \$110.70 Meeting expenses

    \$125 Lake Level Readings

    \$25 Clean Fee to Town Hall

    \$150 Burnett County Lakes

    \$1,407.04 added for 2<sup>nd</sup> half of taxes

Motion made to approve treasurers report by Katie Tjader, motion was seconded, and motion carried

### **Old Business:**

Lake Level update by Deb Luzinski:

Survey results were discussed, and Jerry Fedie presented PowerPoint.

Questions were asked about the beaver dam and what happened to it after the initial top level was taken off.

Ted Fisher is having a zoom meeting on the 13<sup>th</sup> with the DNR. Craig Duren and Dave Ferris are also joining the meeting. They will discuss water quality, options/possibilities and bring those discussions back to the lake district. Ted also had some brief discussions with an engineer about ideas, but nothing was official.

Craig Duren received a letter in the mail from the DNR on 10-6-20 and Mike Huber read it to the district members. Craig was instructed to have all dam materials and structures removed by 11-1-2020. Mike Huber will join the zoom meeting and present questions on behalf of the district.

Discussions were in place with talks about FEMA vs. DNR jurisdictions and flood zones and who makes those numbers and how they come about them.

Dan Heintz mentioned that there was a similar structure in Cedar Lake in New Richmond that works very well with no issues.

Several people asked if the zoom meeting would be open to the public to listen in on and there was mention that it should be, and a link could be shared if needed.

Deb Luzinski asked if the Mudhen Lake Sportsmans Club could take ownership of the dam if something were to get approved and installed or kept.

Costs with structure were discussed and liabilities of costs to the watershed taxpayers that aren't on the lake along with township residents. Scott Stennes thanked the lake level committee for the work they have put in up to this point. More discussion will continue in March with info from meetings with DNR and county.

### **Committee Reports**

Aquatic plant management plan is good until 2023. It can be viewed at:

<https://www.burnettcounty.com/DocumentCenter/View/7374>

Purple Loosestrife was discussed, and Dan Heintz volunteered to be the point of contact and make plans with the county on continuing work on the lake. We will set the summer work date in the spring and make it before the meeting that afternoon as it worked well this past summer.

### **New Business**

Water Monitoring- Scott Stennes stepping down and is willing to train and discuss process with a new volunteer. Steve Hoffman volunteered and accepted the new role.

There were questions asked about the lake health and how to protect it. Questions raised about someone from the county level to attend a meeting and discuss the goods and bads for the lake.

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### **Reports online:**

**2020 MUD HEN LAKE ILIDS (lake camera) report located at:**

<https://docs.google.com/document/d/1lz90HhMwn6pzHvrueN8Q430MsKnJBhw1fqF5BUJTdoE/edit?usp=sharing>

**Lake Water Quality 2020 Annual Report**

<https://dnrx.wisconsin.gov/swims/public/reporting.do?type=10&action=post&stationNo=073046&year1=2020&format=html>

**MUDHEN Aquatic Plant Management Plan: 2018 – 2023:**

<https://www.burnettcounty.com/DocumentCenter/View/7374>

**Mud Hen Lake Rehab District Meeting Minutes:**

<https://townofdaniels.com/mudhen-lake-rehab-district/>

**Mud Hen Lake Rehab District Upcoming Meetings:**

March 13, 2021 / June 12, 2021

All meetings are held at 10 AM at Daniels Town Hall

# Wisconsin Department of Natural Resources

## Lake Water Quality 2020 Annual Report

**Mud Hen Lake**

Burnett County

Waterbody Number: 2649500

Lake Type: SEEPAGE

DNR Region: NO

GEO Region: NW

Site Name	Storet #
Mud Hen Lake at Deepest Point	073046

Date	SD (ft)	SD (m)	Hit Bottom	CHL	TP	TSI (SD)	TSI (CHL)	TSI (TP)	Lake Level	Clarity	Color	Perception
05/24/2020	16.5	5	NO			37			LOW	CLEAR	GREEN	1-Beautiful, could not be nicer
05/31/2020	18	5.5	NO			35			LOW	CLEAR	BLUE	1-Beautiful, could not be nicer
07/19/2020	12	3.7	NO			41			LOW	CLEAR	BLUE	1-Beautiful, could not be nicer
07/25/2020	11.5	3.5	NO			42			LOW	MURKY	GREEN	3-Enjoyment somewhat impaired (algae)
07/31/2020	11.5	3.5	NO			42			LOW	MURKY	GREEN	3-Enjoyment somewhat impaired (algae)
08/15/2020	12	3.7	NO			41			NORMAL	CLEAR	GREEN	2-Very minor aesthetic problems
08/23/2020	14	4.3	NO			39			NORMAL	CLEAR	GREEN	2-Very minor aesthetic problems
08/24/2020	18	5.5	NO			35			NORMAL	CLEAR	BLUE	1-Beautiful, could not be nicer

