

Mudhen Lake Rehabilitation District Meeting Minutes

March 15, 2025

Meeting was called to order at Daniels Town Hall at 8 AM by Mitchell Otterson on Saturday, March 15, 2025. There were 12 members in attendance at the town hall. Online attendance totaled 3 members.

I. Secretary's Report – Mike Orlikowski read secretary's report from November 9, 2024. Mike Hoef motioned to approve; Chuck Awe seconded the motion. Motion was approved.

II. Treasurers Report - Mike Orlikowski reported the following account balances.

Beginning balance: Total - \$12,919.45 Checking – 338.36 Savings - \$12580.59

Transfer from Checking to savings: \$2652

Dues paid: \$50

Total Interest: \$1.71

Total deposits: \$2775.80

Ending balances: Total – \$13,044.96 Checking – 338.86 Savings - \$12,706.10

Mike Hoef motioned to accept; Chuck Awe seconded the motion. Motion was approved.

III. Old Business

A. Lake Update

1. Aquatic Plant Management (APM) – Finalized – yet the DNR is requesting edits be made to a few sections so actions stated are measurable. Mitch Otterson and Steve Hoffman will meet to work out the edits and provide to Emily Moore by March 21, 2025.

2. Landing/Education Update

a. Landing Signage - Mike Hoef reported that the town does not have much interest in taking on the changing of the signs, but will support the District. Mitch Otterson will have decals made and donated with new verbiage stating - Wash Station Parking Only .

b. Education Workshop – Board agreed to a 10:30 AM start for the Interactive Water Quality Workshop to be held on June 14, 2025 at the lake landing for the Mudhen Lake Community. Mary Sagstetter will confirm time and needs with the presenter Garry Loufek. (Aligns to APM Goal #5) Mitch Otterson will bring a grill and hotdogs for a get together after the workshop.

3. Boat Cleaning at Landing Demonstration will be requested from Emily Moore by Mary Sagstetter to coincide with the already scheduled Interactive Water Quality Workshop. (Aligns to APM Goal #1) A video recording will be made for future viewing.

4. Educational Opportunity by Lauren Thomas from Friends of Crex Meadows was approved for presentation at the August 9, 2025 Annual Board Meeting. Thomas will present on the identification of fish in Mudhen Lake and the quality habitat that is needed for a successful fish population. (Aligns to APM Goal #3)

5. Spring Flyer focus was shared. Flyer will be designed and door dropped by the weekend of May 9, 2025. Volunteers will be requesting emails from residents to build up the lake community email list. Volunteers for this project Tim and Becky Tessman, Ryan Tjader, Dave and Lori Brekken.

6. Informational handouts for landing will be requested from Emily Moore at Burnett County by Mary Sagstetter. These handouts will be placed at the lake landing and placed on windshields of vehicles as a reminder to use the wash station. In lieu of availability, there was a motion to create a flyer. Mike Orlikowski made a motion and Mike Hoef seconded the motion to spend up to \$50 to make laminated flyers for the landing if the county does not provide any for 2025.

B. Tax Exempt Status -Mitch confirmed that Mudhen Lake Rehabilitation District does have a tax-exempt number. Mike Orlikowski stated that the tax number and exemption forms were obtained and used when providing payment for the APM.

C. Lake Structure – Reporting, Next Steps and Timeline

1. A definition for the meaning of “impact” was provided Chuck Awe. Impact means any modification in an element of the environment, including modification as to quality, quantity, or aesthetics. Impacts are the direct result of an action which occurs at the same time and place; or an indirect result of an action which occurs later in time or in a different place and is the reasonably foreseeable.

2. Mike Hoef contacted Ayers for new analysis. The prior Ayers study was done with setting a structure level at 98.0. Historic level is at 97.8, so Mike asked Ayers what would change or what would it take to re-run at structure level of 97.8. Ayers commented that it would be a little bit of work and there would be a cost. They stated it is the 100-year elevation that really matters for impact to properties. The study (done at a structure level of 98.0) resulted in a 100-year mark of 98.71. Mike Hoef will get an estimate from Ayers to do an iterative analysis to set the 100-year flood level at the ordinary high-water mark to get a structure height.

