### Fairchild Air Force Base Restoration Advisory Board (RAB) Meeting Minutes Virtual Meeting – MS Teams 08 June 2021 1:00 PM PT

#### LIST OF ATTENDEES

#### **RAB Members Present**

- Col. Michael Freeman (RAB Installation Co-Chair)
- Jon Welge (Community Co-Chair)
- Chuck Gruenenfelder (Community Representative, WDOE)

#### By Invitation

- John Peper (Bay West LLC)
- John Olson (Bay West LLC)
- Michael Sonderman (AECOM)

#### Fairchild AFB and Support Staff

- Kristin Nester (92 CES/CEI)
- Lt Andrew Yeh (MDOS/SGXB)
- Leo Behan (92 ARW/JA)
- Lt Michelle Chang (92 ARW/PA)
- Jessica Brown (92 ARW/PA)
- Anthony Morriss (AFMC)
- Megan Riccobono (AFCEC/CZOM)

#### **Community Members**

None Present

- Michael LaScuola (Community Representative, Spokane County Health District)
- Kim Prestbo (USEPA)
- Jason Cook (WDOE)
- Dr. Hugh Lefcort (Community Representative, Gonzaga University)
- Liz Drake (AECOM)
- Garrett Lee (EA Engineering)
- Mark Loucks (AFCEC/CZOM)
- Katherine Stringham (AFCEC/CZOM)
- James Wilkinson
   (AFCEC/CZOM)
- Abigail Power (AGEISS)
- Laura Shepherd (AGEISS)
- Lukas Reid (AGEISS)

### WELCOME AND CALL TO ORDER

Col. Michael Freeman welcomed the attendees and participants.

Ms. Liz Drake (AECOM) thanked everyone for coming to the Restoration Advisory Board (RAB) for Fairchild Air Force Base (AFB), provided an introduction, and began the meeting by providing meeting ground rules.

All RAB members present introduced themselves.

### **RAB BUSINESS**

Ms. Liz Drake made note that the next RAB meeting will be in December 2021. It is unclear if it will be in-person or virtual at this point.

### MINUTES OF PREVIOUS MEETING

The January 2020 minutes were not provided ahead of time for review; Jon Welge (Tetra Tech) asked for the previous minutes to be sent for review.

#### PFOS/PFOA INVESTIGATION AND ONGOING PFOS/PFOA PROJECTS By Megan M. Riccobono (AFCEC/CZOM)

Ms. Riccobono discussed the ongoing PFOS/PFOA projects associated with Fairchild AFB (see attached presentation). Based on the presentation, the following questions were asked:

- **QUESTION** (Mr. Greenlund): Was sampling for PFOS/PFOA done before or after treatment of water?
  - Ms. Riccobono replied: Sampled before and after treatment through granular activated carbon (GAC) systems.
- **QUESTION** (Mr. Gruenenfelder): Is the Remedial Investigation (RI) considering early action on source areas?
  - Mr. Loucks replied: Yes, options are being reviewed for early action, but nothing is currently in place.
- **QUESTION** (Mr. Gruenenfelder): To what extent will the RI expand outside of the Fire Training areas?
  - Mr. Loucks replied: Sampling will begin with known source areas and then expand to gauge the full extent.
- **QUESTION** (Mr. Welge): Has all that was discussed above been approved in the Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP)?
  - Ms. Riccobono replied: The UFP-QAPP has not been approved yet; it is expected to be approved in June 2021.
- QUESTION (Mr. Welge): Does the UFP-QAPP include source areas?
  - Mr. Loucks replied: Yes, it does.
  - Ms. Prestbo replied: The UFP-QAPP does also include a step-out process from the source area based on sample results.

#### STATUS OF WATER TREATMENT SYSTEMS By Garrett Lee (EA ENGINEERING)

Mr. Lee provided a summary of the Water Treatment Systems and Design (see attached presentation). Based on the presentation, the following questions were asked:

• **QUESTION** (Mr. Welge): How do you determine breakthrough of treatment systems?

