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**Cc:** [DuFresne, Kristin I - DNR](#)  
**Subject:** Response to WPSC Marinette Cleanup Comments  
**Date:** Wednesday, September 27, 2017 10:42:54 AM  
**Attachments:** [WPSC Marinette MGP Responsiveness Summary.pdf](#)

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Hello All,

Thank you for meeting with me last month. As discussed and agreed upon, EPA modified the proposed remedy. The remedy will focus on the two source zones. After remedial design samples are collected, EPA will assess the results and limit the remaining areas to be excavated in the waste water treatment plant zone.

EPA will work with you all to make sure we have input to inform the design plans.

Attached, you will find response to your comments, which are also part of the Responsiveness Summary found in EPA's Record of Decision. The Record of Decision will be made public as soon as it is signed by Superfund's Division Director, sometime before week's end.

Best regards,

Margaret

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## **Part 1. Responsiveness Summary**

In accordance with CERCLA Section 117, 42 U.S.C. Section 9617, EPA released the Proposed Plan and Administrative Record on July 17, 2017, and the public comment period ran through August 16, 2017, to allow interested parties to comment on the Proposed Plan.

EPA is not required to reprint the comments of the commenter verbatim and may paraphrase where appropriate. In this responsiveness summary, EPA has included large segments of the original comments. However, persons wishing to see the full text of the comment should refer to the commenter's submittal to EPA, which has been included in the Administrative Record. The comments EPA received are shown below in normal text and EPA's response is shown in italics.

### ***A. Stakeholder Comments and Lead Agency Responses***

EPA received several written and verbal public comments on the Proposed Plan. The comments are found below:

#### Comments in Support for the Remedy

**Comment 1a:** I feel the option that the EPA is suggesting is the proper way to solve the issue at hand.

**Comment 1b:** I think the best alternative is alternative #3 as it meets all criterion.

*Response: Thank you for your support.*

#### General Public Comments

##### **Comment 2:**

Question 1: Has vertical and lateral extent of contamination been identified?

*Response: Although the Site has gone through thorough the remedial investigation and we have a lot of data on the vertical and horizontal extent of contamination, further delineation sampling will occur during the Remedial Design phase to refine the areas to be addressed.*

Question 2: What is being done to mitigate sub-surface impacts?

*Response: At present, contaminated soil and groundwater are in place in the former footprint of the manufactured gas plant and the former logrun/slough that served as the preferential pathway for conveyance of MGP contaminants to the Boom Landing zone. There are buildings, pavement, asphalt, and grass over the contaminated soil and groundwater that are acting as barriers to prevent exposure, contact, and ingestion of contaminants.*

*As part of the chosen remedy, where feasible, the contaminated soil will be excavated and disposed of in a landfill. While the excavation area is open, we will place a chemical reagent that will react, over time, with MGP-waste that is located in the soil and groundwater. Then a horizontal engineered barrier, will be placed in the excavated area, before clean fill and topsoil are added. In areas where pavement or asphalt are present, they will be replaced and/or maintained after the excavation is complete. Once MGP-contaminants are removed and barriers*

*are in place, there will be no risk to exposure to contaminants. Over time, approximately five years, the reagents placed in the excavated pits will continue to neutralize the MGP-wastes in the subsurface soil and groundwater.*

### Health and Safety Comments

**Comment 3a:** Careful planning is necessary for the removal of contaminated material with safeguards to protect overall human health, as well as attention paid to compliance of State/Federal procedures and other long term requirements. I strongly recommend all safe guards to be adhered to in soil removal to protect the groundwater located near the water of the Menominee River.

*Response: All safeguards to protect human health and the environment will be taken, and all applicable or relevant and appropriate State and Federal requirements will be applied. As detailed in the FS Rev. 3 Report, and summarized here in this ROD, several general types of safeguards will be applied to this cleanup. These include dust suppression measures to prevent fugitive dust from migrating off-site and into the river; installing temporary shoring to support deeper excavations and prevent run-off; monitoring and maintaining existing surface barriers that currently mitigate potential exposure to surficial soil containing COCs above residential PRGs; and placing barriers in locations not currently limited by an existing barrier.*

*The highest-contaminated soils will be excavated and sent to a landfill, reagents placed in the excavated soil pits will address MGP-contaminants in deeper soil and in groundwater, and injection wells will be installed to inject chemicals to neutralize MGP-contamination in groundwater. All these efforts will reduce contaminants in soil and groundwater and prevent migration of contaminants back into the Menominee River.*

**Comment 3b:** The City (of Marinette) Officials and Commission Members express concern regarding the potential structural and underground utilities risks associated with excavation within the WWTP, which could cause disruptions of service at the WWTP. They also are opposed to any injection of chemicals into the ground that could have an effect on underground utilities as well. Lastly, and most importantly, the proposed plan poses risks to employees as well as construction workers from all of the activities being done at the site.

