



UTILITIES COMMITTEE – (WWTP) MEETING AGENDA

Tuesday, December 13, 2016 at 7:30 A.M.

Sister Bay Wastewater Treatment Plan

2124 Autumn Court

For additional information check: www.sisterbaywi.gov

In order for everyone to hear the discussion please, turn off your cell phone. Thank you.

Call Meeting to Order

Roll Call

1	Chair – Pat Duffy		2	Scott Baker	
3	Denise Bhirdo		4	Fred Anderson	
5	Peter Sauer		6	Hugh Mulliken	
	<i>Village Administrator – Zeke Jackson</i>			<i>Utilities Manager – Mike Schell</i>	
	<i>Utilities Supervisor – Dave Alberts</i>			<i>Enterprise Clerk – Anastasia Bell</i>	
	<i>Town Administrator – Bud Kalms</i>				

Approval of the Agenda

Approval of minutes as attached

Comments and Correspondence

New Business Items

1. Report from the Utilities Director on the status of the Utilities.
 - a. Pretreatment Plant Upgrades
 - b. Liberty Grove Pressure Updates
 - c. Focus on Energy Grant
 - d. DNR Permit Application Process
 - e. Ferric Chloride Tank Repairs
 - f. Capacities Reports
2. Discussion regarding the main lift station upgrade; consider an appropriate motion for action if relevant.
3. Discussion regarding matters to be placed on a future agenda or referred to a Committee, Official, or Employee

Adjournment

Public Notice

Questions regarding the nature of the agenda items or more detail on the agenda items listed above scheduled to be considered by the governmental body listed above can be directed to Zeke Jackson, Village Administrator at 920-854-4118 or at zeke.jackson@sisterbaywi.gov. It is possible that members of and possibly a quorum of members of other governmental bodies of the municipality may be in attendance at the above-stated meeting to gather information; no action will be taken by any governmental body at the above-stated meeting other than the governmental body specifically referred to above in this notice. 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 at no cost to the individual to participate in public meetings. 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 Administrator at 854-4118, (FAX) 854-9637, or by writing to the Village Administrator at 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. weekdays).

I hereby certify that I have posted a copy of this agenda at the following locations:		
<input type="checkbox"/> Administration Building	<input type="checkbox"/> Library	<input type="checkbox"/> Post Office
_____ / _____		
Name	Date	

1 **UTILITIES (WASTEWATER TREATMENT PLANT - WWTP)**
2 **COMMITTEE MEETING MINUTES**
3 **TUESDAY, OCTOBER 6, 2016**
4 **SISTER BAY WASTEWATER TREATMENT PLANT - 2124 AUTUMN COURT**
5 **(APPROVAL PENDING)**
6

7 The October 6, 2016 meetings of the Utilities (WWTP) Committee and the Water, Sewer
8 Collection, and Storm Sewer Committee were called to order by Committee Chair Patrick Duffy
9 at 7:47 A.M.

10
11 **Present:** Committee Chair Pat Duffy, and Members Fred Anderson, Scott Baker, Denise Bhirdo,
12 Hugh Mulliken, and Peter Sauer.

13
14 **Staff Members:** Utilities Manager Mike Schell, Village Administrator Zeke Jackson and Utilities
15 Clerk Anastasia Bell.

16
17 **Excused:** Utilities Supervisor Dave Alberts

18
19 *A motion was made by Duffy, seconded by Baker, that the October 6, 2016 meeting of the*
20 *Utilities (WWTP) be recessed until such time as the meeting of the Water, Sewer Collection,*
21 *and Storm Sewer Committee has been adjourned. Motion carried – All ayes.*

22
23 *At 7:54 A.M. a motion was made by Baker, seconded by Bhirdo, that the October 6, 2016*
24 *meeting of the Water, Sewer Collection, and Storm Sewer Committee be adjourned. Motion*
25 *carried – all Ayes.*

26
27 *The members of the Utilities (Wastewater Treatment Plant – WWTP) immediately reconvened,*
28 *and their meeting was called back to order at 7:55 A.M.*

29
30 **Approval of the Agenda for the October 6, 2016 Utilities (WWTP) Committee Meeting:**
31 Bhirdo requested that the Agenda be corrected to reflect that she is a Committee member.

