

WURTSMITH RESTORATION ADVISORY BOARD (RAB) MEETING

February 15, 2023

Prepared by



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WURTSMITH RESTORATION
ADVISORY BOARD (RAB) MEETING

Oscoda United Methodist Church
120 West Dwight Street, Oscoda, Michigan 48750
Wednesday, February 15, 2023, 5:00 p.m.

Board Members Present: Steven Willis, Air Force (Co-chair)
Bill Palmer, Oscoda Township
Eric Strayer, AuSable Township
Beth Place, EGLE
Denise Bryan, District Health
Puneet Vij, MDHHS
Jessica Stuntebeck, USDA Forest Service
(appearing virtually)
Mark Henry, (Co-chair)
William Gaines
Arnie Leriche
Scott Lingo
Greg Schultz (appearing virtually)
Daniel Stock
Rex Vaughn
David Winn
Cathy Wusterbarth

Also Present: Jeremiah Morse
Matt Baltusis
Lynn Winn
Clayton Jolley
Dan Banks
Diana Banks
Belinda Kosibab
Thomas Lemcool
Andrea Stawowy
Larry Middleton
Jeremy Bennett
Rob Pallarito
Ben Wiese
Jeff Crum
Daniel Marion
Celeste Holtz

1 Barrie Selcoe
2 Tammy Kline
3 Megan Devir
4 Morgan Gulett
5 Greg Cole
6 Bryan Lynch
7 John McKech
8 Aaron Steele
9 David Carmona
10 Mark Miller
11 Jenny Haglund
12 Jay Mullett
13 Tony Spaniola (appearing virtually)
14 Paula Bond (appearing virtually)
15 Charlie Bauer (appearing virtually)
16 Courtney Carigman (appearing virtually)
17 Kate Lynnes (appearing virtually)

18 *Three illegible Sign-in signatures

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1 Oscoda, Michigan

2 And virtually

3 Wednesday, February 15, 2023 - 5:01 p.m.

4 MS. JESSIE HOWARD: Hello everyone, and welcome to
5 the February, 2023, Restoration Advisory Board Public
6 Meeting. My name is Jessie Howard, and I work for Irving
7 Entertainment Studios out of Alpena, and we will be
8 providing both AV support and facilitation for the RAB
9 meetings. So this meeting will be documented by us, and it
10 will also be recorded by a certified court reporter;
11 Ms. Suzan Stiles.

12 We do have a very full agenda tonight, so I would
13 like to give the floor to our Co-chairs for their opening
14 remarks. Mr. Steve Willis with the -- the Co-chair for the
15 Air Force, if you would like to start.

16 MR. STEVE WILLIS: Yeah. Good evening -- good
17 evening everyone, and welcome. We were here yesterday and
18 had what I think were some very productive discussions with
19 the community. Mark -- Mark took us down on a walk through
20 the Clark's Marsh area and we were able to talk about some
21 of the features down there. We followed that up with a
22 meeting yesterday afternoon, and talked further about the
23 area as well as some concerns they've got for IRA's and
24 the -- the QAPP that we've written.

25 And so we intend to continue that dialog. We want

1 to have these technical sessions every -- with every RAB
2 Meeting, so the plan is to on Tuesday have the technical
3 discussion, Wednesdays will be the RAB, and then potentially
4 we're even looking at having some type of a virtual
5 arrangement in between those to keep the communications
6 going.

7 So we're looking forward to basically increasing
8 and continuing communications with the community.

9 Mark?

10 MR. MARK HENRY: Thank you, Steve. I'd like to
11 thank everybody who is in attendance this evening. We have
12 a larger crowd than usual. I like to see that.

13 I'm looking forward to the meeting tonight. I'm
14 looking forward to the questions that the public raises.
15 I'm hoping to have those answered.

16 So thank you all for attending.

17 MS. JESSIE HOWARD: All right. I just want to
18 check real quick and make sure that everybody can hear us,
19 both present and those virtually.

20 All right. I'm not hearing anything from the AV
21 team in the back so, all right, we must be good.

22 So now what I will do is go ahead and take
23 attendance to ensure that we have our members here. When I
24 call your name, if you could please lean into your mic and
25 state that you are present. Our RAB coordinator, Amy, in

1 the back, she will respond for anyone connected virtually at
2 this time.

3 So I will begin with the Community RAB members.
4 Mark Henry?

5 MR. MARK HENRY: Present.

6 MS. JESSIE HOWARD: William Gaines?

7 (No verbal response)

8 MS. JESSIE HOWARD: No Mr. Gaines tonight.

9 Arnie Leriche?

10 MR. ARNIE LERICHE: Present.

11 MS. JESSIE HOWARD: Scott Lingo?

12 MR. SCOTT LINGO: Present.

13 MS. JESSIE HOWARD: Greg Schultz?

14 MS. AMY RAUSER: Present online.

15 MS. JESSIE HOWARD: Daniel Stock?

16 MR. DANIEL STOCK: Present.

17 MS. JESSIE HOWARD: Rex Vaughn?

18 MR. REX VAUGHN: Present.

19 MS. JESSIE HOWARD: David Winn?

20 MR. DAVID WINN: Present.

21 MS. JESSIE HOWARD: And Cathy Wusterbarth?

22 MS. CATHY WUSTERBARTH: Here.

23 MS. JESSIE HOWARD: All right. And our government
24 RAB Members. Mr. Steven Willis of the Air Force Civil
25 Engineer Center?

1 MR. STEVE WILLIS: Present.

2 MS. JESSIE HOWARD: Tim Cummings, Oscoda Township?

3 MR. BILL PALMER: Bill Palmer, Alternate, filling
4 in for Mr. Cummings.

5 MS. JESSIE HOWARD: All right. And Eric Strayer,
6 from AuSable Township?

7 MR. ERIC STRAYER: Present.

8 MS. JESSIE HOWARD: Beth Place, from EGLE?

9 MS. BETH PLACE: Present.

10 MS. JESSIE HOWARD: Michael Munson, from OWAA?

11 (No verbal response)

12 MS. JESSIE HOWARD: Denise Bryan, District Health
13 #2?

14 MS. DENISE BRYAN: Present.

15 MS. JESSIE HOWARD: Puneet Vij, Michigan
16 Department of Health & Human Services?

17 MR. PUNEET VIJ: Yes, I'm here.

18 MS. JESSIE HOWARD: Did I say your name correctly?

19 MR. PUNEET VIJ: Yes.

20 MS. JESSIE HOWARD: Thank you. And Jessica
21 Stuntebeck, from the USDA Forest Service?

22 (No verbal response)

23 MS. JESSIE HOWARD: Okay. All right. Next I
24 would like to quickly review the ground rules for our
25 meeting tonight.

1 Thank you. It looks like Mr. Gaines is here. All
2 right.

3 So the rules for tonight's meeting:

4 Number one, respect one another and maintain an
5 atmosphere of open dialogue and exchange of ideas.

6 Number two, use our time together efficiently,
7 wisely, and respectfully.

8 Speak clearly, one person at a time, avoiding
9 interrupting others.

10 Listen and remain open to different points of
11 view.

12 Maintain a propensity for progress; prepare,
13 discuss, document, and move forward.

14 Share information early, openly, and honestly.

15 And accurately and objectively relay to others the
16 discussions that occur at Board meetings.

17 All right. So now we will move on to the virtual
18 participation checklist. If you prefer to join by phone,
19 please dial the call-in number and enter the access code.
20 Once you have successfully joined the meeting via phone *6
21 will mute or unmute your mic, and *5 will raise or lower
22 your hand for question or comment, then Amy will let me know
23 if there is a question or comment that needs to be
24 addressed.

25 For RAB members connecting via Teams, please mute

1 yourself when you're not speaking, use the "Raise Hand"
2 button to raise or lower your hand, and to enable the closed
3 captions click the "More" button, then select "Language and
4 Speech", then select "Turn on Live Captions".

5 Use the "Questions and Answers" tab for any
6 questions, or you can contact Amy, our RAB coordinator, at
7 amy.rauser@wsp.com. That's a-m-y-.-r-a-u-s-e-r@wsp.com.

8 And -- let's see. And just a reminder to the RAB
9 members here, if you could just please lean into your mics
10 when it is your turn to speak.

11 And real quick I will review tonight's agenda
12 before we get started. I'll just go ahead and read through
13 that. We've already done our welcome, introduction, and
14 ground rules, so next will be our Stakeholder and
15 Restoration Advisory Board Member updates, followed by the
16 RAB business update.

17 We will hear the BECOS update, as well as the
18 Vapor Intrusion and Remedial Investigation update, then the
19 Interim Remedial Action update. We will review our
20 schedule, address RAB Member questions, then we'll get to
21 the public comments section of our agenda, followed by the
22 conclusion.

23 We do request that the community members here
24 tonight do hold their questions and comments for the public
25 comment portion of our agenda later this evening.

1 And now I would like to turn the floor over to
2 Mr. Willis for an update from the Air Force.

3 MR. STEVE WILLIS: So as I -- as I mentioned
4 earlier, we did have a site walk and a technical session
5 yesterday. Again, I thought it was a productive discussion.
6 It was a very free-form discussion. It wasn't the Air Force
7 coming in and doing presentations and -- and kind of walking
8 away.

9 We didn't have a specific agenda. We opened it up
10 to comments, questions, concerns, to the community, and,
11 like I said, I thought it was productive. The feedback I've
12 gotten is -- was positive, so we'll continue that.

13 MR. MARK HENRY: And we burned up every single
14 minute that was available to us.

15 MR. STEVE WILLIS: We did. The library kicked us
16 out. They wanted to go home. And that's all I've got.

17 MS. JESSIE HOWARD: All right. Mr. Henry?

18 MR. MARK HENRY: I don't have very much to say
19 about RAB business, but I would like to bring up that one of
20 our RAB members passed away between the last meeting and
21 now.

22 For those of you who know Joe Maxwell, it was a
23 pleasure to know him. I liked working with him on the RAB,
24 and I believe he was one of the original members on the RAB.

25 So if there are anybody here who knows him, please

1 know that we appreciated his work with us.

2 MS. JESSIE HOWARD: Okay. Now I would like to
3 open the floor to any community RAB members with any
4 updates. Cathy?

5 MS. CATHY WUSTERBARTH: Sure. All right. I work
6 with the Need Our Water Community Action Group, and we have
7 a focus team that meets on a twice-a-month basis at the
8 least, and sometimes more. We meet with our experts,
9 including Mark Henry, Bob Delaney, Kyle Jones has joined our
10 team, Tony Spaniola of course, Dave Winn, and then some
11 other members that occasionally join.

12 But we spend our time trying to develop strategy
13 and ideas, and -- and solid plans that we can provide to the
14 Air Force about cleanup efforts and containment of the
15 contamination that's flowing off of the Base.

16 Back in -- this summer -- August -- the August RAB
17 meeting we submitted four IRA's; Interim Remedial Actions;
18 that we believe were very important to keep the flow of the
19 chemicals coming off the Base into our community. We
20 understand that the remedial investigation and then the
21 ultimate actions will really take years and years to put in
22 place because the contamination is so extreme, but there are
23 interim remedial actions that the Air Force can put in place
24 now to keep those plumes from flowing off the Base into our
25 community and affecting our health and the environment.

1 So we presented those in August, they brought
2 those forward in terms of evaluating those in our November
3 RAB meeting. They rejected two of those interim remedial
4 actions. In the meantime we continue to believe that those
5 are very important actions that need to be put in place.

6 Those were discussed at our technical meeting
7 yesterday, so I'm hoping that we could have a little bit
8 more discussion on that at the most -- at an appropriate
9 time during this meeting on ideas or things that came out
10 of -- of that in terms of next steps for consideration for
11 those two actions that we believe are very important.

12 We have also drafted a letter to our
13 congressionals and senators to explain what those actions
14 are in understandable ways so that -- so that if -- you
15 know, if we -- if we need to get Congress involved in the
16 next steps, we are -- we are able to do that and they have
17 the information that they need for that.

18 We appreciate the community coming out today for a
19 rally so that we could lift up those messages.

20 And I would like to take this opportunity to -- to
21 say that we have a -- a film crew from a Japanese Public
22 Television here, because this is a worldwide issue. They
23 have Bases in Japan that are affected also, so it's not just
24 us, but we believe that we're one of the first Bases that
25 had this issue, and we need this fixed now; not in a couple

1 of years, but now, and those actions can be taken now.

2 I would also like to take the opportunity to thank
3 MIC-TV for their years of dedication on hosting this
4 meeting, and in various locations, and challenges, and
5 welcome this new production company that is hosting the
6 meeting. So thank you.

7 MS. JESSIE HOWARD: Thank you. Did we have any
8 other updates from any community RAB person?

9 MR. ARNIE LERICHE: (indicating)

10 MS. JESSIE HOWARD: Yeah, Mr. Leriche?

11 MR. ARNIE LERICHE: This is Arnie Leriche. I just
12 want to let the public know that transparency and the
13 ability for the public to understand a very technical
14 process under Superfund and the cleanup -- and Cathy has
15 mentioned a -- a few of the steps -- and I want you to know
16 that there are a few in the room here that have had
17 conversations over the last almost two years with the
18 Assistant Deputy -- one of the Assistant Deputies of the
19 Department of Defense; one higher than the Air Force or Army
20 in level of responsibility and management.

21 And we talked to him on -- a couple of us; Tony
22 Spaniola, Mark, myself, Greg; and were able to ask him, and
23 push him, to be more transparent in how not only the
24 meetings here; which is very important, the format and the
25 ability for the public to connect with these meetings and

1 these discussions; but also in the documents themselves for
2 us to understand them as community members and for you, the
3 public, to understand them.