- Mr. Lee replied: Sampling is conducted, and breakthrough is 100% of Lifetime Health Advisory (LHA), 70 parts per trillion (ppt), for the three GAC tanks.
- Mr. Loucks replied: Monitoring is conducted after the first of three tanks, so even if breakthrough happens after tank 1, the following two tanks are still below the LHA.
- **QUESTION** (Mr. Gruenenfelder): Have there been considerations to other forms of water treatments?
  - Mr. Lee replied: When EA Engineering took over, GAC systems were already the remedy that were in place; stayed with GAC systems for consistency between homes.
  - Mr. Loucks replied: When the final remedy is selected, all technologies will be considered but at the time of implementation a couple years ago, the only remedy available was GAC treatment systems.
- **QUESTION** (Mr. Gruenenfelder): What is the designation of the spent GAC? What landfill is it taken to?
  - Mr. Lee replied: Designation for spent GAC is non-hazardous, and Mr. Lee was unsure of the Landfill but said he could get that information to the presenters.
- **QUESTION** (Ms. Prestbo): How is the system performing and when is it turned on?
  - Mr. Lee replied: The system is turned on in May of every year and based on performance evaluation. The system was supposed to last three years so it is nearing the end of the designed lifespan but based on performance evaluation, it is still operating well.
  - Mr. Loucks replied: The Air Force is looking for a more permanent solution and the Air Force will continue to keep the treatment system up and running well until a permanent solution is found.

#### 2020/2021 PERFORMANCE-BASED REMEDIATION OVERVIEW By John Peper (Bay West LLC [Bay West])

Mr. Peper is a site lead for the performance-based remediation (PBR) contract at Fairchild AFB. Mr. Peper provided a summary of the PBR contract (see attached presentation). There were no questions asked.

### **ORPHAN TCE PLUMES (SS039) OVERVIEW**

#### By Mike Sonderman (AECOM)

Mr. Sonderman is the site lead for AECOM. Mr. Sonderman provided an overview of site SS039 (see attached presentation). Based on the presentation, the following questions were asked:

• **QUESTION** (Mr. Gruenenfelder): What oxidation agent are you using for the injections? • Mr. Sonderman replied: Sodium permanganate, consistent with past injections.

### SD037 BUILDINGS 2447/2451 OVERVIEW

#### By Mike Sonderman (AECOM)

Mr. Sonderman provided an overview of work at site SD037 (see attached presentation). Based on the presentation, the following questions were asked:

• QUESTION (Mr. Welge): What are the dimensions of the injection wells?

- Mr. Sonderman replied: they are 4-inch wells advanced down to the top of bedrock.
- **QUESTION** (Mr. Welge): Will you be sampling for the full host of volatile organic compounds (VOCs)?
  - Mr. Sonderman replied: Yes, sampling will be conducted for the full suite of VOCs including daughter products and field parameters.
- **QUESTION** (Mr. Gruenenfelder): How many injection events are being conducted?
  - Mr. Sonderman replied: The injection event this summer with potential of one injection event next summer along with two polishing events to clean up remaining contamination. Sampling will be conducted to determine the need for injection events
- QUESTION (Mr. Gruenenfelder): How many gallons of product will be injected per well? • Mr. Sonderman replied: Approximately 1,800 to 2,000 gallons per well.

### CRAIG ROAD LANDFILL (LF002) REMEDIAL ACTION-OPERATIONS OVERVIEW

#### By John Olson (Bay West)

Mr. Olson is the Bay West technical lead for several of the sites at Fairchild AFB. He provided an overview of site LF002 (see attached presentation). Based on the presentation, the following questions were asked:

- **QUESTION** (Mr. Gruenenfelder): Did added contaminants of concern (COCs) include PFOS/PFOA to LF002?
  - Mr. Olson replied: No, PFOS/PFOA were not added. The added COCs include vinyl chloride and chromium. No sampling has been conducted for PFOS/PFOA.