08/23/2020		
Depth FEET	Temp. DEGREES F	D.O. MG/L
0	80.7	8.89
5	80.2	8.95
10	76.6	8.78
15	74.6	8.56
20	70.9	5.46
25	61.5	.17
30	53.7	.02
35	51.7	.02
40	51	.01
45	50.8	.01
50	50.6	.02
55	50.7	.02
60	50.5	.08

Date	Collector Comments
05/31/2020	Sunny/no wind
07/19/2020	Partly sunny- little wind
07/25/2020	Overcast humid and windy
07/31/2020	Bright sunny and very calm
08/24/2020	Partly cloudy and little wind

Date	Data Collectors	Project
05/24/2020	Scott Stennes	Citizen Lake Monitoring - Water Quality - Mud Hen Lake; At Deepest Point
05/31/2020	Mike and Toni Huber	Citizen Lake Monitoring - Water Quality - Mud Hen Lake; At Deepest Point
07/19/2020	Mike and Toni Huber	Citizen Lake Monitoring - Water Quality - Mud Hen Lake; At Deepest Point
07/25/2020	Scott Stennes	Citizen Lake Monitoring - Water Quality - Mud Hen Lake; At Deepest Point
07/31/2020	Scott Stennes	Citizen Lake Monitoring - Water Quality - Mud Hen Lake; At Deepest Point
08/15/2020	Scott Stennes	Citizen Lake Monitoring - Water Quality - Mud Hen Lake; At Deepest Point
08/23/2020	Scott Stennes	Citizen Lake Monitoring - Water Quality - Mud Hen Lake; At Deepest Point
08/24/2020	Mike and Toni Huber	Citizen Lake Monitoring - Water Quality - Mud Hen Lake; At Deepest Point

SD = Secchi depth measured in feet converted to meters; Chl = Chlorophyll a in micrograms per liter(ug/l); TP = Total phosphorus in ug/l, surface sample only; TSI(SD), TSI(CHL), TSI(TP) = Trophic state index based on SD, CHL, TP respectively; Depth measured in feet.

Wisconsin Department of Natural Resources

Wisconsin Lakes Partnership

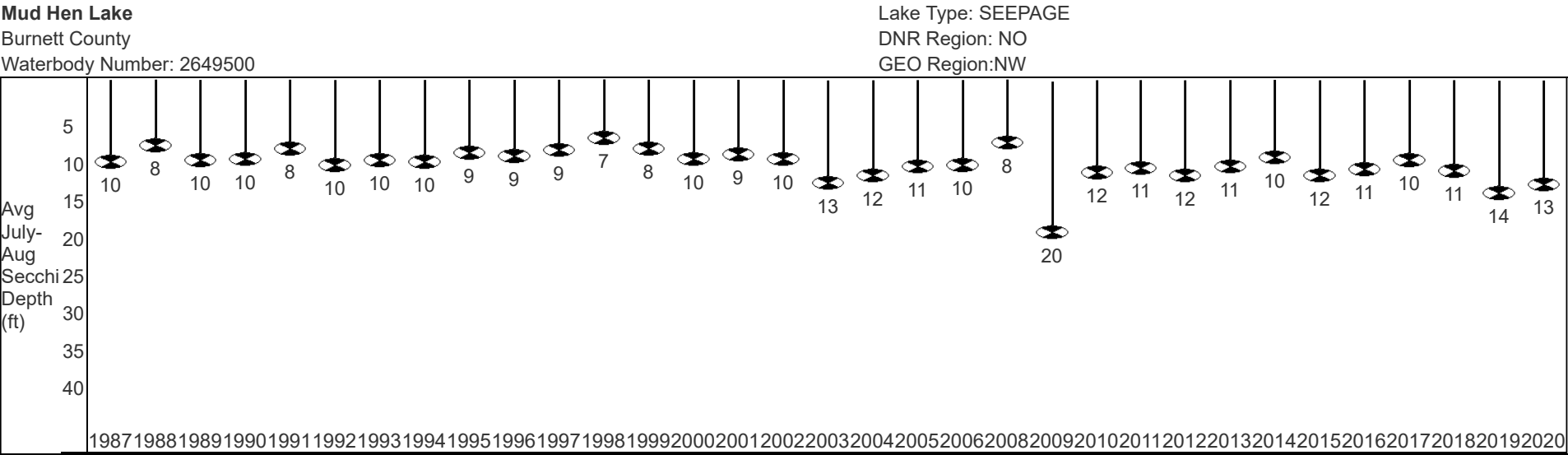
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Wisconsin Department of Natural Resources



Past secchi averages in feet (July and August only).