32
33 *A motion was made by Mulliken, seconded by Bhirdo, that the Agenda for the October 6, 2016 meeting of*
34 *the Utilities (WWTP) Committee be approved as amended. Motion carried – all Ayes.*

35
36 **Approval of the minutes for the September 9, 2016 Joint Meeting of the Water, Sewer**
37 **Collection, and Storm Sewer Committee and the Utilities (WWTP) Committee:**

38 *A motion was made by Bhirdo, seconded by Mulliken, that the minutes for the September 9, 2016 joint*
39 *meeting of the Water, Sewer Collection, and Storm Sewer Committee and the Utilities, (WWTP),*
40 *Committee be approved as presented. Motion carried – All Ayes.*

41
42 **Public Comments and Correspondence**

43 Duffy noted that no correspondence had been received. He then asked if anyone wished to
44 address a non-agenda item. No one responded.

45
46
47
48

1 **Discussion Items**

2 **Item No. 1 Discussion regarding the Grease Trap Ordinance; consider an appropriate motion**
3 **for action if necessary:**

4 Schell commented there are currently four (4) businesses that are non-compliant with the
5 Village's grease trap regulations. The owners of Al Johnson's are arguing about the need to have
6 a grease trap due to their inability to dispose of the grease. Baileys Harbor is accepting grease
7 again and they have created a schedule to avoid another plant upset. Schell confirmed that the
8 Sister Bay plant was able to handle grease in small quantities, but for the most part the sludge
9 here doesn't like to "eat" the grease.

10

11 Jackson stressed that Schell will need the support of the Committee as he is going to have to see
12 that penalties are imposed due to non-compliance. He also reminded the Committee members
13 that grease traps are regulated by the State of Wisconsin.

14

15 Duffy stated that this Committee will support Schell in the process of upholding the Ordinance.
16 He also stated that he wants Schell to issue additional compliance letters when necessary.

17

18 Jackson noted that if necessary, permits and licenses can be withheld if compliance issues arise.
19 The owners of Al Johnson's were recently sent a compliance letter and Schell is in the process of
20 verifying the calculations to ensure that the grease trap is the correct size for that establishment.

21

22 **Item No. 2 Discussion regarding the status of the clarifier repair:**

23 Schell reported that the clarifier repairs are done. He was able to save \$19,000.00 by using a
24 different contractor.

25

26 **Item No. 3 Report about the update for the pretreatment plant:**

27 The pretreatment system was supposed to be up and running today, but the baffle had the
28 wrong angle because it was set for a counterclockwise rotation and our system has a clockwise
29 rotation. August Winters was able to get the correct part manufactured and will be installing it
30 today. Because Hydrogen Sulfide is utilized in this area additional concrete work was required
31 at a cost of \$1,500.00.

32

33 **Item No. 4 Report from the Utilities Director on the status of the Utilities:**

34 Everything is going well at the plant but the crew finds items which are in need of repair on a
35 regular basis. For example, the Ferric Chloride tank manhole started to drip this morning, which
36 could cause a disaster inside the plant if it opened. The sludge concentrator currently has parts
37 from Egg Harbor and the pretreatment plant electrical panels are obsolete.

38

39 Schell commented that the plant was estimated to last 25 years, but due to the maintenance it
40 receives it has survived well beyond this expectation. Bhirdo requested a list of items that are
41 obsolete and also requested that Schell identify priorities. Schell stated that the main lift station
42 is the number one priority for 2017. Engineers are currently working to increase the capacity of
43 the generator.

44

45 Duffy expressed concerns about not depleting the replacement funds faster than anticipated
46 except for emergent issues. Mulliken asked if our system could be connected to any other
47 municipality's system if an emergency did occur. Jackson commented that this is a much

1 broader conversation and wouldn't be possible for 30-60 years. Schell stated that we can plan
2 the best we can, but equipment will always have a lifespan. Whenever possible he will continue
3 to have applicable conversations with engineers.

4
5 **Item No. 5 Discussion regarding matters to be placed on a future agenda or referred to a**
6 **Committee, Official, or Employee:**

7 It was the consensus that quarterly Utility and Water, Sewer Collection and Storm Sewer
8 Committee meetings are too far apart and monthly meetings are too frequent. Therefore, the
9 Committees will try alternating months to see if that type of schedule works better. It was the
10 consensus that the next meeting should be scheduled after bids have been received for the
11 swamp pump, the Braun Property, and the Gokey Projects. Therefore, it is possible that the next
12 meeting could be conducted as early as November 15, 2016 at 7:30 A.M.

13
14 **Adjournment:**

15 *At 8:35 A.M. a motion was made by Anderson, seconded by Baker, that the October 6, 2016 meeting of the*
16 *Utilities (WWTP) Committee be adjourned. Motion carried – all Ayes.*

17
18 Respectfully submitted,

19 

20
21 Anastasia Bell

22 Enterprise Clerk



Village of Sister Bay
Utilities Director Report

Wastewater Treatment Plant Committee Meeting
December 13, 2016

A report from the Utilities Director on the following items:

Pretreatment Plant Update

Two minor punch list items for August Winter are remaining for this project. We currently have enough funds held to complete these items.

