



Barnes Air National Guard (ANG) Base Restoration Advisory Board Meeting #1 February 23, 2022

The meeting will begin soon.

FINAL



Agenda



- 6:00 PM Agenda Review and Virtual Meeting Logistics
- 6:10 PM Welcome and Introductions
- 6:20 PM RAB Overview
- 6:25 PM RAB Business Follow-Up
- 6:30 PM Environmental Restoration Program Overview
- 6:45 PM RAB Member Discussion
- 6:55 PM Relative Risk Site Evaluation
- 7:15 PM RAB Member Discussion
- 7:45 PM Public Questions and Comments
- 7:55 PM Closing Remarks
- 8:00 PM Adjourn



Virtual Meeting Logistics

Amy Brand

Jacobs

RAB Facilitator



Webex Basics – Computer Participants



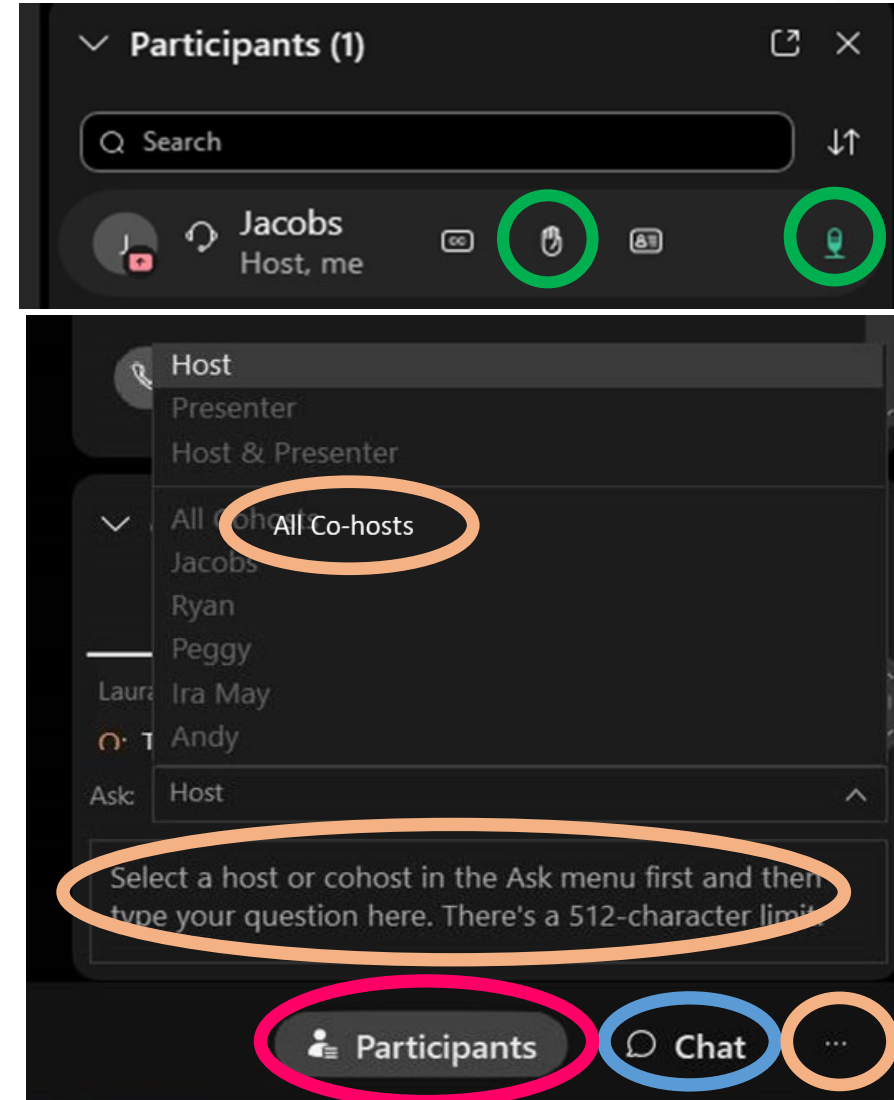
- Video – OFF except for presenters
- Open participants list to view all participants
- Questions during Q&A

Verbal (for RAB members):