Year	Secchi Mean	Secchi Min	Secchi Max	Secchi Count
1987	10.25	9.75	10.75	2
1988	7.95	7	9	5
1989	10	9.5	10.5	5
1990	9.7	9	11	5
1991	8.4	7	10	5
1992	10.5	10	11	2
1993	10	10	10	1
1994	10.29	8.5	18	6
1995	9	8.5	10	4
1996	9.31	9	10.25	4
1997	8.63	7.75	10.25	4
1998	7	7	7	1
1999	8.33	7.5	9	3
2000	9.8	9	10.5	5
2001	9.25	9.25	9.25	1

2002	9.88	9.75	10	2
2003	13	9	17	2
2004	12	11	13	2
2005	10.75	10	11.5	2
2006	10.5	10.5	10.5	1
2008	7.5	7.5	7.5	3
2009	19.5	19.5	19.5	2
2010	11.5	11.5	11.5	1
2011	11.05	9.25	15.5	10
2012	12.08	9.5	15	6
2013	10.79	9.5	12.5	7
2014	9.5	8.5	11	4
2015	12.05	10	15	11
2016	11.29	10	13.5	7
2017	10	8.5	11.5	2
2018	11.33	9.5	14.5	6
2019	14.4	12.5	16.5	5
2020	13.29	11.5	18	7

Report Generated: 09/28/2020

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**Video Review Worksheet****Lake:** [Mud Hen Lake, WI \(500/month\)](#)**Launch:****Summary Report**

This report summarizes I-LIDS monitoring and review activity at the boat launch for 2020.

**I-LIDS Summary Data**

Date Installed

Date De-installed

Videos Captured

Videos Reviewed by ESP

Total Videos Reviewed

Launches counted

% of boat launch videos

Estimated % of boat activity videos

Suspect AIS Violations

Hours of operation

Total hours of inspection time

**Observations:****Recommendations:**

**Lake:** Mud Hen Lake, WI (500/month)

## Launch:

May 2020

Date Range for Videos	Date(s) of Review	Reviewer	Videos Captured	Videos Reviewed	Launches Counted	Notes (outages, excessive videos)
4/20 - 4/26	4/25 - 4/26	Andrea	35	35	4	
4/27 - 5/3	4/27 - 4/30	Andrea	139	139	28	
5/4 - 5/10	5/4 - 5/9	Andrea	116	86	18	
5/11 - 5/17	5/15 - 5/16	Andrea	172	104	28	
5/18 - 5/24	5/21 - 5/24	Andrea	159	77	15	
5/25 - 5/31	5/30 - 5/31	Andrea	182	64	17	
<b>TOTAL</b>			<b>803</b>	<b>505</b>	<b>110</b>	

## Potential Violations

Date	Time	Boat Desc.	Registration/Lic.	What was seen	2nd review

### Notable Videos (Date/Time/What was seen)

[illegible]

## Launch:

[illegible]

**Video Review Worksheet**Lake: **Mud Hen Lake, WI (500/month)****Launch:****July 2020**

<b>Date Range for Videos</b>	<b>Date(s) of Review</b>	<b>Reviewer</b>	<b>Videos Captured</b>	<b>Videos Reviewed</b>	<b>Launches Counted</b>	<b>Notes (outages, excessive videos)</b>
6/29 - 7/5	7/3 - 7/5	Andrea	262	103	24	
7/6 - 7/12	7/8 - 7/12	Andrea	170	123	22	
7/13 - 7/19	7/16 - 7/18	Andrea	299	104	19	
7/20 - 7/26	7/23 7/25 - 7/26	Andrea	228	98	16	
7/27 - 8/2	7/31 - 8/1	Andrea	274	115	20	
<b>TOTAL</b>			<b>1233</b>	<b>543</b>	<b>101</b>	

**Potential Violations**

<b>Date</b>	<b>Time</b>	<b>Boat Desc.</b>	<b>Registration/Lic.</b>	<b>What was seen</b>	<b>2nd review</b>