*Response: Prior to implementation of the remedy, WPS will conduct additional activities to inform the remedial design. During the Remedial Design Phase, WPS will use a utility locator contractor to delineate all sub-surface infrastructure at the WWTP Zone and at the Boom Landing Zone. In addition to the utility locator, WPS will collect addition samples to refine the areas that will be addressed. The project will be designed as such to prevent impacts to utilities and infrastructures. WPS will submit remedial design information for input (from EPA, DNR, The City, and respective property owners) before the design becomes finalized and implemented.*

*The remedy will be designed and implemented, as such, to minimize disruption of service at the WWTP and within the Boom Landing Zone, and to protect existing WWTP infrastructure.*

*Restoration work following the remedial action will restore properties to an equal. EPA and WPS will work with the Commission and City officials to ensure the designed remedy meets the City's expectations and requirements in both cleanup zones.*

*EPA's mission and priority is to protect human health and the environment. The potential risks to human health for workers at the WWTP and construction workers in the WWTP zone was evaluated utilizing EPA's 9 Criteria prior to the selection of the remedy. The 9 Criteria are:*

### **Threshold Criteria**

1. Overall protection of human health and the environment
2. Compliance with ARARs (applicable or relevant and appropriate standards)

### **Primary Balancing Criteria**

3. Long-term effectiveness and permanence
4. Reduction of toxicity, mobility or volume
5. Short-term effectiveness
6. Implementability
7. Cost

### **Modifying Criteria**

8. State acceptance
9. Community acceptance

*The most important criterion in evaluating a remedy is "overall protection of human health and the environment." EPA considered the risks and benefits associated with each remedy presented in the FS and for the remedy that was selected. Considered were the risks to long-term workers in areas to be addressed (e.g. WWTP employees), short-term workers in areas that will be addressed (e.g. construction workers conducting the cleanup in the Boom Landing and WWTP Zones), community members that may be impacted by increased truck traffic, people that use Boom Landing for recreational purposes, and even property trespassers.*

*There will be potential short-term risks associated with the selected remedy and there will be risk-mitigation to minimize those risks. Some of the risk-mitigation measures include developing and following a Health and Safety Plan to minimize risks to all that may be potentially impacted by the cleanup; putting up barriers and clearly marking areas that are disturbed; limiting access to areas that are undergoing remedial action; etc.*

### **Comments from the Potentially Responsible Party**

Comments from WPS are separated and paraphrased below:

#### **General Comments:**

**Comment 4:** "In general, WPS has significant concerns with USEPA's conclusion that invasive excavation, soil removal and oxidant injection activities are warranted on the City of Marinette

wastewater treatment plant (WWTP) property in order to adequately protect human health and the environment. As noted in the approved Feasibility Study Report, Revision 3 (FS) and related correspondence, the significant short term risks to (1) ongoing plant operations, (2) the structural integrity of above ground structures, and (3) of damage to critical below ground infrastructure associated with such activity in no way justify the small reduction in hypothetical human health risk or threats to groundwater quality that might be achieved. USEPA's own assessment shows the human health risks represented by current baseline conditions for soils on the WWTP property fall well within the acceptable risk management range, particularly for a secure, limited access facility such as the WWTP for which the default "reasonable maximum" exposure assumptions inherent in the derivation of PRGs for soils under an "industrial" scenario do not apply. Finally, as documented in the approved FS, the use and implementation of institutional controls in the form of materials handling and cover maintenance plans will be fully adequate in attaining the health and environmental quality related remedial action objectives (RAO) for the WWTP property in a far more efficient and cost effective manner."

*Response: EPA's selected remedy was informed by the Site RI and FS reports in conjunction with EPA Law and Guidance. Remedy implementation risks were reviewed and compared with the benefits of removing principal threat waste and the decreased amount of time in achieving groundwater cleanup standards. The risks listed above can be minimized with planning during the Remedial Design phase of the project.*

#### Comments on Safety

**Comment 5a:** The USEPA-preferred alternative involves excavating a minimum 9-foot deep hole directly abutting the entire eastern side of the WWTP's Aeration Basin.