4 So that process is going on right now. They've
5 hired a contractor, our previous facilitator Tim Schulthesis
6 (phonetic) has been -- is part of that team, and he's going
7 to be adding a lot of information and requests for better
8 and improved trans- -- transparency and understanding.

9 So please let any of us know where you have a
10 concern or a question about that process. We want more
11 people to be on the virtual, we want to fill these rooms
12 with questions, and hopefully we can get you the answers
13 that you deserve.

14 Thank you.

15 MS. JESSIE HOWARD: Thank you. Do we have any
16 more community RAB members with an update?

17 (No verbal response)

18 MS. JESSIE HOWARD: Okay. So I do believe that I
19 will go through the government RAB members one-by-one and
20 we'll get updates from them as well.

21 Tim Cummings, from Oscoda Township?

22 MR. BILL PALMER: Well, I'm Bill Palmer, filling
23 in --

24 MS. JESSIE HOWARD: Oh, I'm sorry.

25 MR. BILL PALMER: -- for Mr. Cummings.

1 I wanted to thank the Air Force and its
2 contractors. We had a field trip yesterday morning. It was
3 a little chilly in the morning, but it turned out to be a
4 beautiful day, and we spent a little over two hours tromping
5 through the woods and through the snow behind the wastewater
6 treatment plant and the sediment beds and some areas that I
7 think a lot of us have -- have never seen before.

8 It was -- it was very informative, and I
9 appreciate the Air Force and its contractors and everyone
10 involved, and Mark Henry who kind of led the -- led the
11 charge on that, for doing that.

12 And, as well, the -- the technical meeting, as
13 Mr. Willis spoke about earlier. It was at the library from
14 1:30, and we were there until 5:00. It probably could have
15 gone longer, but we got kicked out of the library. And
16 it's -- it's nice to know that they're going to have these
17 on a regular basis on the Tuesday prior to the RAB meetings;
18 which we had yesterday.

19 The one item I would like to bring up that's a
20 concern of the Oscoda Township is the use by the Air Force
21 of the storm sewer system for their treatment plants. We
22 have come to an -- an agreement with the Air Force on
23 slip-lining the Mission Street plant; that section of the
24 storm sewer. However, we have not come to an agreement with
25 the Air Force on the use of the Central plant, which

1 currently is pumping approximately 1.4 million gallons of
2 water a day through that storm sewer system.

3 We had had our engineers several years ago; four
4 years ago approximately; develop a cost structure for the
5 use of that, and the Air Force agreed to it in the
6 beginning, made a few payments, and then decided to -- they
7 weren't going to pay that anymore, and, to my knowledge, we
8 have not received any further payments.

9 I would hope that sometime here in the very near
10 future we can sit down with the Air Force and have some real
11 negotiations on what those costs should be. We require our
12 residents to pay sewer fees; not storm sewer, but sanitary
13 sewer; and we need that funding in order to maintain that
14 system.

15 This storm water system was put in by the Air
16 Force originally on the Base, so it's been in the ground for
17 a very long time. My concern is that with that amount of
18 water flowing through the system -- storm sewers are not
19 designed to handle that much water. My concern is that over
20 the next 30 or 40 years that this process will be going on
21 there may be significant costs that the Township would incur
22 to either repair or replace sections of that storm sewer.

23 So I'm hoping we can have some discussion in the
24 very near future with the Air Force to come to an agreement
25 on a reasonable cost for using that system.

1 Thank you.

2 MS. JESSIE HOWARD: Okay. Thank you.

3 From AuSable Township, Eric Strayer.

4 MS. CATHY WUSTERBARTH: I'm sorry. Jess, may I
5 interrupt?

6 MS. JESSIE HOWARD: Yeah.

7 MS. CATHY WUSTERBARTH: Is this a time that we
8 could ask these agencies questions, when they're doing
9 their -- their comments; things that I think that the -- you
10 know, as Board members we would like to ask the various
11 agencies? Is it -- that's something that I think we've done
12 in the past.

13 MR. STEVE WILLIS: If you have a question, --

14 MR. MARK HENRY: Sure.

15 MR. STEVE WILLIS: -- that's great.

16 MR. MARK HENRY: Sure.

17 MS. CATHY WUSTERBARTH: Okay. Yeah. So I would
18 like to ask the Township; Oscoda Township; about the -- you
19 know, whether they've received the BCT Minutes; the -- the
20 Closure Team Minutes. And actually ask both Mark and Steve
21 if they're -- if they could just provide us an update maybe
22 on -- on the actions that have been done with the wastewater
23 treatment issues that we've had with the wastewater
24 treatment plant and the lagoons.

25 MR. STEVE WILLIS: Do you have anything that --

1 MR. MARK HENRY: I don't know what I can add.
2 The -- the Air Force, we've raised this up; this issue about
3 the -- the wastewater treatment plant flushing legacy
4 contamination out of the groundwater and into the AuSable
5 River and Clark's Marsh. The Air Force has recently stated
6 that they were going to accelerate the focus feasibility
7 study process and evaluating what would be needed to
8 implement an IRA at the wastewater treatment plant.

9 I presume that during this field season that
10 whatever data is necessary will be gained.

11 MR. STEVE WILLIS: Right. Yeah, I was just -- I'm
12 just going to add that we do have data gaps that we will
13 address, and, as Mark indicated, we are going to accelerate
14 that particular area for data collection and the focus
15 feasibility to -- study to look at alternatives in that area
16 and what -- what may be necessary.

17 But right now we've still got data gaps and
18 can't -- can't design or implement any kind of system.

19 MS. CATHY WUSTERBARTH: Okay. They -- what --
20 from what I read from the BCT Minutes from November it
21 looked like there was some repairs done on the liner, and I
22 think a question was asked, maybe by the State, if there
23 would be some sampling of the soil underneath that, and I
24 think the Air Force said, no, that would not be done.

25 Is that -- I don't know. It seems like it would

1 be prudent to sample that soil.

2 MR. STEVE WILLIS: I don't recall any repairs
3 being done over at the wastewater treatment plant.

4 MS. CATHY WUSTERBARTH: The line -- the liner
5 on --

6 MR. MARK HENRY: There's a -- there was a
7 lagoon --

8 MS. CATHY WUSTERBARTH: The lagoon --

9 MR. MARK HENRY: -- over by the hangers --

10 MS. CATHY WUSTERBARTH: -- yeah. Yes, that's --

11 MR. MARK HENRY: -- where the --

12 MS. CATHY WUSTERBARTH: That's what I'm
13 referring --

14 MR. MARK HENRY: -- liners had been damaged.

15 MS. CATHY WUSTERBARTH: -- to, that is affecting
16 the flow going into the plant, yeah -- or going into the
17 system.

18 MR. MARK HENRY: I understand, though, that that
19 liner is going to be replaced and that lagoon has been
20 physically disconnected from being able to discharge to the
21 sanitary sewer and allow PFOS into the sanitary sewer line.

22 MS. CATHY WUSTERBARTH: That's correct?

23 MR. STEVE WILLIS: That's correct.

24 MS. CATHY WUSTERBARTH: Okay. All right. Thanks
25 for that clarification.

1 MS. JESSIE HOWARD: Okay. So we will just keep
2 the -- the questions and comments at this part, you know,
3 just quickly, but there will be a section at the end of the
4 evening where we will also address additional RAB member
5 questions as well right after the break.

6 So we'll move on to Beth Place from EGLE for an
7 update.

8 MS. BETH PLACE: Sure. Thank you.

9 Again, I'm Beth Place, from EGLE. And we
10 appreciate having a lot of technical meetings with the Air
11 Force recently that have been very productive.

12 On PFAS remedial investigation we met with them in
13 the first week of December to discuss the data from the
14 second field season, and that was helpful.

15 We also met with the Air Force again today to
16 discuss conceptual site model issues, and continue to just
17 discuss issues as we move towards the next field season.

18 While we reviewed some of the PFAS data from the
19 second field season, EGLE recently; today; communicated to
20 the Air Force that we -- that we wanted to renew some of our
21 requests for early and interim remedial actions, and so that
22 is a letter that our division director -- our remediation
23 division director Mike Miller has sent to Air Force today.

24 And he also requested that interim remedial
25 actions or early actions are also implemented at DRMO and

1 LF30/31. And so that's a letter that I can share with the
2 RAB, and also that will be placed on our, in part, Wurtsmith
3 web page.

4 Recently we also met with the Air Force on the
5 Aircraft Alert Area IRA, and this was just a high level of
6 discussion of that system.

7 And Remediation & Redevelopment Division and Water
8 Resources Division had discussions with Air Force on the --
9 on the potential discharge, whether this would be of surface
10 water discharge or -- or -- or an infiltration gallery. And
11 so that's something that's still kind of under discussion
12 between the agencies. EGLI has requested additional
13 modeling data to help us be informed on that project.

14 Additionally we have also had a kickoff meeting on
15 the vapor intrusion project, which you guys will hear about
16 later tonight, and we thought that was a great kickoff
17 meeting, and we're very excited for that -- for that work to
18 begin.

19 Those are our updates. Thank you.

20 MS. JESSIE HOWARD: Thank you. Do we have anybody
21 here from OWAA who would like to give an update? No? Okay.

22 Denise Bryan, from District Health #2?

23 MS. DENISE BRYAN: Good evening. I want to
24 welcome everyone to the meeting and those listening and
25 participating online.

1 There's nothing more valuable than stakeholder
2 input, and the transparency of actions taken and not taken,
3 and the decisions with those. Do not ever underestimate the
4 power of your voice on this important health issue. It's
5 collectively very powerful.

6 In local public health we've been challenged with
7 some public health threats, an emergence of different things
8 that come to the attention of the medical director and
9 myself as the health officer. Our primary mission is health
10 for all people and increasing the quality of life for
11 people, and for me it's eight Counties in Northeast
12 Michigan.

13 I talk to my staff, legislators, stakeholders,
14 about a return on investment, and with your input and with
15 participation towards remedies for the contamination we've
16 been facing for far too long; over a decade; I think that
17 will continue to help provide incremental change and change
18 that we cannot wait.

19 I'm one of the most patient people to come up with
20 strategies to move that dial, and I can remember at a RAB
21 three years ago Tony saying, "Time is up", and I agreed. It
22 was trying. It is a process.

23 For my update, I will be reaching out as well
24 legislatively to our new representatives and senators. I
25 have appointments in April, and my primary issues are always

1 funding for local public health. But second to the funding
2 concern is really addressing the contamination that affects
3 our residents and our -- our guests to our County, and our
4 Veterans. They deserve answers. It's an intersection of
5 the environment and human health.

6 And I think the other comment that I learned with
7 the pandemic was the power of the purse when there was some
8 defunding of some pandemic activities. And I wrote that
9 down because there tends to be the money as one of the
10 obstacles to getting quick action, and that will be a
11 national issue.

12 And we have had great support, but we can't lose
13 momentum in having the power of the purse bring us quick
14 interim actions, because of course we're going to follow
15 CERCLA, as the RAB does with the Air Force.

16 So thank you to the residents. My update is that
17 I continue to be committed to the remedies, and having some
18 day where we can celebrate successes from these types of
19 meetings.

20 Thank you.

21 MS. JESSIE HOWARD: Thank you, Denise. And next
22 we have Puneet Vij from the Michigan Department of Health &
23 Human Services.

24 MR. PUNEET VIJ: Thank you. So I can provide an
25 update on residential well sampling. We finished our round

1 three of re-sampling last year, and we collected a total of
2 250 homes per sample. Out of the 250 results there are 144
3 non-detects and 106 detections. And out of these 106
4 detections there were 20 detections that exceeded the MDHHS
5 comparison values.

6 So thank you.

7 MS. JESSIE HOWARD: Okay. Thank you very much.
8 And do we have anybody from the USDA Forest Service that
9 would like to give an update?

10 MS. AMY RAUSER: Yes. I have Jessica Stuntebeck.

11 MS. JESSIE HOWARD: Okay. All right. I would
12 like to introduce Jessica Stuntebeck, with the USDA Forest
13 Service. She is with us virtually. Jessica? Can you
14 please --

15 MS. JESSICA STUNTEBECK: Good afternoon. We do
16 not have any updates from the Forest Service. Our Forest --
17 a ranger was able to attend the -- the session yesterday,
18 and we've just been working closely with everybody to
19 hopefully get as much work done as possible.

20 And if Ben Wiese is there; he was the District
21 ranger; I can let him talk. I don't know if he's there, or
22 not.

23 MR. BEN WIESE: (inaudible)

24 MS. JESSIE HOWARD: Okay. He says he's all set
25 with an update. So I believe that completes the RAB member

1 updates. Next we will move on to the RAB business portion
2 of our agenda.

3 And for a quick AI update, AI Number 70 --

4 MR. STEVE WILLIS: Jessie?

5 MS. JESSIE HOWARD: Yes?

6 MR. STEVE WILLIS: You skipped the AuSable
7 Township; --

8 MS. JESSIE HOWARD: Oh, I'm --

9 MR. STEVE WILLIS: -- Eric Strayer.

10 MS. JESSIE HOWARD: I'm so sorry.

11 MR. ERIC STRAYER: My feelings aren't hurt.

12 We continue to work on the -- AuSable Township, on
13 the C2R2 Grant, which is going to be paying for municipal
14 water hookup for PFOS hotspots in our Township. I am
15 interested in seeing the information on the work on the --
16 the vapor -- what the Air Force is doing with the vapor
17 studies.

18 We have our own investigations going on and have
19 bloom sites that we have over in AuSable Township with vapor
20 intrusion, so I will be interested in seeing what is going
21 to be going on with that study.

