

VILLAGE OF EPHRAIM

FOUNDED 1853



Wastewater Committee Agenda
Monday, May 11th, 2026, 9:00 AM
Village Hall 9996 Water Street

NOTE: This Meeting of the Village Wastewater Committee will also be held via teleconferencing. It will be available to the public to attend in person or by computer, phone, tablet, or dial-in. Connection information is included below in this notice.

1. Call to order
2. Changes in Agenda
3. Previous minutes April 6th 2026
4. Visitors' comments
5. Ephraim Wastewater Operator in Charge Report.
6. Discussion regarding residential REU rate structure
7. Visitors' comments
8. New business for next meeting
9. Adjournment

WW Meeting

May 11, 2026, 9:00 – 11:00 AM (America/Chicago)

Please join my meeting from your computer, tablet or smartphone.

<https://meet.goto.com/831809869>

You can also dial in using your phone.

Access Code: 831-809-869

United States: [+1 \(224\) 501-3412](tel:+12245013412)

**It is possible that a quorum of the Village Board or other Village Committees may be present at the meeting. However, no action will be taken by any other Board or Committee unless specifically noticed.*

Date <u>5/8/2026</u>	
<u>Andrea Collak, Clerk</u>	<u>X</u> Village Administrative Office
	<u>X</u> Visitors' Center
	<u>X</u> Post Office
<u>Kim Roberts, Deputy Clerk</u>	<u>X</u> Website www.ephraim-wisconsin.com
	<u>X</u> Emailed to WDOR/Peninsula Pulse

VILLAGE OF EPHRAIM

FOUNDED 1853



Wastewater Committee Minutes Monday, April 6, 2026, 9:00 AM

Present: Karen McMurtry- Chair, Rick Hoyerman, Dennis Jewell, Bruce Nelson, Jim Peterman

Staff: Brad Rasmusson – Wastewater Manager/Operator in Charge, Andrea Collak – Clerk/Treasurer, Brent Bristol-Administrator

1. **Call to order:** The meeting was called to order by Chair - McMurtry and a quorum was present for this meeting.
2. **Changes in Agenda:** None
3. **Previous minutes – Minutes from February 9, 2026**

Peterman moved, Nelson seconded to approve February 9, 2026, meeting minutes as presented, all ayes, and the motion carried.

4. **Visitors' comments:** None

5. Ephraim Plant Manager Report:

Rasmusson reviewed the WW, WWT, and SS OIC reports as included in the agenda packet. Wastewater duties were completed according to schedule.

Rasmusson noted several emergency call ins at lift # 1 the controller was failing and causing erratic pump run times and over run times. B&M Tech came in and installed a new controller that can easily be re-installed into a future upgraded control panel.

2 loads of sludge to Green Bay Met. without any problems.

WW staff were working on our WPDES permit application due in July.

WI DNR completed the plant inspection.

After blizzard Elsa a couple leaks in the roofs were detected. During the blizzard Rasmusson spent the week helping the maintenance department while Oakley took care of WW.

Oakley, MacDonald, and Rasmusson attended the WRWA conference at the Resch Center in Green Bay.

Ephraim Well Water Testing: Year to Date

Number of Water Tests: 115	158
In-House Bacteria: 100	139
Clean Water Testing: 15	19

Ephraim Septage Service: Year to Date

Holding Tank Pump Outs: 4	6
Septic Pump Outs/Inspections:	
Emergency Call Ins:	

6. Discussion and recommendation regarding receiving station and treatment plant roof repairs/replacement

Rasmusson explained that the WW Treatment Plant 45 mil EPDM Ballasted roof system was installed in 2008 and had a 15-year Firestone warranty. Overall, the roof is in good shape.

Northern Metal & Roofing Company recommended proceeding with the repairs to get more longevity out of the roof. The estimated cost would be \$4,350.00.

The other proposal is for furnishing and installment of a Ballasted 60 mil EPDM roof system and related architectural sheet metal at receiving station in the estimated amount of \$22,530.00.

Rasmusson noted that the money will come out of the replacement fund.

Jewell moved, McMurtry seconded to recommend to the Village Board to proceed with both projects as presented, all ayes, and the motion carried.

7. Discussion and consideration regarding solar for the Wastewater Treatment Facility

Nelson explained that some of the Wastewater Committee members, Village President and Village Administrator met at the Village office on March 31st, 2026, with Dan Carly and Jesse Michalski from Eland Electric who participated online. It was an educational meeting on PV panel solar power systems. Jesse Michalski talked about the solar system in general but included details specific to Village Wastewater Treatment Facility application.

