VIRTUAL SEWER AND WATER UTILITIES COMMITTEE MEETING AGENDA

Tuesday, December 9, 2025 at 1:00 P.M.

This meeting will be conducted electronically via "Zoom" video conferencing software.

To access the meeting electronically, click:
https://zoom.us/j/4439901723?pwd=yAVpi40M1OIqgNufcVUE8XWCUSkKaH.1&omn=97063638580
Meeting ID: 443 990 1723 Passcode: 304078
To connect by phone: 1-301-715-8592 - Meeting ID 443 990 1723#
For additional information check: http://www.sisterbaywi.gov

AGENDA

1. Call Meeting to Order
2. Roll Call
3. Approval of Agenda
4. Approval of Minutes of the September 9, 2025 Meeting, as Published
5. Comments, Correspondence and Concerns from the Public
6. Discussion/Action Items:
    a) Wastewater Treatment Plant Operations Report
    b) BCR Solid Solutions Presentation
    c) Discuss Land Lease
7. Matters to be placed on a future agenda or referred to a committee, official, or employee
8. Executive Session
    a) Consider a motion to convene into Executive Session pursuant to Wis. Stats., §19.85(1)(g) Conferring with legal counsel for the governmental body who is rendering oral or written advice concerning strategy to be adopted by the body with respect to litigation in which it is or is likely to become involved; Notice of proceeding from the Public Service Commission of Wisconsin on the docket filed by Town of Liberty Grove and Town of Liberty Grove Sanitary District #1.
    b) Consider a motion to reconvene into Open Session.
    c) Motion for Action, if required.
9. Adjournment

Public Notice

Questions regarding the nature of the Agenda items or more detail on the items listed can be directed to Megan Barnes, Utilities Director, at megan.barnes@sisterbaywi.gov. It is possible that members of and possibly a quorum of members of other governmental bodies may attend the meeting to gather information; no action will be taken by any governmental body other than the body specifically referred to above. Upon reasonable notice, a good faith effort will be made to accommodate the needs of disabled individuals through sign language interpreters or other auxiliary aid or accommodation at no cost to the individual. Due to the difficulty in finding interpreters, requests should be made as far in advance as possible, preferably a minimum of 48 hours. For additional information or to request this service, contact the Sister Bay Village Administration Office at 854-4118, (FAX) 854-9637, or by writing to the Village Administration Building, 2383 Maple Drive, PO Box 769, Sister Bay, WI 54234. Copies of reports and other supporting documentation are available for review at the Village Administration Building during operating hours (8 a.m. – 4 p.m. Monday – Thursday and 8 a.m.-12 p.m. Friday).

The Village of Sister Bay is an Equal Opportunity Provider and Employer.

Sewer and Water Utilities Committee Meeting Minutes
VIA Video Conference
(Approval Pending)

1. Call Meeting to Order

The Sewer and Water Utilities Committee meeting was called to order on Tuesday, September 9, 2025, at 1:00 PM by Denise Bhirdo, Chair.

2. Roll Call

A roll call was conducted, with the following members present: Chairperson Denise Bhirdo and members Nate Bell, and Kurt Harff.

Staff present: Village Administrator Julie Schmelzer, Utilities Director Megan Barnes, Utilities Clerk Kara Kroll

Others: Chad Olsen from McMahon Associates and Laurel Harff

3. Approval of Agenda

A motion was made to approve the agenda as presented.

Motion by Harff, seconded by Bell. All in favor. Motion carried.

4. Approval of Minutes of the August 12, 2025 Meeting, as Published

Nate Bell requested a correction on page 3, line 47, noting that "his friend, Tim Wright" should be changed to "former coworker, Tim Wright."

Chairperson Bhirdo requested adding a statement after line 60 that "staff was not concerned with the issue because the vendor would be replaced in a couple of months." Mr. Bell disagreed with this characterization, stating that it wasn't fair to say they weren't going to try and fix an existing vendor issue because they knew a new vendor was coming. He emphasized that staff should try to work with existing vendors when problems arise. Chairperson Bhirdo clarified that the chain of command wasn't broken but rather had chosen not to reach out.

Utilities Clerk Kara Kroll asked for clarification on what to write, and it was agreed to add that staff was not concerned with the issue because the vendor would be replaced in a couple of months.

A motion was made to approve the minutes as amended per Bhirdo and Bell’s request.

Motion by Harff, seconded by Bell. All in favor. Motion carried.