### INDUSTRIAL WASTEWATER LAGOON SYSTEM (WP003) REMEDIAL ACTION-OPERATIONS OVERVIEW

#### By John Olson (Bay West)

Mr. Olson provided an overview of site WP003 (see attached presentation). Based on the presentation, the following questions were asked:

- **QUESTION** (Mr. Welge): Have you looked into past injecting of cheese whey at WP003?
  - Mr. Olson replied: Yes, but past cheese whey injections weren't bioaugmented and didn't have dehalococcoides (DHC) injected either.
- QUESTION (Mr. Welge): Are you worried about low oxygen levels?
  - Mr. Olson replied: No, low oxygen is ideal. We have designed the pilot test injections to have low oxygen.
- **QUESTION** (Mr. Welge): What is different from past injections?
  - Mr. Olson replied: The pilot test injections will include microbes and culture to drive breakdown of contaminants.
- **QUESTION** (Mr. Welge): How long will it take to see results?
  - Mr. Olson replied: Results based on monitoring should be seen between six months to one year.
- **QUESTION** (Mr. Gruenenfelder): Where did the arsenic come from?

- Mr. Olson replied: There are two sources, one is from drums that were buried on site and one is from the lagoons which create reducing conditions driving a natural halo of arsenic from environment.
- **QUESTION** (Mr. Gruenenfelder): The injections may create a release of more arsenic, will that be monitored?
  - Mr. Olson replied: Yes, monitoring will include sampling for metals, such as arsenic.

### WEST FLIGHTLINE PLUME (TU506) OVERVIEW

#### By Mike Sonderman (AECOM)

Mr. Sonderman provided an overview of site TU506 (see attached presentation). Based on the presentation, the following questions were asked:

- **QUESTION** (Mr. Welge): How you found the depth to groundwater to be deeper currently, will the effect the excavations?
  - Mr. Sonderman replied: We found it to fluctuate by 1 to 2 feet. If it is lower, the excavations will extend down deeper to the groundwater table.

### EAST FLIGHTLINE PLUME (TU500) OVERVIEW

#### By Mike Sonderman (AECOM)

Mr. Sonderman provided an overview of work at site TU500 (see attached presentation). There were no questions asked.

### VOLUNTARY CLEANUP PROGRAM OVERVIEW

By John Peper (Bay West)

Mr. Peper provided an overview of Voluntary Cleanup Program Sites (see attached presentation). There were no questions asked.

### **PUBLIC COMMENT OPPORTUNITIES IN 2021**

#### By John Peper (Bay West)

Mr. Peper provided an overview of the documents that will be available for public comment opportunities in 2021 (see attached presentation). There were no questions asked.

### PUBLIC COMMENT OPPORTUNITY

Ms. Liz Drake (AECOM) opened the floor to the public for comment and discussion. There were no questions asked.

### **ACTION ITEMS**

Mr. Welge asked for agendas and previous meeting minutes to be provided ahead of future meetings.

Mr. Loucks replied stating that previous agendas and meeting minutes will be sent out ahead of the next RAB meeting for approval.

Ms. Prestbo asked for the presentations to be included with the meeting minutes when they are sent out.

Mr. Loucks replied stating that the presentations will be included with the meeting minutes.

Mr. Gruenenfelder asked if the next RAB meeting, scheduled for December 2021, will be virtual or in-person.

Mr. Loucks replied that ideally the December 2021 RAB meeting will be in-person and a decision will be made later in the year.

#### ADJOURNMENT

Ms. Liz Drake thanked everyone for attending this RAB meeting for Fairchild AFB, recounted the action items, and stated that the next RAB meeting is scheduled for December 2021.