- Scroll over your name in the participant list and click on hand symbol to raise your hand, then unmute yourself to speak

Written:

- Click on 3 dots in lower right corner, choose Q&A
- Select “all co-hosts” and type question
- Click Chat to send message to host for help
- Call/text 352-246-5246





Webex Basics – Telephone Participants



- Follow along on slide presentation (emailed or download from 104th Fighter Wing website at <https://www.104fw.ang.af.mil/About/Restoration-Advisory-Board/>)
- Use your phone mute button when not speaking.
- Dial *3 to raise hand to be called on to speak after the presentation
 - Host will unmute you after seeing the raised hand
 - You will then receive a prompt to dial *6 on the phone to unmute yourself
 - Unmute and identify yourself when asking a question or making a comment.
- Trouble? Call or text 352-246-5246.



Meeting Guidelines



- During RAB Member Discussion, RAB members may raise their hands to be called on to make a comment or ask a question.
 - Please observe a 2-minute limit to enable other RAB members to participate.
- Public questions should be submitted in the question module addressed to “all co-hosts.” Questions will be read and addressed in the order they are received at the end of the meeting.
 - Public questions by phone may be asked verbally at the end of the meeting by pressing *3 to raise your hand.



Welcome and Introductions

Col. David Halasikun

Kathleen Hillman

Eric Oulette



Welcome and Introductions



Air National Guard Team

Col. David Halasikun (Base Co-Chair)

Bill Myer, National Guard Bureau

John Richardson, 104th FW Environmental Coordinator

Lt. Col. Chris Ruscio, 104th FW Staff Judge Advocate

Contractors: BB&E, Jacobs (Amy Brand, RAB facilitator)

Community RAB Members

Kathleen Hillman, Community Co-Chair

Eric Oulette, Community Co-Chair

Chris Clark

Nabil Hannoush

Kristen Mello

Rachael Morin

Representative Kelly Pease

Senator John Velis

Regulatory Contact

Saadi Motamedi, Massachusetts Department of
Environmental Protection (MassDEP)

Air Force Civil Engineer Center (AFCEC)

Dr. JayneAnne Bond



RAB Overview

Amy Brand

Jacobs

RAB Facilitator



What is a Restoration Advisory Board?



- A stakeholder group that meets on a regular basis to discuss **environmental restoration** at a specific property owned by the Department of Defense (DoD) where DoD oversees the environmental restoration process.

Environmental Restoration:

- Investigation and cleanup of potential contamination caused by past use, storage, or disposal of hazardous materials

The RAB only addresses issues associated with environmental restoration.



Purpose of the Barnes ANGB RAB



Mission: *To provide a forum for the exchange of information and ideas in an open and interactive dialogue concerning the Barnes ANG Base's ERP, specifically for per- and polyfluoroalkyl substances (PFAS).*

RAB members:

- Learn about and discuss the environmental restoration program at the Base.
- Act as liaisons with the community; bringing community interests to the meeting and sharing information about the program with community members.
- Provide input for consideration by project managers and regulatory agencies involved in decision-making.

Goal is for the cleanup and management decisions to reflect and address community issues and concerns.





RAB Membership and Schedule



- Eight RAB members were chosen by a selection panel to represent a cross-section of the local community.
- Internal training meetings were held in August/September 2021 to establish a baseline understanding of the Environmental Restoration Program, to develop operating procedures, and to elect community co-chairs.
- Additional community members may be added at the discretion and approval of existing members.
- RAB meetings will be held 2 times per year. Additional meetings and/or site tours may be scheduled as needed.
- Meetings are open to the public. Meetings will be held virtually or in-person.



RAB Business Follow-Up

Amy Brand
Jacobs
RAB Facilitator



Approve Draft Meeting Summary

- Meeting summaries from Training Meetings #1 and #2 are posted on the 104th FW website:
<https://www.104fw.ang.af.mil/About/Restoration-Advisory-Board/>
- Draft meeting summary from Training Meeting #3 sent Dec 10; no comments were received.
- Approval



Finalizing Operating Procedures



- Final changes to operating procedures sent December 10, 2021; no additional comments.
- Final .pdf sent for electronic signature February 11, 2022.
- Please sign and return by March 2, 2022.