Liberty Grove Pressure Update

We continue to work with the engineers to complete the water model.

Focus on Energy Grant Application

The application is currently pending.

WPDES Permit Application Progress

The WPDES permit is now in the public comment phase. The DNR is recommending it be reissued with some minor changes. The changes include lowering the Phosphorus limit from 1.0mg/L to 0.6mg/L and changes in recording keeping

Ferric Chloride Tank Repairs

Quote for repairs from Fiberglass Solutions, Inc is included in your packet for informational purposes. These repairs need to occur.

Michael C. Schell, Utilities Director

Fiberglass Solutions, Inc.
1933 Cofrin Drive
Green Bay, WI 54302
Phone: 920-468-6261 – FAX: 920-468-0836
E-Mail – ken@fiberglasssolutions.us

QUOTATION

October 22, 2016

Mr. Mike Schell, Utilities Director
Village of Sister Bay
2124 Autumn Court
P. O. Box 91
Sister Bay, WI 54234

Dear Mr. Schell:

I appreciate the opportunity to visit your plant to discuss the issues you are having with your ferric chloride tank. Generally speaking ferric chloride is not very aggressive on the fiberglass. Nevertheless, there is a very slight leak on your manway which appears to be coming from the gasket, as evidenced by the chemical residue around some of the bolts. However, based on the age of the tank, I still think it would be in your best interest to perform a tank inspection to verify the interior condition of the tank and fittings. This inspection will also fulfill the state's requirement that a tank inspection be completed by an outside inspector once every five years. The tank inspection will include the following:

- Examination of ceiling, walls, and floor of the tank to insure the integrity of the resin and corrosion barriers.
- Examination of interior fittings to insure the integrity of all interior joints and pipes.
- Examination of interior seam on the manway.
- Examination of exterior walls and fittings.
- Examination of pipes and pipe joints to a distance of 6' around the tank.
- Examination of tank containment area,
- Issuance of a detailed inspection report with pictures of any problems areas I find.

I will also bring up a new 24" 1/8" thick EPDM full face manway gasket with 20 – 3/4" x 4" 316 stainless steel bolts, nuts & washers to replace the rusting bolts you currently have. I will also bring a new 1" 1/8" thick EPDM full face gasket for the drain flange along with 4 – 1/2" x 2 1/2" 316 SS bolts nuts and washers.

Mr. Mike Schell, Utilities Director
Village of Sister Bay
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The cost to complete the above is as follows:

• Tank inspection and report	\$ 900
• 24" & 1" EPDM gaskets	90
• 20-3/4" x 4" & 4-1/2" x 2 1/2" SS bolts	<u>151</u>
Subtotal	\$1,141
• Travel time & expense	<u>271</u>
Total	<u>\$1,412</u>

The tank is considered a confined space. Therefore, I will need a confined space attendant while I am inside doing the inspection. If you want me to provide the attendant, add \$360 to the above cost, otherwise one of your people can perform the attendant duties.

I appreciate the opportunity to offer you this inspection service and would welcome the opportunity to work with you on this tank. Naturally, if you have any questions, just let me know.

Sincerely,

Kenneth Glowacki
President

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 Treatment Plant Capacities Calculations

For: **August-2016**

	Total Plant	Hauled	Sister Bay Sewered	Total	L.G.S.D.#1 Sewered	Town of L.G. Hauled
Hydraulic Flow (mgd)	9.453	0.315	7.097	7.412	0.728	1.313
Water Sales Ratios			0.90701		0.09299	

Subtract town's hauled waste from total plant flow and subtract Sister Bay's hauled waste from total flow. Remaining is sewered flow. Multiply sewered flow by water sales ratio between Sister Bay and L.G.S.D.#1 to get sewered flow for Sister Bay and L.G.S.D.#1. Sister Bay hauled is added to Sister Bay sewered to get total Sister Bay flow. The current ratio of water sales for L.G.S.D.#1 and Sister Bay is entered above.

