Sager, John E - DNR

From: Sager, John E - DNR

Sent: Monday, February 22, 2021 3:59 PM **To:** Bessingpas, David; Stuart Messur

Cc: Klatt, David/CHC; Klinkhamer, Christopher; cieniawski.scott; Graham, Joseph R - DNR; Fassbender,

Judy L - DNR; Endsley, Erin A - DNR; Saari, Christopher A - DNR; Patarcity, Jane M (Pittsburgh) USA;

Seaman, Jennifer/CHC

Subject: RE: Removal Costs Spreadsheet

Hi Dave,

Thank you for the reply. Removal costs are a consideration in remedy selection. In our experience with other projects in the area, the information you provided for transportation and disposal costs at a subtitle D landfill seem quite high. We are looking for details on transportation and disposal costs including correspondence and information provided to the landfills and transportation companies contacted and estimates provided in return to produce the costs listed in your spreadsheet. To complete its review of the feasibility study under NR 722, the DNR will need the background information used to determine costs. We would prefer if you could send us background information now rather than waiting until submittal of the final Feasibility Study. It is our belief that having this information now will allow us to provide more timely and complete feedback as remedial alternatives are identified and evaluated. Please let me know if you have any questions.

Thanks.

We are committed to service excellence.

Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

John Sager

Hydrogeologist – Remediation and Redevelopment Program Wisconsin Department of Natural Resources 1701 N. 4th St.
Superior, WI 54880

Phone: (715) 919-7239 john.sager@wisconsin.gov



From: Bessingpas, David < David.Bessingpas@arcadis.com>

Sent: Thursday, February 18, 2021 7:42 AM

To: Sager, John E - DNR < John.Sager@wisconsin.gov>; Stuart Messur < smessur@anchorqea.com>

Cc: Klatt, David/CHC <David.Klatt@jacobs.com>; Klinkhamer, Christopher <klinkhamer.christopher@epa.gov>; cieniawski.scott <cieniawski.scott <cieniawski.scott@epa.gov>; Graham, Joseph R - DNR <Joseph.Graham@wisconsin.gov>; Fassbender, Judy L - DNR <Judy.Fassbender@wisconsin.gov>; Endsley, Erin A - DNR <erin.endsley@wisconsin.gov>; Saari, Christopher A - DNR <Christopher.Saari@wisconsin.gov>; Patarcity, Jane M (Pittsburgh) USA <Jane.Patarcity@TRMI.Biz>; Seaman,

Jennifer/CHC < Jennifer. Seaman@jacobs.com>

Subject: RE: Removal Costs Spreadsheet

Hi John,

Here is the cost summary table that we presented on our call on February 4th. As discussed (and as summarized in the notes below the summary table), these costs are based on the unit rates used in the 2014 Focused Corrective Measures Study (except for the transportation and disposal unit rates, which have been updated based on current information), and the range of volumes submitted on January 28. Based on our call, we are working on some additional alternatives to add to the mix, and more detailed cost information can be shared once these additional alternatives are developed further.

Thanks, Dave

David Bessingpas | Certified Project Manager | david.bessingpas@arcadis.com Arcadis | Arcadis U.S., Inc. 123 North 3rd Street, Suite 705 | Minneapolis, MN 55401 | USA T. +1 218 208 3427 | M. +1 320 260 8621

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Be green, leave it on the screen.

From: Sager, John E - DNR < John.Sager@wisconsin.gov >

Sent: Thursday, February 4, 2021 3:33 PM **To:** Stuart Messur <smessur@anchorqea.com>

Cc: Klatt, David/CHC < David.Klatt@jacobs.com >; Klinkhamer, Christopher < klinkhamer.christopher@epa.gov >; cieniawski.scott < cieniawski.scott@epa.gov >; Graham, Joseph R - DNR < Joseph.Graham@wisconsin.gov >; Fassbender, Judy L - DNR < Judy.Fassbender@wisconsin.gov >; Endsley, Erin A - DNR < cieniaendsley@wisconsin.gov >; Saari, Christopher A - DNR < Christopher.Saari@wisconsin.gov >; Bessingpas, David < David.Bessingpas@arcadis.com >; Patarcity, Jane M (Pittsburgh) USA < Jane.Patarcity@TRMI.Biz >; Seaman, Jennifer/CHC < Jennifer.Seaman@jacobs.com >

Subject: Removal Costs Spreadsheet

Stu,

During our call today you presented a spreadsheet depicting costs for a removal option and offered to share it. Please forward the spreadsheet and supporting documentation. I would like to take a closer look at what you put together.