Nelson noted that the proposed solar system is a ground mounted system that would be located to the north of the Wastewater Plant. There is plenty of space for the system including room to access an existing manhole. The roof placement was considered but there is too much existing equipment on the roof and thus not enough space. The budget proposal is for a 186 KW DC rated system with 300 PV panels.

If the solar system is installed prior to the proposed electrical room, it would be connected to the existing power feed. When the new electrical room is done there will be relatively minor electrical work required to connect to the new power source.

Electric power is a large expense for WWTP. The sizing is a balancing of first costs against the reduction in power purchased from the utility and returns from selling excess power back to the utility. The payback period is estimated at 14.6 years based on an increase in the utility rates of 1% per year. If the rate of increase is higher, the payback period would be reduced.

There is no maintenance required, other than monitoring system performance.

To qualify for a 30% tax rebate (around \$100,000) from the federal government included in the Inflation Reduction Act, the system must be installed and operating by December 31st, 2027. To ensure the end of 2027 completion date is met, Jesse Michalski suggested that a contract would need to be signed by March of 2027. There is a rebate available from Focus on Energy, estimated at \$9,300 based on the budgeted system cost. To qualify the Village has to file a tax return the year prior to the request for the rebate. The Village should not rely on Eland Electric's comments on tax and rebate issues but should get advice from our legal and auditor advisors.

The Green Tier Committee has identified 5 possible grants that the Village may qualify for. However, the applications are time-consuming, and the Village Board should agree to committing staff time to further investigate the opportunities.

It was established that Rasmusson will research and identify how critical this project would be based on the history of the Wastewater budget line-item expenses.

Nelson moved, McMurtry seconded to recommend to the Village Board to continue to pursue installing PV solar system including the investigation, engineering, funding and bidding options, all ayes and the motion carried.

8. Visitors' comments: None

9. New business for the next meeting: McMahon. REUs. The next meeting date is May 4, 2026.

10. Adjournment

McMurtry moved, Nelson seconded to adjourn the meeting, all ayes, and the motion carried.

Recorded by Andrea Collak - Clerk/Treasurer

April 2026
Ephraim WW, WWT, SS
Manager OIC Report



EFF samples sent to Northern Lake Services for ammonia testing:

Ph testing: Five times per week as required.

TSS, BOD, Po4, labs with lab cleanup: Twice per week as required.

Eff E-coli test, this must be done May-October once per week while running disinfection.

- Installed UV system and start up without any issues.
- Set up trash pump at lift 1 in preparation for possible back ups due to high flows during rain and snow melting. Glad to say we didn't need to use it. We did have 345,000 gallons flow through the plant within a 24 hr period.
- Spent several days looking for sources of infiltration. We were lucky to have Great Lakes TV & Seal on-site for two days with their camera truck. We found 5 leaking manholes, 4 have been repaired already, 1 sump pump connected to the sewer which has been shut off, and about 6 cracked or broken laterals, I have been in contact with most of them and repairs are in the process.
- We completed the sewer flushing and will be scheduling the lift stations cleaning.
- We sent out all the required effluent samples for our discharge permit renewal and will hopefully finish the renewal process soon.
- We sent out our annual sludge characteristics test along with PFAS test required by Sturgeon Bay for their permit renewal.

Ephraim Well Water Testing

Number of Water Tests: 147

Year to Date

304

In-House Bacteria: 107

262

Clean Water Testing: 40

42

Ephraim Septage Service:

Holding Tank Pump Outs: 4

9

Septic Pump Outs / Inspections:

Emergency Call Ins:

Weather:

Precip: 5.4

13.81

Max Temp: 67

67

Min Temp: 20

-17

Respectfully submitted,
Brad Rasmusson

Village of Ephraim
Wastewater Manager

What is the current residential REU system and why are changes needed?

- The Village does not have the ability to apply base charges established on meter size, flows, or pipe size.
- The Village has used the Residential Equivalent Unit (REU) system for fee assignments since the sewer system was established.
- The current REU system is based on a 300 gpd total flow rate for an entire residential home.
- With an estimated **150 gpd rate per day per bedroom** industry standard, the Village has found that residential homes can no longer be assigned 1.0 REU across the sanitary sewer system as a whole, due to the varying sizes of homes throughout the Village.
- To fairly assess residential homes in the Village, an alternate method was sought to assign REUs equitably.

What is the proposed methodology for assigning REUs equitably?

- **Methodology adapted:** The number of bedrooms in a residential dwelling is the key factor in determining the size of the sewage disposal system.
 - Uniform Plumbing Code, Wis. Admin Code §SPS 383 establishes the size of septic tanks based on the number of bedrooms, to ensure the system is adequately sized for the expected sewage flow.
 - This approach is based on the assumption that the number of bedrooms reflects the number of occupants and the volume of sewage discharge generated.
 - The design flow for each bedroom follows the common guideline of 100 gallons per day, based on two occupants, each averaging 50 gallons per day, with a 1.5 safety factor applied; 150 gallons per day. This flow rate is utilized whenever performing hydraulic analysis calculations for residential buildings.

