From: Sager, John E - DNR

Sent: Thursday, January 13, 2022 11:28 AM

To: John McCue; Brian Kent

Cc: Coller, Nathan - DNR; Saari, Christopher A - DNR

Subject: Hayward Landfill PFAS Investigation Summary Report

John and Brian,

The DNR has completed a review of the December 14, 2021 Phase II PFAS Investigation Summary Report for the Hayward Landfill. This included presentation of the results to the DNR's internal PFAS review committee. The results show PFAS contamination has migrated downgradient to the area of the potable wells sampled during the VOC site investigation at concentrations near the proposed Wis. Adm. Code NR140 Enforcement Standards.

Due to the risk of PFAS contamination to the nearby potable wells, the DNR recommends expansion of the PFAS site investigation to include as many of the potable wells sampled during the VOC site investigation and remedial action as possible. This should include wells PW-1, PW-2, PW-3, PW-6, PW-8, PW-9, PW-10, PW-14, PW-15, PW-16, PW-17, PW-18, and PW-19. This sampling should be conducted as soon as practical.

Please contact me if you have any questions or if you would like to discuss the situation.

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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: Brian Kent < bkent@sehinc.com > Sent: Monday, June 28, 2021 1:50 PM

To: Sager, John E - DNR < <u>John.Sager@wisconsin.gov</u>>

Cc: Coller, Nathan - DNR <Nathan.Coller@wisconsin.gov>; John McCue <pw3@centurytel.net>; John

Guhl < jguhl@sehinc.com>

Subject: Hayward LF_PFAS Sampling Summary

Mr. Sager-

Please find attached a copy of the summary report documenting the results of PFAS groundwater sampling at the Hayward Landfill during May 2021. I was only intending to send this electronic file. If you

require a hard copy please let me know. Please feel free to contact me if you have any questions or would like to discuss further. Thank you.

Brian L. Kent, CHMM Principal, Project Manager Short Elliott Hendrickson Inc. 715.456.4621 mobile | 608.498.4844 direct

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

Sent: Monday, January 11, 2021 7:34 AM **To:** Brian Kent < bkent@sehinc.com >

Cc: Coller, Nathan - DNR <Nathan.Coller@wisconsin.gov>; John McCue <pw3@centurytel.net>

Subject: RE: Follow up to October 6th Hayward Landfill Meeting

Brian,

The WDNR has reviewed the PFAS sampling work plan and does not have any comments. Please proceed with the sampling and contact me if you have any questions.

Thanks.

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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: Brian L. Kent < bkent@sehinc.com > Sent: Friday, December 11, 2020 10:57 AM

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

Cc: Coller, Nathan - DNR <Nathan.Coller@wisconsin.gov>; John McCue <pw3@centurytel.net>

Subject: RE: Follow up to October 6th Hayward Landfill Meeting

Good morning John and Nate. Please see attached a work plan for the PFAS groundwater investigation at the Hayward LF. If you need us to provide a hard copy, please let me know. When you have had a chance to review, please reply with any questions you may have, or your concurrence to proceed. Thanks much and have a great weekend.

Brian L. Kent, CHMM Principal, Project Manager Short Elliott Hendrickson Inc. 715.456.4621 mobile | 608.498.4844 direct

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

Sent: Monday, October 12, 2020 9:39 AM **To:** Brian L. Kent
 bkent@sehinc.com>

Cc: Coller, Nathan - DNR < Nathan. Coller@wisconsin.gov>

Subject: RE: Follow up to October 6th Hayward Landfill Meeting

Hi Brian,

Responses to your questions:

- 1. A memorandum format for the work plan is OK. However, please make sure there is an adequate discussion of potential sources of PFAS within the landfill. Also, please make sure there is an adequate discussion of PFAS sampling protocol including QA/QC, sample blanks, duplicates etc.
- 2. Your list of wells to be monitored and the method appear appropriate. Depending on the results of sampling, the DNR may request additional wells be sampled.
- 3. If the results of sampling are below 20ppt PFOA, PFOS or PFOA+PFOS the DNR will determine if it will request an additional confirmation round of sampling at that time. For right now let's plan on one sampling round and then review the results of the analysis before making a decision on subsequent rounds of sampling.
- 4. A letter report containing a description of the PFAS evaluation and sampling including a map, tables and the sample results will be sufficient.