Environmental Restoration Program Overview

John Richardson

104th Fighter Wing (104 FW)

Base Environmental Coordinator



What is the Environmental Restoration Program (ERP)?



- Nationwide program to identify possible environmental contamination that may have resulted from **past** practices, accidents, or incidents at Department of Defense (DoD), including ANG bases.
- Designed to identify and clean up past contamination from chemical and radiological contaminants, hazardous substances, and pollutants to protect human health and safety, and the environment



Overview of the Investigation and Cleanup Process

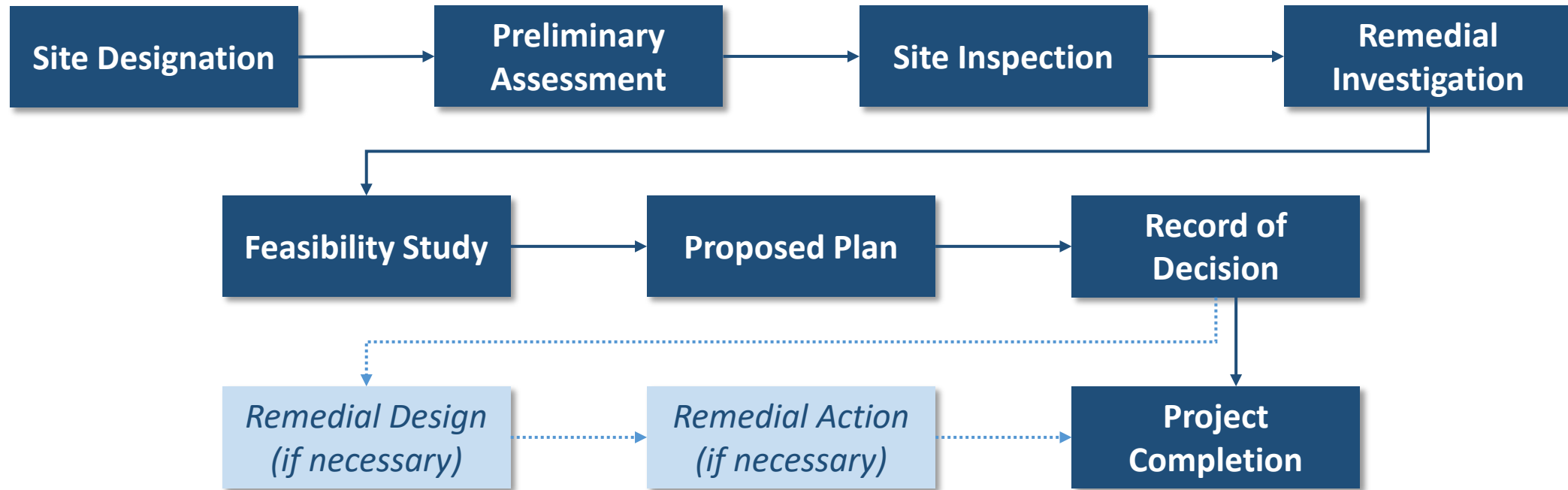


- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) created the legal mechanism for cleaning up abandoned or uncontrolled hazardous waste sites
- DoD follows the CERCLA process for environmental cleanup
- CERCLA process includes a series of activities that involve regulators and the public in the decision-making process
- <https://www.epa.gov/superfund/superfund-cercla-overview>



CERCLA Process

Comprehensive Environmental Response, Compensation, and Liability Act



*A removal action may be initiated at any time during the process
if human health or the environment is in immediate danger.*



Environmental Restoration Program



- Environmental investigation has been ongoing at Barnes since 1987
 - Six sites were cleaned up/closed by 2015
 - ERP Site 2 undergoing long-term monitoring
 - Two munitions response sites closed in 2012
 - Two additional Former Underground Storage Tank (FUST) sites investigated and closed
- Investigation of PFAS began in 2016
- Coordination with regulatory agencies and stakeholders
 - Massachusetts Department of Environmental Protection (MassDEP)
 - National Guard Bureau





What are Per- and Polyfluoroalkyl Substances (PFAS)?