22 So other than that, that's all I have.

23 MS. JESSIE HOWARD: Okay. Have I got everybody
24 now? Did everybody give their update?

25 (No verbal response)

1 MS. JESSIE HOWARD: All right. Perfect. So back
2 to the RAB business portion of the agenda; the AI update.

3 AI Number 72 was closed. AI Number 98 was kind of
4 merged with AI Number 92, and was closed.

5 MS. CATHY WUSTERBARTH: Jessie, can I -- can I
6 interrupt you, please?

7 MS. JESSIE HOWARD: Sure.

8 MS. CATHY WUSTERBARTH: Could you clarify for
9 everyone in the room what "AI" means?

10 MR. STEVE WILLIS: "Action item."

11 MS. JESSIE HOWARD: Action item, yes.

12 MS. CATHY WUSTERBARTH: Thank you.

13 MS. JESSIE HOWARD: Thank you. And let's see. So
14 AI Number 98 was closed and combined with Number 92. AI
15 Number 103 was closed. And AI's Number 105 and 106 were
16 both established.

17 All right. Now we do have a short presentation by
18 our Community Co-chair, Mr. Mark Henry. As we begin these
19 presentations I would just like to request that the RAB
20 members do hold their questions until after the presentation
21 is finished. I will have a section after each presentation
22 where we will address any questions that come up during the
23 presentation.

24 MR. MARK HENRY: Okay. Thank you very much. Over
25 the past few years that I've been involved with the RAB

1 there are a few areas on Wurtsmith Air Force Base that could
2 potentially be source areas. And I -- some of these I have
3 raised to the Air Force before informally. Other ones have
4 come to mind as I was preparing my list.

5 But what I would like to do is present to the Air
6 Force my concerns about various parts of the Base and where
7 residual aqueous film forming foam could be potentially
8 found, and these areas should be considered for
9 investigation during the remedial investigation.

10 Next slide, please.

11 I've broken this up into four areas around the
12 Base; the wastewater treatment plant area here (indicating),
13 the old jet-fighter runway area here, the hanger area
14 here -- oh -- the -- the area in the northern part of the
15 Base also, and there was one more that didn't make it onto
16 this, but it is the former munitions burn site that was
17 located on State land immediately north of the small-arm
18 firing range up here.

19 Next slide, please.

20 I'm going to go in a -- sort of a
21 counter-clockwise direction.

22 One of the things that I feel should be
23 investigated a little bit -- just a little history.

24 I've been at Wurtsmith Air Base for 30 years,
25 working first as a researcher with the University of

1 Michigan, and later as the State's environmental engineer
2 and technical expert for Wurtsmith, and so I have a fair
3 amount of experience at the Base.

4 And also I got onto the Base and started working
5 at the University of Michigan job there about a month after
6 the Base closed. So when I got to the Base there was almost
7 nobody on the Base, the -- it was like a ghost town, and I
8 got to kind of poke around in everything because there was
9 nothing going on.

10 One of the things that I had noticed when I was
11 exploring around by the wastewater treatment plant -- and it
12 was closed at that time and dry -- is that -- and I believe
13 it's about right here (indicating) in this infiltration
14 gallery, there was a pile of plastic media that was used in
15 the treatment systems that were already in place on the
16 Base, and had been so for decades. But all of those
17 treatment systems were pumping PFOS-contaminated groundwater
18 in addition to the volatile organic chemical contamination
19 that was known about at the time that the Base closed down.

20 So these systems; these air strippers; were
21 pumping -- water was being pumped to these air strippers,
22 air was being blown through this, there was plastic media
23 inside the columns through which the air flowed.

24 PFOS was not known to be a problem at that time,
25 but the volatile organic chemicals were, and these systems

1 were designed to treat those by blowing air through it.

2 Well, there was PFOS in the water. It's just nobody
3 recognized that at the time.

4 But when I got here there was a pile of stripper
5 media there that was probably 30 feet across and probably 6
6 to 8 feet tall. So they took these air strippers -- and
7 eventually the plastic media in there would sort of break
8 down. They would take it out of there, and this is where
9 the de- -- the deposit of the media was at the time that the
10 Base closed.

11 So I'm recommending that the Air Force look at
12 potential -- and it was right in the corner of this cell --
13 do a soil boring there to find out if that media in fact
14 brought high-level contamination and contaminated the soils
15 under where that pile was.

16 Next slide, please.

17 This is the old jet-engine -- or excuse me --
18 jet fighter-plane runway. This is one of the original ones
19 on their Base. There used to be a control tower about right
20 there (indicating). Right here, for those of you who are
21 familiar, is where the fire training area was where a lot of
22 the -- the aqueous film forming foam was released.

23 But there's a lot of things that went on here,
24 some of which I have learned since the last RAB meeting
25 actually; if I have that correct.

1 First of all, 5091 and 5092. 5091 is still there.
2 5092, that building I believe has been incorporated into one
3 of Kalitta's new buildings out there. But my understanding
4 is is that 5092 -- which, when I was working for the
5 University of Michigan we leased that building along with
6 this entire area out here and all of the buildings in it --
7 that 5092 was used for missile repair. And in fact it had
8 concrete walls; poured concrete walls; about 16 inches
9 thick.

10 And my question to the Air Force is, because that
11 was used for such maintenance, was there a fire suppression
12 system in that building that had contained the aqueous film
13 forming foam in the event that they needed to put out a
14 fire. And I do not know the answer to that question, but I
15 think it's something that should probably be looked at.

16 What I have found out since the last RAB meeting
17 is that 5091 -- which I believe is still under the control
18 of the Air Force; they were using it for warehousing -- that
19 when the Base was using AFFF, that this is where they loaded
20 all their trucks. So they had the concentrated AFFF stored
21 in that building, and the fire trucks would then come there
22 and they would put that concentrate into the truck.

23 I can only imagine that because it was used from
24 1970; thereabouts; until about 1993 -- accidents happen, and
25 concentrated AFFF may in fact have been spilled on the

1 concrete there, and it would have gone through because
2 the -- the fighter runway had not been used in -- well,
3 probably since the 70's, that it's very possible that the
4 soil underneath the runway there is contaminated with
5 high-concentration PFOS that may, or may not, be washing out
6 and into the groundwater because it's protected by concrete.
7 So it's a concern of mine.

8 This building right here (indicating) was a
9 jet-engine test cell used in the 70's and on, and the -- the
10 Air Force is currently doing an investigation around there.
11 But when I look at where the soil borings have been done it
12 seems to me that they are not paying enough attention to the
13 drainfield that is at that building.

14 This building has its own well, which is right
15 around where the tip of that arrow is, and that -- that well
16 has supplied water to that building ever since it was
17 installed I'm sure. That was one of the buildings that the
18 University of Michigan leased.

19 We tested that water at the time for volatile
20 chemicals, and there was an array of volatile chemicals in
21 there, so we knew not to drink it, but it was still used for
22 sanitary purposes for flushing the bathroom in there.

23 And in addition to that there is a large bay
24 associated with that building that was used -- where they
25 strapped the jet engine down and fired it up. And there was

1 a floor drain in that building, and that floor drain -- we
2 capped it; the University of Michigan did; and that floor
3 drain went with the sanitary sewer to the -- to the leach
4 field that was right out there pretty much under that arrow.

5 And so as a particular source, if there was a
6 release in that building, potentially a significant portion
7 of that went down the drain and into the drainfield. And,
8 as a source area, I think it should be looked at.

9 In addition to that, before this building was here
10 this -- the copycat of this building was right there
11 (indicating). It had it's own -- it was a copycat of that
12 building, and it was used prior to that building being
13 constructed; the current building that's out there.

14 And so as a source area this area this right out
15 here (indicating) could contain the same type of
16 contamination that is being seen here in the groundwater, so
17 I would recommend that that area be investigated as a
18 potential source area as well.

19 Next slide, please.

20 Okay. On the main part of the Base a whole bunch
21 of things. It was reported to me back in the day by Joe
22 Maxwell that the KC-135 fuselage that had -- was left over
23 from the plane crashing out on the runway -- I think it was
24 in '88 -- that the fuselage sat right here in the -- there's
25 a fenced-in area out there. I don't know how many of you

1 know that area, but that it was there for about five years
2 in the elements, washing off -- potentially washing off all
3 the AFFF that had been used to put out that building -- or
4 excuse me -- that plane when it crashed.

5 I brought this to the Air Force's attention
6 before. They thought that there was not enough AFFF left on
7 that fuselage to cause a -- a substantial problem there.
8 But as an easy to get to, easy to check the box, location, I
9 would recommend that that area be looked at as a source. No
10 other AFFF incidents are known around that area, so if there
11 is AFFF in the surface soils there, it very likely came off
12 of the fuselage.

13 Building 5001, right out here (indicating), was
14 the original jet-engine test cell that was on the Base.
15 It's a -- a large concrete building. It looks kind of like
16 a dinosaur out there, and no one is using it. But it was a
17 jet-engine test cell, and like the one out at the end of the
18 runway, they strapped an engine down and they -- they fired
19 it up, made sure everything worked, and, if problems
20 happened, they put it out with what they had available.

21 And this building was in use in the early 70's
22 when AFFF was at Wurtsmith, and it is a possibility that
23 AFFF was in the fire suppression system in that building, so
24 I think it should be looked at.

25 And, in addition, they did not have a leach field

1 associated with this building, and so the Air Force
2 installed a lagoon right out here. And I have asked the Air
3 Force to look for that lagoon and characterize it to see if
4 the -- the remnants of that lagoon -- which appeared to be
5 pretty shallow; about six feet underground -- that, if there
6 is residual AFFF associated with that lagoon.

7 POL yard. This was the tank farm that they held
8 gasoline and jet fuel and POL; petroleum --

9 MR. STEVE WILLIS: Oil.

10 MR. MARK HENRY: -- oil and lubricants. According
11 to -- and I haven't been able to nail this down yet, but I
12 know that current tank farms are required to have a fire
13 suppression system, and, unless they have changed it, the
14 requirement for that fire suppression system is AFFF.

15 And so my question is, since the POL yard was used
16 by the Air Force from -- whenever, until '93 when the Base
17 closed, was there a fire suppression system there, and was
18 there ever a release there.

19 That current -- that area is currently being
20 redeveloped, and so it's being kind of dug up. I would hope
21 that the Air Force would take this opportunity to go out
22 there and test at least a couple of locations of the soils
23 to find out if the workmen who are working in that right now
24 are actually being exposed to PFOS residuals.

25 SS-60, which is right over here (indicating), it

1 is the operational apron right here, the old fire station is
2 right here. SS-60 has been reported to be a grassy area off
3 of the operational apron where the fire trucks would back up
4 to and they would rinse out the AFFF solution from the
5 trucks onto the -- the paved area, and it would run off into
6 the grass.

7 Looking at the figure that's in the remedial
8 investigation work plan there is a -- a storm water system;
9 collection system; that surrounds this. It goes, like, this
10 way, and it goes, like, that way (indicating). If that was
11 there while the -- this operation was going on, it's very
12 likely that AFFF entered that storm water collection system,
13 and it may actually be there as residuals within that system
14 now.

15 But that was not my main concern. My main concern
16 was that if you had a large tank; like a 10,000-gallon tank;
17 of -- of AFFF, that not much of it would go down the sewers.
18 Most of it would run off into the grassy area here.

19 And last week I went out to that grassy area and
20 looked, and, yes, there's a nice depression there that would
21 hold a lot of fluid and allow that AFFF to perk into the
22 ground.

23 So far in the remedial investigation the Air Force
24 seems to be working around the -- around the perimeter of
25 this grassy area and not actually out in the middle of it

1 where most of this water would have perked into the ground.
2 So my suggestion is to have a soil boring in the low spot in
3 that area which would have facilitated getting this stuff
4 into the ground.

5 SS-71, this was another -- a missile maintenance
6 area, and in addition to that the building was used as a
7 fire station for awhile. So they probably had AFFF on site,
8 and because -- during the time when it was a missile
9 maintenance facility they very likely had an AFFF fire
10 suppression system in that building, and it seems reasonable
11 to ask if that system is still in place and if it has AFFF
12 or residuals in it. And if they're not using it, maybe it
13 should be removed.

14 Next slide, please.

15 Wastewater treatment plant sludge trenches. Okay.
16 If you look at the documents from the Base, especially the
17 one that shows all the contaminated sites on the Base,
18 you'll see that about, I'm going to say, a third of the
19 surface area of the Base seems to have been contaminated by
20 the Air Force having taken sludge from the wastewater
21 treatment plant and spread it out on the grass to get rid of
22 it. And it actually adds fertilizer and stuff to the grass;
23 nutrients; but it also contained AFFF.

24 And so there seems to be low-level hits of AFFF
25 all over the place on the Base, presumably due to the

1 spreading of the wastewater treatment plant biosolids onto
2 the grass.

3 Now, what I -- I found out when I was working for
4 the State, working up here at the northern landfills; and
5 there's a -- a couple of landfills up there, one of them
6 capped, two of them not. But what we found with the State
7 was that the Air Force had dug trenches, and I think
8 there's, like, seven or eight trenches there. And they dug
9 them down to just above the groundwater, which was about 8,
10 9 feet, in that area, and those are full of wastewater
11 treatment plant sludge.

12 The State went out there with an excavator, we did
13 some poking around out there to find out what was going on,
14 and those areas; those pits; were all full of sludge. So if
15 sludge was a problem, and spreading it around we have a --
16 what probably amounts to 7-, 8-, maybe even 1,000 cubic
17 yards of wastewater treatment plant sludge, at the very
18 least it should be tested to find out if it does con- --
19 contain PFOS, and, if it does, there should be a discussion
20 between the Air Force and the State about the disposition of
21 that.

