

## Dawn Bartel

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**From:** Brian Helminger <brian.helminger@hvmsd.org>  
**Sent:** Thursday, June 4, 2020 8:14 AM  
**To:** bruce siebers; Dave Casper; John Sundelius; kcoffey238@gmail.com; Pat Hennessey  
**Cc:** Dawn Bartel; Chad Giackino; Kevin Skogman  
**Subject:** FW: Outagamie County Solid Waste- Memo to ECWRPC regarding SSA leachate pretreatment request for information  
**Attachments:** M-ECWRPC NWLF Leachate Questions 6-3-20.pdf

All:

I've received the attached email related to leachate and future planning for the OCRSWD and anticipate meeting with Little Chute to assist in providing information in response to the request for information.

## Brian Helminger

District Director

Heart of the Valley  
Metropolitan Sewerage District  
801 Thilmany Road  
Kaukauna, WI 54130  
Phone: 920-766-5731  
[www.hvmsd.org](http://www.hvmsd.org)

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**From:** James Fenlon <James@littlechutewi.org>  
**Sent:** Wednesday, June 3, 2020 5:57 PM  
**To:** Chris Murawski <chris@littlechutewi.org>; Kent Taylor <Kent@littlechutewi.org>; CKoehler@herrlingclark.com; dlafleur@releeinc.com; Joshua J. Steffeck (jsteffeck@releeinc.com) <jsteffeck@releeinc.com>  
**Cc:** Brian Helminger (brian.helminger@hvmsd.org) <brian.helminger@hvmsd.org>; President Vanden Berg <PresidentVandenBerg@littlechutewi.org>  
**Subject:** FW: Outagamie County Solid Waste- Memo to ECWRPC regarding SSA leachate pretreatment request for information

All –

With regards to the NWLF and pending SSA from OCLF, please see their consultants email and memo (attached).

Please review and then I will follow-up either tomorrow or early next week with a schedule for review. Given our partnership and connection (literally) with HOVMSD, I think it would be wise to include HOVMSD officials in our discussions.

Thank you,  
James



**James P. Fenlon, Village Administrator**

Village of Little Chute | 108 W Main Street | Little Chute, Wisconsin 54140

☎ (920) 423-3850 | ✉ [james@littlechutewi.org](mailto:james@littlechutewi.org) | [Web](#) | [Facebook](#)

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**From:** Anderson, Chris [<mailto:Chris.Anderson@Foth.com>]

**Sent:** Wednesday, June 3, 2020 5:31 PM

**To:** [brian.helminger@hvmsd.org](mailto:brian.helminger@hvmsd.org); James Fenlon; [paula.vandehey@appleton.org](mailto:paula.vandehey@appleton.org)

**Cc:** Van Straten, Brian J.; 'Todd Verboomen'

**Subject:** Outagamie County Solid Waste- Memo to ECWRPC regarding SSA leachate pretreatment request for information

Hello – I am sending this email on behalf of the Outagamie County Solid Waste & Recycling Department to provide you with the attached memo in regard to the proposed Northwest Landfill and the requested amendment to the SSA. This memo has been prepared in order to communicate some questions and requests for information for the village of Little Chute, the Heart of the Valley WWTP and the city of Appleton that are needed in order to complete the leachate pretreatment analysis as requested by the East Central WI Regional Planning Commission. In addition, the options being reviewed and the site data being utilized are presented for your information.

Outagamie County requests that you review the memo and provide the information requested as soon as possible. If a conference call is needed to discuss this request and/or the information, we would be happy to schedule a call. We respectfully request that we receive a response within the next 2-weeks (Friday 6-19-2020) in order for us to complete the necessary analysis in preparation for a July ECWRPC meeting.

Thank you.

Sincerely,

**Christopher A. Anderson, P.E.**

*Licensed in WI*

**Foth Infrastructure & Environment, LLC**

Ph: (920) 496-6832 | Cell: (920) 619-5400 |



## Memorandum

Foth Infrastructure & Environment, LLC  
2121 Innovation Court, Suite 300  
P.O. Box 5126 • De Pere, WI 54115-5126  
(920) 497-2500 • Fax: (920) 497-8516  
www.foth.com

June 3, 2020

TO: East Central Wisconsin Regional Planning Commission

CC: Brian Van Straten, Director, Outagamie County Recycling & Solid Waste Department  
Joe Guidote, Outagamie County Corporation Counsel  
Kara Homan, Outagamie County Director of Development & Land Services  
Paula Vandehey, Public Works Director, City of Appleton  
James Fenlon, Administrator, Village of Little Chute  
Brian Helminger, Heart of the Valley, Sewerage District Director  
Marty Sturzl, P.E., Infrastructure & Environment, LLC  
Dan Michiels, P.E., Infrastructure & Environment, LLC

FR: Chris Anderson, P.E., Senior Client Manager, Foth Infrastructure & Environment, LLC  
*CA*

RE: Outagamie County Northwest Landfill  
SSA Leachate Pretreatment Options Analysis  
Questions and Requests for Information

Foth Infrastructure & Environment, LLC (Foth) has prepared this memorandum in order to communicate some questions and requests for information that are needed to complete the leachate pretreatment options analysis as requested by the East Central Wisconsin Regional Planning Commission (ECWRPC). The ECWRPC has requested specific scenarios be evaluated as part of review of the Sewer Service Area (SSA) amendment proposed by the Outagamie County Recycling & Solid Waste Department (OCRSD) to include the future Outagamie County Northwest Landfill (NWL) and the existing West Landfill (WLF) in the Appleton SSA.