# Welcome

Fairchild AFB Restoration Advisory Board Meeting

8 June 2021

# Hicrosoft Teams Etiquette



Mute microphone to prevent background noise



For best viewing experience, turn off your camera



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Ask questions in meeting chat, or Raise your hand to ask a question Click on 3 dots to turn on captions

### Fairchild AFB Restoration Advisory Board Meeting 1:00 p.m., June 8, 2021

### Virtual Meeting – MS Teams

### **RAB Meeting Agenda**

1:00 - 1:05	Welcome Col. Freeman, RAB Installation Co-Chair			
1:05 - 1:15	RAB Business Liz Drake, RAB Facilitator			
	<ul> <li>Ground Rules for Meeting</li> <li>Introduce RAB Members</li> </ul>			
1:15 – 1:30	PFOS/PFOA Investigation and Ongoing PFOS/PFOA Projects Megan M Riccobono, AFCEC			
1:30 – 1:45	Status of Water Treatment Systems Garrett Lee, EA ENGINEERING			
1:45 -2:25	5 Update on Sites Managed Under the Performance Based Contract (SS039, SD037, LF002, WP003 and Voluntary Cleanup Program) + Public Comment Opportunities 			
	Mike Sonderman, AECOM			
	John Olson, Bay West			
2:25 - 2:30	Break			
2:30 - 2:40	Public Comment Opportunity Liz Drake, RAB Facilitator			
	<ul> <li>Performance Based Contract Recent Decision Documents.</li> </ul>			
2:40 - 3:00	Discuss Date and Agenda Items for Next Meeting Adjourn			

# RAB Calendar 2021

### 2021 Fairchild AFB RAB Meeting Schedule

December 2021

Location TBD



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### June 2021 Restoration Advisory Board (RAB)

Megan Riccobono, AFCEC/CZOM Fairchild Remedial Project Manager



- PFOS/PFOA
- City of Airway Heights
- Ungoing PFOS/PFOA Projects



### **Groundwater Flow**





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# **Sampling Area**









- Actions for residential drinking water wells
  - TCRA approved March 2018 installation on-going
  - 15 homes currently on bottled water
  - Individual whole house GAC systems
    - 81 filtration systems installed
    - 10 wells with systems pending
    - 3 wells (6 homes) connected to CAWH water system
    - 2 wells on hold
      - 1 home owners have refused system
      - 1 system installation waiting on home owner to take action
    - 3 wells not currently used (properties with more than one well)
      - Wells could be used as drinking water supply
      - Currently not needed to meet home owner requirements

# AIR FORCE INSC

# Challenges w/ O&M Residential Treatment Systems



### Odor issues at 7 homes

- Each home is different
- USACE study complete on odor issues
- Currently performing disinfection of first selected well

### Low pressure at 5 homes

- Adding booster pump
- Other alternatives

### Filters clogging in very short period of time

- Still investigating possible solutions
- For now, changing them out when needed

### 1<sup>st</sup> Canister break through sooner than expected

- Other things in water that are "using up" carbon
- Nitrates, other organic compounds



# **City of Airway Heights**



### **City of Airway Heights (CAWH)**

Approximately 6,000 users

### Main CAWH Well #9 GAC system installed (temp solution)

- Commissioned 24 Sept 18
- Put on line in mid to late spring and taken off line in fall
- Cost \$1.5M to install, \$180K per yr. to operate (5 month duration)
- Back-up municipal well remains shut down

### Acquired drinking water from City of Spokane

 Environmental Services Agreement (ESA) is about \$800k each year based on water usage

### Back-up municipal well remains shut down

### TCRA amendment signed Oct 19

 6 homes connected to CAWH drinking water system

### **Municipal Treatment System**

Granular Activated Carbon (GAC) filtration system selected as treatment technology

System segregated into four subsystems to allow for partial operation and redundancy

System designed for 2,100 gallons per minute with pressure telemetry added to City's control system



System commissioned in accordance with WDOH requirements in early September 2018

System Operational by mid-September 2018 - PFOS/PFOA removal to non-detect levels





# Summary of PFOS/PFOA Projects



### Engineering Evaluation/Cost Analysis (EE/CA)

 A cost analysis to evaluate interim cleanup alternatives for mitigating impacts from perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) for the City of Airway Heights.