**Notable Videos (Date/Time/What was seen)**

<b>Date</b>	<b>Time</b>	<b>What was seen? Why do we care?</b>
7/3	6:42	IL boat launches
7/3	18:15	Good view of boat, trailer, and pontoon while launching
7/4	10:41	Boy waves his hand in front of the camera
7/8	12:04	Good view of boat, trailer, and pontoon while launching
7/8	15:58	Man hears audio and turns to look at camera
7/10	11:48	Someone covers the camera with a shirt for a few minutes
7/16	12:58	Boy puts his foot up to the camera lens
7/16	14:12	Good view of boat, trailer, and pontoon while launching
7/18	00:39	Man hears audio and turns to look at camera
7/25	7:47	Two dogs playing at the launch
7/25	20:31	Boy waves his hand in front of camera to trigger it
7/26	11:42	Expired registration on boat - MN 8575 LD
7/26	11:50	One vehicle pulls another up the launch with a chain
7/26	13:21	IA boat launches
7/26	15:58	Several boys hear audio and all stop to look at the camera
7/31	16:52	Man points to a large toy dump truck and holds it in front of the camera...possibly found in the lake?
8/1	6:49	Man stops to look at camera
8/1	9:38	One vehicle pulls another up from the water

**Video Review Worksheet**Lake: **Mud Hen Lake, WI (500/month)****Launch:****August 2020**

<b>Date Range for Videos</b>	<b>Date(s) of Review</b>	<b>Reviewer</b>	<b>Videos Captured</b>	<b>Videos Reviewed</b>	<b>Launches Counted</b>	<b>Notes (outages, excessive videos)</b>
8/3 - 8/9	8/5 - 8/8	Andrea	250	155	30	
8/10 - 8/16	8/13 - 8/16	Andrea	214	146	27	
8/17 - 8/23	8/21 - 8/23	Andrea	279	154	28	
8/24 - 8/30	8/26 - 8/30	Andrea	164	140	25	
<b>TOTAL</b>			<b>907</b>	<b>595</b>	<b>110</b>	

**Potential Violations**

<b>Date</b>	<b>Time</b>	<b>Boat Desc.</b>	<b>Registration/Lic.</b>	<b>What was seen</b>	<b>2nd review</b>

**Notable Videos (Date/Time/What was seen)**

<b>Date</b>	<b>Time</b>	<b>What was seen? Why do we care?</b>
8/5	14:34	Good view of boat, trailer, and registration while launching
8/5	20:02	Girl stops to look at camera
8/7	7:34	Man hears audio and turns to look at camera
8/8	17:53	Man and woman check out camera
8/14	12:19	Good view of boat, trailer, and registration while launching
8/14	15:46	Man hears audio and turns to look at camera
8/15	18:38	Boat slides off trailer as car tries to pull up the launch
8/15	18:48	Expired registration on boat - MN 6320 ??
8/16	16:04	Weeds hang from trailer bar after boat retrieval
8/21	9:33	Two women stop to look at camera
8/22	00:36	Two women hear audio and stop to look at camera
8/22	14:15	Weed hanging from trailer after jet ski retrieval
8/22	14:29	IL boat pulled from the water
8/22	20:04	Man waves a hand in front of the camera lens
8/27	15:40	Good view of boat, trailer, and registration while launching
8/28	17:02	Expired registration on boat - MN 6837 KV
8/30	13:38	Woman hear audio and stops to look at the camera
8/30	17:10	IA boat launches

**Video Review Worksheet**Lake: **Mud Hen Lake, WI (500/month)****Launch:****September 2020**

<b>Date Range for Videos</b>	<b>Date(s) of Review</b>	<b>Reviewer</b>	<b>Videos Captured</b>	<b>Videos Reviewed</b>	<b>Launches Counted</b>	<b>Notes (outages, excessive videos)</b>
8/31 - 9/6	9/4 - 9/6	Andrea	290	156	36	
9/7 - 9/13	9/7 - 9/13	Andrea	122	122	14	
9/14 - 9/20	9/14 - 9/20	Andrea	97	97	14	
9/21 - 9/27	6/21 - 9/27	Andrea	185	185	22	
<b>TOTAL</b>			<b>694</b>	<b>560</b>	<b>86</b>	

**Potential Violations**

<b>Date</b>	<b>Time</b>	<b>Boat Desc.</b>	<b>Registration/Lic.</b>	<b>What was seen</b>	<b>2nd review</b>

**Notable Videos (Date/Time/What was seen)**

<b>Date</b>	<b>Time</b>	<b>What was seen? Why do we care?</b>
9/4	9:54	IL boat launches
9/4	10:19	Man pulls weeds growing in front of the camera
9/5	15:43	Good view of boat, trailer and registration
9/6	10:47	Three men hear audio and turn to look at camera
9/6	14:11	CL boat pulled from the water
9/6*	17:59, 18:00	Weeds hang from trailer after boat retrieval; in 2nd video, weeds have been removed
9/7	8:31	Weeds hang from trailer after boat retrieval
9/7	10:30	IL boat pulled from the water
9/7	16:50, 16:55	Weeds on trailer after boat retrieval; in second video, weeds have been cleaned
9/14	14:54	Good view of boat, trailer, and registration while launching
9/15	15:05	Man stops to look at the camera
9/16	15:35	Weeds hang under pontoon after retrieval
9/21	15:37	Women hear audio and stop to look at camera
9/23	14:43	Man cleans up trash at the launch
9/25	8:45	IA boat pulled from the water
9/26	12:01	Expired registration on jetski
9/26	13:40	SD boat launches
9/26	15:12	Weeds on trailer after boat retrieval
9/26	17:40	NC boat pulled from the water