5. Comments, Correspondence and Concerns from the Public

No correspondence was received.

6. Discussion/Action Items

a. Wastewater Treatment Plant Operations Report

Utilities Director Megan Barnes presented a brief operations report to allow time for the main presentation. She mentioned that people were working on well testing and permitting updates as noted in the meeting materials.

Nate Bell inquired about the Programmable Logic Controllers (PLCs) that had failed during a recent storm. Barnes explained that these controllers are integral to automated operations of the wastewater treatment plant, with three PLCs at the plant and one at each well. They control set points and equipment operation, such as pumps activating when floats are triggered.

Barnes reported that the cause of the recent PLC failure was likely related to electrical issues from power surges during downtown line breaks. She commended the operators who had to manually operate the plant every hour until repairs could be made the following Monday. Mr. Bell acknowledged that Barnes had handled the situation well by providing remote guidance to staff despite being away at a wedding.

Bell also inquired about power conditioning systems for the PLCs, and Barnes noted she would check with their integrated process technician about protective measures. Bell observed that with electrical issues, it's rarely possible to identify a definitive cause, especially with integrated circuits.

Barnes clarified that the PLC failure affected the Variable Frequency Drives (VFDs) because the control system was out, requiring manual operation of equipment.

b. Facility Study Presentation

Chad Olson from McMahon Associates presented the Wastewater Treatment Facility Assessment and Feasibility Study. His presentation included current loadings, projected loadings, facility capacity, and analysis of specific infrastructure components.

Mr. Olson noted that for funding considerations, he was assuming Clean Water Fund loans, which currently offer attractive interest rates (1.485% for 20-year loans) and potential principal forgiveness of up to 60% with a cap of $2,100,000. He explained that for 2027 funding, a notice of intent would need to be filed this year, and a facility plan with specifications submitted by September 30, 2026.

Current Facility Overview: Olson described the existing wastewater treatment plant, which receives flow from two force mains, has fine screen removal, an oxidation ditch, two final clarifiers, UV treatment, and an outfall. The solids handling system includes waste activated sludge, an aerobic digester, a thickener, and two holding tanks, with sludge currently hauled to Sturgeon Bay.

Current Loadings:

- Average flow: 200,000 gallons per day (28% of design capacity)
- BOD: 660 pounds per day (37% of design capacity)
- TSS: 720 pounds per day (50% of design capacity)

Mr. Bell expressed concern about TSS (Total Suspended Solids) reaching 145% of capacity on peak days. Olson explained that this primarily impacts sludge generation rather than permit compliance, and occasional peak days are manageable, though multiple consecutive peak days would be problematic.

Director Barnes confirmed that July 4th is typically their peak day and explained that their permit limits are based on monthly averages, so occasional peaks don't cause compliance issues as long as the monthly average remains in check.

Population Projections: Olson noted that the Wisconsin Department of Administration had updated population projections, showing higher numbers than previously anticipated. The 2020 census revealed a service population of 3,244 compared to the previously projected 2,680. Projections for 2050 are now 3,638 people, which is still within the plant's design capacity of 4,456 for summer conditions.

Projected 2050 Loadings:

- Flow: 227,000 gallons per day (32% of design capacity)
- BOD: 764 pounds per day (43% of design capacity)
- TSS: 820 pounds per day (57% of design capacity)

The design capacity varies between summer and winter conditions, with the plant configured to handle more capacity in summer by bringing another clarifier online.

Hauled-in Waste Receiving: Olson presented options for improving the hauled waste receiving tank, which currently has mixing and aeration issues when liquid levels drop:

- Add a second set of coarse bubble diffusers with a new blower: $218,000
- Install a compressed gas mixing system that would work at all levels: $300,000

Oxidation Ditch Aeration: The facility's oxidation ditch is currently aerated by disc aerators installed in 1990. Olson presented two options for replacement:

- Surface aerators: $1,200,000 with annual operating costs of $41,400
- Fine bubble diffusers with submersible mixers: $2,100,000 with annual operating costs of $18,500

Director Barnes indicated a preference for fine bubble diffusers as they would provide more efficient mixing and oxygen transfer.

Secondary Clarifiers: The facility has two 40-foot diameter secondary clarifiers, one covered and one uncovered. The uncovered clarifier cannot be used in winter due to freezing risks. Additionally, having only one waste activated sludge (WAS) pump limits the ability to operate both clarifiers simultaneously.