3. Information on Water Permit and Dam New Construction Permit - Mary Sagstetter shared that there are several checklists on the Burnett County website that share the process that must be followed to move forward to getting permitting. The Design firm would be required to complete or assist in providing the information to complete. DNR website -

<https://dnr.wisconsin.gov/topic/dams/newConstruction.html>

D. Public Comments

A request was made to forward an email from Dane County to the Mudhen Rehabilitation District regarding an upcoming meeting for lake districts with a dam to get together and share experiences, issues, and solutions. The meeting date is Wednesday March 26 from 4:45-5:45pm at the Holiday Inn Convention Center in Stevens Point.

IV. New Business

A. APM Goal Review to consider specific grants – APM edits will be addressed first. Hold over item for June agenda.

B. ILIDS UPDATE Letter and Estimate for the camera and service was received. The Estimate is \$2690 for this season. \$2965 was budgeted under Boat Landing Activity Monitoring so there are enough funds to cover the fee. The letter also stated new AI technology will be used in the coming year. A copy of the update will be included in the meeting minutes. April 1, 2025 was the date decided on to have the ILIDS camera installed for the coming season. Mary Sagstetter to contact Eric with installation request.

C. Fee for Town Hall – Meeting space at the Town Hall is \$100 a time for use. We have signed a contract with the Town Hall and are required to clean up the space, which includes putting the tables and chairs back to original positions.

D. New Posting Location for Minutes -Daniels Town Hall Website has been updated. To locate the minutes, go <https://townofdaniels.com>, go to Government, then go to Meetings, then scroll down to Mudhen Lake Rehab.

E. Spring Meeting Date Discussion for 2026 – it was decided that at each Annual Board Meeting the dates for the next years meetings will be decided. This will be added as an agenda item for the August Annual Board Meeting.

Respectfully Submitted,

Mike Orlikowski, Treasurer/Mary Sagstetter, Secretary

Mudhen Lake Rehabilitation District Goals

1. Implement Strategies stated in the AIS Report
2. Manage Lake Level Readings
3. Research Grants that align with the management and protection of Mudhen Lake

Reports On-line:

Join [Mud Hen Lake Community Group](#) on Facebook. Ask to join and answer questions.

2025MUDHEN LAKE ILIDS (lake camera) report located at: 2025 Site Pending

MUDHEN Aquatic Plant Management Plan Update: 2025-2030:

<https://www.burnettcountywi.gov/1120/Past-Projects>

Mud Hen Lake Rehab District Meeting Minutes

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

Upcoming Mudhen Lake Rehab District Board Meetings:

June 14, 2025/ August 9, 2025/ October 11, 2025

All meetings are held at 8 AM at Daniels Town Hall

Mudhen Lake Rehab District Report

Date Range: 11/1/24 - 2/28/25			Total Beginning Balance		Checking Balance		Savings Balance	
Date	Description of Deposit or Expense	Check #	\$ Received	\$ Expense	\$ Received	\$ Expense	\$ Received	\$ Expense
11/13/2024	Transfer from savings to checking		\$ 2,652.00	\$ 2,652.00	\$ 2,652.00		\$	\$ 2,652.00
11/27/2024	Burnett County Lakes and Water - APM Invoice -2024-08	1124	\$ -	\$ 2,602.00		\$ 2,602.00		
11/29/2024	Interest		\$ 0.45	\$ -			\$ 0.45	
12/3/2024	Burnett County Lakes and Rivers - Dues	1125	\$ -	\$ 50.00		\$ 50.00		
12/31/2024	Interest		\$ 0.42	\$ -			\$ 0.42	
1/31/2025	Interest		\$ 0.42	\$ -			\$ 0.42	
2/4/2025	Deposit		\$ 541.80	\$ -			\$ 541.80	
2/20/2025	Deposit - 1st half taxes		\$ 2,234.00	\$ -			\$ 2,234.00	
2/28/2025	Interest		\$ 0.42	\$ -			\$ 0.42	
Total			\$ 5,429.51	\$ 5,304.00	\$ 2,652.00	\$ 2,652.00	\$ 2,777.51	\$ 2,652.00
Beginning Balance			\$ 12,919.45	\$ 12,919.45	\$ 338.86	\$ 338.86	\$ 12,580.59	
+Total Receipts			\$ 5,429.51	\$ 5,429.51	\$ 2,652.00	\$ 2,652.00	\$ 2,777.51	
Subtotal			\$ 18,348.96	\$ 18,348.96	\$ 2,990.86	\$ 2,990.86	\$ 15,358.10	
-Total Expenses			\$ 5,304.00	\$ 5,304.00	\$ 2,652.00	\$ 2,652.00	\$ 2,652.00	
Ending Balance			\$ 13,044.96	\$ 13,044.96	\$ 338.86	\$ 338.86	\$ 12,706.10	