Thanks.

We are committed to service excellence.

Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

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Phone: (715) 919-7239

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----Original Appointment----

From: Klatt, David/CHC < <u>David.Klatt@jacobs.com</u>>
Sent: Wednesday, January 27, 2021 4:15 PM

To: Klatt, David/CHC; Klinkhamer, Christopher; cieniawski.scott; Bessingpas, David; Graham, Joseph R - DNR; Fassbender, Judy L - DNR; Endsley, Erin A - DNR; Saari, Christopher A - DNR; Sager, John E - DNR; Stuart Messur; Patarcity, Jane M

(Pittsburgh) USA; Seaman, Jennifer/CHC

Subject: Crawford Creek Discussion of Volumes based on WDNR CULs. Meeting 1 of 2

When: Thursday, February 4, 2021 2:00 PM-3:00 PM (UTC-06:00) Central Time (US & Canada).

Where: Microsoft Teams Meeting

Per our call on 1/27, this scheduled call on February 4 will be meeting 1 of 2 to discuss preliminary WDNR comments on the volumes and figures that Beazer/Stu/Dave B presented today.

Stu will send out the package of information for review on 1/28.

On February 4, (if possible) Dave B and Stu will present some preliminary cost ranges that would potentially be associated with various impacted volume scenarios that are based on the WDNR CULs.

I will send a second invitation for February 10 to have a 2-hour follow-up discussion.

Dave

David Klatt
Jacobs
Senior Project Manager
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David.Klatt@Jacobs.com
www.jacobs.com LinkedIn | Twitter | Facebook | Instagram

Microsoft Teams meeting

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Cost Estimate Summary

PRELIMINARY DRAFT - SUBJECT TO REVISION

		Estimated Total Cost		
	Estimated Removal Volume	Off-Site T&D Option 1 Incineration/Thermal	Off-Site T&D Option 2	Off-Site T&D Option 3
Alternative	(cy)	Treatment	Subtitle C Landfill	Subtitle D Landfill
WDNR CUL Alternative (low-end)	155,591	\$257,613,933	\$133,297,049	\$63,203,487
WDNR CUL Alternative (high-end)	295,448	\$471,587,988	\$235,524,921	\$102,425,532

Notes:

- 1. These are "FS-level" costs, and per EPA guidance are intended to be on the order of -30% to +50% in accuracy.
- 2. With the exception of Off-Site T&D (See Note 4), costs are based on unit rates from cost estimates developed for the 2014 Focused Corrective Measures Study (not adjusted to 2021 dollars).
- 3. Low-end and high-end volumes based on Anchor QEA's volume estimates submitted on 1/28/21:

Media	Recreational (cubic yards)	Non-Industrial (cubic yards)	
Floodplain	142,215 – 226,924	213,498 – 282,072	
Tributary/Creek	13,376	13,376	
Total	155,591 – 240,300	226,874 – 295,448	

4. A range of off-Site T&D options/costs are provided (viability/applicability of Options 2 and 3 is to-be-determined):

Off-Site T&D Option 1 – Incineration/Thermal Treatment Unit Rate: \$813/ton (average pricing)

Off-Site T&D Option 2 – Subtitle C landfill Unit Rate: \$343/ton (based on average pricing)

Off-Site T&D Option 3 – Subtitle D landfill Unit Rate: \$78/ton (based on average pricing)

5. Cost estimates assume that all materials exceeding CULs would be excavated (for floodplain materials, the 0-4' interval was evaluated), and a reactive/sorptive layer (i.e., organoclay RCM) would be placed at the bottom of the excavation prior to backfill.