- Group of manufactured chemicals
- Used in firefighting foam; used by the military and others since 1970
- In 2016, the U.S. Environmental Protection Agency set a Lifetime Health Advisory for drinking water for two PFAS compounds: perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA)
- PFOS and PFOA are called emerging chemicals of concern due to the evolving regulatory standards



Information about the Air Force and ANG response to PFOS/PFOA can be found at:
<https://www.afcec.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/>



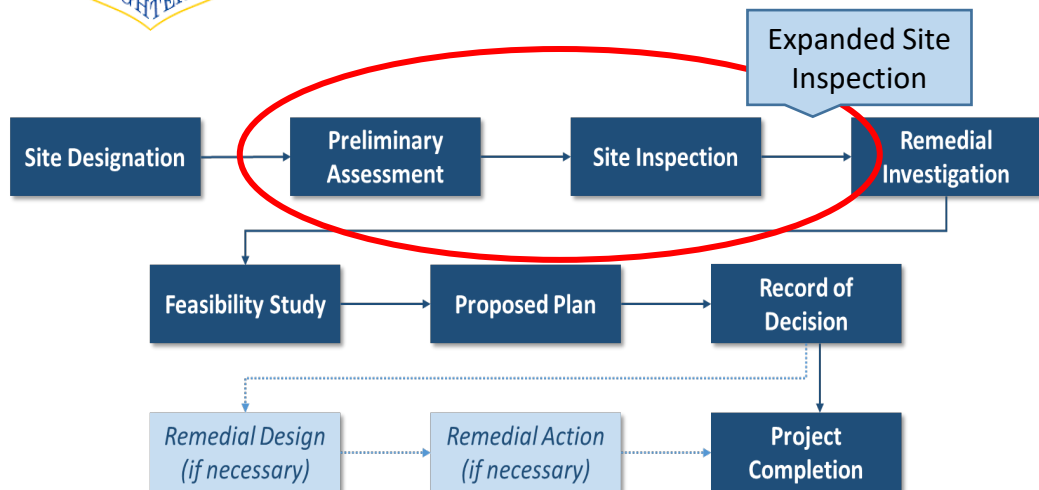
Action and Screening Values for PFAS



- U.S. Environmental Protection Agency (EPA) has not set cleanup standards for PFAS under CERCLA.
- However, EPA has established Lifetime Health Advisories (LHA) of 70 parts per trillion (ppt) for PFOS and/or PFOA in drinking water under the Safe Drinking Water Act.
- The Department of Defense (DoD) uses screening levels for three PFAS:
 - PFOS
 - PFOA
 - Perfluorobutanesulfonic acid (PFBS)



Completed PFOS/PFOA Investigations



- **Preliminary Assessment (PA)**

- Completed in 2016
- Identified areas to investigate further

Reviewed historical data and records to identify firefighting foam release locations and potential for drinking water impacts.

- 8 areas identified, 7 recommended for next step

- **Site Inspection (SI)**

- Performed in 2018

Sampled soil, sediment, groundwater, stormwater, and surface water to determine if PFOS or PFOA are present in the environment

- **Expanded Site Inspection (ESI)**

- Performed in 2020

- Present on base, especially in groundwater
- Recommended ESI to sample off-base



Expanded Site Inspection – Off-Base



- Collected additional samples to further investigate the extent of PFOS/PFOA
- Fieldwork May-Nov 2019
- Analyzed for 24 PFAS compounds in accordance with EPA Method 537
- Two compounds (PFOS and PFOA) are associated with AFFF in fire-fighting foam
- PFOS/PFOA detected above the EPA LHA of 70 ppt in groundwater



Off-Base Private Well Sampling



- In response to the PFAS detections off-base, MassDEP has sampled 75 residential drinking water wells for PFAS and is currently maintaining State-installed Point of Entry Treatment (POET) systems at eight (8) residences with private wells affected by PFAS concentrations greater than the MMCL of 20 ppt.
 - Ivy Lane
 - Hopkins Road
 - Schumann Drive
 - Lewis Road
 - Buck Pond Road
 - Lower Sandy Hill Road (3)