The load of the Aeration Basin will significantly complicate the excavation and necessitate design and construction of a very complicated and extensive shoring system. Installation of shoring near the Aeration Basin risks potential structural and foundational damage to this structure. Such potential for damage would be further exacerbated by the need for dewatering the excavation area to an elevation well below the design depth, thereby creating a cone of depression that would affect all surrounding structures. Any substantial damage to the Aeration Basin will compromise the operational viability of the City's WWTP and would likely result in the plant being off line for an extended period, realignment of infrastructure, sewage treatment bypasses and related astronomical repair costs. Likewise, the injection of corrosive reagents at the volumes needed to oxidize the residual adsorbed mass in specific locations on the WWTP may lead to significant damage to the existing underground infrastructure to the point where the WWTP may need to temporarily cease operations to allow for repair. If chemical oxidants were to infiltrate the WWTP process piping it could also have a detrimental effect on the operation of the plant.

*Response 5a: Based on the information presented in the RI and FS reports for this Site, EPA will rely on design engineering to refine the areas to be excavated to maximize principal threat waste removal and minimize impact to surrounding structures. Also during the remedial design, it may be prudent to conduct a pilot test to determine which chemical oxidants to apply to the excavated areas, and design a method of placement/injection that would minimize the volume of corrosive reagents and minimize impact to nearby infrastructure.*

**Comment 5b:** Secondary safety concerns with the USEPA-preferred alternative relate to excavation in or adjacent to gas, underground electric, storm water, and sanitary sewer utility lines. Excavation around, or temporary relocation of, these utilities represents significant risk to the construction workers and risks damage to the utility, causing service disruptions for the City of Marinette.

**Comment 5c:** Finally, we believe that the traffic safety issues, odor, noise and potential road damage associated with hauling well over 1,300 additional loads of material through downtown Marinette that would be required with the USEPA-preferred Alternative 3 (USEPA) should have been given more serious consideration in the remedial action decision.

*Response to 5b and 5c: EPA's mission and priority is to protect human health and the environment. The potential risks to human health was evaluated utilizing EPA's 9 Criteria prior to the selection of the remedy. The 9 Criteria are:*

### **Threshold Criteria**

1. Overall protection of human health and the environment
2. Compliance with ARARs (applicable or relevant and appropriate standards)

### **Primary Balancing Criteria**

3. Long-term effectiveness and permanence
4. Reduction of toxicity, mobility or volume
5. Short-term effectiveness
6. Implementability
7. Cost

### **Modifying Criteria**

8. State acceptance
9. Community acceptance

*The most important criterion in evaluating a remedy is "overall protection of human health and the environment." EPA considered the risks and benefits associated with each remedy presented in the FS and for the remedy that was selected. Considered were the risks to long-term workers in areas to be addressed (e.g. WWTP employees), short-term workers in areas that will be addressed (e.g. construction workers conducting the cleanup in the Boom Landing and WWTP Zones), community members that may be impacted by increased truck traffic, people that use Boom Landing for recreational purposes, and even property trespassers.*

*There will be potential short-term risks associated with the selected remedy and there will be risk-mitigation to minimize those risks. Some of the risk-mitigation measures include developing and following a Health and Safety Plan to minimize risks to all that may be potentially impacted by the cleanup; putting up barriers and clearly marking areas that are disturbed; limiting access to areas that are undergoing remedial action; etc.*

*Furthermore, EPA will expect WPS to hire a utility locator contractor to delineate the extent of utility infrastructure and to design the remedy to work around the utilities to prevent disruption of service.*

*A health and safety plan will be developed during the Remedial Design to maximize safety during construction. EPA will expect WPS to have a health and safety officer on-site to oversee implementation of the health and safety plan and to prevent unsafe activities.*

*Traffic safety issues, odor, noise and potential road damage associated with hauling out excavated material has been taken into consideration. WPS will have to work with the City of Marinette to determine the size of the trucks to be used for hauling excavated materials to prevent road wear and damage. WPS will use trucks with odor and spill reducing capabilities (trucks with covers), and come up with safe route options for traffic safety and as a means to reduce noise in the neighborhoods.*

#### Comments on Costs

**Comment 6:** “Alternative 3 (USEPA) will cost an estimated \$7.63 million, making it the most costly (sic) alternative evaluated in the FS Report. This alternative is \$4.01 million more than Alternative 2 (FS). This increased cost is primarily related to deep excavation of source areas in the WWTP and horizontal barrier construction on the WWTP. “

*Response: An extensive analysis was completed to evaluate each alternative presented in the FS. Alternative 3, as presented in the Proposed Plan and the selected remedy in the ROD, was selected based on the evaluation against the 9 Criteria, including cost considerations.*

#### **Threshold Criteria**

1. Overall protection of human health and the environment
2. Compliance with ARARs (applicable or relevant and appropriate standards)

#### **Primary Balancing Criteria**

3. Long-term effectiveness and permanence
4. Reduction of toxicity, mobility or volume
5. Short-term effectiveness
6. Implementability
7. Cost