## Launch:

Date Range for Videos	Date(s) of Review	Reviewer	Videos Captured	Videos Reviewed	Launches Counted	Notes (outages, excessive videos)
9/28 - 10/4	9/28 - 10/4	Andrea	109	109	13	
10/5 - 10/11	10/5 - 10/11	Andrea	122	122	10	
10/12 - 10/18						
10/19 - 10/25						
10/26 - 11/1						
<b>TOTAL</b>						

Date	Time	Boat Desc.	Registration/Lic.	What was seen	2nd review

[illegible]

## **Historical Summary of Mud Hen Lake Lake Level**

1880-1895 – Flooding dam used for log-driving purposes.

1934 July 10 – Dam Authorization; permit denied unless owner consents.

1934 July 10 – Memo from W.A. Muegge. Mud Hen Lake Dam (Field Book #875). Benchmarks were established. Notes the dam is earth and rock fill with a timber below the fill. On the date of this survey the water had washed a hole in this dam. There was about 0.5 sec. ft. of flow through this washout. Various lake and dam measurements are included. A picture is also included, but is too blurry to be helpful.

1934 July 12 – Application by E.I. Bunker and M.A. Clarke for approval of a dam. Commission addressed application/petition for a dam. A temporary dam had been constructed. Carl Forsberg, landowner of the dam site, objected to the dam. The dam was ordered to be removed.

1934? – Summary sheet for elevation of lake level. Notes “Name of Dam” as Mud Hen Lake; “Stream” as N. Fork Wood Creek. Unclear exactly what date this was taken. Reference points may no longer be present.

1941 August 6 – Memo from W.A. Muegge. Investigation of June 24, 1941 showed no dam in evidence at the outlet of the lake. A picture is also included, but is too blurry to be helpful.

1966 July 27 – Petition by lakeshore property owners to take action to raise level of lake. Many signatures.

1966 October 13 – Letter from Town of Daniels to Public Service Commission presenting petition to raise lake level.

1966 November 13 – Memo by R.J. Knitter regarding levels of Mud Hen Lake. Description of the outlet. There is an outlet stream dam constructed of brush and planks above a timber bridge which holds of head of approximately 1 foot. A reference point was established. The level at the time of inspection appeared to be about the same as held for some time and was approximately normal. Recommends that if a dam application is submitted, it be by the town.

1967 January 12 – Letter from R.E. Purucker (Chief Engineer, Conservation Department) to Otto Kolander (Town Chairman). Inspection made and benchmark established. Blank application for a dam attached if town wants to submit.

1970 August 23 – Benchmark established and various levels taken.

1974 July 6 – Application by Mud Hen Lake Sportsman Club for a dam (spillway).

1974 September 21 – Letter from Ted Shogquist (President of Mud Hen Lake Sportsman Club). Following up on application for a structure on Mud Hen Lake mailed July 15, 1974. Was supposed to hear back by September 15.

1974 December 2 – Note from Jack to E. Lawry on DNR form, Bureau of Water Regulation and Zoning. Following up on letter of 9-21-74. Advised that application was not acceptable (needed to be from township).

1975 August 2 – Benchmark established and various levels taken.

1986 September 12 – Letter from Scott Hausmann to Jack Donatell regarding lake level hearing request. Notes that they cannot issue a s. 31.02, Stats. because there is no control structure. Would like to see if a control structure is a realistic possibility before proceeding.

1989 or 1990 – Table with lake levels for 1934, 1970, 1973, 1974, 1987, 1988, 1989, 1990?. *It may be possible to correlate this with other lake level data.*

2017 November – Communication between Douglas Crane (Land Surveyor) and Frank Dallam (DNR) regarding LOMA request. Recommended checking with Burnett County Zoning for RFE (Regulatory Flood Elevation).