Please let me know if you have additional questions.

Thanks.

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John Sager

Hydrogeologist – Remediation and Redevelopment Program Wisconsin Department of Natural Resources 1701 N. 4th St.
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Phone: (715) 919-7239 john.sager@wisconsin.gov



From: Brian Kent < bkent@sehinc.com>
Sent: Thursday, October 8, 2020 12:03 PM

To: Sager, John E - DNR < <u>John.Sager@wisconsin.gov</u>>
Cc: Coller, Nathan - DNR < <u>Nathan.Coller@wisconsin.gov</u>>
Subject: Follow up to October 6th Hayward Landfill Meeting

Hi John and Nate- I am in the process of preparing a scope and cost estimate for the City of Hayward relative to our discussion earlier this week and the stated expectation of groundwater monitoring for PFAS at the landfill, and have a few questions or request clarification on a few items:

- 1. It is our understanding that we will need to prepare a PFAS sampling work plan in accordance with NR716.07 and NR716.09. Based on our conversation, to address the "evaluation" requirement of the WDNR's August 17, 2020 letter titled Reminder to Include Evaluation of Emerging Contaminants in Site Investigation we will acknowledge that due to the landfill history and likelihood that PFAS containing substances were managed at the former landfill, the City is proceeding immediately to sampling. Since the work plan will be relatively simple as we are only addressing PFAS groundwater samples, I would anticipate the work plan will be in a memorandum format
- 2. The WDNR has indicated the groundwater monitoring can be limited, at least initially, to the wells that were proposed as part of the annual long-term monitoring requirements. These include MW-1, MW-1S, MW-2, MW-3, MW-4, MW-5, MW-7 and MW-7S. Laboratory analysis will be conducted for PFAS Extended List (36 analytes) using Method 537 Modified.
- 3. Assuming the results of the monitoring indicate that no measured detection exceeds 20 ng/L (parts per trillion), can we assume only one round of testing will be conducted or required? I realize we discussed confirmation sampling, but I am not clear as to whether that only relates if detections above 20 ng/L are discovered.
- 4. Once the data is collected, assuming item #3 above (nothing exceeds 20 ng/L) will the WDNR require a site investigation report or is submittal of the analytical package sufficient? Will any revision or modification to the closure/transfer request be required?

I am sure I will have further questions as we get into the work plan, but the above info would be helpful to get back to the City with an estimate. I would anticipate that we would have a work plan to you by the end of the calendar year, and would assume the field work for the water monitoring would be conducted next spring. Please confirm this schedule is acceptable.

Again, thanks for your assistance with this matter.

Brian L. Kent, CHMM
Principal, Senior Project Manager
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"Sager, John E - DNR" ---09/24/2020 01:17:05 PM---Done. We are committed to service excellence.

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

To: Brian Kent < bkent@sehinc.com>

Date: 09/24/2020 01:17 PM

Subject: RE: October 6th Hayward Landfill Meeting

Done.

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John Sager

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Superior, WI 54880

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



From: Brian Kent < bkent@sehinc.com > Sent: Thursday, September 24, 2020 1:14 PM

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

Cc: John McCue < pw3@centurytel.net >

Subject: Fw: October 6th Hayward Landfill Meeting

John- I just accepted your invite for the October 6 meeting. Can you please also send the invite and virtual meeting link to John McCue (City of Hayward DPW)? Thanks.

