Wurtsmith Restoration Advisory Board Meeting

18 Mar 2020
AFCEC/CIB

Wurtsmith RAB Agenda

Welcome

- Introductions
- Stakeholder updates

Presentations

- EGLE Transducer Study results
- USAF Expanded Site Inspection findings

BREAK

- USAF Remedial Investigation Plan

Presentation

- Action Item Review
- Announcements

RAB Business

- Public may provide three-minute verbal comments

Public Comment

Wurtsmith RAB Ground Rules

01	Respect one another and maintain an atmosphere of open dialogue and exchange of ideas.
02	Use our time together efficiently, wisely and respectfully.
03	Speak clearly and succinctly one person at a time; avoid interrupting others.
04	Listen and remain open to differing points of view.
05	Maintain a propensity for progress: prepare, discuss, document and move forward.
06	Share information early, openly and honestly
07	Accurately and objectively relay to others the discussions that occur at board meetings.

Stakeholder Updates

Wurtsmith RAB Stakeholder Updates

Sep. 2019
SS057 In-Situ Anaerobic Biodegradation

Oct. 2019
Quarterly DW monitoring

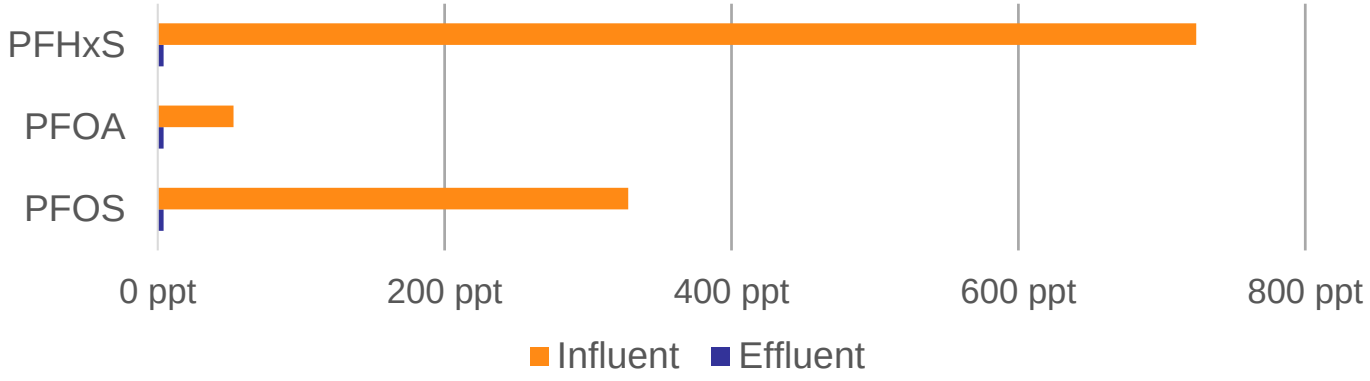
Dec. 30, 2019
Mission Street IX System operational

Jan. 24, 2020
Released final ESI report

Feb. 2020
Quarterly DW monitoring

Mission Street IX

10 Feb. 2020 sample results



In Progress/ Upcoming

- 5 Year Review Report
- Remedial Investigation project

Wurtsmith RAB Stakeholder Updates

- APHIS is currently sampling 40 deer from the Clark's Marsh area.
- We heard the State did some fish sampling in Clark's Marsh; we have no details on what was done or where and are not aware of any results.
- USAF contractors have been accessing wells for routine monitoring through USFS lands.
- A VI study done at the District office and came back negative, meaning there were no measurable levels or levels were below EPA standards.