Total Funds \$ 13,044.96

Mudhen Lake Rehab District - Account Summaries

	General Fund	Lake Management Plan	Emergency Fund	Restricted Funds	Total
9/30/2019	\$ (28.21)	\$ 762.24	\$ 10,000.00		\$ 10,734.03
10/31/2019	\$ (186.82)		\$ 10,000.00		
5/31/2020	\$ 1,906.79	\$ 762.24	\$ 10,000.00		\$ 12,669.03
7/31/2020	\$ 500.00	\$ 284.44	\$ 10,000.00		\$ 10,784.44
9/4/2020	\$ 780.94	\$ 1,000.00	\$ 10,000.00		\$ 11,780.94
2/28/2020	\$ 1,565.91	\$ 1,000.00	\$ 10,000.00		\$ 12,565.91
5/31/2021	\$ 442.10	\$ 2,500.00	\$ 10,000.00		\$ 12,942.10
7/31/2021	\$ 325.76	\$ 2,500.00	\$ 10,000.00		\$ 12,825.76
9/30/2021	\$ 1,080.72	\$ 3,500.00	\$ 10,000.00		\$ 14,580.72
5/31/2022	\$ 297.93	\$ 2,500.00	\$ 5,000.00		\$ 7,797.93
7/31/2022	\$ 498.04	\$ 2,000.00	\$ 5,000.00		\$ 7,498.04
9/31/2022	\$ 364.65	\$ 2,000.00	\$ 5,000.00		\$ 7,364.65
2/28/2023	\$ 3,905.96	\$ 2,000.00	\$ 6,000.00		\$ 11,905.96
5/31/2023	\$ 3,879.31	\$ 2,000.00	\$ 6,000.00		\$ 11,879.31
7/31/2023	\$ 3,521.23	\$ 2,000.00	\$ 6,350.00		\$ 11,871.23
9/30/2023	\$ 2,715.94	\$ 2,000.00	\$ 6,350.00	\$ 6,510.00	\$ 17,575.94
12/31/2023	\$ 2,669.04	\$ 2,000.00	\$ 6,350.00	\$ 16,400.00	\$ 27,419.04
2/29/2024	\$ 2,660.44	\$ 2,000.00	\$ 6,850.00	\$ 8,870.59	\$ 20,381.03
5/31/2024	\$ 4,059.33	\$ 2,000.00	\$ 8,200.00	\$ -	\$ 14,259.33
7/31/2024	\$ 3,560.49	\$ 2,500.00	\$ 8,200.00	\$ -	\$ 14,260.49
9/30/2024	\$ 2,292.76	\$ 2,500.00	\$ 8,200.00	\$ -	\$ 12,992.76
11/30/2024	\$ 2,219.45	\$ 2,500.00	\$ 8,200.00	\$ -	\$ 12,919.45
2/28/2025	\$ 2,544.96	\$ 500.00	\$ 10,000.00	\$ -	\$ 13,044.96

Environmental Sentry Protection, LLC
PO Box #1301
Maple Grove, MN 55311
6122751440
eric59@lakesentry.net



Estimate

ADDRESS

Mud Hen Lake

ESTIMATE # 1327

DATE 03/02/2025

ACTIVITY	QTY	RATE	AMOUNT
2025 Operations Estimate			
Service:Monthly Service Unlimited video capture/storage, website access, 500 video/month review, real-time reporting, network management, suspect AIS violation documentation to enforcement, remote system and camera maintenance, component repair service, training.	6	270.00	1,620.00T
Cellular:5GB month Cellular service - 5GB bandwidth per month	6	55.00	330.00T
Service:Install Onsite install of housing, replace gaskets/desiccant, test system performance	1	200.00	200.00T
Service:Deinstall Electronics Sleeve and Store Remove camera and electronics from housing. Attach 5' red/white utility marker to housing and leave in place. Store electronics and charge batteries.	1	125.00	125.00T
Service:Mileage Mileage rate for travel (30% of actual mileage) install and deinstall	120	0.75	90.00T
Service:Labor-travel rate 1/2 labor rate for travel to site	1	50.00	50.00T
Service:Insurance Property Insurance for Leased I-LIDS Equipment	1	100.00	100.00T
Object Detection Background processing of videos to identify moving boats/trucks, reduce video volume, and perform more effective video review	1	175.00	175.00T

I'm including this estimate for your approval this season.