### Remedial Investigation (RI) Phase I

- This project evaluates and determines the nature and full extent of soil and groundwater contamination. We anticipate that it will take multiple phases to complete.
- This is the second milestone in the CERCLA process (SI-RI/BRA-FS-PP-ROD)

### Hydrogeologic Study Report

 Hydrogeologic Study Report and Alternate Well Location Evaluation identifies a potential alternate source of drinking water for the City of Airway Heights (Airway Heights) that will be evaluated as an alternative in an engineering evaluation/cost analysis (EE/CA)

### Drinking Water Protection Study (DWPS)

 Characterizing the releases of PFOS/PFOA in groundwater, soil, surface water, and sediments, and providing recommendations for future conceptual site model (CSM) updates and remedial Investigation efforts at FAFB.



# Engineering Evaluation/Cost Analysis (EE/CA)



- Draft Final to Regulators June 2021
- Final Report September 2021
- Notice of Public Availability September 2021
- 30-DayPublic Comment Period in October 2021
- Conduct Public Meeting during public comment period





- Final Fairchild AFB Uniform Federal Policy Quality Assurance Project Plan - Jun 21
- Field Work to begin 21 Jun 21
- Submit Draft Final Phase I RI Report Dec 22
- Plan for additional RI phases Dec 22 Apr 23





- Draft Final Hydrogeologic Study Report to Regulator March 2021
- Submit Final Hydrogeologic Study Report to Regulators July 2021



# Drinking Water Protection Study (DWPS)



- Submit Draft DWPS Report June 2021
- Draft Final DWPS Report July 2021
- Final DWPS Report September 2021



# **Acronyms and Abbreviations**



ug/L	micrograms per liter
	contaminant of notentia

- COPC contaminant of potential concern
- CUL cleanup level
- GETS Groundwater Extraction and Treatment System
- GW groundwater
- IW injection well
- O&M operation and maintenance
- OU operable unit
- PG Professional Geologist
- RA-O remedial action-operations
- RIP remedy in place
- SVE soil vapor extraction
- TCE trichloroethylene
- UFP-QAPP Uniform Federal Policy for Quality Assurance Project Plan
- USAF United States Air Force
- VCP Voluntary Cleanup Program
- VI vapor intrusion
- WDOE Washington Department of Ecology



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# Water Treatment Systems

**Garrett Lee** 

EA Engineering, Science, and Technology Inc.

### **PFAS TREATMENT TECHNOLOGY**



- Water treatment systems installed by AF utilize granular activated carbon (GAC)
- GAC is made from organic material with high carbon contents such as wood, lignite coal, coconut shells, etc.
- GAC treatment has been utilized since the early 1900s to remove a variety of contaminants from water
  - Organic contaminants
  - Chlorinated solvents
  - Pesticides
  - Heavy metals
- GAC treatment has proved to effectively remove PFAS compounds from drinking water

### HOW IT WORKS

- GAC removes contaminants from drinking water through adsorption
- As water flows through the GAC material, PFAS molecules (and other contaminants) adsorb to the surface of the carbon particles



### TREATMENT SYSTEM DESIGN

- The water treatment systems are designed with multiple GAC tanks in series (typically 2 or 3 tanks)
- At some point, the GAC in the first tank will become "spent" all available surface area for adsorption will be depleted
- Routine sampling is conducted to identify when a GAC tank is no longer working, then the spent GAC can be removed and replaced with new GAC
- Additional tanks provide safety and assurance that all PFAS compounds are removed
- Removed GAC can be landfilled or regenerated with high temperatures.