- EGLE ESI comments
- Interim Actions request
- Dispute resolution status

Community RAB Members

- Community RAB Review of Remediation & Identification of other Priority Actions
- Ongoing Review of ESI, EGLE Comments - Initial thoughts

Wurtsmith RAB Stakeholder Updates

CWA

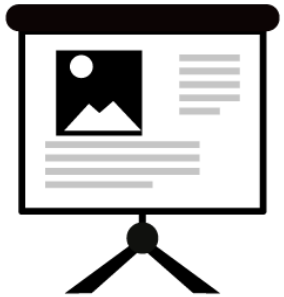
Charter Township of AuSable

MDHHS

Oscoda Township Naturally

DHD2

Wurtsmith RAB

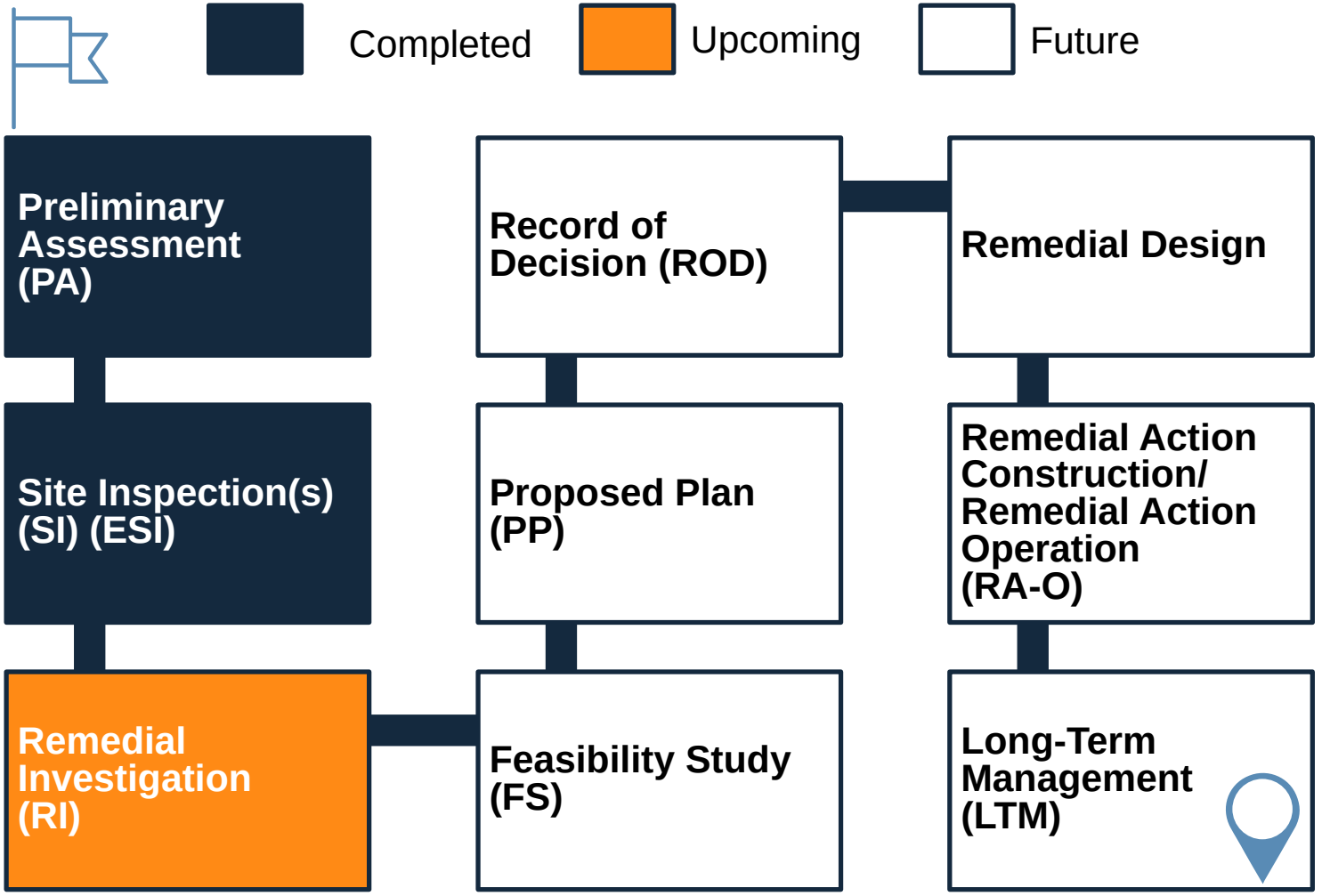


Presentations:

Expanded Site Inspection (ESI) Findings

Wurtsmith RAB
ESI Findings

CERCLA Investigation Progress



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ESI Findings

Final Report	Purpose
PA Jan. 2016	Identify areas with potential AFFF releases.
SI Oct. 2018	Conduct sampling to determine the presence/absence of PFOS/PFOA; make recommendations regarding RI; sample DW wells down gradient from releases and respond if above EPA LHA (equivalent to MI DWC).
ESI Jan. 2020	Focused evaluation of pathways to DW sources; determine need for interim actions to protect DW wells from exceeding LHA.

- Regulator comments received 30 Jan 2020; responses are in the works.
- AFCEC will provide responses to EGLE comments as an Addendum.
- The Addendum will be made available to the public on the AFCEC AR.

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ESI Findings

The ESI focused on **Priority Areas** identified during the SI

1, 2, 4, 6, 7, 12, 15

Purpose: Evaluate pathways to DW sources; determine need for interim actions to protect DW from exceeding LHA.

Obj. 1: Delineate plumes and identify source areas not captured by Arrow Street extraction well field.

Obj. 2: Evaluate width of the plume and capture by FT02 GAC PTS.

Obj. 3: Complete a detailed review/verification of existing data/reports documenting PFOS/PFOA contamination.

Obj. 4: Update and revise GW model and prepare report summarizing data and detailing results and evaluation of investigation.

Obj. 5: Evaluate investigation data and GW flow and develop recommendations to address potential exposure pathways.

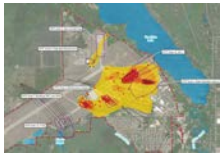
Wurtsmith RAB ESI Findings

1 **Delineate plumes and identify source areas not captured by Arrow Street extraction well field.**

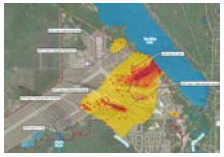
AFFF Areas 1 and 15

There are no known DW receptors currently using GW as a DW source.

Extraction wells associated with the Central GAC PTS are not capturing the extent of PFOS/PFOA concentrations above the LHA in GW downgradient of areas.



Shallow 10-25 ft



Intrm. 25-40 ft

Deep 40+ ft

Particle tracking

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ESI Findings

1 **Delineate plumes and identify source areas not captured by Arrow Street extraction well field.**

AFFF Areas 2 and 7

Testing of several downgradient private DW wells indicated either non-detect or low concentrations of PFOA/PFOS < the LHA.

Existing extraction wells do not capture the extent of GW contamination observed at the site.

AFFF Areas 4 and 6

There are no known DW receptors currently using GW as a DW source. A source area was not confirmed. Both Area 4 and AFFF 6 appear to be entirely outside any treatment capture zone.

Results suggest a narrow PFOS/PFOA plume is discharging into Van Etten Lake with concentrations > the LHA.

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ESI Findings

2 **Evaluate width of the plume and capture by FT02 GAC PTS.**

AFFF Area 12

The majority of the plume above the LHA is captured by the current extraction wells. However, PFOS/PFOA concentrations exceed the LHA outside the current modeled capture zone.

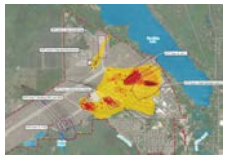
3 **Complete detailed review/verify existing info documenting PFOS/PFOA contamination.**

Review of existing PFOS/PFOA data and historical reports was used to develop the ESI sampling plan.

Wurtsmith RAB ESI Findings

4 Update and revise GW model and prepare report summarizing data and detailing results and evaluation.

- **Areas 1 and 15:** Particle tracks move east-northeast toward Van Etten Lake, with only the southeastern particles captured by AS-PW5.
- **Areas 2 and 7:** Particle tracks move south-southeast toward the Au Sable River, with a portion of Area 2 particle tracks captured by MS-PW5A, MS-PW6A and MS-PW7A; the western part of 2 & 7 particle tracks move toward Three-Pipes Ditch.
- **Areas 4 and 6:** Particle tracks move east-northeast toward Van Etten Lake, GW modeling & transducer study results suggest GW likely discharges into Van Etten Lake with no capture by existing pump and treat systems.
- **Area 12:** Particle tracks indicate PFOS/PFOA is moving in GW towards Clark's Marsh outside of the line of extraction wells.