## Survey results for Mud Hen Lake - September 2020

1. Property Owner responses - years on the lake

0-5 years – 22	5-10 years – 13	10-20 years – 12	20-30 years – 5
30-40 years – 9	40+ years – 22	2 property owners didn't want to complete the survey	

2. Have you had concerns about the lake level over the past years?

**Yes-70(83%) No-12(13%) DK-3(4%)**

Water too low, 3 years ago too high-June 2020 too low, needs to be higher, mowing the shoreline, never had sand, weeds are worse, have a shoreline we never had, stop taking out beaver dams, was good for a number of years, few past years were very low, when we bought we had 60 feet of dock – now we need 120 feet, very low when other lakes are high, beaver dam too high, just moved here-really don't know, have been occurring over decades-mistake to remove beaver dam, when too high-pushes banks up

3. Has the water level affected your usage of the lake for recreational purposes?

**Yes-61(71%) No-20(24%) DK-4(5%)**

Too weedy, at end of 95 feet dock the water is 18 inches and stays that way for another 50 feet, fluctuates too much, can't get boat on lift, have to add sections of docking, can't use speed boat-only pontoon, can only swim at beach or middle of the lake, didn't put boat in this year, would like 9 inches higher, can't get boat off lift, what a mess, yes 100%-can't use boat most of summer, pontoon is beached

4. Over the past few years, have you had concern over the health of the lake?

**Yes-50(59%) No-25(30%) DK-10(11%)**

Too weedy, will be a swamp soon, concerned over invasive plants and zebra mussels, spawning beds have changed, algae bloom that makes lake look rusty, snails, people fertilizing lawns too much, what fish and wildlife will live in muck and bacteria, water temperature has increased, swimmers itch was awful this year, it has all changed, plant foliage taking over, not here long enough to know, land owners putting chemicals on yards and going into the lake-damaging lake

5. Has the water level affected your use of the boat landing?

**Yes-54(64%) No- 22(26%) DK-9(10%)**

Cars getting stuck in landing, my son won't bring his boat to the lake as the landing is too shallow, don't use boat landing, level makes it hard to get boats in and out of lake, need to dredge landing deeper, evidence of sand erosion along the shoreline, don't have a boat, worse landing I have ever seen

6. Do you think the level of the lake has affected your property value?

**Yes-38(45%) No- 29(34%) DK-18(21%)**

Taxes keep rising, looks like a swamp, weeds and muck could affect this, rethinking retirement to this lake because of level, lake is turning into a swamp, people want a lake they can easily access, weeds and low level not attractive to people, perspective buyer passed on a lot next door because water was so low, water level and weeds connected to property value, absolutely-who would want to buy a cabin on this mess if they plan to use the lake, property sells well, people using motors to load their boats

7. Would you support a permanent structure to keep the water at an acceptable level?

**Yes-65(77%) No-8(9%) DK-12(14%)**

Beaver dam blew up, would be highly advantageous, Sportsman Club tried to do a spillway-DNR wanted a dam, a lot of money, appreciate the efforts, cost would be consideration, neighbors on the old 35 side are unhappy with the low lake level, don't think it's necessary, would help maintain structure, small structure not permanent would be good if controlled, absolutely-even if there is an assessment, I will pay my share, a spillway, depending on the level, consistent and acceptable to majority, adjustable according to season, committee should control level, is there a grant, taxes

# Mud Hen Lake

Lake Level Report

# Lake Level Timeline

- Lake History dates back 100 plus years. 1890's Dam for Logging. Activity regarding lake has occurred in almost every decade back to 1934.
- Beaver Dam Totally removed fall 2016. Pictures of removed debris May 13, 2017.
- May 25, 2020 pictures taken. Lake level is going down from spring thaw and rain. No boards or Beaver Dam material to limit outlet flow.
- End of June, 2020, Lake Level very low. Outlet continues to flow even though in 2019, outlet stopped flowing for part of July and August and lake level was higher than June 2020. Bottom Erosion.

# Lake Level Timeline

- Sometime around July 4, 2020 weekend, boards installed to retain rain water and limit outlet flow.
- Sometime after August 9, 2020 boards are removed and lake level starts to drop again.
- September 4, 2020 Labor Day Weekend, Lake level down and dry shoreline appearing. Lake level continues to go down.
- Oct. 4, 2020 Lake Boat Landing. Very low, difficult to get boats on trailer and out of lake.