### CITY OF AIRWAY HEIGHTS WELL 9 TREATMENT SYSTEM

Installed in 2018

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- Capable of treating up to 1200 gallons per minute (GPM) of drinking water
- System is online for summer high demand season – May to October
- Sampling is conducted monthly
- Winterized and offline during winter months





### **RESIDENTIAL TREATMENT SYSTEMS**

- Approximately 80 treatment systems installed at private residences from 2017 to present
- Typical capacity for these systems is 10 GPM, though there are some higher flow systems
- System designed with 3 tanks for redundancy and increased safety
- Sampling and routine maintenance is conducted quarterly
- A 24-hr hotline is available for emergency repairs and response
- System also includes:
  - Particulate filters to remove any sediment/sands from the well
  - UV disinfection system for additional removal of bacteria and microorganisms



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# 2020/2021 Performance-Based Remediation Overview

Bay West and AECOM 8 June 2021



### **Overview**

- Site Overview
- **2020/2021 Major Sites** 
  - SS039, SD037, LF002, WP003, Voluntary Cleanup Program (VCP) Sites
- Public Comment Opportunities in 2021



# Site Overview

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59 historical environmental sites. One historical Military Munitions Response Site at Fairchild Air Force Base. Environmental actions include:

- Work Plans
- Remedial Action-Operations (RA-O)
- Treatment Operations
- Remedial Design
- Investigation Reports
- Monitoring/Remedial Performance Reports
- Treatment Reports



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Orphan TCE Plumes (SS039) 2020 Overview and Planned 2021 Actions

> Mr. Mike Sonderman AECOM Site Lead 8 June 2021



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### SS039 Overview

### 2020 Summary

- Annual GW Monitoring
- Sampled off-base wells – TCE above MCLs

### 2021 Planned

- Achieve RIP
- Oxidant re-injection into select areas
- Semi-annual
   Performance
   Monitoring
- Annual GW
   Monitoring and
   Reporting





### SS039 Off-Base Overview

### 2020 Summary

- Off-Base GW monitoring
  - TCE was above MCLs in two westernmost off-site wells

### 2021 Planned

 Complete semiannual GW monitoring





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### SD037 Buildings 2447/2451 2020 Overview and Planned 2021 Actions

Mr. Mike Sonderman AECOM Site Lead 8 June 2021



# SD037 2020 Overview

### Vapor Intrusion Evaluation: Round 1 and Round 2

- Vapor Intrusion
   Evaluation Report
   and Report
   Addendum submitted.
- Results indicate VI risk has not been fully determined for Buildings 2447 and 2451.
- Additional VI investigation may be required to complete VI evaluation.





# SD037 2021 Planned

**Pilot Study Work Plan** 

Currently in review with USEPA

**Implement Pilot Study** 

- Install additional monitoring and injection wells
- Complete Baseline GW monitoring event prior to injections
- Complete injection event (Sodium Permanganate)
- Complete quarterly performance monitoring for one year followed by two semi-annual rounds of sampling

VI Evaluation for Buildings 2447 and 2451 – Path forward under discussion



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Craig Road Landfill (LF002) 2020/2021 Remedial Action-Operations Overview

> Mr. John Olson, PG Bay West Site Lead 08 June 2021



# LF002 2020 Overview

### 2020 Actions

- Ongoing: Operation and Maintenance (O&M) of the Groundwater Extraction and Treatment System/Soil Vapor Extraction Systems (GETS/SVE) and RA-O Monitoring
- Remedial Progress: of the 58 MWs at LF002 (see map)
  - $_{\odot}$  Only 3 MWs have TCE concentrations > 100  $\mu$ g/L; most within the TCE plumes are 5 to 20  $\mu$ g/L
  - o 22 MWs have met remedial end point criteria
  - $_{\odot}$  31 MWs have decreasing TCE concentration trends towards MCL (5  $\mu$ g/L) in 2 yrs (avg) to 8 yrs (Max)
  - $_{\circ}$  1 MW has a stable trend slightly above the MCL (10  $\mu$ g/L)
- March 2020: Public Comment Period for OU1 Proposed Plan for ROD Amendment
- July 2020: Installed four new off-site MWs and two off-site vapor probes (See Map)
- September and December 2020: Sampling of new off-site wells and soil gas probes (concurrent with 3<sup>rd</sup> and 4<sup>th</sup> quarter RA-O)



# LF002 2021 Overview

### **2021 Actions (Actual and Planned)**

Ongoing: GETS/SVE O&M and RA-O Monitoring
February 2021: Completed Final 2019 Annual RA-O Report
April 2021: Completed Final RODA (LUC clarification, added COCs, added remedy components). USAF Signature pending.