Next Steps



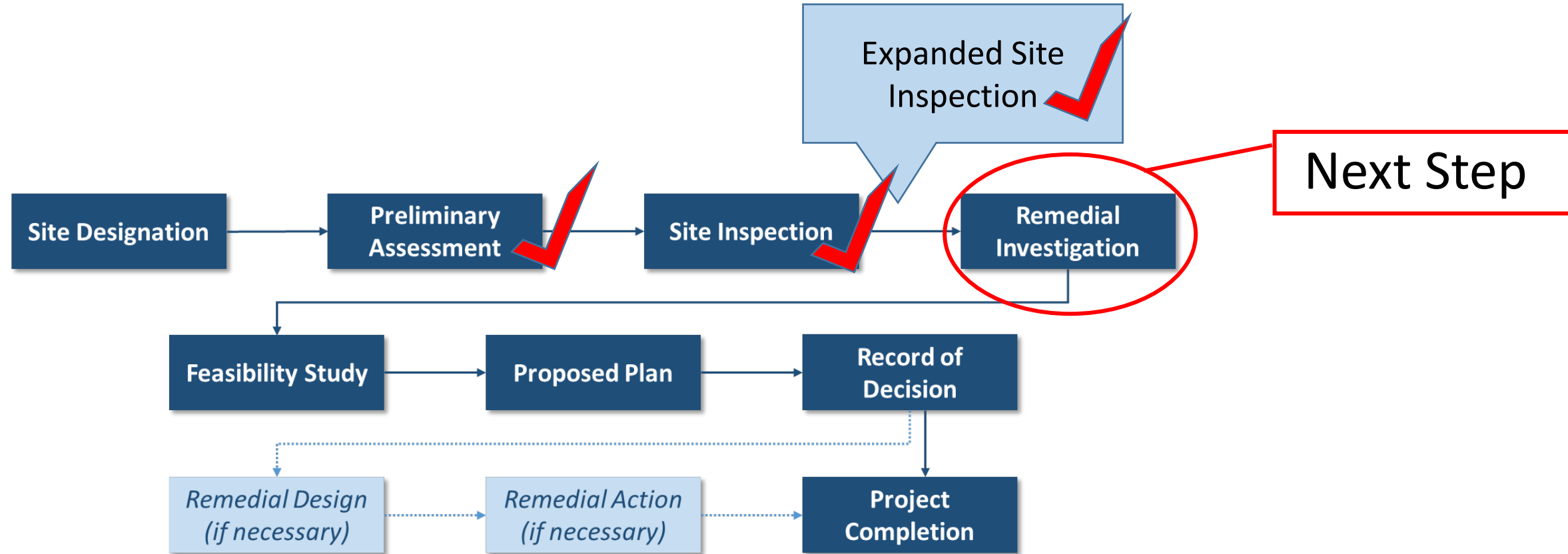
- ESI Report completed in October 2020
- Results to date are inconclusive on direct path to Westfield public and private wells
- Next step is the Remedial Investigation
 - RI will determine nature and extent of PFOS/PFOA migration
 - Funding of the RI is dependent (in part) on results of the Relative Risk Site Evaluation and sequencing
- 104 FW will continue to collaborate with the MassDEP and the City of Westfield





CERCLA Process

Comprehensive Environmental Response, Compensation, and Liability Act



A removal action may be initiated at any time during the process if human health or the environment is in immediate danger.



RAB Member Discussion



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- Introduce yourself at the beginning of your question or comment.
- Please limit questions to 2 minutes to give other RAB members an opportunity to participate.



Relative Risk Site Evaluation Process

JayneAnne Bond, PhD.

Toxicologist/Risk Assessor

Air Force Civil Engineer Center (AFCEC)

Restoration Technical Support Branch (CZTE)



Goals and Agenda



- Purpose - Communicate the RRSE purpose and process
- Agenda
 - What is RRSE?
 - What is the RRSE Framework?
 - Why is RRSE important?
 - What are the details?
- End Goal - Answer questions and capture concerns



What is the RRSE?