#### **Modifying Criteria**

8. State acceptance
9. Community acceptance

*The selected remedy meets the threshold criteria, primary balancing criteria, and the modifying criteria. The remedy was selected because it removes and treats principal threat waste in the WWTP Zone, and will result in overall waste volume reduction at the Site.*

## **General Comments**

**Comment 7:** There are internal inconsistencies and differences between the Factsheet and approved FS and between the Proposed Plan and the approved FS. There are other errors in the Proposed Plan. Specific inconsistencies and errors can be found on pages 2-7 (out of 13) in the *Comments on USEPA Proposed Remedial Action Plan* submitted by WPS on August 15, 2017, available in the Administrative Record.

*Response: EPA drafted the Factsheet and Proposed Plan utilizing the details presented in FS Revision 2. FS Revision 3 was not submitted to EPA until close of business on June 26, 2017.*

*EPA's ROD reflects the details as presented in the approved RI and FS Rev. 3, with the exception to Alternative 2 as presented in the FS Rev. 3. Alternative 2, as presented in FS Rev. 3 does not comply with State ARARs at  $10^{-6}$  risk level and EPA HQs recommended exclusion of this alternative from the Proposed Plan, as presented in the August 3, 2017 letter from EPA to WPS on that subject.*

*Further, the listed errors have been reviewed and corrections to those errors have been made if those topics carried forth into the ROD.*

## **Comments from Wisconsin Department of Natural Resources**

**Comment 8:** DNR considers sediment, along with soil and groundwater, to be a media of concern.

*Response: The majority of the MGP-impacted sediments were addressed during the 2012 Removal Action. EPA will evaluate the efficacy of the sediment cleanup as part of the first Five Year Review for the site.*

**Comment 9:** If residual soil contamination, above remediation goals, remains post excavation at a depth of 0-4' below ground surface, the following will be required: cap(s), institutional controls, continuing obligations (COs), a soil cover monitoring and maintenance plan, and a soil management plan.

*Response: Noted. EPA considers surface soil as the top two feet (0-2'). Post-remedial action sampling will inform the next steps needed to address soil contamination, including institutional controls, continuing obligations, soil cover monitoring and maintenance plan, and soil management plan.*

**Comment 10:** "Alternatives 2 and 3 within the Proposed Plan specify the long-term monitoring program will include visual inspections of the reactive core mat (RCM) and sediment sampling. It is unclear whether additional sampling of the residual sand cover will be completed. The DNR, in prior correspondence, recommended continued monitoring of the residual sand cover as part of the 5-year review process. Please clarify whether or not monitoring of the residual sand cover will be included in the 5-year review process or as part of a separate long-term monitoring plan."



*Response: Sediment sampling, including sampling the sand cover, is part of the selected remedy. Additional sediment sampling may be required to inform the five-year review report.*

**Comment 11:** “Alternatives 2 and 3 within the Proposed Plan specify effectiveness monitoring of the sediment RCM and institutional controls to manage potential risks associated with soil, groundwater, soil gas and sediment.

The DNR supports future effectiveness monitoring of the sediment RCM. The DNR also considers the RCM to be an engineering control. Per Wis. Stats. § 292.01(3m), ‘engineering control’ means an object or action designed and implemented to contain contamination or to minimize the spread of contamination, including a cap, soil cover, or in-place stabilization, but not including a sediment cover.

Further clarification is needed with respect to sediment and what is meant by "institutional controls" and "specific restrictions to be included on the Wisconsin DNR GIS Registry" for this media. The agencies will need to categorize, per Wis. Stats. § 292.01 definitions, the residual sand cover as an engineering control, defined above, or a sediment cover.

Wis. Stats. §292.01 (17m), defines ‘sediment cover’ as a layer of uncontaminated sand or similar material that is deposited on top of contaminated sediment. This categorization will then be used by the agencies to determine the institutional controls, continuing obligations and specific restrictions to be included on the Wisconsin DNR GIS Registry for sediment.”

*Response: EPA defines ICs as non-engineered instruments, such as administrative and legal controls, that help to minimize the potential for exposure to contamination and/or protect the integrity of a response action.*

*ICs typically are designed to work by limiting land and/or resource use or by providing information that helps modify or guide human behavior at a site. ICs are a subset of Land Use Controls (LUCs). LUCs include engineering and physical barriers, such as fences and security guards, as well as ICs. The intent is to use the DNR GIS Registry to document areas of sediment that are not to be disturbed without prior notification by the party and without approval by DNR. Specific restrictions will be enumerated during the Remedial Design.*