	mg/L		BOD Pounds = mgd x 8.34 x mg/L BOD			
Plant BOD pounds @	385	30345.6				
Sewered BOD pounds		23615		21419	2196	
Hauled BOD pounds @	496	6730	1302			5428
TOTAL BOD pounds		30346		22721	2196	5428
	mg/L		TSS Pounds = mgd x 8.34 x mg/L TSS			
Plant TSS pounds @	405	31922.8				
Sewered TSS pounds		20557		18646	1912	
Hauled TSS pounds @	837	11365	2199			9166
TOTAL TSS pounds		31923		20845	1912	9166
	mg/L		TP Pounds = mgd x 8.34 x mg/L TP			
Plant TP pounds @	9.5	750.1				
Sewered TP pounds		512.2		464.5	47.6	
Hauled TP pounds @	17.5	237.9	46.0			191.9
TOTAL TP pounds		750.1		510.6	47.6	191.9

Subtract Town of L.G. hauled pounds from the total plant pounds and subtract Sister Bay hauled pounds from the total plant pounds. Remainder is the Total sewered pounds. Multiply the total sewered pounds by the water sales ratios between Sister Bay and L.G.S.D.#1 to get sewered pounds for Sister Bay and L.G.S.D.#1. Sister Bay sewered pounds are added to Sister Bay hauled pounds.

Divide all flows and pounds by days in the month to get daily averages and compare to daily purchase capacities chart below.

Purchased FLOW Capacity in mgd	0.62	0.059	0.266
Monthly Daily Average	0.239	0.023	0.042
% of Used Capacity	38.56%	39.78%	15.92%
 Purchased BOD Capacity in lbs/dy	 905	 105	 1359
Monthly Daily Average	733	71	175
% of Used Capacity	80.99%	67.46%	12.88%
 Purchased TSS Capacity in lbs/dy	 1076	 101	 999
Monthly Daily Average	672	62	296
% of Used Capacity	62.49%	61.05%	29.60%
 Purchased TP Capacity in lbs/dy	 54	 5	 43
Monthly Daily Average	16.5	1.5	6.2
% of Used Capacity	30.50%	30.73%	14.39%

Village of Sister Bay Utilities

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Sister Bay, Liberty Grove Utility District, and Town of Liberty Grove Treatment Plant Capacities Calculations

For: **September-2016**

	Total Plant	Hauled	Sister Bay Sewered	Total	L.G.S.D.#1 Sewered	Town of L.G. Hauled
Hydraulic Flow (mgd)	7.470	0.241	5.812	6.053	0.596	0.822
Water Sales Ratios			0.90701		0.09299	

Subtract town's hauled waste from total plant flow and subtract Sister Bay's hauled waste from total flow. Remaining is sewered flow. Multiply sewered flow by water sales ratio between Sister Bay and L.G.S.D.#1 to get sewered flow for Sister Bay and L.G.S.D.#1. Sister Bay hauled is added to Sister Bay sewered to get total Sister Bay flow. The current ratio of water sales for L.G.S.D.#1 and Sister Bay is entered above.

	mg/L		BOD Pounds = mgd x 8.34 x mg/L BOD			
Plant BOD pounds @	342	21292.1				
Sewered BOD pounds		16958		15381	1577	
Hauled BOD pounds @	489	4335	984			3350
TOTAL BOD pounds		21292		16365	1577	3350
	mg/L		TSS Pounds = mgd x 8.34 x mg/L TSS			
Plant TSS pounds @	319	19853.9				
Sewered TSS pounds		12674		11495	1179	
Hauled TSS pounds @	810	7180	1630			5550
TOTAL TSS pounds		19854		13126	1179	5550
	mg/L		TP Pounds = mgd x 8.34 x mg/L TP			
Plant TP pounds @	8.2	513.4				
Sewered TP pounds		341.3		309.6	31.7	
Hauled TP pounds @	19.4	172.1	39.1			133.0
TOTAL TP pounds		513.4		348.6	31.7	133.0

Subtract Town of L.G. hauled pounds from the total plant pounds and subtract Sister Bay hauled pounds from the total plant pounds. Remainder is the Total sewered pounds. Multiply the total sewered pounds by the water sales ratios between Sister Bay and L.G.S.D.#1 to get sewered pounds for Sister Bay and L.G.S.D.#1. Sister Bay sewered pounds are added to Sister Bay hauled pounds.

Divide all flows and pounds by days in the month to get daily averages and compare to daily purchase capacities chart below.