22 So -- let's see. Could you -- since I didn't
23 apparently get my last slide in there, could you run to
24 the -- not the opening slide, --

25 MR. STEVE WILLIS: There it is.

1 MR. MARK HENRY: -- but the first slide; the one
2 that has the map.

3 MR. STEVE WILLIS: No; it's -- it's here.

4 MR. MARK HENRY: Oh, it is there. Okay.

5 The Air Force had a practice while the Base was in
6 operation of taking munitions; small-arms munitions; that
7 had been expired, and they would take them out, they would
8 pile them up in this area up above the -- this (indicating)
9 is the small-arms firing range -- they would pile them up
10 there, they would douse them with fuel oil, and they would
11 take a flare and torch it off and they would burn the
12 munitions.

13 There used to be a whole series of monitoring
14 wells around here to look for the residuals of that -- of
15 those fire exercises, but unfortunately none of those
16 monitoring wells are currently in existence. The Air Force
17 pulled them all.

18 But what I found out in -- in the -- in talking
19 with the Air Force, that the Department of Defense had
20 flares; the flares that they used to torch these off;
21 actually contained PFOS. They used PFOS in the formulation
22 in order to sort of regulate and slow down the flare and --
23 and make it more effective.

24 Well, I don't know how long that burning operation
25 went on there; that little detail has escaped me; but I'm

1 guessing it's about 30 or 40 years. And if there were PFOS
2 in the formulations of those flares, it very likely
3 contaminated the soil and potentially the groundwater at
4 that location, so I would ask the Air Force to consider
5 doing some investigation in that area.

6 And that's it.

7 One thing came to mind while I was -- before this
8 meeting upstairs. My understanding is that Wurtsmith Air
9 Force Base was started in 1923, originally as Camp Skeel.
10 That's 100 years ago. So, just like Disney, Wurtsmith has
11 been here for a century.

12 Thank you.

13 MR. STEVE WILLIS: I just wanted to -- to bring to
14 everyone's attention -- and I know Mark probably hasn't had
15 an opportunity -- but we actually do have a new poster in
16 the back tonight. All of our posters have been revamped
17 based on some of the restrictions that we've -- we've had to
18 follow in terms of protecting people's private information.
19 You hear us say PII; personally identifiable information.
20 And so we've -- we've sort of sanitized the -- the plume
21 maps, but we've also added the results.

22 In previous plume maps you saw the contours with
23 the different colors, but you didn't see the results that
24 were the basis for drawing that shape. Now the actual
25 sample results are on the posters in the back, but anything

1 off of the base is now basically a white background so that
2 you can't follow the lines, follow the streets and say, "Oh,
3 look. That well is in Joe's back yard, and that one's in
4 Bob's, and Sam's." It's -- it's all generic, but you've got
5 the results, which you haven't seen in quite some time.

6 And there's also a soils result map. And so a lot
7 of what Mark pointed out here has been sampled, the results
8 are on the map in the back, and there's also additional
9 step-outs that are planned this field season.

10 One of the things that we are in the process of
11 putting together is an addendum -- addendum to our QAPP;
12 Quality Assurance Project Plan; to incorporate EPA's RSL's;
13 or Regional Screening Levels; that came out last year. And
14 so that is -- has significantly lowered the numbers that
15 we're using to delineate soil, and has caused us to have to
16 go back and step-out at almost every location we had
17 previously sampled.

18 So a lot of the areas that Mark pointed out here
19 have already been sampled, some of them are still planned.
20 There's two that we do not have on the map in the back; the
21 KC-135 fuselage storage and that storage yard. We did
22 actually find a video and some photos that show the exact
23 location of where it was in the yard, and so we do plan to
24 do a couple of soil borings there just to confirm that we
25 don't have an issue.

1 By lowering those screening levels to adopt the
2 EPA values what was previously above our screening criteria
3 at the actual crash site is now below criteria. And so
4 since we now have exceedances there we're going to go ahead
5 and sample at this yard as well.

6 The open burn/open detonation site that Mark
7 described on his last slide there is a former munitions
8 site, and, as such, has very specific safety protocols. So
9 that is being investigated. We're doing a remedial
10 investigation at that site like we're doing for AFFF
11 everywhere else. That one is specific to munitions, with
12 its own safety requirements and so forth.

13 And if that doesn't include sampling for PFOS,
14 then I'll work with the contractor with the Army Corps to
15 get that addressed. There is for sure soil sampling in that
16 contract, but I need to verify whether we included PFOS, or
17 not, and I can address that.

18 So there's some areas that aren't currently in the
19 plan that we'll work on, and I think the rest of them are
20 all on the map in the back. So --

21 MR. DAVID WINN: I had a -- I have a question.
22 Steve, those maps that are in the back along with the data,
23 you mentioned yesterday, is that information available to
24 the public?

25 MR. STEVE WILLIS: It -- it -- the posters in the

1 back will be added to the RAB website. I'm also working on
2 a way that I can make them available to you.

3 MR. DAVID WINN: Okay. Do you have any idea when
4 that might be?

5 MR. STEVE WILLIS: I -- I don't --

6 MR. DAVID WINN: Okay.

7 MR. STEVE WILLIS: -- at this point.

8 MR. MARK HENRY: But they will be on the RAB
9 website, --

10 MR. STEVE WILLIS: They will be, absolutely.

11 MR. MARK HENRY: -- so we could potentially just
12 download them from there.

13 MR. STEVE WILLIS: You can -- you can pull them
14 from there.

15 MR. MARK HENRY: Sure.

16 MS. CATHY WUSTERBARTH: And then along those same
17 lines, you had said that the technical slides that we saw
18 yesterday will also be available somehow, whether it's --

19 MR. STEVE WILLIS: The --

20 MS. CATHY WUSTERBARTH: -- through Mark or --

21 MR. STEVE WILLIS: The slides from the CSM
22 discussion --

23 MS. CATHY WUSTERBARTH: The -- well, --

24 MR. STEVE WILLIS: -- yesterday?

25 MS. CATHY WUSTERBARTH: -- all of the slides that

1 you referred --

2 MR. STEVE WILLIS: Those were all --

3 MS. CATHY WUSTERBARTH: -- to yesterday.

4 MR. STEVE WILLIS: Those were all provided after
5 the October CSM meeting. It's the same slides.

6 MS. CATHY WUSTERBARTH: The -- the technical
7 slides --

8 MR. STEVE WILLIS: Yes.

9 MS. CATHY WUSTERBARTH: -- that we were referring
10 to yesterday?

11 MR. STEVE WILLIS: Yes.

12 MS. CATHY WUSTERBARTH: Oh. I thought that --

13 MR. STEVE WILLIS: All those --

14 MS. CATHY WUSTERBARTH: I thought that we had
15 asked that -- I -- I -- it was my understanding we didn't
16 have those. But --

17 MR. STEVE WILLIS: Yeah, all the --

18 MS. CATHY WUSTERBARTH: -- where are they?

19 MR. STEVE WILLIS: -- all those slides were
20 provided after the last meeting.

21 MS. CATHY WUSTERBARTH: Okay. Mark seemed to
22 think that we didn't have those.

23 MR. MARK HENRY: I don't remember that, but I'll
24 take a look.

25 MR. STEVE WILLIS: Yeah. It's a -- it's a very

1 large file. We had two -- two sessions in October, and so
2 the first -- I think it was the first 18 slides were covered
3 in the morning and the rest were covered in the afternoon.
4 And so those were all provided. If you can't find them, let
5 me know, and I can make them available again.

6 MS. CATHY WUSTERBARTH: The ones from yesterday
7 I'm referring to.

8 MR. STEVE WILLIS: We used the same slides.

9 MS. CATHY WUSTERBARTH: Oh, okay.

10 MR. STEVE WILLIS: Yes.

11 MR. REX VAUGHN: Steve, I have a question. Why
12 weren't Mark's slides included in the RAB packet?

13 MR. STEVE WILLIS: I don't know.

14 MR. MARK HENRY: I don't know.

15 MR. STEVE WILLIS: We can add those. I think -- I
16 think we got them late in the process --

17 MR. MARK HENRY: Well, last week, yeah.

18 MR. STEVE WILLIS: -- and -- yeah -- and I think
19 we just didn't get a chance to get them in. But we can --
20 we can append them to the -- to the presentation.

21 MR. REX VAUGHN: Okay. Thank you.

22 MR. MARK HENRY: And the RAB members, I sent them
23 to our group, so --

24 MR. REX VAUGHN: I've probably got them in an
25 email somewhere.

1 MR. MARK HENRY: Probably.

2 MS. JESSIE HOWARD: Mr. Leriche, did you have
3 something?

4 MR. ARNIE LERICHE: Could I ask -- about six,
5 eight months ago you left the posters with me, and I've
6 shared them with Mark and -- and the community RAB. Those
7 new ones that talk about the personal information has been
8 scrubbed and -- but the sampling numbers are there, that is
9 a -- a very important thing for the public to be able to
10 walk right up to. And my request is can you leave those
11 posters with Mark and -- and Cathy for the NOW group access
12 to control those posters and know where they are?

13 And we could put them into the -- the library, the
14 information repository, and, if questions come up, we'll
15 have them there and not have to bother you guys.

16 Is that a possibility?

17 MR. STEVE WILLIS: Sure; sure.

18 MR. ARNIE LERICHE: Okay. The second thing is
19 is --

20 MR. STEVE WILLIS: They're available
21 electronically as well, but we can leave the posters.

22 MR. ARNIE LERICHE: I just want to quickly add
23 that Mark scratched a memory in my head. All these things
24 that he's mentioned he men- -- and you mentioned the
25 preliminary assessment that the Air Force does at any

1 site, --

2 MR. STEVE WILLIS: Uh-huh (affirmative).

3 MR. ARNIE LERICHE: -- that's the first
4 interviews of anyone that knows anything about the Base and
5 so forth, sit-downs and so forth, I don't believe burn pits
6 was ever mentioned in their preliminary assessment when I
7 went through it four years ago.

8 MR. STEVE WILLIS: It was --

9 MR. ARNIE LERICHE: That was in --

10 MR. STEVE WILLIS: It was not. It absolutely was
11 not.

12 MR. ARNIE LERICHE: Right; exactly.

13 MR. STEVE WILLIS: That preliminary assessment
14 focused on AFFF sources. We -- we are in the process -- in
15 fact, this week we should have a contract awarded to do a
16 follow-up study for PFOS sources that were not AFFF.

17 MR. ARNIE LERICHE: Okay.

18 MR. STEVE WILLIS: So there will be a whole other
19 evaluation just like was done previously looking for AFFF
20 sources. Now we'll be looking for non-AFFF sources of PFOS.

21 MR. ARNIE LERICHE: Okay. About --

22 MR. STEVE WILLIS: (inaudible)

23 MR. ARNIE LERICHE: Okay.

24 MR. STEVE WILLIS: Go ahead.

25 MR. ARNIE LERICHE: About a year ago doing some

1 research, and Googled, and I came across this photo of the
2 Base when it was in operation. It was just a
3 black-and-white. There was a distinct plume of a fire -- it
4 looked like, because it was rising -- coming from the --
5 that -- the DRMO; the --

6 MR. MARK HENRY: Defense Marketing Reuse Office?

7 MR. ARNIE LERICHE: Yeah; the last place before
8 stuff gets sold or into a landfill or whatever. If I can
9 find that, because I know I've got it -- I hope -- in my
10 file somewhere; the photo. I want to find it, because I
11 would like to give it to you and -- and maybe help in your
12 search of information.

13 MR. STEVE WILLIS: Sure; sure. Thanks, Arnie.
14 Yeah, I'd appreciate it.

15 MR. ARNIE LERICHE: Yeah.

16 MR. BILL PALMER: Steve, I have just one quick
17 question. You talked about protecting people's private
18 information, and I understand that. I'm willing to divulge
19 my information that I signed a contract with the Air Force
20 to allow them to put a test well on my property.

21 MR. STEVE WILLIS: Uh-huh (affirmative).

22 MR. BILL PALMER: And part of that agreement was
23 that I would get the results of those tests when they were
24 made. And I received -- that was in 2018. I think I've
25 received two test results in that time, and they -- I know

1 they've been out there multiple times to do tests.

2 And I'm just wondering if the -- if the Air Force
3 is not following through on that part of the contract to --

4 MR. STEVE WILLIS: I think -- Aerostar correct
5 me -- but I think we mailed out another set of letters with
6 results in the last week or so.

7 MR. BILL PALMER: Okay. I will look for -- I will
8 look for that. Thank you.

9 MR. STEVE WILLIS: I know I signed them, so --

10 MR. BILL PALMER: Okay. Thank you.

11 MR. STEVE WILLIS: -- they should have gone out in
12 the mail.

13 MR. BILL PALMER: Thank you.

14 MS. JESSIE HOWARD: Did anybody else have any
15 questions for Mr. Henry?

16 (No verbal response)

17 MS. JESSIE HOWARD: No? Okay. Then next we have
18 the BECOS update from Mr. Jay Mullett, project manager at
19 WSP.

20 MR. MULLETT: Hi. Good evening, everybody. I'm
21 Jay Mullett with WSP, and we're a contractor with the Air
22 Force working on the -- primarily the operation and
23 maintenance of the treatment system -- systems on Base.

24 Next slide, please.

25 So some highlights from the BECOS contract. We

1 primarily do, like I mentioned, remedial action operations,
2 which is primarily O&M of the systems, long-term management,
3 and monitoring of the sites.

4 In 2022 we sampled 148 monitoring wells during our
5 annual sampling event in August through September, 23 purge
6 wells; which are the system samples from the extraction
7 wells; along with 2 methane gas sampling points around the
8 landfill at Landfill 30/31.