Olson recommended adding a second WAS pump ($171,000) and potentially covering the uncovered clarifier ($300,000).

Effluent Reuse System: The existing effluent reuse pump was installed in 1990 with a VFD added in 2020. Two pneumatic tanks from 1991 are also in place, with one leaking. Sizing of replacements would depend on decisions about sludge handling.

Sludge Handling: Olson presented three options for sludge handling:

- Continue hauling to Sturgeon Bay (current cost: $107,400 annually)
- Install reed beds ($3,100,000 capital cost; $99,300 annual operating cost by 2050)
- Install a sludge dryer to create Class A biosolids ($17,800,000 capital cost; $200,000 annual operating cost)

Olson also explored the possibility of a regional sludge handling facility that could serve Sister Bay along with Bailey's Harbor, Ephraim, and Fish Creek.

PFAS Considerations: Per- and polyfluoroalkyl substances (PFAS) emerged as a significant concern. Sister Bay's sludge testing showed levels of 38-48 micrograms/kilogram, which puts them in a category where the DNR would recommend developing a source reduction plan and tracking

application rates. Sturgeon Bay's results were below 20 micrograms/kilogram, considered "not impacted."

The committee discussed PFAS concerns related to land application, noting that even if sludge were dried to Class A standards, PFAS would still be present, potentially limiting disposal options regardless of the technology chosen.

Reed Bed Location: There was extensive discussion about potential locations for reed beds if that option were selected. Schmelzer noted that the location shown in the presentation would impact community gardens and areas designated as parkland in previous facility studies. Alternative locations were discussed, including the west side of the plant near the parks building.

- Cost Comparison (Annual Cost for Sister Bay Only, Year 2050):
- Continue hauling to Sturgeon Bay: $166,000
- With Sturgeon Bay's potential new tank: $227,000
- Reed beds (without principal forgiveness): $280,000
- Reed beds (with 60% principal forgiveness): $171,000
- Sludge dryer (without principal forgiveness): $1,200,000
- Sludge dryer (with principal forgiveness capped at $2.1M): $1,000,000+

- Cost Comparison (Annual Cost for With Other Communities, Year 2050):
- Continue hauling to Sturgeon Bay: $326,405
- With Sturgeon Bay’s potential new tank: $448,509
- Reed Beds (without principal forgiveness): $423,000
- Reed beds (with 60% principal forgiveness): $301,000
- Sludge dryer (without principal forgiveness): $1,300,000
- Sludge dryer (with principal forgiveness): $1,200,000

Next Steps: Olson recommended visiting Egg Harbor to see their reed beds and mentioned that Rick from VCR would be presenting on dryers at the next meeting. He also offered to arrange a presentation with Reed Bed Systems later in the year.

For funding purposes, Olson noted that a notice of intent could be submitted by the end of October to preserve eligibility for Clean Water Fund loans in 2027, even if a final decision hadn't been made on which option to pursue.

7. Matters to be placed on a future agenda or referred to a committee, official, or employee

The next meeting was scheduled for October 14, 2025, at 1:00 PM, with a presentation about sludge drying systems.

8. Adjournment

A motion was made to adjourn the meeting.

Motion by Bhirdo, seconded by Harff. All in favor. to adjourn at 3:24 PM. Motion carried.

The meeting was adjourned at 3:24 PM.

Respectfully submitted,

Kara Kroll
Utilities Clerk

Village of Sister Bay
Sewer and Water Utilities Committee Operations Report

Sewer and Water Utilities Committee Meeting
December 9, 2025

Capacity Report
See the attached report for August, September and October.

Water Testing Lab Certification
Barnes has renewed the Utilities Departments laboratory certification from the Department of Agriculture, Trade, and Consumer Protection (DATCP) for the laboratory's bacteriological analysis certification.

Water Tower Inspection
Lane Tank coordinated with the Utilities Operators to perform the 2025 water tower partial drain down inspection on October 29, 2025. The report has not been finalized yet, Matt the inspector communicated to Barnes that there were no issues observed.

Sludge Loading Valve
Operators discovered that the sludge load out lines drain valve was inoperable on December 1, 2025. The valve rod has rusted away, and we are currently unable to turn the valve on or off to load sludge into the sludge haulers truck. JF Construction has been contacted to excavate and repair the valve as soon as possible so that we can resume sludge hauling.