Purchased FLOW Capacity in mgd	0.62	0.059	0.266
Monthly Daily Average	0.209	0.021	0.028
% of Used Capacity	33.67%	34.82%	10.65%
 Purchased BOD Capacity in lbs/dy	905	105	1359
Monthly Daily Average	564	54	116
% of Used Capacity	62.35%	51.78%	8.50%
 Purchased TSS Capacity in lbs/dy	1076	101	999
Monthly Daily Average	453	41	191
% of Used Capacity	42.06%	40.24%	19.16%
 Purchased TP Capacity in lbs/dy	54	5	43
Monthly Daily Average	12.0	1.1	4.6
% of Used Capacity	22.26%	21.89%	10.67%

Village of Sister Bay Utilities

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Sister Bay, Liberty Grove Utility District, and Town of Liberty Grove Treatment Plant Capacities Calculations

For: **October-2016**

	Total Plant	Hauled	Sister Bay Sewered	Total	L.G.S.D.#1 Sewered	Town of L.G. Hauled
Hydraulic Flow (mgd)	6.512	0.206	4.999	5.205	0.660	0.647
Water Sales Ratios			0.88331		0.11669	

Subtract town's hauled waste from total plant flow and subtract Sister Bay's hauled waste from total flow. Remaining is sewered flow. Multiply sewered flow by water sales ratio between Sister Bay and L.G.S.D.#1 to get sewered flow for Sister Bay and L.G.S.D.#1. Sister Bay hauled is added to Sister Bay sewered to get total Sister Bay flow. The current ratio of water sales for L.G.S.D.#1 and Sister Bay is entered above.

	mg/L	BOD Pounds = mgd x 8.34 x mg/L BOD				
Plant BOD pounds @	429	23286.9				
Sewered BOD pounds		17934		15841	2093	
Hauled BOD pounds @	752	5353	1294			4059
TOTAL BOD pounds		23287		17135	2093	4059
	mg/L	TSS Pounds = mgd x 8.34 x mg/L TSS				
Plant TSS pounds @	428	23258.2				
Sewered TSS pounds		8455		7468	987	
Hauled TSS pounds @	2080	14803	3579			11225
TOTAL TSS pounds		23258		11047	987	11225
	mg/L	TP Pounds = mgd x 8.34 x mg/L TP				
Plant TP pounds @	8.2	444.1				
Sewered TP pounds		302.0		266.7	35.2	
Hauled TP pounds @	20.0	142.2	34.4			107.8
TOTAL TP pounds		444.1		301.1	35.2	107.8

Subtract Town of L.G. hauled pounds from the total plant pounds and subtract Sister Bay hauled pounds from the total plant pounds. Remainder is the Total sewered pounds. Multiply the total sewered pounds by the water sales ratios between Sister Bay and L.G.S.D.#1 to get sewered pounds for Sister Bay and L.G.S.D.#1. Sister Bay sewered pounds are added to Sister Bay hauled pounds.

Divide all flows and pounds by days in the month to get daily averages and compare to daily purchase capacities chart below.

Purchased FLOW Capacity in mgd	0.62	0.059	0.266
Monthly Daily Average	0.179	0.023	0.022
% of Used Capacity	28.95%	38.59%	8.39%
Purchased BOD Capacity in lbs/dy	905	105	1359
Monthly Daily Average	591	72	140
% of Used Capacity	65.29%	68.72%	10.30%
Purchased TSS Capacity in lbs/dy	1076	101	999
Monthly Daily Average	381	34	387
% of Used Capacity	35.40%	33.68%	38.74%
Purchased TP Capacity in lbs/dy	54	5	43
Monthly Daily Average	10.4	1.2	3.7
% of Used Capacity	19.23%	24.30%	8.64%

Village of Sister Bay Utilities

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Sister Bay, Liberty Grove Utility District, and Town of Liberty Grove Treatment Plant Capacities Calculations

For: **November-2016**

	Total Plant	Hauled	Sister Bay Sewered	Total	L.G.S.D.#1 Sewered	Town of L.G. Hauled
Hydraulic Flow (mgd)	3.822	0.090	3.006	3.096	0.397	0.329
Water Sales Ratios			0.88331		0.11669	

Subtract town's hauled waste from total plant flow and subtract Sister Bay's hauled waste from total flow. Remaining is sewered flow. Multiply sewered flow by water sales ratio between Sister Bay and L.G.S.D.#1 to get sewered flow for Sister Bay and L.G.S.D.#1. Sister Bay hauled is added to Sister Bay sewered to get total Sister Bay flow. The current ratio of water sales for L.G.S.D.#1 and Sister Bay is entered above.

	mg/L		BOD Pounds = mgd x 8.34 x mg/L BOD			
Plant BOD pounds @	329	10493.9				
Sewered BOD pounds		9357		8265	1092	
Hauled BOD pounds @	326	1137	244			893
TOTAL BOD pounds		10494		8509	1092	893
	mg/L		TSS Pounds = mgd x 8.34 x mg/L TSS			
Plant TSS pounds @	299	9517.1				
Sewered TSS pounds		7751		6847	904	
Hauled TSS pounds @	506	1766	379			1387
TOTAL TSS pounds		9517		7226	904	1387
	mg/L		TP Pounds = mgd x 8.34 x mg/L TP			
Plant TP pounds @	7.5	238.6				
Sewered TP pounds		184.7		163.1	21.5	
Hauled TP pounds @	15.5	54.0	11.6			42.4
TOTAL TP pounds		238.6		174.7	21.5	42.4