9 In addition we do land use controls
10 inspections/interviews. Those were completed in October and
11 November.

12 We do an annual gauging event that we do once a
13 year to basically confirm the model of the system -- or of
14 the site of the Base, in which 453 wells were gauged, along
15 with staff gauges at Van Etten Lake Dam and Clark's Marsh.

16 In addition, as part of the new IRA's; which are
17 the Interim Remedial Actions; we also did a -- a quarterly
18 sampling event of 112 monitoring wells. That took place
19 late October, early November. And we -- we also sampled the
20 18 new extraction wells that I'll talk about in a second for
21 the two new IRA's.

22 We also gauged the two new systems, 157 monitoring
23 wells in November as well.

24 Next slide, please.

25 So the two new IRA's, the first I'll talk about is

1 the Van Etten Lake at the Ken -- Ken Ratliff Memorial Park
2 IRA. We call it CTS2, which is the Central Treatment System
3 and it's the second treatment piece. There was -- that
4 system became active on 17, October. Aerostar did the first
5 90 days of prove-out commissioning, and WSP, along with our
6 partners at CTI, took over that after 90 days.

7 The CTS2 treatment train included 12 new purge
8 wells, which are extraction wells 1 through 12. We also
9 added new granular activated carbon systems that are located
10 in the CTS building.

11 The second treatment system is the Clark's Marsh
12 IRA at FT02. That was a system expansion, was brought
13 online in the middle of August of 2022. It was expanded by
14 six extraction levels, PW8 through 13, along with one
15 infiltration gallery.

16 There was additional sacrificial GAC treatment
17 that was added to the -- the treatment train to treat the
18 increased flow and remove solids, and that would just
19 basically extend the life of the carbon.

20 Also there was biocide treatment; which is
21 chlorine; that was added to the treatment train to reduce
22 biofouling within the sacrificial vessels.

23 Next slide, please.

24 Just an update on FT02. As I mentioned, the
25 train -- the expanded treatment train was online on -- on

1 8-16. The system operated continuously throughout 2022.
2 Over 130,000,000 gallons of water was treated. There were
3 zero days where PFOS or PFOA were discharged above our SRD
4 limits. We conducted monthly/weekly sampling in accordance
5 with our SRD's and the work plan.

6 We did GAC change-outs on the lead vessels three
7 times last year; March, June and October; and we're actually
8 getting ready to do another change-out here in a couple
9 weeks.

10 We monitored -- once the biocide system was online
11 we monitored that -- monitored that daily. The effluent
12 total residual chlorine results were all non-detect.

13 The air sparge system that influences the -- the
14 treatment system was operated three times per week.

15 Some additional optimization and -- and sort of
16 non-routine items that we did do is we did a lot of purge
17 well pump cleaning, replacement, we did a -- we -- we used
18 compressed air to -- to clean our purge well lines to
19 increase the -- the flow rates. And then we did install an
20 influent bypass line to limit downtime when the IRA system
21 expansion was coming online.

22 Next slide, please.

23 So CTS1, which is the -- the old treatment train,
24 that system ran continuously throughout 2022. We treated
25 over 121,000,000 gallons of water. We collected monthly and

1 weekly sampling in accordance with our SRD's.

2 Once again, zero days where we had discharge above
3 criteria for PFOS and PFOA.

4 We completed a GAC change-out on the lead vessel
5 on the CTS1 line in November of '22.

6 Some additional optimization and maintenance
7 activities to increase flow and uptime. We did some pump
8 well cleaning, replacements. We also did a -- we do --
9 about a quar- -- once a quarter we do compressed air line
10 jetting of the benzine lines. These conveyance lines we use
11 the compressed air to increase flow and our extraction --
12 bring our extraction rates back up.

13 We also did an extensive purge well cleaning on
14 the Aero-Stream Purge Well 5 to increase the extraction rate
15 at that location.

16 Next slide, please.

17 So at CTS2, which is the new treatment train with
18 the IRA, that -- that became operational on 17, October.
19 Through -- 17 October through the end of the year we --
20 they -- we treated 48,000,000 gallons-plus of -- of water.

21 We -- we did conduct biweekly and weekly sampling
22 in accordance with the work plan.

23 The system -- the expanded system obviously is
24 working. There's zero days of discharges above criteria for
25 PFOS and PFOA.

1 We did too some additional optimization efforts
2 that included some startup extraction well flow rate
3 balancing just to meet our overall target flows. And we're
4 currently optimizing system components during this 90-day
5 prove-out, which was just sort of finished at the end of
6 January.

7 Next slide, please.

8 In addition we continue to operate the -- the
9 system at the Mission Street Pump and Treat System. This is
10 an ion exchange resin system. Throughout 2022 we treated
11 over 88,000,000 gallons of water, we conducted monthly and
12 weekly sampling in accordance with our SRD's. And, once
13 again, zero days where we had discharge for PFOS and PFOA
14 above our -- above the SRD limits.

15 We did conduct a couple resin change-outs of the
16 lead vessels in February and November of last year.

17 Just optimization, some additional things we did
18 to increase flow and uptime was purge well maintenance,
19 cleaning, replacement when needed. We also did some
20 maintenance on the UV light and did some lamp replacements
21 on the UV system.

22 Next slide, please.

23 The last system that we operate out on the Base is
24 the Landfill 30/31. It's the engineered wetland treatment
25 system. That system operated continuously throughout 2022.

1 We treated over 116,000,000 million gallons of water.

2 Monthly sampling, we -- we conducted that in
3 accordance with our O&M manual.

4 We did a lot of optimization efforts at that
5 system. That included purge well cleaning, pump cleaning,
6 replacement.

7 We also have to control the vegetation around the
8 ponds, so we have to do some chemical spraying for
9 Phragmites. We've got to do some muskrat -- muskrat control
10 to maintain those ponds as well.

11 We did excavate some sediments out of the ponds to
12 basically clear some blockages in the influent and the
13 effluent piping in Ponds 3 and 4. That sediment was just
14 pulled off the -- the areas that were blocked and moved to
15 the other parts of the pond. It wasn't removed to another
16 part of the Base.

17 Once again, compressed air cleaning on the
18 extraction wells to increase our flow rates. And we also
19 did some compressed air work on the -- the purge well lines
20 for increased flow.

21 Just sort of a --

22 The next slide, please.

23 -- a time line on -- on what we have planned for
24 '23. We will continue to operate the treatment systems and
25 conduct our performance monitoring throughout the year.

1 Our annual sampling event for the entire Base
2 is -- is -- we slate for the fall. It will be around
3 September, October of 2023.

4 We will be doing quarterly sampling on the two new
5 IRA systems. Here we're actually on Base right now doing
6 that sampling this month. We'll be back out in May, and
7 then that will turn to semi-annual sampling.

8 Our annual gauging event takes place in October
9 each year. That's the -- the time we shoot for. We'll
10 continue to do LUC inspections; Land Use Controls;
11 inspections and interviews in the fall.

12 We are going to be doing some additional remedial
13 work at site SS057. We're going to be doing some in-situ
14 anaerobic biodegradation injections. Those will take place
15 in April; semi-annual; April and October.

16 And then in -- in accordance with some performance
17 monitoring with that site, we'll be doing that -- we did our
18 baseline this month, and then we'll be doing quarterly
19 sampling after the injections.

20 There is one other project that we're going to be
21 working on. There's an old smoke building -- smoke house
22 building and training aid out at FT02. We are planning to
23 do -- to get rid of that building; some testing, and
24 demolition of that building. It's a small brick structure.

25 And then obviously we'll be facilitating the RAB's

1 going forward on behalf of the Air Force and the RAB.

2 Does anybody have any questions?

3 MR. STEVE WILLIS: Yes.

4 MR. REX VAUGHN: Yes, sir.

5 MR. STEVE WILLIS: Go for it.

6 MR. REX VAUGHN: All through your presentation
7 you've highlighted, and must be fairly proud of the fact,
8 that you've been operating below SRD limits, --

9 MR. JAY MULLETT: That's correct.

10 MR. REX VAUGHN: -- but you don't define them, and
11 I would like to know how they compare to where we as a
12 Country and going on PFAS and P- -- levels in all sorts of
13 soil and water.

14 And the reason is, in the past we've asked this
15 question, and the SRD's were up here (indicating), and the
16 limits that everybody wanted for groundwater interface and
17 drinking water were way down here, which allowed you guys to
18 operate above those limits.

19 Where are we at on that SRD values and the current
20 standards that we're trying to achieve nationwide? Are you
21 still operating above what EGLE and the EPA and everybody
22 else wants you to be at, or what we want the -- the site to
23 be at?

24 MR. JAY MULLETT: The SRD limits are currently 15
25 and 40, depending on the system, or 20 and 40. Those are a

1 little higher or elevated to what criteria you guys are
2 looking at now. I will say that we are going to be in the
3 process of redoing our SRD's here with the new systems
4 online this year. The Air Force is working on that to set
5 up a meeting with EGLE to go through the SRD's.

6 I will say that we operate the systems -- they do
7 achieve non-detect values, so for the most part the systems
8 are -- you know, we're -- we're down to below, you know,
9 detection limits. We are treating, but our -- you know,
10 our -- obviously our treatment and our responsibility is to
11 treat to the SRD's, but those systems are capable of
12 treating down to non-detect.

13 MR. REX VAUGHN: Yeah, a couple follow-ups when
14 you --

15 MR. STEVE WILLIS: In reality --

16 MR. REX VAUGHN: Go ahead, Steve.

17 MR. STEVE WILLIS: In reality we are treating it
18 down to non-detect?

19 MR. JAY MULLETT: Right.

20 MR. REX VAUGHN: Well, SRD's are controlled by the
21 State; is that correct?

22 MR. JAY MULLETT: Yes.

23 MR. STEVE WILLIS: Yes.

24 MR. REX VAUGHN: Okay. Beth, are you going to go
25 renegotiate those with them pretty soon?

1 MS. BETH PLACE: That's our Water Resources
2 Division, and generally our RD would kind of be on the
3 sideline for that.

4 So I believe Charlie Bauer was listening in. I
5 don't know if you can --

6 MR. REX VAUGHN: Is that --

7 MS. BETH PLACE: -- get him on.

8 MR. REX VAUGHN: Is that a priority, or is it
9 important to what the whole program is about, is to squeeze
10 those limits down?

11 MS. BETH PLACE: I would really like Water
12 Resources Division --

13 MR. REX VAUGHN: Okay.

14 MS. BETH PLACE: -- to answer that question.

15 MS. AMY RAUSER: I have unmuted Charlie Bauer's
16 mic.

17 MR. CHARLIE BAUER: And I'm with Water Resources
18 Division. Our permit section is working on review of the
19 SRD's, and we'll be working in conjunction with the -- the
20 Air Force to do that revised plan. So that is already
21 underway, but we're -- we're still working through that
22 process.

23 The important thing, --

24 MR. REX VAUGHN: (inaudible)

25 MR. CHARLIE BAUER: -- though, is they're meeting

1 non-detect, so I -- I recognize the -- the desire to have
2 the updated monitoring plans for the SRD's, and those will
3 be coming, but from an environmental standpoint they're
4 meeting non-detect, so they're doing much, much better than
5 any monitoring limit that we would have there anyhow, so --

6 MR. REX VAUGHN: But it does allow them to operate
7 at 20 and 40, or whatever those numbers are; correct?

8 MR. CHARLIE BAUER: Currently, yeah.

9 MR. REX VAUGHN: So they could run it for a long
10 period of time at those levels and still be in compliance;
11 correct? That's my point, is --

12 MR. CHARLIE BAUER: If you want to go to
13 hypotheticals, I suppose. But the bottom line is they're
14 not running at that, --

15 MR. REX VAUGHN: Okay.

16 MR. CHARLIE BAUER: -- and we will be working on
17 the updated monitoring very shortly, so --

18 MR. REX VAUGHN: Okay. Any -- any idea on a
19 completion date on that?

20 MR. CHARLIE BAUER: I -- I'm not -- I don't head
21 up permit section. I know that it's been brought up to them
22 already, and we will be working with the Air Force as soon
23 as we can get in contact with them. So that's upcoming.

24 MR. REX VAUGHN: Okay. Thank you. We'll -- we'll
25 follow up again --

1 MR. CHARLIE BAUER: Yup.

2 MR. REX VAUGHN: -- at the next RAB on that.

3 MR. ARNIE LERICHE: Before Charlie drops off can I
4 ask a question?

5 MR. JAY MULLETT: Sure.

6 MR. REX VAUGHN: Yeah, I'm done. Go ahead, Arnie.

7 MR. ARNIE LERICHE: Charlie, do you happen to know
8 what your State public comment offers are for that -- for
9 those new numbers negotiations before they're finalized?

10 MR. CHARLIE BAUER: I don't, but I will make sure
11 to get in touch with our permit section and get you that
12 answer.

13 MR. ARNIE LERICHE: And another part of that is
14 can some of this information or a presentation of what
15 potential numbers are coming out of that be shared with the
16 RAB at some point before they're finalized, or joint Air
17 Force and EGLE presentation of that?

18 MR. CHARLIE BAUER: Yeah, I don't see why not. I
19 think that would be fine.

20 MR. ARNIE LERICHE: Thank you.

21 MR. CHARLIE BAUER: Uh-huh (affirmative).

22 MR. DAVID WINN: Jay, I have a question.

23 MR. JAY MULLETT: Yes.

24 MR. DAVID WINN: Your slide for LF30/31, --

25 MR. JAY MULLETT: Uh-huh (affirmative).

1 MR. DAVID WINN: -- you indicated all the -- the
2 stuff you've been doing, but, to my understanding -- and,
3 people, correct me if I'm wrong -- there are extraction
4 wells that are exceeding the limits right now, because
5 that's one of the IRA's that's being proposed.