Proposed method to calculate accurate and equitable REU assignments village-wide.

- Using the data from the Village assessor from the recent village-wide revaluation (and all other data available such as real estate listings, building permit applications, and STR license applications) the number of bedrooms has been established for as many Village residential parcels as possible.
- An access based REU system based on the number of bedrooms of each residential home was developed.
- The new sewer rate structure moves away from a single residential fee, to pricing the utility service so that each customer pays a proportional reflection of the discharge possible from the residential home.

Proposed Residential REU Assignments

Minimum REU assignment is 1.0 REU or 300 gallons per day (gpd) for 1–2-bedroom homes (or studios). The increase in gpd is weighted by .5 REU for each additional 150 gpd.

- 3 bedrooms (450 gpd) = 1.5 REU
- 4 bedrooms (600 gpd) = 2.0 REU
- 5 bedrooms (750 gpd) = 2.5 REU
- 6 bedrooms (900 gpd) = 3.0 REU
- 7+ bedrooms (1050 gpd) = 3.5 REU

Residential REU Assignments	
Number of Bedrooms	REU
0-2	1
3	1.5
4	2
5	2.5
6	3
7+	3.5

Examples:

Current REU	Civic #	Parcel #	# bedrooms	PROPOSED REU	Fire	Street	Current rate \$150/QTR	Current Rate Annual	ADJ REU / Quarter	ADJ REU Annual	Percent Change Quarterly
1	219	1210113312731A	1	1	10129	Water St	\$ 150.00	\$ 600.00	\$ 150.00	\$ 600.00	0.00%
1	137	1210113312723D	2	1	10201	Water St	\$ 150.00	\$ 600.00	\$ 150.00	\$ 600.00	0.00%
1	155	1210113312722N1	3	1.5	10240	Water St	\$ 150.00	\$ 600.00	\$ 225.00	\$ 900.00	50.00%
1	214	121280002A	4	2	10175	Water St	\$ 150.00	\$ 600.00	\$ 300.00	\$ 1,200.00	100.00%
1	312	1210124312723C1	5	2.5	9923	Water St	\$ 150.00	\$ 600.00	\$ 375.00	\$ 1,500.00	150.00%
1	316	1210124312723E1	6	3	9913	Water St	\$ 150.00	\$ 600.00	\$ 450.00	\$ 1,800.00	200.00%
1	156	1210113312722N2	7	3.5	10244	Water St	\$ 150.00	\$ 600.00	\$ 525.00	\$ 2,100.00	250.00%

Examples – Multiple dwellings on one parcel:

Current REU	Civic #	Parcel #	# bedrooms	PROPOSED REU	Fire	Street	Current rate \$150/QTR	Current Rate Annual	ADJ REU / Quarter	ADJ REU Annual	Percent Change Quarterly
1.5	344	1210123312711N	3	3	9848+9846	Water St	\$ 225.00	\$ 900.00	\$ 450.00	\$ 1,800.00	100.00%
			3								
1.5	360	121210001C	2	2	9916	Water St	\$ 225.00	\$ 900.00	\$ 300.00	\$ 1,200.00	33.33%
			1								

Examples – Condo Association:

Current REU	Civic #	Parcel #	# bedrooms	PROPOSED REU	Fire	Street	Current rate \$150/QTR	Current Rate Annual	ADJ REU / Quarter	ADJ REU Annual	Percent Change Quarterly
6.46	514	121530001	1	1	9975	S Dane St	\$ 969.00	\$ 3,876.00	\$ 150.00	\$ 600.00	54.80%
		121530002	1	1	9975	S Dane St			\$ 150.00	\$ 600.00	54.80%
		121530003	2	1	9975	S Dane St			\$ 150.00	\$ 600.00	54.80%
		121530004	2	1	9975	S Dane St			\$ 150.00	\$ 600.00	54.80%
		121530005	1	1	9973	S Dane St			\$ 150.00	\$ 600.00	54.80%
		121530006	1	1	9973	S Dane St			\$ 150.00	\$ 600.00	54.80%
		121530007	1	1	9973	S Dane St			\$ 150.00	\$ 600.00	54.80%
		121530008	1	1	9973	S Dane St			\$ 150.00	\$ 600.00	54.80%
		121530009	2	1	9971	S Dane St			\$ 150.00	\$ 600.00	54.80%
		121530010	2	1	9971	S Dane St			\$ 150.00	\$ 600.00	54.80%