# Photo of Outlet July 2020





# May 13, 2017 Removed Beaver Dam Debris





# Outlet May 25, 2020



# Outlet Pictures May 25, 2020





# Outlet May 25, 2020

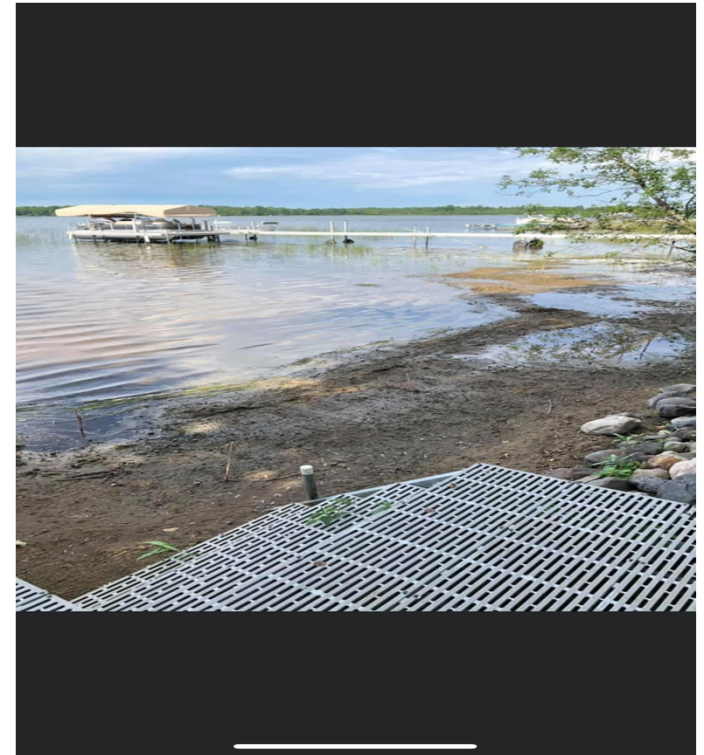


# Lakeshore

June 19,  
2020



June 28,  
2020





# Outlet July 11, 2020



# Outlet July 11, 2020





# Outlet July 11, 2020



# Outlet August 22, 2020



Boards  
removed



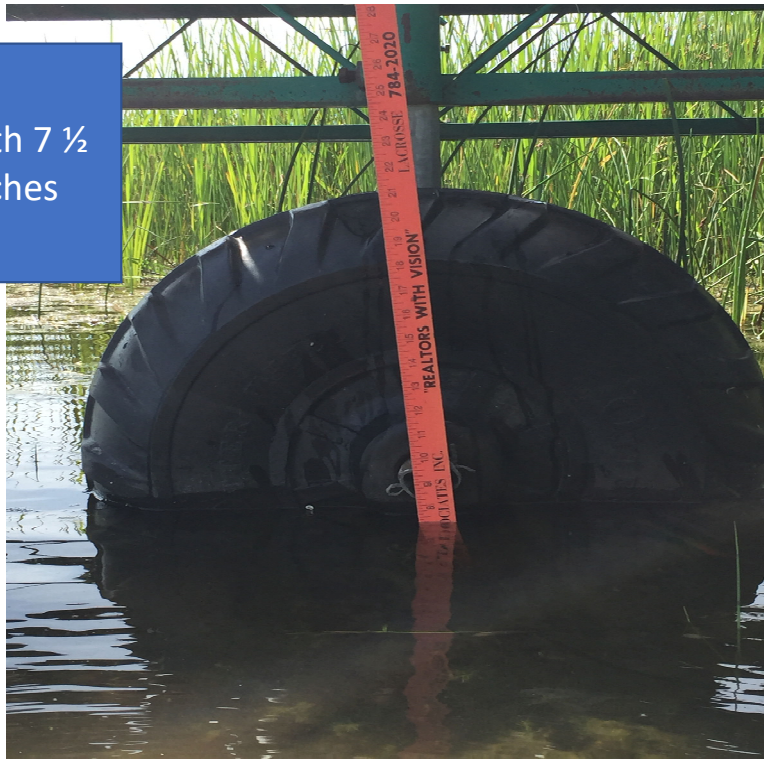


# Outlet August 22, 2020



# August 16 Lake Measurement

Depth 7 ½  
Inches



# September 4, 2020 Lake Measurement

Depth  
4 ½ Inches



Lake Level Dropped 3  
inches in 19 days.  
No boards in place to  
limit outlet flow.