In Review: 2020 Annual RA-O Report



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### 08 June 2021



#### **U.S. AIR FORCE**





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Industrial Wastewater Lagoon System (WP003) 2020/2021 RA-O Overview

> Mr. John Olson, PG Bay West Site Lead 08 June 2021



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### WP003 Overview

### 2020 Actions

- **Ongoing:** RA-O Monitoring
- **December 2020:** Completed Final QAPP Addendum II for a Bioaugmentation Pilot Test
- December 2020: Installed Replacement Monitoring Well MW-245C (MW-245B was accidentally destroyed by farm equipment in spring 2020)

### 2021 Actions (Actual and Planned)

- **Ongoing:** RA-O Monitoring
- In Review: 2020 Annual RA-O Report
- **February 2021:** Completed Final 2019 Annual RA-O Report
- June 2021: Perform Bioaugmentation Pilot Test
- Fall 2021: Prepare Feasibility Study Addendum





08 June 2021







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# Voluntary Cleanup Program (VCP) Sites

John Peper, PG Bay West 08 June 2021



### **VCP** Sites

Eight former oil/water separator sites along the flight line have achieved AF and Washington Department of Ecology (WDOE) approval of Site Closure/No Further Action through the WDOE Voluntary Cleanup Program

OW044, OW047, OW053, OW054, OW055, OW056, OW057, and OW063

### **Other Petroleum Sites in the NFA Approval Process**

- NFA Tech Memo Approved: ST010, SS033
- NFA Approved: ST006 (groundwater), OT017, FT032, ST035, AOC02, SS059
- RI/NFA Report Approved: SS059

### Petroleum Sites in the Remedial Investigation Stage

SS009

### Petroleum Sites in the Interim Measures/Remediation Planning Stage

TU500, TU502, TU503, TU506



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West Flightline Plume (TU506) 2020 Overview and Planned 2021 Actions

> Mr. Mike Sonderman AECOM Site Lead 8 June 2021



### TU506 2020 Overview

### 2020 Summary

 TU506 Interim Measure Work
 Plan approved

### 2021 Planned

- Hot Spot Excavation at OW049, OW050, and OW052
- Excavation
   Completion Report
- Quarterly Monitoring





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### *East Flightline Plume (TU500)* 2020 Overview and Planned 2021 Actions

Mr. Mike Sonderman AECOM Site Lead 8 June 2021



### TU500 2020 Overview

### 2020 Summary

 TU500 Interim Measure Work
 Plan approved

### 2021 Planned

- Hot Spot Excavation at OW040, OW041, OW042, OW043, and OW046
- Excavation
   Completion Report
- Quarterly Monitoring





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### **Public Comment Opportunities** 2021

OU8 (WP036, Contaminated Groundwater and Sediment at Bldg 1454 and RW011, Weapon Storage Area Radioactive Disposal Area) Proposed Plan (PP): <u>Public Comment Period June 7 – July 6, 2021</u>

Remedial alternatives for both sites

OU8 (WP036, Contaminated Groundwater and Sediment at Bldg 1454 and RW011, Weapon Storage Area Radioactive Disposal Area) ROD: <u>In production stage</u>

- Will include selected remedy for each site
- Anticipated to be finalized in late 2021 or early 2022



### **Public Comment Opportunities** 2021

# OU1 (LF002, Craig Road Landfill) Record of Decision Amendment (RODA): <u>In signature stage</u>

- Clarify and add LUCs
- Amend cleanup levels to include chromium and vinyl chloride
- Revise selected remedy (GETS and SVE) to include in situ chemical oxidation (ISCO) or in situ chemical reduction (ISCR)