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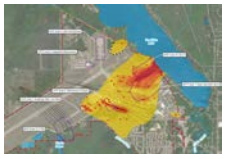

Intrm. 25-40 ft

Deep 40+ ft

Particle tracking

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ESI Recommendations

5 **Evaluate investigation data and GW flow; develop recommendations to address potential exposure pathways.**

ESI Recommendation #1: Base-wide RI should include:

- Delineate the nature and extent of PFOS/PFOA in GW, soil, surface water and sediment.
- Identify ARARs.
- Where PFOS/PFOA GW plumes are discharging into surface water, the evaluation of GW contamination should include delineation of the extent of contamination to GSI criteria.
- Perform a Risk Assessment for potential media pathways to assess risks to human health and the environment.
- Update the conceptual site model (CSM) for all AFFF Areas.

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ESI Recommendations

5 **Evaluate investigation data and GW flow; develop recommendations to address potential exposure pathways.**

ESI Recommendation #1 (cont.) Base-wide RI should include:

- Evaluate PFAS concentrations in soil and GW to further understand the fate and transport of PFAS.
- Perform a concentration trend analysis to evaluate the stability of PFOS/PFOA concentrations in GW.
- Evaluate GW infiltration into the storm water system because Three-Pipes Ditch discharges into the Au Sable River.
- Consider fingerprint evaluation to confirm AFFF type, source.

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ESI Recommendations

5 **Evaluate investigation data and GW flow; develop recommendations to address potential exposure pathways.**

ESI Recommendation #2: Evaluate the following response actions for implementation.

- Develop and implement a sentinel well plan to monitor PFOS/PFOA concentrations in GW downgradient of suspected sources and upgradient of DW wells.
- Evaluate expansion of MS TS capture zone.
- Evaluate expansion of FT02 GAC PTS.

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Final ESI Findings

Final ESI Findings

Under the Defense Environmental Restoration Program (DERP), there are three possible outcomes from the Site Inspection Phase:

- There is no need for action (all contaminants detected lower than screening values set at Hazard Index of 0.1)
- There is a need for immediate action (contamination detected at levels that present an imminent hazard to human health)
- There is a need for remedial investigation

The Final ESI documents exceedances of one or more screening levels for PFOS or PFOA, but not at levels warranting immediate action

Recommendation is to proceed to Remedial Investigation phase consistent with DERP, CERCLA and the National Contingency Plan (NCP).