- RRSE Stands for Relative Risk Site Evaluation
- Described in:
 - Defense Environmental Restoration Program Management Manual – 4715.20
 - Relative Risk Site Evaluation Primer, Summer 1997 Revised Edition
- DoD-wide methodology to sequence environmental restoration work
- Used to evaluate the relative risks posed by one installation in relation to other installations
- Considered important in the sequencing process but not the sole factor

Goal of RRSE is sequencing of environmental restoration activities with the premise of “worst first”

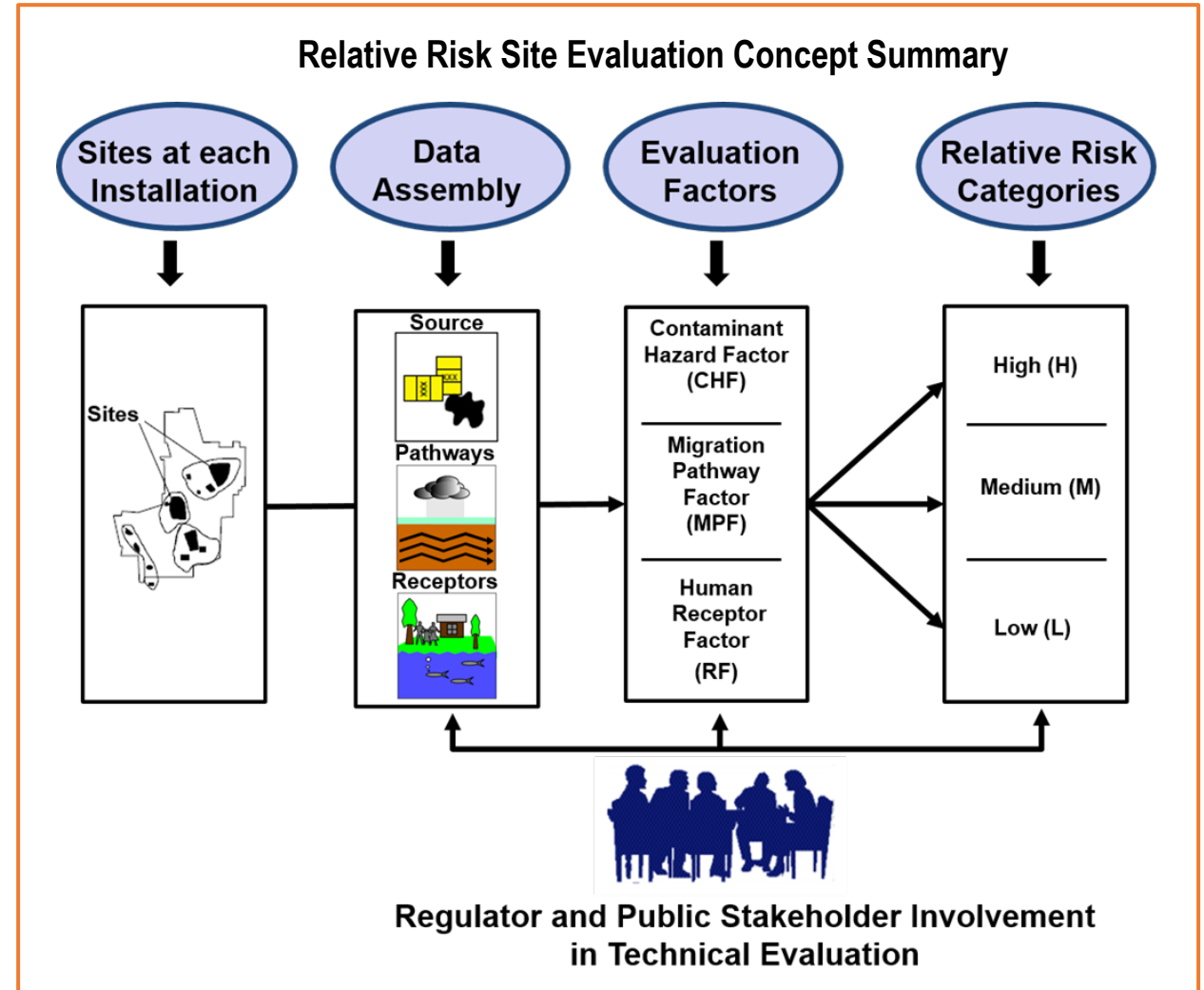
DoDM 4715.20, Defense Environmental Restoration Program (DERP), 9 Mar 2012, Incorporating Change 1, August 31, 2018;

DoD, Relative Risk Site Evaluation Primer, Summer 1997 Revised Edition https://www.denix.osd.mil/references/dod/policy-guidance/relative-risk-site-evaluation-primer/RRSE_Primer_Summer1997.pdf



What is the RRSE Framework?