6 Is that -- can you explain that?

7 MR. JAY MULLETT: The -- the system at Landfill
8 30/31 is not treating for PFAS, if that -- that's what
9 you're asking.

10 MR. DAVID WINN: It's not treating for PFAS?

11 MR. JAY MULLETT: It's -- it is a system that
12 treats for metals and VOC's; correct, yeah. So I know
13 that -- the extraction wells, that was something you guys
14 asked about yesterday, was about sampling the extraction
15 wells. To my knowledge, the only thing that's been sampled
16 at that system is the influent, which is a combined
17 extraction well sample as far as PFAS goes.

18 So influent and effluent.

19 MR. DAVID WINN: Steve, is that something you guys
20 are going to be looking at?

21 MR. STEVE WILLIS: It is. We're actually going to
22 start sampling that system quarterly. We've talked with
23 EGLE about that.

24 MR. MARK HENRY: Will you be sampling the
25 individual extraction wells for PFAS?

1 MR. STEVE WILLIS: We can look into that. Our
2 plan was to do the -- the system, you know, influent and
3 effluent, but we can look at the individual wells.

4 MR. MARK HENRY: I think it might be useful for
5 future discussions. (indicating)

6 MR. JAY MULLETT: Yeah, Mark?

7 MR. MARK HENRY: Let's see. Well, the question
8 was already answered about the testing of the individual
9 wells, so the only other question that I have is, the
10 treatment systems that you are doing some air scouring with,
11 do those systems have the capability of running a physical
12 pig through the transmission lines to dislodge the
13 biofouling that's inside there?

14 MR. JAY MULLETT: They -- some do. I mean, we --
15 we've done that before. But, you know, for the most part
16 we -- we haven't looked into that, but we can. But the air
17 scouring is a -- just it's -- it's proven to be really
18 effective, and we're able to recover all the -- all of the
19 water that we generate through that, put it back through our
20 system, so it's a self-contained unit.

21 MR. MARK HENRY: Sure.

22 MR. JAY MULLETT: And it's just we -- we seem to
23 be having a lot of luck with, you know, maximizing our flow
24 rates.

25 MR. MARK HENRY: I've just noticed over the years

1 that all of your systems get biofouled --

2 MR. JAY MULLETT: Oh, yeah.

3 MR. MARK HENRY: -- because of the mixture of
4 waste that is in the groundwater and the -- the
5 nutrient-loading to your system.

6 MR. JAY MULLETT: Right.

7 MR. MARK HENRY: So it might be a consideration
8 for your future systems.

9 MR. JAY MULLETT: Okay. Thank you. Cathy?

10 MS. CATHY WUSTERBARTH: Yes, so I -- I have a
11 practical request. I'm wondering, on the systems, if you
12 could put some signage on those? Right now they're just
13 blank buildings, and when we're driving around we don't
14 really know which one is which when you're referring to
15 them. I mean, I sort of do, but other people are interested
16 in that sort of thing.

17 So is that possible?

18 MR. STEVE WILLIS: So you're just asking for the
19 name? Like, the Central Treatment System, --

20 MS. CATHY WUSTERBARTH: Yup.

21 MR. STEVE WILLIS: -- or FT02, or --

22 MS. CATHY WUSTERBARTH: Yeah. That would be
23 really great to have those on there.

24 MR. STEVE WILLIS: Sure, we can look into that.

25 I --

1 MS. CATHY WUSTERBARTH: Thanks.

2 MR. STEVE WILLIS: I think that's something we can
3 do.

4 MR. ARNIE LERICHE: (indicating)

5 MR. JAY MULLETT: Yes, Arnie?

6 MR. ARNIE LERICHE: Unfortunately I've got to face
7 the mic.

8 MR. JAY MULLETT: That's fine.

9 MR. ARNIE LERICHE: So my question is, downtime of
10 the systems -- which nothing is perfect. We're not perfect,
11 the equipment isn't either -- but you also have to exchange
12 the tanks and replenish the media.

13 So unfortunately -- I'm going to add a personal
14 opinion.

15 Unfortunately the SRD only requires 95 percent
16 operation. 5 percent is almost 500 hours; about 450 hours;
17 where you are -- must be above detection.

18 And so can you talk a little bit about where your
19 systems operate in -- percentage-wise?

20 MR. JAY MULLETT: From an uptime standpoint, or --

21 MR. ARNIE LERICHE: (Nodding head in affirmative)

22 MR. JAY MULLETT: Yeah. I -- I mean, we've been
23 meeting or exceeding those -- those uptime percentages for
24 the entire year of 2022. There is going to be downtime. We
25 do have to do, you know, maintenance, carbon change-outs, we

1 do have alarms where -- but we do have -- you know, our guys
2 are, you know, 24/7 on -- you know, they live -- we have a
3 local crew. Our local operators, they respond as quickly as
4 they can to bring the systems back up online.

5 If we have to shut a certain well down for
6 repairs, we maintain the rest of the system to keep max- --
7 you know, optimizing and maximizing flows as much as we can.

8 But we have maintained those percentages that
9 you were mentioning; the 95 percent; we have maintained that
10 for all of the systems throughout the year. It's -- it's --
11 but there is -- they're not 100 percent by no means, because
12 there is downtime for change-outs and whatnot, so --

13 MR. ARNIE LERICHE: So I would guess you're
14 actually operating at about 97 percent?

15 MR. JAY MULLETT: I'd say 90- -- 95; between 95
16 and 97 percent; correct.

17 MR. ARNIE LERICHE: Okay. And this is part of --
18 a question related to this, is when they are not operating
19 and they are above detection and probably the standard, is
20 there anyone monitoring sampling at the outlet of the storm
21 sewer, like there used to be about five to six years ago,
22 that goes into Van Etten Creek?

23 MR. JAY MULLETT: Well, let me just add, when
24 we're -- when we're not operating we're not discharging, so
25 we're not -- there's no --

1 MR. STEVE WILLIS: The system is off.

2 MR. JAY MULLETT: The system is off. We're not --
3 we're not -- there's no discharge above criteria because
4 nothing is coming out, so --

5 MR. MARK HENRY: You're not capturing anything
6 either when you're not discharging anything.

7 MR. JAY MULLETT: We're not -- you're right, Mark,
8 we're not capturing anything, but we're not discharging
9 anything either; correct.

10 MR. STEVE WILLIS: So we're not discharging above
11 criteria.

12 MR. JAY MULLETT: Correct. If the carbon units
13 aren't working, I'm not going to put water through them,
14 so --

15 MR. STEVE WILLIS: Right.

16 MR. JAY MULLETT: Right.

17 MR. STEVE WILLIS: (inaudible)

18 MR. JAY MULLETT: Any other questions?

19 (No verbal response)

20 MR. JAY MULLETT: All right. Thanks folks.

21 MS. CATHY WUSTERBARTH: Thank you.

22 MR. MARK HENRY: Thank you.

23 MS. CATHY WUSTERBARTH: Jess, I have a question
24 for you.

25 MS. JESSIE HOWARD: For me?

1 MS. CATHY WUSTERBARTH: Yes. In the past I
2 believe the facilitator tracked the action items during the
3 meeting, and I'm wondering if that's occurring tonight?

4 MS. JESSIE HOWARD: Yes, ma'am, that's occurring.
5 And I am with the AV team, so I will be able to go back
6 later and listen to this and pick back up on other things as
7 well.

8 MS. CATHY WUSTERBARTH: Right. I just want to
9 make sure we're capturing those things where we're saying,
10 "Yeah, we're going to look into that as an action item.

11 MS. JESSIE HOWARD: Yes, I am.

12 MS. CATHY WUSTERBARTH: Thanks.

13 MR. STEVE WILLIS: Yeah, I was working with Jessie
14 before the -- the meeting tonight, and we talked about that
15 and the process for it. And then Mark and I get together
16 typically a couple weeks -- two to three weeks after the RAB
17 and go through all of the captured action items as well as
18 our own personal notes, and vet them all, and anything
19 that's -- that's appropriate for an action item for the RAB
20 we'll take it -- if it's something we want to track in some
21 other mechanism, we'll do that, or if it was resolved --
22 talked about and resolved in the RAB, then we scratch it off
23 of our notes. But, yeah, we -- we try to do a good job with
24 that.

25 MR. MARK HENRY: Sometimes we try to address the

1 potential action items at another meeting, so --

2 MR. ARNIE LERICHE: And, Steve, regarding that,
3 since we're not doing a live feed, we don't have the ability
4 of having this video until the Air Force releases it, so to
5 be able to really accurately look at significant questions
6 and answers as an -- an action item, when are we going to
7 have access to this video that's being recorded?

8 MS. JESSIE HOWARD: I believe that Irving
9 Entertainment is going to provide the video next week.

10 MR. STEVE WILLIS: Okay. So it should be on --

11 MR. ARNIE LERICHE: When are you going to put it
12 up on the website or share it?

13 MR. STEVE WILLIS: If we get it next week, it
14 should be within a week of when we receive it it -- it's
15 posted.

16 MR. ARNIE LERICHE: Okay. Thank you.

17 MS. JESSIE HOWARD: Okay. Any other questions or
18 anything to address right now?

19 (No verbal response)

20 MS. JESSIE HOWARD: Okay. Next I would like to
21 invite Celeste Holtz, project manager at BB&E, to come up
22 with an update on vapor intrusions and the remedial
23 investigation.

24 MS. CELESTE HOLTZ: Good evening everyone. My
25 name is Celeste Holtz, with BB&E. I'm the project manager

1 for the vapor intrusion remedial investigation addendum,
2 feasibility study, proposed plan and record of decision
3 project. This is our first RAB meeting, so I'm looking
4 forward to being here with you all. I'm looking forward to
5 future RAB meetings as well.

6 Our contract was just awarded at the end of 2022,
7 so we're still in the very beginning planning phases, and --
8 and data gathering and information gathering, so this --
9 this presentation is just kind of intended to be an
10 introduction to the project, and then more details and
11 information will be shared during future RAB meetings as
12 well.

13 I do want to note that this is for vapor
14 intrusion, which is related to VOC's; or volatile organic
15 compounds; so it's unrelated to the PFAS and AFFF work
16 that's going on at the Base.

17 So on this slide, just a presentation outline for
18 what I'm going to be talking about today. Just a high-level
19 overview of what CERCLA is. I think most people are
20 familiar with it, so we'll just kind of cover that pretty
21 quickly. We'll talk about what vapor intrusion is and how
22 it's investigated. I do have a slide about half way through
23 with some resources if people need additional information
24 on -- on VI, and how it's investigated, and things like
25 that.

1 We'll talk about the sites that are included in
2 our contract, we'll talk about the investigation process
3 that we're going to be implementing as part of this remedial
4 investigation, the sampling and analysis methods, the next
5 steps after the RI that is completed, project time line, and
6 then we'll wrap up with questions and contact information at
7 the end.

8 Next slide, please.

9 So CERCLA; Comprehensive Environmental Response,
10 Compensation and Liability Act; I think everyone is pretty
11 familiar with it. It's just the -- the law or the Act on
12 how releases or threatened releases are investigated. So
13 the Department of Defense, included AFTAC, conducts
14 environmental restoration activities in accordance with
15 CERCLA under DERP; or the Defense Environmental Restoration
16 Program.

17 Next slide, please.

18 So on this slide just a -- a summary of CERCLA and
19 the different stages or phases of the process. So I have a
20 circle there on the second phase, which is the remedial
21 investigation and the risk assessment, which is where we're
22 at currently for the vapor intrusion pathway at the sites
23 included in the contract.

24 We do have the next three phases -- or two
25 phases -- excuse me -- feasibility study, and then the

1 proposed plan and record of decision also included in our
2 contract.

3 Next slide, please.

4 So on this slide just kind of some more details on
5 the CERCLA phases and where we're at. So the remedial
6 investigation is where we'll evaluate the nature and extent
7 of the VOC's. We'll also conduct a human health risk
8 assessment.

9 For the sites that are evaluated during the
10 remedial investigation, if a site is determined to have
11 potential risk, that site will move on to the feasibility
12 study, which is the -- the fourth step there on the slide.
13 During the feasibility study we'll look at potential
14 remedies and -- and how to address the site.

15 And then all of the sites that are included in our
16 contract will be documented and evaluated in a proposed plan
17 and record of decision. So we have two proposed plans and
18 two record of decision documents included in our contract.
19 One proposed plan will be for sites where no further action
20 is determined to be needed. The other proposed plan
21 document will be for those sites where additional action is
22 determined to be needed.

23 And then same thing with the record of decision.
24 The NFA record of decision, and then a record of decision
25 for sites where additional action is needed.

1 There are the -- the remaining steps for the
2 CERCLA process are on the slide, but, as I mentioned, our
3 contract stops there at slide 5, and then things will
4 continue on.

5 Next slide, please.

6 So what is vapor intrusion? So vapor intrusion is
7 the process by which specific chemicals, VOC's; or volatile
8 organic compounds; are present in soil and/or groundwater.
9 Those chemicals can volatilize into a vapor or gaseous
10 state, and then those vapors or gases can potentially
11 migrate up into overlying or even nearby buildings. They
12 can do that by traveling within or around underground
13 utilities such as sanitary sewers, storm sewers, or just
14 entering into the buildings.

15 So vapor intrusion is considered an emerging
16 pathway, so it's been more heavily looked at in the last
17 ten, fifteen years, and what we know today about vapor
18 intrusion has been increasing in more recent years.