Sludge Hauling Update
The Sturgeon Bay Utilities (SBU) upgrade that affected sludge hauling in 2025 has been delayed due to digestor pump parts that were backordered for a substantial amount of the year. Due to this delay, SBU is unfortunately not going to have availability for Sister Bay's sludge in 2026 either. They are estimating project completion to occur in the 4th quarter of 2026. Barnes and Captain Commodes have coordinated with NEW Water in Green Bay to increase our accepted sludge loads in 2026 to two loads per week. NEW Water was again willing to assist Sister Bay with sludge removal, but this acceptance is temporary, not indefinite.

CMAR DNR Response
See the attached CMAR DNR review comment shared for the 2024 Village of Sister Bay's WWTP and collection system CMAR.

Well Permit Status Report
2025 well permit status; see enclosed information. We are waiting for one more safe water sample. After the safe water test is submitted all private inside the area wells will be permitted.

Megan Barnes, Utilities Director

Village of Sister Bay Utilities

P.O. Box 91, Sister Bay, WI 54234
Phones: Voice 920-854-2246 Fax 920-854-7602 Cell 920-421-0254

Sister Bay, Liberty Grove Utility District, and Town of Liberty Grove

Treament Plant Capacities Calculations

For: **August-2025**

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
Hydraulic Flow (mgd)	9.161	0.082	7.009	7.091	0.744	1.326
Water Sales Ratios			0.904		0.096	

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
SEWERED BOD lbs/day	32553		29428		3125	
HAULED BOD lbs/day	6878	394				6484
Total BOD lbs	**39431**			**29822**	**3125**	**6484**

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
SEWERED TSS lbs/day	31360		28349		3011	
HAULED TSS lbs/day	8013	466				7547
Total TSS lbs	**39373**			**28815**	**3011**	**7547**

	Sister Bay	LGSD #1	Liberty Grove
Purchased Flow Capacity in mgd	0.62	0.059	0.266
Monthly Daily Average	0.229	0.024	0.043
Percent of used Capacity	36.89%	40.70%	16.08%
Purchased BOD Capacity in lbs/day	905	105	1359
Monthly Daily Average	962	101	209
Percent of used Capacity	106%	96.01%	15.39%
Purchased TSS Capacity in lbs/day	1076	101	999
Monthly Daily Average	930	97	243
Percent of used Capacity	86.39%	96.15%	24.37%

Village of Sister Bay Utilities

P.O. Box 91, Sister Bay, WI 54234
Phones: Voice 920-854-2246 Fax 920-854-7602 Cell 920-421-0254

Sister Bay, Liberty Grove Utility District, and Town of Liberty Grove

Treament Plant Capacities Calculations

For: **September-2025**

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
Hydraulic Flow (mgd)	6.625	0.060	5.113	5.173	0.545	0.908
Water Sales Ratios			0.9037		0.0963	

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
SEWERED BOD lbs/day	23783		21492		2290	
HAULED BOD lbs/day	3966	248				3718
Total BOD lbs	**27749**			**21740**	**2290**	**3718**

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
SEWERED TSS lbs/day	23254		21015		2239	
HAULED TSS lbs/day	4445	276				4170
Total TSS lbs	**27699**			**21290**	**2239**	**4170**

	Sister Bay	LGSD #1	Liberty Grove
Purchased Flow Capacity in mgd	0.62	0.059	0.266
Monthly Daily Average	0.172	0.018	0.030
Percent of used Capacity	27.81%	30.78%	11.38%
Purchased BOD Capacity in lbs/day	905	105	1359
Monthly Daily Average	725	76	124
Percent of used Capacity	80%	72.71%	9.12%
Purchased TSS Capacity in lbs/day	1076	101	999
Monthly Daily Average	710	75	139
Percent of used Capacity	65.95%	73.91%	13.91%

Village of Sister Bay Utilities

P.O. Box 91, Sister Bay, WI 54234
Phones: Voice 920-854-2246 Fax 920-854-7602 Cell 920-421-0254

Sister Bay, Liberty Grove Utility District, and Town of Liberty Grove

Treament Plant Capacities Calculations

For: **October-2025**

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
Hydraulic Flow (mgd)	6.642	0.065	5.129	5.194	0.600	0.848
Water Sales Ratios			0.8953		0.1047	

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
SEWERED BOD lbs/day	22356		20015		2341	
HAULED BOD lbs/day	4891	345				4545
Total BOD lbs	**27246**			**20360**	**2341**	**4545**