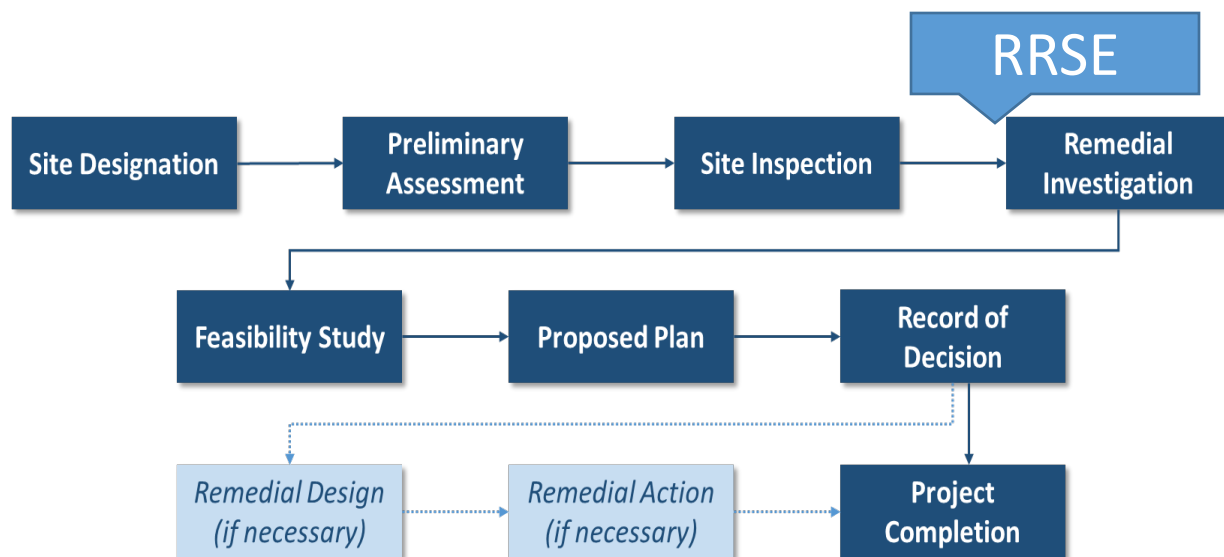
- DoD-wide approach for evaluating the relative risk to human health and the environment
- Based on information fundamental to risk assessment
- RRSE is **NOT** a CERCLA risk assessment



DoD, Relative Risk Site Evaluation Primer, Summer 1997 Revised Edition, CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act



RRSE and the CERCLA Process



- Required for restoration sites in CERCLA phases prior to remedy-in-place
- AF/ANG is using data collected during the SI/ESI
- Installations entering the RI/FS phase of CERCLA



How Does it Work?



- We use
 - The highest concentrations of PFAS found (CHF)
 - Potential movement of PFAS (MPF), and
 - Receptor's potential to come in contact with PFAS-impacted media (RF).
- The data and information are then used to determine the relative risk categories
- RRSEs are reviewed and updated as needed
 - New site-specific data
 - New toxicity/screening values



How Do We Use the Data?

Groundwater Worksheet

Contaminant Hazard Factor			
Contaminant	Max. Concentration (ug/l)	Comparison Value (ug/l)	Ratio
PFOS	8.86	0.04	221.5
PFOA	2.26	0.04	56.5
PFBS	0.349	.600	0.58
Total Ratio			278.6

Select Rating based on Total	
Significant (total > 100) High – H	H
Moderate (total 2-100) – Medium – M	
Minimal (total <2) – Low – L	

Migration Pathway Factor (MPF)	Select Rating	Receptor Factor (RF)	Select Rating
Evident – High - H Analytical data or direct observation indicates that contamination in the groundwater has moved to a point of exposure (e.g., well)	H	Identified – High – H Impacted drinking water well above comparison value* or existing downgradient drinking water well within 4 miles per SI guidance	H
Potential – Medium - M Contamination in the groundwater has moved beyond the source or Insufficient information available to make a determination of Evident or Confined		Potential – Medium - M No known drinking water wells downgradient and groundwater is currently or potentially usable for drinking water or source of water for other beneficial use	
Confined – Low - L Analytical data or direct observation indicates that the potential for contaminant migration from the source via groundwater is limited		Limited – Low - L No known drinking water wells downgradient; and groundwater is not considered to be potential source of drinking water and groundwater is of limited beneficial use	
Groundwater Category (High, Medium, Low)			High



How Do We Determine the Overall Site Rating?