19 So there is a schematic up on the -- the
20 presentation slide what vapor intrusion is.

21 Next slide, please.

22 So just continuing on on what vapor intrusion is.
23 So there are a lot of different factors that can affect
24 vapor intrusion, things like the building construction; so
25 whether the building is, like, a slab on grade building, if

1 it has a crawl space, basement, soil types, depth to
2 groundwater, the -- the subsurface utilities that I
3 mentioned earlier. All of those things can -- can really
4 influence vapor intrusion and whether it's happening at a --
5 at a specific building.

6 So the VI investigation process, it's generally
7 got several steps for it. So, as I mentioned, a
8 contaminant; a VOC; is typically released into the
9 environment, it's detected in soil and/or groundwater.
10 There's buildings that are potentially nearby or above where
11 the -- the VOC's are present in soil and groundwater, so in
12 addition to collecting the soil and groundwater samples,
13 soil gas or soil vapor samples will be collected.

14 Typically those samples are collected first from
15 the exterior of a building and then the sampling can proceed
16 into the building where a sub-slab vapor sample is
17 collected. So you can see on the screen there an example of
18 what a sub-slab vapor pin looks like. They're just small
19 sampling devices that get installed within the slab of
20 the -- the lowest level of the building, and the purpose is
21 to sample the vapors or gases that could be accumulated
22 beneath that slab there.

23 So after the sub-slab vapor sampling, if -- if
24 vapors are identified and contaminants are present, we can
25 move into additional sampling of those pins. We can also

1 collect indoor air samples or outdoor air samples, and if
2 the VI pathway is confirmed, then we can move into
3 mitigation.

4 Next slide, please.

5 So on this slide, as I mentioned, just a few
6 different links for additional resources on what VI is and
7 how it's investigated. I have some -- some information
8 there from the Department of Defense, from EGGLE, EPA, and
9 also ITRC.

10 Next slide, please.

11 So on this slide just a quick summary of the
12 number of sites that are included in our contract. So
13 there's a total of 31 sites that are included that are going
14 to be investigated. These are a lot of the same
15 installation restoration program sites that have been
16 investigated historically. We're just going back to kind of
17 take another look at the VI pathway.

18 So there are 25 what we call "areas of potential
19 concern". These 25 sites had been investigated during a
20 previous vapor intrusion RI. And then we also have 6 new
21 areas of interest that are also included in this contract.

22 On the next slide I have a map or a figure of the
23 25 areas of potential concern so you can see those. And
24 then on the following slide I have the 6 areas of interest
25 that are included in our contract.

1 MR. MARK HENRY: (indicating)

2 MS. CELESTE HOLTZ: Yeah?

3 MR. MARK HENRY: When the Base was in operation
4 there used to be a central heating plant on the Base, and
5 there were steam tunnels that connected most of the
6 buildings with steam lines for heating. Those steam tunnels
7 are still there.

8 Do you have any plans of doing any vapor testing
9 within those tunnels?

10 MS. CELESTE HOLTZ: So when we -- when I get into
11 the phases of the investigation I'll talk about how we're
12 going to investigate the different sites. But in a short
13 answer, yes, they'll be investigated with -- with passive
14 soil gas samples and -- and other investigative methods.

15 MR. MARK HENRY: But will you be sampling inside
16 the tunnels?

17 MS. CELESTE HOLTZ: Inside the tunnels, no.

18 MR. MARK HENRY: Because there's a direct
19 transmission way. Pick your wind direction. That's the way
20 it's going to move inside those tunnels, --

21 MS. CELESTE HOLTZ: Yeah; yeah.

22 MR. MARK HENRY: -- and those tunnels actually go
23 under a lot of the contaminated sites on the Base.

24 MS. CELESTE HOLTZ: Okay.

25 MR. MARK HENRY: Just a suggestion.

1 MS. CELESTE HOLTZ: Yeah, good to know.

2 So on the -- next slide, please.

3 So on -- on this slide just a high-level overview
4 of how we're going to do the vapor intrusion RI, and then
5 I'll talk about the different phases of investigation in
6 more details on the next slide.

7 So, first and foremost, like most RI's, we'll
8 start with our conceptual site models. So we'll take all of
9 the data and information that's been being collected over
10 the last 10, 20, 30 years at these sites; things like
11 ownership and operations, the source areas, the contaminants
12 that may have been released.

13 We'll gather all of that data and information into
14 our conceptual site models. Those are -- are both, you
15 know, in a text portion and also a -- a visual. And then
16 once we have that together we'll be able to identify our
17 potential data gaps and -- and basically plan our
18 investigation.

19 So just high-level, we have four different phases
20 of investigation included in this RI. So our first phase is
21 going to be passive soil gas sampling, which we'll talk
22 about on the next slide.

23 And then phase 2 is going to be some additional
24 soil and groundwater sampling. The soil and groundwater
25 sampling is very important just to make sure we don't have

1 any data gaps and we really understand where our VOC's are
2 at, and then we can properly plan where we're going to
3 evaluate for vapor intrusion.

4 And then phase 3A and phase 3B are the actual soil
5 gas wells and sub-slab vapor pins that I had talked about a
6 little bit earlier, and potentially indoor air and outdoor
7 air sampling.

8 So those two phases -- sorry -- we have two of
9 them. The first one will be, you know, our first approach
10 at evaluating the actual buildings. That second -- the
11 phase 3B is included in case additional step-outs are needed
12 to look at other buildings.

13 Next slide, please.

14 So on this slide just a summary of what passive
15 soil gas sampling is. So you can see the -- the small
16 sampling device down in the bottom right corner. They're
17 just small sorbent tubes basically. They get installed
18 approximately two to three feet below the ground surface.

19 The sampling devices are a really helpful
20 screening tool. You can get a, you know, pretty
21 high-density sampling grid set up and get a really good
22 snapshot at where potential vapors could be.

23 So you can see up in the upper right-hand corner,
24 that's an example isopleth map; or a heat map; that can be
25 generated from these passive soil gas samples. Like I said,

1 it just gives you a really good snapshot of where our VOC's
2 and soil gas or vapor might be, and then we can use that
3 data to guide our -- our subsequent phases of investigation.

4 So --

5 MR. MARK HENRY: (indicating)

6 MS. CELESTE HOLTZ: Yup?

7 MR. MARK HENRY: Can you -- looking at this map,
8 this work has been done before.

9 MS. CELESTE HOLTZ: Okay.

10 MR. MARK HENRY: They used Gore-Sorbers back in
11 the day. They covered a lot of areas on the Base, so, if
12 you're not familiar with that study, it might be worthwhile.

13 MS. CELESTE HOLTZ: Okay. Thank you.

14 MR. ARNIE LERICHE: Can I ask a quick question on
15 what you said earlier? You said that vapor intrusion is
16 considered an emergent pathway, and I'm asking -- my
17 question is is that EPA designation, or is that Department
18 of Defense designation? Steve?

19 MR. STEVE WILLIS: Yeah, I'm -- I'm trying to --

20 MS. CELESTE HOLTZ: I -- I think just generally
21 it's -- it wasn't historically investigated back in the --
22 the 80's and 90's as much. It's been more focused on
23 recently just as more data and information has come out
24 about the potential impacts from vapor intrusion.

25 MR. ARNIE LERICHE: I would suggest you change it,

1 then, if it's not an official designation. Because emerging
2 contaminants, emerging pathways, is a very powerful
3 programmatic --

4 MR. STEVE WILLIS: You're talking about the
5 terminology, then?

6 MR. ARNIE LERICHE: Yeah; yeah, the terminology.
7 I just wanted to know -- clarify if it is.

8 And so, Steve, I guess you could --

9 MR. STEVE WILLIS: I was just going to say I
10 think --

11 MR. ARNIE LERICHE: -- possibly check on --

12 MR. STEVE WILLIS: I think across the industry;
13 DOD, EPA; have developed a much more robust -- robust
14 program for evaluating vapor intrusion. It's not something
15 new, but it's something we've developed a much broader
16 knowledge base and investigative base for looking at vapor
17 intrusion. And I know there's a lot of sites --

18 MR. ARNIE LERICHE: Emerging contaminants and
19 pathways allows extended time lines to come up with answers,
20 and I hope that's not the definition --

21 MR. STEVE WILLIS: Yeah, that's -- that --

22 MR. ARNIE LERICHE: -- that you're -- okay.

23 MR. STEVE WILLIS: Yeah, that's not the case here.
24 We're not applying that.

25 MR. ARNIE LERICHE: And is there any PFOS sampling

1 being done from these samples; the vapor intrusion samples?
2 Because there has been studies done, there is some -- there
3 are some PFOS's that do have some vapor -- vaporization
4 potential.

5 MS. CELESTE HOLTZ: At -- at this time the PFOS
6 isn't included in the -- in the contract. I think we --

7 MR. ARNIE LERICHE: Okay.

8 MR. STEVE WILLIS: Correct.

9 MS. CELESTE HOLTZ: -- we would follow the -- the
10 science, and as more data and information comes out for
11 that.

12 MR. ARNIE LERICHE: I would suggest that the Air
13 Force check in with the EPA and -- and your management to
14 find out if it just makes sense to just analyze a few of
15 these samples in some of those areas where PFOS could have
16 been significantly seeped through the concrete into the
17 soil.

18 MR. STEVE WILLIS: We're still trying to define,
19 delineate, the PFOS, in a separate RI.

20 MR. ARNIE LERICHE: Right.

21 MR. STEVE WILLIS: And so once we define that,
22 then, if we need to go back -- and there is a vapor
23 component to PFOS, we would do a follow-up to the current
24 RI; --

25 MR. ARNIE LERICHE: Okay.

1 MR. STEVE WILLIS: -- PFOS RI.

2 MR. ARNIE LERICHE: Okay. Potential opportunity
3 lost. We should -- Mark and I can possibly talk and see
4 what other group we can push.

5 Thank you.

6 MS. CELESTE HOLTZ: So next slide, please.

7 So the second phase of the RI field activities is
8 going to include additional soil and groundwater sampling
9 for VOC's, again, just to make sure we have our arms around
10 where the contamination is at and properly identify our
11 point of compliance lines and our lateral inclusion zone for
12 where we'll be conducting our -- our vapor intrusion
13 investigation.

14 So as part of this phase we'll be doing additional
15 soil and groundwater sampling. The groundwater sampling
16 will be via temporary wells, we'll be collecting surface and
17 subsurface soils for VOC's, and then using all of that data
18 to plan our next phase of investigation.

19 I do want to point out that in between the phases
20 of investigation we'll basically be preparing interim
21 deliverables; so your tables, figures, summary of
22 activities. That data and information will be shared with
23 the project stakeholders, including EGLE, with hopes that,
24 you know, we can get buy-in on where we're planning our next
25 phase of investigation before we go do that additional

1 sampling.

2 So next slide, please.

3 So on this slide I just have a -- a summary of
4 phase 3A and phase 3B. So, as I mentioned earlier, this
5 will be our actual VI sampling where we're doing exterior
6 soil gas wells, and then the sub-slab vapor pins, and
7 potentially indoor air and outdoor air sampling if it's
8 determined to be necessary.

9 So I mentioned earlier we have these set up as
10 a -- a potential step-out, so when we do the sampling during
11 phase 3A, if we need to step-out to additional buildings, we
12 can then investigate those additional buildings during phase
13 3B.

14 Both of these phases are one year of quarterly
15 sampling. VI sampling by its nature is subject to seasonal
16 fluctuations and things like that, so we will be conducting
17 one year for four quarters of sampling for both of those
18 phases.

19 Next slide, please.

20 So next steps after the field work. So we'll take
21 all of our data and information that's collected and
22 document it in a remedial investigation report. After
23 achieving concurrence on the RI report, as I talked about
24 earlier, we'll have those sites that are moving on either to
25 the feasibility study to be evaluated for potential remedial

1 action, and then the sites also proceeding on to the
2 proposed plan and record of decision documents.

3 Next slide, please.

4 On this slide just a current snapshot of what
5 we're projecting for the schedule for the RI field work, the
6 RI reporting, feasibility study, proposed plan and ROD. So
7 we are in the very beginning and early planning stages, so
8 the field work and -- and things like that are subject to
9 change. But, as I mentioned, we will be doing those interim
10 deliverables in between the phases of investigation, and
11 those updates and information will be able to be shared
12 at -- at the RAB's and things like that.

13 Next slide, please.

14 So just --

15 MR. DAVID WINN: I have a question before you go
16 off of that slide.

17 MS. CELESTE HOLTZ: Oh. Yup?

18 MR. DAVID WINN: Because -- the question, Steve,
19 is more toward -- towards you.

20 The current time line that you have here, what do
21 you hope to -- at the end of this -- this RI, what do you
22 hope to get for this -- use this information for?

23 MR. STEVE WILLIS: As she -- as she indicated,
24 we'll do a proposed plan and a ROD for sites recommended for
25 no further action or sites that require further action,

1 which would be some kind of vapor mitigation within a
2 building that's occupied.

3 MR. DAVID WINN: Okay. So this is not part of the
4 remediation actions?

5 MR. STEVE WILLIS: Her contract only takes us up
6 through the ROD, and then based on their findings and what
7 is identified in the feasibility study and documented in the
8 ROD is the remedy for those sites, then we would award a
9 contract for the actual remediation.

10 MR. DAVID WINN: Okay. I guess I -- I have a -- I
11 have an issue with that. In November -- in the November RAB
12 meeting you showed a time line here of a five out --
13 five-year outlook where the remedial actions was -- the
14 final remedial action was complete as of 2027; the third
15 quarter of 2027.

16 That ROD ain't going to be done until the same
17 time. So what do you hope to achieve out of that?

18 MR. STEVE WILLIS: I don't know that that time
19 line included the vapor intrusion.

20 MR. DAVID WINN: But what I'm telling you is --
21 look at her time line. Her time line says --

22 MR. STEVE WILLIS: Yes.

23 MR. DAVID WINN: -- third quarter of '27. Your
24 remedial action plan finished construction is done at the
25 same time.