Subtract Town of L.G. hauled pounds from the total plant pounds and subtract Sister Bay hauled pounds from the total plant pounds. Remainder is the Total sewered pounds. Multiply the total sewered pounds by the water sales ratios between Sister Bay and L.G.S.D.#1 to get sewered pounds for Sister Bay and L.G.S.D.#1. Sister Bay sewered pounds are added to Sister Bay hauled pounds.

Divide all flows and pounds by days in the month to get daily averages and compare to daily purchase capacities chart below.

Purchased FLOW Capacity in mgd	0.62	0.059	0.266
Monthly Daily Average	0.115	0.015	0.012
% of Used Capacity	18.50%	24.93%	4.58%
 Purchased BOD Capacity in lbs/dy	905	105	1359
Monthly Daily Average	315	40	33
% of Used Capacity	34.82%	38.51%	2.43%
 Purchased TSS Capacity in lbs/dy	1076	101	999
Monthly Daily Average	268	33	51
% of Used Capacity	24.87%	33.17%	5.14%
 Purchased TP Capacity in lbs/dy	54	5	43
Monthly Daily Average	6.5	0.8	1.6
% of Used Capacity	11.98%	15.96%	3.65%



Green Bay Office ♦ 1250 Centennial Centre Boulevard ♦ Hobart, WI 54155-8995 ♦ 920-662-9641 ♦ www.releinc.com

November 15, 2016

Mr. Mike Schell
 VILLAGE OF SISTER BAY
 P. O. Box 91
 Sister Bay, WI 54234

RE: Proposal for Wastewater Lift Station Evaluation

Dear Mike:

Robert E. Lee and Associates, Inc., (REL) is pleased to provide this engineering services proposal for a brief study to identify and evaluate improvements to the Village of Sister Bay wastewater lift station.

INTRODUCTION AND BACKGROUND

The wastewater treatment facility serving the Village of Sister Bay utilizes a multi-channel oxidation ditch for wastewater treatment and aerobic digestion for stabilization of the sludge. Three self-priming suction lift pumps transfer wastewater through dual force mains to the wastewater treatment plant. Pump No. 1 has a capacity of 300 GPM and discharges through the 8-inch force main. Pumps No. 2 and 3 each have a capacity of 500 GPM and discharge through a 12-inch force main. Typically, Pump No. 1 handles low flows while Pumps No. 2 and 3 provide additional capacity for peak-day demands.

At issue is correcting the site's stand-by power deficiency. Presently, the stand-by generator operates the well pump or one of the lift station pumps, and only the selected lift station pump can operate on the generator. Solutions may include the addition of electrical metering equipment and control logic that will allow controlled operation of pumps on the existing generator.

While the combination of the three pumps are able to handle the current average and peak flows, the Village suggests it may be timely to consider replacement of the pumps and review the capacity of the lift station. This will be factored into the evaluation.

Scope of Services

We propose to prepare a letter report addressing the future needs of the Village of Sister Bay's wastewater lift station. We propose the following scope of services:

1. Conduct a kick-off meeting and site visit to obtain current operating data and to interview plant-operating personnel regarding the wastewater lift station.
2. Review the operating data and estimate future wastewater daily average and peak hourly flows based on population growth.
3. Identify and evaluate modifications to the wastewater pumps to address current and future wastewater flows. This could include replacement of the existing pumps with

November 15, 2016
 Mr. Mike Schell
 VILLAGE OF SISTER BAY
 Page 2

- similar capacity or possibility three equal capacity pumps.
4. Identify upgrades that would be required to accommodate proposed pumping system changes. This may include motor control center upgrades, adjustable frequency drive upgrades, and control system modifications.
 5. Identify and evaluate methods to correct the stand-by power deficiency at the site. Presently, the stand-by generator operates the well pump or one of the lift station pumps and only the selected lift station pump can operate on the generator. Solutions may include the addition of electrical metering equipment and control logic that will allow controlled operation of pumps on the existing generator. For example, if we know the water tower is almost full and the lift station wet well is full, the lift station pump would be given priority to run. It may be necessary to add additional generation capacity to accommodate the Village's goals though, and the most economical means of adding this capacity could be determined.
 6. Identify and evaluate control system enhancements leading to more reliable and efficient pump station operation.
 7. Prepare a letter report summarizing the evaluation, and meet with Village representatives to present the draft letter report to obtain comments.
 8. Incorporate review comments and finalize the letter report.