Brian L. Kent, CHMM
Principal, Senior Project Manager
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---- Forwarded by Brian Kent/seh on 09/24/2020 01:12 PM -----

From: Brian Kent/seh

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

Cc: "John McCue" <pw3@centurytel.net>

Date: 09/24/2020 12:14 PM

Subject: RE: October 6th Hayward Landfill Meeting

Mr. Sager-

As requested, SEH, on behalf of the City of Hayward, is providing the following questions and/or discussion items to help inform our discussion proposed for October 6, 2020.

- A landfill is not like a gas station or industrial spill site. In the event the landfill is transferred to WMM, monitoring and long-term care does not stop, but simply transitions to a different management program. There are hundreds of other closed natural attenuation landfills in the State that are in the WMM program. What is going to be expected of those sites relative to the requirements currently presented to the City.
- It should be noted that landfills are not producers or original sources of PFAS. Many consumer products contain PFAS, and when they are used and discarded, they generally end up in landfills or waste water treatment systems. In such, landfills are receivers of PFAS due to their role of managing society's waste. Disposal records for most pre-subtitle D landfills are scarce to non-existent. A search for historic records of industrial facilities within the Hayward vicinity that may have used PFAS between 1964 and 1985 would likely be an exhaustive effort, and data would likely be inconclusive. Given PFAS have been proven to be "everywhere" due to wide spread consumer use, it would likely be concluded, regardless of the level of assessment, that PFAS containing substances were potentially disposed of at the landfill. What is the expectation of assessment? Given the potential that PFAS containing materials were disposed of at the landfill, is the next step expected to be monitoring of groundwater for PFAS, or is documenting the potential sufficient?
- If monitoring for PFAS is expected, PFAS do not currently have a State of Wisconsin groundwater quality standard. What standard would the data be used to measure against to determine whether the site could move to WMM or meet the requirements of NR716.05?
- What concentration of PFAS, if detected, would warrant further investigation or remediation?

We fully understand the importance of assessing and understanding the potential impacts of PFAS to human and environmental exposure. However, at this stage it appears to be premature to make an assessment of potential risk from exposure absent applicable water quality standards. We are very interested in learning more of what the WDNR's objectives and expectations are regarding how this issue will be handled at the many closed municipal natural attenuation landfills across the State.

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"Sager, John E - DNR" ---09/22/2020 04:43:24 PM---Just an email with your questions is fine. Thanks.

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

To: Brian Kent < bkent@sehinc.com>

Date: 09/22/2020 04:43 PM

Subject: RE: October 6th Hayward Landfill Meeting

Just an email with your questions is fine.

Thanks.

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John Sager

 $\label{eq:hydrogeologist-Remediation} \begin{tabular}{ll} Hydrogeologist-Remediation and Redevelopment Program Wisconsin Department of Natural Resources \\ 1701 N. 4^{th} St. \\ Superior, WI 54880 \end{tabular}$

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



From: Brian Kent < bkent@sehinc.com > Sent: Tuesday, September 22, 2020 4:03 PM

To: Sager, John E - DNR < <u>John.Sager@wisconsin.gov</u>>
Subject: Re: October 6th Hayward Landfill Meeting

Would you like a formal agenda or just an email with our primary questions?

Brian L. Kent, CHMM
Principal, Senior Project Manager
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"Sager, John E - DNR" ---09/22/2020 03:40:29 PM---Hi Brian, Are you able to provide a draft agenda for the Hayward Landfill meeting on October 6th? I

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

To: "bkent@sehinc.com" <bkent@sehinc.com>

Date: 09/22/2020 03:40 PM

Subject: October 6th Hayward Landfill Meeting

Hi Brian,

Are you able to provide a draft agenda for the Hayward Landfill meeting on October 6th? I want to make sure we address the City's and your concerns during the call.

Thanks.

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John Sager

 $\label{eq:hydrogeologist-Remediation} \begin{tabular}{ll} Hydrogeologist-Remediation and Redevelopment Program Wisconsin Department of Natural Resources \\ 1701 N. 4^{th} St. \\ Superior, WI 54880 \end{tabular}$

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