- The highest *media-specific* relative risk rating becomes the overall site rating
- For example, “AFFF #1” has a:
 - Groundwater relative risk rating of high, and
 - Soil relative risk rating of low
 - The overall site rating for AFFF #1 is High.



What's Next in the Process?



- RRSE worksheets will provide the inputs to the sequencing list.
- The output helps determine the sequence of environmental restoration activities.
- Sequencing is based on “worst-first” to determine which installations receive funding first.
- The RRSE review process is completed yearly from February to September.



To Review and Comment on Barnes' RRSE



- RRSE is available for review on 104th FW website:
https://www.104fw.ang.af.mil/Portals/5/Barnes_RRSE%20Fact%20Sheet%20and%20Scoring%20Summaries_211215.pdf
- Originally released for 30-day public comment period on December 16
- Public comment period extended – will end **March 9**
- **Submit Comments to:** Mr. Bill Myer NGB/A4VR
(240) 612-8473
william.myer.2@us.af.mil



Next Steps for Barnes



- Memorandum for responses to comments on RRSE and final RRSE will be prepared and placed in the Administrative Record.
- The final RRSE will be used for sequencing to determine RI funding.
- With approval of RI funding for Barnes:
 - ANG will select a contractor to conduct the RI.
 - ANG will work with the MassDEP to develop initial plans under the MCP.
- Defense Environmental Restoration Program (DERP)
 - Barnes became eligible for DERP funding on February 17, 2022.
 - The RAB is now eligible to apply for a Technical Assistance for Public Participation (TAPP).



RAB Member Discussion



- Please raise your hands and unmute yourself when recognized.
- Introduce yourself at the beginning of your question or comment.
- Please limit questions to 2 minutes to give other RAB members an opportunity to participate.



Public Questions and Comments



Questions submitted in writing during the meeting will be addressed.



Contact Information



104th Fighter Wing, Barnes Air National Guard Base

Base Co-Chair
Vice Commander
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Mr. John Richardson

Public Affairs Manager
MSgt Lindsey Watson
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Websites for More Information



Environmental Restoration Program at 104th Fighter Wing

- General and Links to PFOS/PFOA Information: <https://www.104fw.ang.af.mil/About/Environmental/>
- Restoration Advisory Board: <https://www.104fw.ang.af.mil/About/Restoration-Advisory-Board/>

Relative Risk Site Evaluation (RRSE)

- Barnes RRSE: [https://www.104fw.ang.af.mil/Portals/5/Barnes RRSE%20Fact%20Sheet%20and%20Scoring%20Summaries 211215.pdf](https://www.104fw.ang.af.mil/Portals/5/Barnes%20RRSE%20Fact%20Sheet%20and%20Scoring%20Summaries%20211215.pdf)
- RRSE Primer: [https://www.denix.osd.mil/references/dod/policy-guidance/relative-risk-site-evaluation-primer/RRSE Primer Summer1997.pdf](https://www.denix.osd.mil/references/dod/policy-guidance/relative-risk-site-evaluation-primer/RRSE%20Primer%20Summer1997.pdf)

104th Fighter Wing Environmental Administrative Record

- <https://ar.afcec-cloud.af.mil/Search.aspx> (Select ANG radio button, select Barnes, and click on search)

MassDEP PFAS Information

- <https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas>

Westfield Water Department PFAS Information

- <https://www.cityofwestfield.org/672/PFCs-Information-Updates>

RAB Rule Handbook and Information on Technical Assistance for Public Participation

- <https://www.denix.osd.mil/rab/home/>

Air Force Response to PFOS and PFOA

- <https://www.afcec.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/>



Closing Remarks

Kathleen Hillman

Eric Oulette

Col. David Halasikun