Project Schedule

We can begin work within two weeks of receiving authorization to proceed. We expect to complete a draft letter report within four weeks. A final letter report can be completed within two weeks following receipt of review comments.

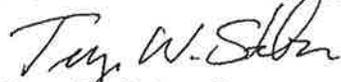
Terms and Conditions

We propose to complete the scope of services described in this proposal in accordance with the attached Standard Terms and Conditions, dated June 2006. We estimate we can complete this described scope of services for a time-and-expense, not-to-exceed amount of \$13,730.

We appreciate this opportunity to provide technical services to the Village of Sister Bay. If you have any questions concerning this proposal, please call Mr. Terry Stebor at 920-544-4526.

Sincerely,

ROBERT E. LEE & ASSOCIATES, INC.



Terry W. Stebor, P.E.
 Water/Wastewater Engineering Manager



Jared G. Schmidt, P.E., V.P.
 Civil Engineering Manager

TWS/JGS/NJM

CC/ENC.: Zeke Jackson, Village Administrator

ACCEPTED BY THE VILLAGE OF SISTER BAY

 SIGNATURE

 DATE

 PRINT NAME

ROBERT E. LEE & ASSOCIATES, INC.**STANDARD TERMS AND CONDITIONS****I. SCOPE**

Robert E. Lee & Associates, Inc. agrees to perform the engineering, surveying, and/or environmental services described Unless modified in writing by the parties thereto, duties of Robert E. Lee & Associates, Inc. shall not be construed to exceed those services specifically set forth in the proposal or agreement to which these standard terms and conditions are attached.

II. COMPENSATION

Client agrees to pay for the services provided in accordance with the compensation provisions described in the proposal or agreement to which these standard terms and conditions are attached. Payment to Robert E. Lee & Associates, Inc. will be made within 30 days after the date of billing. For all amounts unpaid after 30 days from the invoice date, client agrees to pay Robert E. Lee & Associates, Inc. a finance charge of 1-1/2% per month.

For time and expense compensation, charges will consist of salary-related costs and nonsalary costs. Salary-related charges include, but are not limited to, the following:

1. Salaries paid employees for time spent working directly on the subject project.
2. Costs of employee fringe benefits attributable to the employee time spent working directly on subject project.
3. General and administrative overhead charges distributed on basis of employee time spent working directly on subject project.

Nonsalary costs cover items directly related to the project, other than those covered by salary-related costs. Such nonsalary costs shall be computed on the basis of actual purchase price for items and services obtained from commercial sources and outside consultants. Cost of items and services provided directly by Robert E. Lee & Associates, Inc. shall be in accordance with rate schedules based on normal charges of commercial sources. Nonsalary items and services include, but are not limited to, the following:

1. Services directly applicable to the project such as special legal and accounting expenses, computer rental and programming costs, special consultants, borings, environmental analyses, commercial printing and binding, and similar services that are not applicable to general overhead.
2. Identifiable reproduction services applicable to the project such as printing of drawings, photostating, multilithing, printing, and similar services.
3. Identifiable communication services such as long-distance telephone, telegraph, cable, express services, and postage other than for general correspondence.
4. Living and traveling expenses of employees when away from home office on business connected with the project.
5. Subcontracted services.

in the proposal or agreement in which these standard terms and conditions are referenced and to which they are attached

III. RESPONSIBILITY

Robert E. Lee & Associates, Inc. is employed to render a professional service only, and any payments made by the client are compensation solely for such services rendered and recommendations made in carrying out the work. Robert E. Lee & Associates, Inc. shall follow the practice of the civil engineering, surveying, and/or environmental services professions to make findings, opinions, factual presentations, and professional advice and recommendations.

In performing construction management services, Robert E. Lee & Associates, Inc. review of work prepared or performed by other individuals or firms employed by the client shall not relieve those individuals or firms of complete responsibility for the adequacy of their work.

It is understood that any resident engineering or construction observation provided by Robert E. Lee & Associates, Inc. is for the purpose of determining compliance with the technical provisions of the project specifications and does not constitute any form of guarantee or insurance with respect to the performance of a contractor. Robert E. Lee & Associates, Inc. does not assume responsibility for methods or appliances used by a contractor, for safety of construction work, or for compliance by contractors with laws and regulations.