SUBTOTAL 2,690.00

TAX 0.00

Feel free to contact me if you have any questions. We look forward to working with your lake again.

TOTAL **\$2,690.00**

Thanks for your business!

Eric

Environmental Sentry Protection, LLC

Accepted By

Accepted Date

ESP 2024 I-LIDS Update

February 14, 2025

The 2024 boating season was a successful one for Environmental Sentry Protection (ESP). We recorded 650,000 videos at 83 launches. The typical schedule for I-LIDS was 5am-10pm or approximately 3,000 hours per launch. Audio messages (7am-7pm) were played when there was a trigger. As ESP compensates reviewers for identifying violations, we had more than in past years. There were a total of 97 suspect AIS Violations that we identified out of 100,000 launches. This amounted to 0.1% of boaters launching. We reported all of these to enforcement who followed through with investigation and contacted violators to educate, warn, or cite.

The I-LIDS program compares quite favorably to metrics from in-person inspection programs. A recent report on a county inspection program was reviewed and key metrics are compared below. There is value to having in-person, thorough inspections when I-LIDS complements this activity. The comparisons below point to ESP having a very cost-effective model for inspecting boat launches. Simply put, we can perform twice the inspections, at 2x the launches, for nearly all daylight hours, at half the cost, with 6x the reminders, with fewer plant violations.

Comparison Area	Sample County Inspector Program	ESP I-LIDS Automated Inspections
Inspections performed	43,755	100,000
Launches covered	45 (one county)	83
Total daylight hours needed	135,000	249,000
Hours at launch	13,080	221,000
Audio impressions made	43,755	300,000
Dollars spent	\$471,668	\$210,000
Cost per inspection	\$10.77	\$2.34
Cost per hour	\$36	< \$1
Percent daylight hours covered	9.6%	88.7%
Percent of launches w/ plants	0.66%	0.1%
Online video chronology to access	No	Yes
End of season report	Yes	Yes
Evidence to enforcement	At times	Yes
Method of compliance	Personal request	Reporting to enforcement



2025 Object Detection of Boats

This past year, we have invested a lot of time in researching how we can reduce the total number of total videos stored, reviewing a greater percentage of launches, and eliminating videos that do not show boats present or moving at the launch. Our team has built, and trained models based captured video history. We've written Python programs on a NVIDIA GPU to allow rapid post processing of videos captured each day and remove those that do not have a boat or trailer detected. In some cases, we can even capture registration numbers. While this deployment may normally be very expensive to implement on a dedicated GPU, we have come up with a design so that we will only pay for the seconds used in filtering the videos. We estimate that we can reduce the videos captured by 50% to let us review twice as many launches or in some cases all of them for you. We will be forwarding estimates for your approval this season with this capability included.

Sample output from Object Detection

Matthews Lake 06/10/24 10:05:10



How it works...

- Post processing of captured videos
- Performed on NVIDIA GPU server
- Identifies moving boats/trucks
- Extracts registration numbers to database
- Database is updated to identify videos

Benefits

- False positives reduced
- More efficient video review
- Less expensive inspection cost
- Improved statistics on launches
- Identify all violations
- Reduces storage costs

ESP 2024 I-LIDS Update

Our trained video review staff serve a critical role in making the system work. Every week they will review the contracted number of videos and update the online Google Docs to document what they've reviewed and videos of interest. There are a hierarchy of priorities that we request they look for when analyzing boat launch videos. They range from Suspect AIS Violations, boater awareness of audio messages, reading sign, inspection of boat/trailer, presence and performance of inspectors, and verification of system operation. Here is what they do:

Reviewer Observation	ESP Response	Outcome
Suspect AIS Violation	ESP reviews, documents, and requests authorities investigate.	Boater contacted by enforcement, and warned, or cited. Word spreads.
Boaters react to audio message	Validation that the audio messages are playing, and people are listening	If no reaction, perhaps speaker needs replacing, increased volume, or audio messages could be more compelling
Boaters read sign	They know launches are monitored	Reinforcement of the Hawthorne effect ¹
Boaters inspect	Actions shift from awareness to compliance	Potential to reward boaters who comply with AIS inspection requests
Inspector performance	Notify lake organization of positive work or areas for improvement	Inspectors receive recognition or guidance for better actions
Camera focus, orientation, obscured condition	Notify local I-LIDS service contact of need for remedy	ESP works remotely with customer to walk thru system adjustments
Gap in video capture sequences	Test network connection, remote login to camera, analyze settings	ESP would resolve modem/camera issues and if still an issue, work with customer to perform local tests to fix I-LIDS

Frequently we see sequences of videos where the audio message is heard, boaters point out the system to each other, and then they inspect their boat.

While ESP can review most or all videos, it's always better to enlist the assistance of lake volunteers so residents feel involved and part of the solution. We have numerous customers who share the workload and help us simply look for any evidence of boats launching plants. They also check on the job onsite inspectors are doing. The website is easy to use, fast, and allows reviewers to only review unviewed videos or skip ahead to videos of interest. Once familiar with the operation most people can look at hundreds of video captures in an hour once a week.

While endeavoring to keep costs low, we continue to offer unlimited video storage, real-time reports from Google Docs, end of year reporting of peak periods and observations, access to the website for video review, remote support, and investigative requests for the few violations we see. We believe the launch activity will continue to increase at all hours, whether inspectors are there or not. We will plan to have the I-LIDS running to help protect your lake. Please advise when you plan to install your system so we can turn on the modem and assist you. For help go to: [ESP YouTube Help Videos](https://www.youtube.com/channel/UCAqsONrO8NYyoP82JmoiQyw) <https://www.youtube.com/channel/UCAqsONrO8NYyoP82JmoiQyw>

Thanks again and let us know how we can improve or help your organization.

Stay safe,

Eric Lindberg eric@lakesentry.net 612-275-1440

¹ A person's behavior will change when they are aware their actions are being monitored.

Mudhen Lake Rehabilitation Board Meeting Notice

**The Board Meeting of the Mudhen Lake Rehabilitation District to be held on
Saturday, March 15, 2025.**

Date: Saturday, March 15, 2025

Location: Daniels Town Hall / On-line access - <https://meet.google.com/nkk-ebcd-jjf>

TIME: 8:00 AM

Agenda:

- I. Secretary's Report
- II. Treasurer's Report
- III. Old Business
 - A. Lake Update
 1. Aquatic Plant Management (APM) – Finalized - DNR not approved
 2. Landing/Education Update
 - a. Landing signage - Mike Hoef
 - b. Education Workshop – Interactive Water Quality - June 14th -Presenter Garry Loufek
 - 1.) Confirm 10:30 am start with Board
 - 2.) Confirm time with Garry Loufek
 3. Burnett County Demo in June – Boat Cleaning at Landing - TBD
 4. August 9th Educational Opportunity – Friends of Crex Meadows – Lauren Thomas
 5. Spring Flyer
 - a. Share Draft Content
 - b. Ask for Volunteers to Deliver
 - c. Decide drop date with email collection effort
 6. Informational brochures for landing – request from the County or print
 - B. Tax Exempt Status/ Money Owed to Burnett County for APM – Mitch Otterson
 - C. Lake Structure – Reporting, Next Steps and Timeline
 1. Guidance for the meaning of "impact" – Chuck Awe
 2. Contact Ayers for new analysis – Mike Hoef
 3. Information on Water Permit and Dam New Construction Permit – Mary Sagstetter
 - D. Public Comments
- IV. New Business
 - A. APM Goal Review to consider specific grants
 - B. ILIDS UPDATE Letter / Date to request installation
 - B. Fee for Town Hall/ Clean up the space
 - C. New Posting Location for Minutes _ Daniels Town Hall Website
 - D. Spring Meeting Date Discussion for 2026

By Order of the Board

Mary Sagstetter

Mudhen Lake Secretary

Dated: February 26, 2025

Mudhen Lake Rehabilitation District Goals

1. Implement Strategies stated in the AIS Report
2. Manage Lake Level Readings
3. Research Grants that align with the management and protection of Mudhen Lake