In order to complete the evaluation of the options, Foth and OCRSD would like to work with the village of Little Chute, Heart of the Valley (HOV), and the city of Appleton to answer some questions as it relates to leachate infrastructure needs, leachate acceptance limits, and the criteria for disposal at the applicable wastewater treatment plants. The specific scenarios currently being evaluated that align with the ECWRPC items 1a.-c. are summarized below.

Option 1 – NWL to Appleton with pretreatment; WLF to Appleton without pretreatment. Northeast Landfill (NEL) and East Landfill (EL) to Little Chute/HOV without pretreatment.



- Option 2 – NWLF to Appleton with pretreatment; WLF to Appleton without pretreatment. NELF and ELF to Little Chute/HOV with pretreatment.
- Option 3 – All leachate to Appleton with pretreatment.
- Option 4 – All leachate to Little Chute/HOV with pretreatment.
- Option 5 – NWLF to Little Chute/HOV with pretreatment. WLF to Appleton without pretreatment. NELF and ELF to Little Chute/HOV without pretreatment.

At this time, the pretreatment analysis is based on data contained in the Wisconsin Department of Natural Resources (WDNR) GEMS database. Data was analyzed from 2017 to 2019. The average leachate volumes and weighted average concentrations are used for each of the landfills. It is assumed that once operational, the NWLF will produce similar leachate volumes and characteristics as the current NELF. There have been no assumptions made regarding the reduction in leachate generation and strength that typically occurs over time.

Location	Leachate Produced (GPD)	Total Kjeldahl Nitrogen (mg/L)	Ammonia (mg/L)	Biological Oxygen Demand (mg/L)
NELF	39,418	1,113	853	4,303
ELF	10,114	761	661	364
WLF	19,969	81	114	38
NWLF	39,148	1,113	853	4,303

For the basis of the preliminary leachate pretreatment system, an ammonia reduction of 70% was assumed prior to discharge to the city of Appleton and/or village of Little Chute sanitary system. For each option, the total leachate volume and loading to be received by the city of Appleton and/or village of Little Chute sanitary system are tabulated below. No reduction in leachate generation or strength is assumed in the pretreatment design input although the volume of leachate from the NELF is expected to decline as it stops accepting waste and is capped and closed.

Option	City of Appleton WWTP			Little Chute/HOV		
	Leachate Volume (GPD)	Ammonia (mg/L)	Ammonia (lb/d)	Leachate Volume (GPD)	Ammonia (mg/L)	Ammonia (lb/d)
1	59,387	209	103	49,532	814	336
2	59,387	209	103	49,532	244	101
3	108,919	210	191	-	-	-
4	-	-	-	108,919	210	191
5	19,969	114	19	88,950	557	420

In order to complete the long-term evaluation of these options, the following information will be need:

Village of Little Chute and/or the Heart of the Valley

- (1) What is the cost of sanitary sewer infrastructure improvements to be included in the analysis under Option 4?

Assuming all leachate is discharged to the village of Little Chute sanitary sewer (8-inch dia. pipe) at the intersection of Hwy OO and Holland Road. The upsizing of this pipe and corresponding infrastructure will need to be included in the cost evaluation.

- (2) What treatment standards (parameters, concentration/lbs, etc.) and cost of disposal (surcharge, rate, etc.) should be included in the analysis for all options?
- (3) Also what schedule should be assumed for these standards and costs to be in-place? This information is critical for estimating the size and performance of the pretreatment system as well as for evaluating the long-term cost of leachate disposal for this report.

#### City of Appleton and/or Appleton WWTP

- (1) What is the cost of sanitary sewer infrastructure improvements to be included in the analysis under Option 3?  
Assuming all leachate is discharged to the city of Appleton sanitary sewer at the intersection of Hwy OO and west of Hwy 441. The upsizing of the pipe downstream and corresponding infrastructure (if necessary) will need to be included in the cost evaluation.
- (2) In addition, assuming the city of Appleton would like to conduct a similar review of infrastructure costs associated with the alternate connection for the northern East-West gravity line underneath 441, the costs of any pipe upsizing from the proposed discharge location should be evaluated and those costs should also be included.
- (3) What treatment standards (parameters, concentration/lbs, etc.) and cost of disposal (surcharge, rate, etc.) should be included in the analysis for Options 1 and 2 and Option 3?
- (4) Also what implementation schedule would need to be assumed?  
This information is critical for estimating the size and performance of the pretreatment system as well as for evaluating the long-term cost of leachate disposal for this evaluation.

Based on the complexity of these issues and requests, it may be necessary to meet and discuss each of the items to allow for a dialogue to develop in completing this evaluation and presenting the information to the ECWRPC. Foth and OCRSWD are prepared to discuss these items at everyone's convenience, but this information is necessary in order to complete our report.