It is understood and agreed by both parties that Engineer, in performing professional services for Owner with respect to hazardous substances, will make recommendations to Owner with respect thereto, but does not have the authority or responsibility to decide where disposal or treatment takes place, nor to designate how or by whom the hazardous substances are to be transported for disposal or treatment.

IV. INSURANCE AND LIMITS OF LIABILITY

Robert E. Lee & Associates, Inc. shall maintain during the life of the Agreement, the following minimum public liability and property damage insurance to cover claims for injuries, including accidental death, as well as from claims for property damages which may arise from the performance of work under the Agreement. The client agrees to limit the liability of Robert E. Lee & Associates, Inc. to the extent of Robert E. Lee & Associates, Inc. insurance or as otherwise stated below:

1. Comprehensive general liability insurance, including personal injury liability, blanket contractual liability, and broad form property damage liability. The combined single limit of liability for bodily injury and property damage shall be \$1,000,000.
2. Automobile bodily injury and property damage liability insurance covering owned, nonowned, rented, and hired cars. The combined single limit of liability for bodily injury and property damage shall be \$600,000.

3. Statutory workers compensation and employers' liability insurance as required by the state having jurisdiction.
4. Professional liability insurance covering damages resulting from errors and omissions of Robert E. Lee & Associates, Inc. The limit of liability shall be \$50,000.

V. SUSPENSION OF WORK

The client may suspend, in writing, all or a portion of the work under the Agreement in the event unforeseen circumstances beyond the control of the client make normal progress in the performance of the work impossible. Robert E. Lee & Associates, Inc. may request that the work be suspended by notifying the client, in writing, of circumstances which are interfering with normal progress of the work. The time for completion of the work shall be extended by the number of days the work is suspended. In the event that the period of suspension exceeds 90 days, the terms of the Agreement are subject to renegotiation and both parties are granted the option to terminate work on the suspended portion of the project.

VI. TERMINATION OF WORK

Either party may terminate work in the event the other party fails to perform in accordance with the provisions of the Agreement. Termination of the Agreement is accomplished by 15 days prior written notice from the party initiating termination to the other. Notice of termination shall be delivered by certified mail with receipt for delivery returned to the sender.

In the event of termination, Robert E. Lee & Associates, Inc. shall perform such additional work as is necessary for the orderly filing of documents and closing of the project. The additional time for filing and closing shall not exceed 10 percent of the total time expended on the terminated portion of the project prior to the effective date of termination.

Robert E. Lee & Associates, Inc. shall be compensated for the terminated portion of the work on the basis of work actually performed prior to the effective date of termination plus the work required for filing and closing. Charges for the latter work are subject to the 10 percent limitation described in this Article.

VII. ASSIGNMENT

These terms and conditions and the Agreement to which they are attached are binding on the heirs, successors, and assigns of the parties hereto. The Agreement is not to be assigned by either the client or Robert E. Lee & Associates, Inc. without the prior written consent of the other.

VIII. INTEGRATION

These terms and conditions and the Agreement to which they are attached represent the entire understanding of the client and

Robert E. Lee & Associates, Inc. as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. The Agreement may not be modified or altered except in writing signed by both parties.

IX. JURISDICTION

This Agreement shall be administered and interpreted under the laws of the state of Wisconsin. Jurisdiction of litigation arising from the Agreement shall be in the state of Wisconsin. If any part of the Agreement is found to be in conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of the Agreement shall be in full force and effect.

X. DISPUTE RESOLUTION

In an effort to resolve any conflicts that arise during the design or construction of the project following the completion of the project, the Client and the Engineer agree that all disputes between them arising out of or relating to this Agreement shall be submitted to nonbinding mediation unless the parties mutually agree otherwise.

The Client shall make no claim for professional negligence, either directly or in a third party claim, against the Engineer unless the Client has first provided the Engineer with a written certification executed by an independent engineer currently practicing in the same discipline as the Engineer and licensed in the state of Wisconsin. This certification shall: a) specify each and every act or omission that the certifier contends is a violation of the standard of care expected of an Engineer performing professional services under similar circumstances; and b) state in complete detail the basis for the certifier's opinion that each such act or omission constitutes such a violation. This certificate shall be provided to the Engineer not less than thirty (30) calendar days prior to the presentation of any claim or the institution of any mediation or judicial proceeding.

In the event of any litigation arising from or related to the services provided under this Agreement, the prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees and other related expenses.

All legal actions by either party against the other arising out of or in any way connected with the services to be performed hereunder shall be barred and under no circumstances shall any such claim be initiated by either party after two (2) years have passed from the date of completion of construction phase services, unless the Engineer's services shall be terminated earlier, in which case the date of termination of this Agreement shall be used.

June 2006