	WWTP	Sister Bay			LGSD #1	Liberty Grove
	Influent	Hauled	Sewered	Total Sister Bay Flow	Sewered	Hauled
SEWERED TSS lbs/day	24554		21983		2571	
HAULED TSS lbs/day	7463	531				6932
Total TSS lbs	**32017**			**22515**	**2571**	**6932**

	Sister Bay	LGSD #1	Liberty Grove
Purchased Flow Capacity in mgd	0.62	0.059	0.266
Monthly Daily Average	0.168	0.019	0.027
Percent of used Capacity	27.02%	32.79%	10.28%
Purchased BOD Capacity in lbs/day	905	105	1359
Monthly Daily Average	657	76	147
Percent of used Capacity	73%	71.91%	10.79%
Purchased TSS Capacity in lbs/day	1076	101	999
Monthly Daily Average	726	83	224
Percent of used Capacity	67.50%	82.11%	22.38%

Compliance Maintenance Annual Report

Sister Bay Wastewater Treatment Facility

Last Updated: 6/26/2025

Reporting For: **2024**

DNR Response to Resolution or Owner's Statement

Name of Governing Body or Owner: Village of Sister Bay

Date of Resolution or Action Taken: 2025-06-17

Resolution Number: 2025-017

Date of Submittal: 6/26/2025

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO SPECIFIC CMAR SECTIONS (Optional for grade A or B. Required for grade C, D, or F):

Influent Flow and Loadings: Grade = A

Permittee Response:

DNR Response:

Effluent Quality: BOD: Grade = A

Permittee Response:

DNR Response:

Effluent Quality: TSS: Grade = A

Permittee Response:

DNR Response:

Effluent Quality: Ammonia: Grade = A

Permittee Response:

DNR Response:

Effluent Quality: Phosphorus: Grade = A

Permittee Response:

DNR Response:

Biosolids Quality and Management: Grade = A

Permittee Response:

DNR Response:

Great future planning.

Staffing: Grade = A

Permittee Response:

DNR Response:

Great preventative maintenance.

Operator Certification: Grade = A

Permittee Response:

DNR Response:

Financial Management: Grade = A

Permittee Response:

DNR Response:

Great Financial Management and future project list.

Collection Systems: Grade = A

(Regardless of grade, response required for Collection Systems if SSOs were reported)

Permittee Response:

Continuation of the standards and requirements set forth in the Capacity, Management, Operations and Maintenance (CMOM) Program for the Village of Sister Bay's sanitary sewer collection system.

DNR Response:

Good O & M.

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS

(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)

G.P.A. = 4

Permittee Response:

DNR G.P.A. Response:

DNR CMAR Overall Response:

Great overall grade. Great explanations of current and future plans, maintenance and projects show this facility is operating well. Thank you for submitting and certifying the CMAR on time.

DNR Reviewer: Haas, David **Phone:** (920) 662-5401

Address: 2984 Shawano Ave, Green Bay, WI 54313-6727 **Date:** 10/17/2025

MEMO

To: Sewer and Water Utilities Committee
From: Kara Kroll, Utilities Clerk
Subject: 2025 Well Testing & Permitting
Date: November 3, 2025

Wells inside the service area:
Written notifications were sent to well owners on May 1st, July 1st, and August 1st.

Total wells due for testing inside the service area = 29

Wells currently in compliance	28
Wells in the sampling process	1
Wells with no response	0
Wells abandoned (waiting for documents)	0
Wells with proof of abandonment	0
Wells waiting to be abandoned	0

Staff Report

Prior Land Spreading Site Land Lease

Date: December 09, 2025

Board/Committee: Sewer & Water Utility Committee

Re: Land Lease

Author: Megan Barnes, Utilities Director

In 2024, Narrow Gate Farms decided not to renew the land lease on the Utility owned, prior land spreading site property, located in Liberty Grove. The reason for the decision was due to poor soil quality which meant the Lesee could not plant the crops they desired to plant. Kroll investigated the land lease history and records on the Utility property as well as the Schopf-Logerquist lease and the Kalms-Wiltse lease. The lease name, acres, and cost information are listed below:

Lease	Acres	Cost
Narrow Gate Farms	60	$1250
Schopf-Logerquist	40	$200
Kalms-Wiltse	22	$100

It appears that the lease cost is considerably higher than other lease agreements. How would the Committee like to proceed?