### OU6 (SR939, Machine Gun Range) Record of Decision (ROD):

Document in review stage

Selected remedy for lead in soil (excavation, on-site stabilization, and off-site disposal)



### **Acronyms and Abbreviations**

#### U.S. AIR FORCE

µg/L	micrograms per liter
COC	contaminant of concern
CUL	cleanup level
GETS	Groundwater Extraction and Treatment System
GW	groundwater
LUC	land use control
MCL	maximum contaminant level
MW	monitoring well
NFA	no further action
O&M	operation and maintenance
OU	operable unit
PG	Professional Geologist
RA-O	remedial action-operations
RIP	remedy in place
ROD	Record of Decision
SVE	soil vapor extraction
TCE	trichloroethylene
UFP-QAPP	Uniform Federal Policy for Quality Assurance Project Plan
USAF	United States Air Force
USEPA	United States Environmental Protection Agency
VCP	Voluntary Cleanup Program
VI	vapor intrusion
WDOE	Washington Department of Ecology

# BREAK

### Meeting will resume in 5 minutes

# PUBLIC COMMENT

# MEETING ADJOURNED

# THANK YOU!

#### PUBLIC MEETING

Fairchild Air Force Base Restoration Advisory Board Virtual Meeting Tuesday, June 8, 2021 1:00-3:00 p.m. PDT

The Restoration Advisory Board (RAB) ensures that all community members, on and off base, have a voice and can actively participate in a timely and thorough manner in the review of Environmental Restoration Program documents. The Fairchild AFB Restoration Program seeks out, investigates, and cleans up past waste disposal and spill sites. Board members include private citizens, members of community groups, educational institutions, and representatives from Spokane City/County, Washington State Department of Ecology, and the Environmental Protection Agency.

Topics for this Fairchild AFB RAB meeting include:

- Overall PFOS/PFOA Drinking Water Update
- Status of Residential and Airway Heights Water Treatment Systems

 Performance Based Contract Overview & Site Updates

Public Comment Opportunity

Due to COVID-19 Pandemic concerns, this RAB meeting will be virtual.

Additional information on the Fairchild AFB Restoration Program is available at the Information Repository located at Spokane Falls Community College Library. Virtual meeting participation information is available by calling:

Capt. Kaitlin Holmes Public Affairs (USAF) 92nd ARW/PA Fairchild AFB WA 99011-9404 (509) 247-5705 SR37979

#### **AFFIDAVIT OF PUBLICATION**

#### STATE OF WASHINGTON County of Spokane} ss

Name:	AECOM	Client ID:	106876	
P.O. No.	SR37979	No. Lines:	60	
Total Cost:	\$279.10	Campaign:	170585	

#### E. Jean Robinson

I.

do solemnly swear that I am the Principal Clerk of The Spokesman-Review, a newspaper established and regularly published, once each day in the English language, in and of general circulation in the City of Spokane, Spokane County, Washington; and in the City of Coeur d'Alene, Kootenai County, Idaho; that said newspaper has been so established and regularly published and has had said general circulation continuously for more than six (6) months prior to the 23rd day of July, 1941; that said newspaper is printed in an office maintained at its place of publication in the City of Spokane, Washington; that said newspaper was approved and designated as a legal newspaper by order of the Superior Court of the State of Washington for Spokane County on the 23rd day of July, 1941, and that said order has not been revoked and is in full force and effect; that the notice attached hereto and which is a part of the proof of publication, was published in said newspaper time(s), the publication having one been made once each time on the following dates:

June 6, 2021

That said notice was published in the regular and entire issue of every number of the paper during the period of time of publication, and that the notice was published in the newspaper proper and not in a supplement.

E. JeanRobinson

Subscribed and sworn to before me at the City of Spokane, this 7th day of June , 2021.

Poni A. Vincent



Notary Public in and for the State of Washington, residing at Spokane County, Washington

Notary Stamp