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Break

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Remedial Investigation

Remedial Investigation

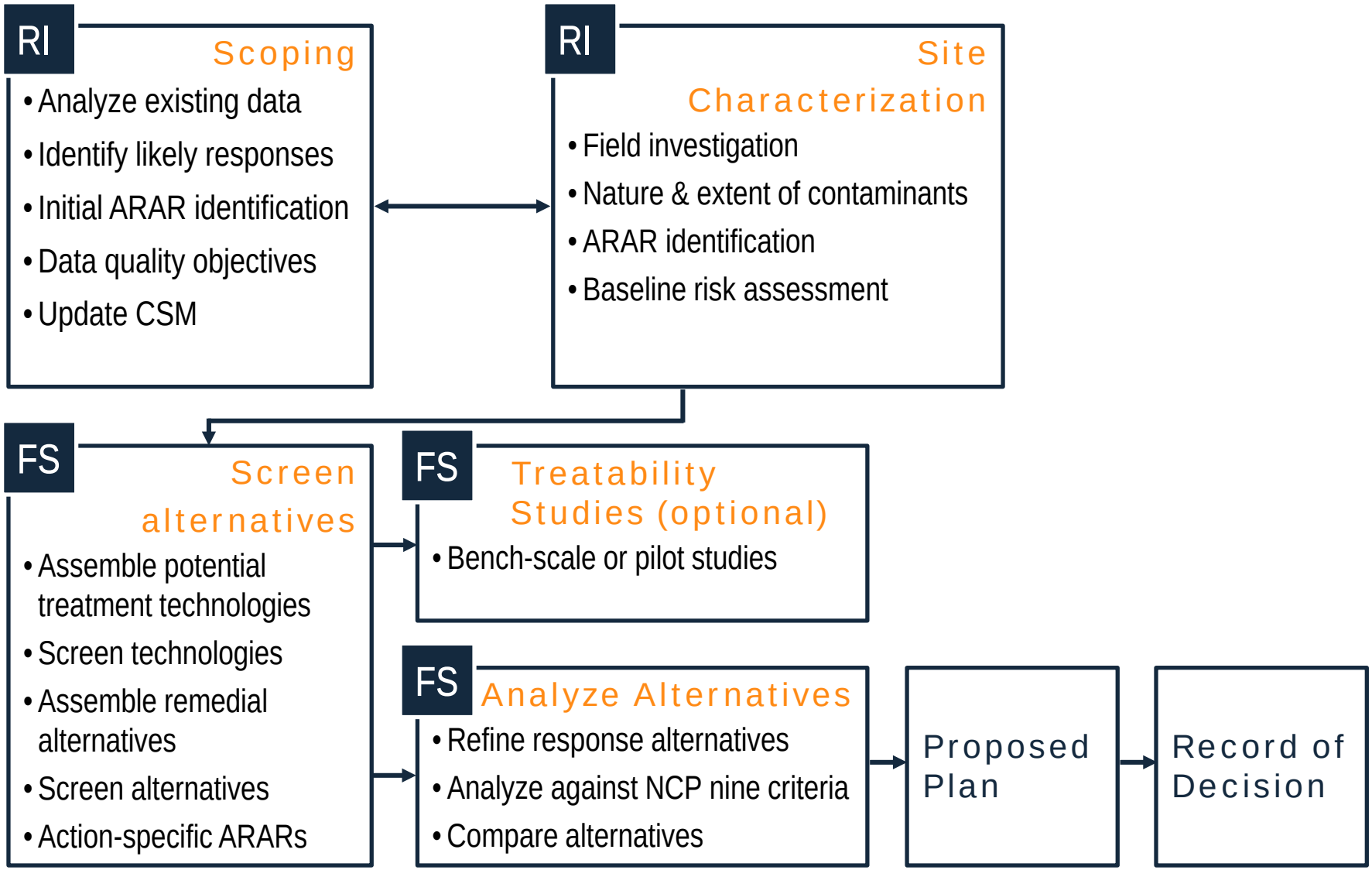
The RI phase focuses on defining the nature and extent of contamination and assessing risk to human health and the environment.

The remedial investigation results will provide the necessary information to make decisions on further remedial actions, **including possible interim remedial actions**, as necessary to limit PFAS migration and address unacceptable risks.

> *"The Air Force is allocating $13.5 million to PFOS and PFOA requirements for Fiscal Year 2020 at Wurtsmith. These funds will allow the Air Force to expedite the remedial investigation by one year."*

Barbara Barrett
Secretary of the Air Force

Wurtsmith RAB RI/FS Process



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Projected RI Schedule

Goal:
Award RI Contract

Sept. 2020

Apr. 2021

Complete CSM, data quality objectives & RI work plan

Sept. 2021

Complete Install wells, collect samples & other field activities

Jan. 2022

Baseline risk assessment

Apr. 2022

Complete RI report and baseline risk assessment for EGLE review

Aug. 2022

Develop FS project requirements

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RAB Business

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RAB Business

- **Action Item Review**
- **Procedures**
- **Community Co-Chair**

Public Comment

Public Comment Period

01	Indicate you want to make a comment (follow guidance)
02	Wait until the facilitator states you can start your comment
03	Three minute time limit
04	RAB members will confer after your comment to see if a follow-up action is needed

Conclusion & Adjournment


AIR FORCE CIVIL ENGINEER CENTER