# Lakeshore Sept. 4, 2020



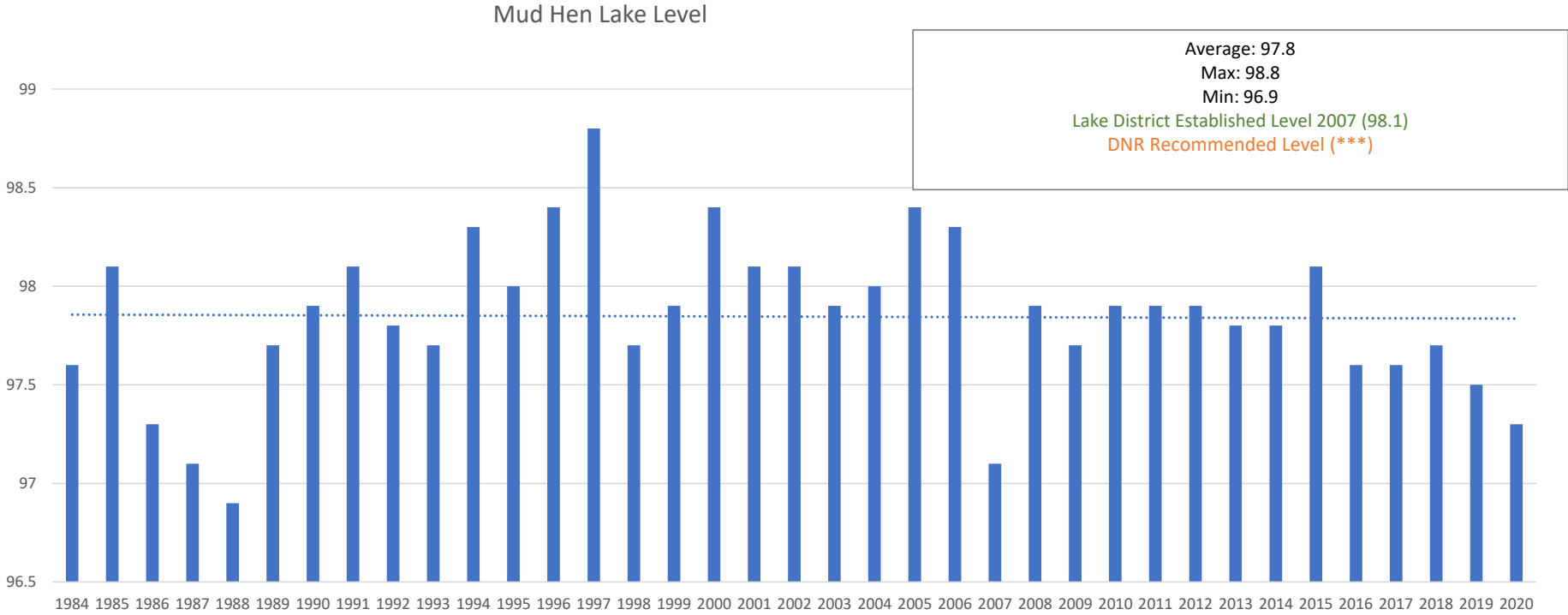
# Boat Landing Lake Level Oct. 4, 2020



# Lake Level Readings from 1984 through 2020.

Year	Mud Hen Lake Level
1984	97.6
1985	98.1
1986	97.3
1987	97.1
1988	96.9
1989	97.7
1990	97.9
1991	98.1
1992	97.8
1993	97.7
1994	98.3
1995	98
1996	98.4
1997	98.8
1998	97.7
1999	97.9
2000	98.4
2001	98.1
2002	98.1
2003	97.9
2004	98
2005	98.4
2006	98.3
2007	97.1
2008	97.9
2009	97.7
2010	97.9
2011	97.9
2012	97.9
2013	97.8
2014	97.8
2015	98.1
2016	97.6
2017	97.6
2018	97.7
2019	97.5
2020	97.3
Average	97.8
Max	98.8
Min	96.9

# Lake Level Reading Average



# Snow Fall Levels

City	Average snow fall per year	Snow Fall 2019-2020	Snow Fall 2018 - 2019
Eau Claire	46.8 inches	63.5 inches	97.9 inches (new record)
Rice lake	53.8 inches		
River Falls	45.8 inches		
Superior	56.2 inches	62.5 inches	

<https://www.currentresults.com/Weather/Wisconsin/annual-snowfall.php>

<https://www.weau.com/content/misc/Eau-Claire-Snowfall-Totals-235794911.html>

<https://wgow.com/2019/04/10/new-record-2018-19-is-snowiest-winter-ever-recorded-in-eau-claire/>

<https://spectrumnews1.com/wi/madison/wisconsin-weather-blog/2020/05/30/wisconsin-weather-blog-2020-snow>



# Mud Hen Lake Property Owners Survey Sept. 2020

- 85 property owners responded to the survey
- Concerns about the water level over the years?    Yes-83%            No-13%            DK-4%
- Water level affected recreational use of lake?    Yes-71%            No-24%            DK-5%
- Do you have concerns about the lake health?    Yes-50%            No-25%            DK-11%
- Has the water level affected boat landing use?    Yes-64%            No-26%            DK-10%
- Has water level affected your property value?    Yes-45%            No-34%            DK-21%
- Would you support a permanent structure?    Yes-77%            No-9%            DK14%
- \*Comments can be seen on the complete survey results
- \*DK – Don't know