1 MR. STEVE WILLIS: I'm -- I'm saying I don't
2 believe that five-year outlook at the last RAB meeting
3 included vapor intrusion at all.

4 MR. DAVID WINN: So what's going to --

5 MR. STEVE WILLIS: That's not part of --

6 MR. DAVID WINN: -- happen now is this is going to
7 move way out. Is that what I hear?

8 MR. STEVE WILLIS: Yes. But that was specific to
9 PFOS.

10 MR. DAVID WINN: Okay. You answered my question.

11 MR. STEVE WILLIS: This is for VI. They're
12 completely separate.

13 MR. DAVID WINN: You understand what I'm trying to
14 say? The five-year plan that you had here -- okay? -- is
15 now longer than a five-year plan. It's now the ten-year
16 plan.

17 MR. STEVE WILLIS: We've got -- we've got work to
18 do out here for awhile. We've got MMRP that we're doing an
19 RI for as well.

20 MR. DAVID WINN: Okay. You answered my question.
21 But -- I don't know that I agree with it, but that's okay.

22 MR. ARNIE LERICHE: Clarification on that, though?

23 MR. STEVE WILLIS: Uh-huh (affirmative).

24 MR. ARNIE LERICHE: You -- you briefed that there
25 are two plans; correct?

1 MS. CELESTE HOLTZ: Yeah.

2 MR. ARNIE LERICHE: And they don't have to be
3 locked together, do they?

4 MS. CELESTE HOLTZ: No.

5 MR. ARNIE LERICHE: So your RI for PFOS could
6 be --

7 MR. STEVE WILLIS: It's -- it's completely --

8 MR. ARNIE LERICHE: -- an earlier date?

9 MR. STEVE WILLIS: It's completely separate from
10 the RI for VI, and it's also separate from the RI for MMRP;
11 the munitions program that we're doing. So, yes, we've got
12 three completely separate RI's going on at Wurtsmith.

13 MR. ARNIE LERICHE: It's just the same contractors
14 contracted to do both?

15 MR. STEVE WILLIS: No.

16 MS. CELESTE HOLTZ: We're different --

17 MR. STEVE WILLIS: We've got three separate
18 contractors that will be doing RI's out here.

19 MR. ARNIE LERICHE: Some timing is important.

20 MR. REX VAUGHN: Question: When you collect your
21 data and you get a real hot-spot, does this RI allow for
22 IRA's if you've got something that's really hot?

23 MS. CELESTE HOLTZ: Not currently as part of our
24 contract.

25 MR. STEVE WILLIS: Yeah, I don't think we have

1 provisions in the contract, but I think -- maybe the Army
2 Corps, could you correct me? Could we mod the contract to
3 incorporate some type of interim remedial action?

4 MR. AARON STEELE: Yes, sir. My name is Aaron
5 Steele. I work for the Army Corps of Engineers. I'm a
6 senior environmental engineer for them. Yeah; no, that's
7 perfectly within the bounds of CERCLA and our contracting
8 rules.

9 MS. BETH PLACE: So, Steve, I just want to make
10 sure -- back to Dave's question and -- and he has the time
11 line for the PFOS RI and remedial actions, so I think
12 there's still maybe a little bit of miscommunication here.

13 Based on this presentation, nothing has changed
14 off the time from the last; is that correct?

15 MR. STEVE WILLIS: Nothing has changed for the RI
16 time line.

17 MS. BETH PLACE: For PFOS?

18 MR. STEVE WILLIS: For PFOS; correct.

19 MS. BETH PLACE: Okay.

20 MR. DAVID WINN: So the final remedial action will
21 still be complete --

22 MR. STEVE WILLIS: For --

23 MR. DAVID WINN: -- third quarter, 2027?

24 MR. STEVE WILLIS: For PFOS, yes. That schedule
25 has not changed.

1 MR. DAVID WINN: But how do you incorporate the
2 vapor intrusion as part of that final remedial action?

3 MR. STEVE WILLIS: Because it's not -- they're
4 complete -- they're three completely separate programs.

5 MR. DAVID WINN: Okay; okay.

6 MR. STEVE WILLIS: They'll all run concurrently,
7 with different time lines. So you'll see an RI schedule for
8 PFOS, an RI schedule for vapor intrusion, and one for MMRP
9 as well. So we will have -- we will have three different
10 RI's going on concurrently with completely independent
11 schedules.

12 MR. DAVID WINN: It's not just the RI, it's the
13 final remedial action.

14 MR. STEVE WILLIS: Right.

15 MR. DAVID WINN: That's what this schedule shows.
16 The final remedial action; --

17 MR. STEVE WILLIS: But that -- that's not --

18 MR. DAVID WINN: -- not the RI.

19 MR. REX VAUGHN: That's for PFOS only.

20 MR. STEVE WILLIS: That's -- you're right. Thank
21 you.

22 MR. DAVID WINN: Okay.

23 MS. JESSIE HOWARD: I also have a question from
24 Paula Bond, virtually, as well. If we could please unmute
25 yourself, Paula.

1 Okay. I apologize. We can move on. I apologize.
2 She unraised her hand.

3 MR. WILLIAM GAINES: I -- I have a question.
4 Earlier in the slides you mentioned high-density sampling.
5 Could you define what "high-density" means?

6 MS. CELESTE HOLTZ: Yeah. So I don't know if we
7 can go back to the passive soil gas slide, but -- but
8 basically we're planning on a -- a large number of sample
9 points. I think we have 400 sampling points for the passive
10 soil gas samples so we can get this nice grid laid out and
11 really get some good spacial coverage for our -- our VOC
12 data there.

13 MR. WILLIAM GAINES: So how far apart? That's the
14 question I'm asking.

15 MS. CELESTE HOLTZ: I'll have to look back at what
16 we were planning on in our -- our figures, but I want to say
17 the locations are anywhere from 50 to 100 feet apart.

18 MR. WILLIAM GAINES: Okay.

19 MR. REX VAUGHN: Question here.

20 MS. CELESTE HOLTZ: Yeah?

21 MR. REX VAUGHN: And this isn't a slam on the
22 Corps, but why is the Army Corps of Engineers involved in
23 this type of investigation compared to what we've seen for
24 all the PFOS contractors? These guys, you know, dig things,
25 build canals, dams. Why are they --

1 MS. CELESTE HOLTZ: Aaron, do you want --

2 MR. REX VAUGHN: -- poking around in the soil
3 on --

4 MS. CELESTE HOLTZ: -- to answer that one?

5 MR. STEVE WILLIS: The Army -- the Army Corps
6 actually does -- does a full breadth of environmental work.
7 We went to the Army Corps for their contract capacity. They
8 could get a contract awarded for us faster than we could
9 through our Air Force contracting service, not only in terms
10 of speed and ability, but just overall capacity.

11 The Air Force uses the Army Corps for contracts
12 frequently.

13 MR. REX VAUGHN: Okay.

14 MS. BETH PLACE: And we -- just so folks here
15 know, we've worked with some of the same staff that's --
16 that's here now from the Army Corps of Engineers on other
17 Defense projects in the State; successfully.

18 MS. CELESTE HOLTZ: Any more questions?

19 (No verbal response)

20 MS. CELESTE HOLTZ: Okay. Thanks everyone.

21 MS. JESSIE HOWARD: All right. Thank you,
22 Celeste.

23 At this time we would like to take a quick
24 ten-minute break, and when we come back we will have one
25 last presentation from Paula Bond.

1 (Off the record)

2 MS. JESSIE HOWARD: All right. Before we begin
3 our final presentation of the evening I would just once more
4 like to ask that the RAB members hold their questions until
5 the end of the presentation so we can -- we'll address those
6 then, just so we can get through things a little quickly --
7 or a little more quickly rather.

8 So our final presentation this evening will be an
9 interim remedial action update from Paula Bond, project
10 manager at Aerostar, and she is joining us remotely.

11 So Paula, you can go ahead and unmute yourself and
12 begin when you're ready.

13 MS. PAULA BOND: All right. Can you guys hear me
14 okay?

15 MS. JESSIE HOWARD: I think so, yes.

16 MS. PAULA BOND: Okay. Great. Well, thanks
17 everybody for coming out tonight. I'm really sorry that
18 I -- I can't be there in person. I -- I wish I could be.

19 So if you want to advance to the next slide,
20 please?

21 So this is a slide that we typically have in our
22 slide bank which just provides an overview of the CERCLA
23 process. And I'm not really going to spend a lot of time on
24 this, maybe kind of catch us up a little bit. I think
25 Celeste did a really great job in her presentation of going

1 through the CERCLA process. Even though we're investigating
2 different contaminants and different media, the CERCLA
3 process is still the same, and in both of those
4 investigations we're still in the RI; Remedial
5 Investigation; phase of -- of both of those.

6 So next slide, please.

7 So for the RI progress -- this is a slide that
8 we -- that we typically show just to show kind of where we
9 are in the progress. Our RI scoping has been completed, the
10 UFP-QAPP has been completed. Our risk assessment work
11 plan/biota sampling plans have all been completed. And we
12 are in -- currently in the field data collection process of
13 the RI.

14 Next slide, please.

15 The IRA progress, we actually completed two IRA's
16 this fall, so we're now starting all over again with the IRA
17 process for the Alert Aircraft Area. So, as you can kind of
18 see from this slide, we're -- we've completed our interim
19 remedial action scoping and we're now in the proposed plan
20 phase, looking at that; the ROD and the remedial design.

21 I keep hearing some -- does somebody have a
22 question?

23 Okay. So for the Alert Aircraft Area we're
24 starting all -- all over again with this process. So as we
25 move forward throughout the year, the next few RAB's we'll

1 update that IRA progress.

2 Next slide, please.

3 So for the RI -- I think, as most people are
4 aware, we haven't collected any new RI data since the last
5 RAB meeting. We did have a strategic planning meeting
6 between the Air Force and EGLE early in December to take a
7 look at all of the RI data that we had collected to date,
8 and then how we're rolling that into the field investigation
9 program for 2023.

10 And I just wanted to bring up a couple of things
11 that came out of that meeting and some additional guidance
12 from the Air Force, is that we are going to be moving
13 forward using the lower of the EPA regional screening
14 levels; or RSL's; and the EGLE Rule 2.99 generic groundwater
15 cleanup criteria for plume delineation.

16 And I have a table on the next slide that will
17 kind of outline some of those numbers, but that is the new
18 guidance. So we were using the EGLE numbers. The EPA RSL's
19 are lower in a couple of cases. And I'll show that in just
20 a second.

21 And as some of you may have noticed in the poster
22 session, our groundwater plume maps have been revised again
23 based on using these new lower RSL's, so they look a little
24 different. And then Steve mentioned earlier also that our
25 plume maps have been revised to reflect some of the guidance

1 that we've been given based on PII information.

2 Next slide, please.

3 So just to kind of give everybody a quick update
4 on the new RSL's versus the EGLE generic groundwater cleanup
5 criteria, you can see in the column on the far right the
6 value that we are now using for delineation, and you can see
7 the differences.

8 PFOA did not change -- or PFOA is 6. It did
9 change. Sorry. It's lower. PFOS is lower. It is now 4
10 instead of using the EGLE 16 number. So you can see there
11 there are some differences.

12 PFHxS we're using the lower of the RSL number.
13 The only one that we're continuing to use, really, is PFBS,
14 because that's lower than the EPA RSL.

15 Next slide, please.

16 So a quick update on the Aircraft Alert Area. The
17 background there, the -- the impacted groundwater that we've
18 identified during our RI phase is making -- migrating toward
19 Van Etten Lake. We are still collecting data in that area,
20 so the RI is not complete yet, but the Air Force is moving
21 forward with the IRA. And the purpose of that IRA is -- is
22 similar to that at Ken Ratliff Memorial Park, which is to
23 hydraulically control those highest concentrations of PFOS
24 that are migrating toward the lake.

25 I have a -- a graph here on the right -- hopefully

1 you guys can see that on the slides -- that just shows the
2 highest concentrations of PFOS that we have found in that
3 area. And you can see that the highest concentration
4 analyte is PFOS, which was 7,000 nanograms per liter.

5 Next slide, please.

6 So the treatment system there -- and I -- we
7 briefed this at the last RAB too. We are still looking at
8 an initial treatment train capacity of up to 500 gallons
9 every minute. The building will be built with room for
10 expansion, very similar to the Central Treatment System; the
11 way that one was constructed. And right now we are
12 proposing that the effluent discharge will be via
13 groundwater infiltration. And, as Beth mentioned in her
14 update, we are still working with EGLE, still discussing the
15 options for the discharge, so hopefully we'll have an update
16 on that for the next RAB.

17 Next slide, please.

18 The new building will have a single treatment
19 train, like I said, capacity of 500 gallons per minute, with
20 the ability to expand. It will be also similar to CTS with
21 three GAC vessels; granular activated carbon vessels. This
22 treatment system will have five extraction wells. The
23 spacing of those wells is approximately 150 feet. And,
24 again, if we go in with the infiltration galleries, they
25 will be similar to what we have over at FT02.

1 Next slide, please.

2 And then this is just a figure kind of showing
3 where the conceptual design of the IRA would be up there in
4 the Aircraft Alert Area, with the plume that we know today
5 kind of superimposed on that. So you can kind of see the
6 treatment system building, the five extraction wells, and
7 then the infiltration galleries.

8 Next slide, please.

9 So now we're going to quickly -- quickly move over
10 to Three Pipes Ditch. Pilot studies -- or the purpose of
11 that pilot study is really to evaluate the effectiveness of
12 organoclays to absorb PFAS in surface water and groundwater.

13 Conceptually the organoclay sorbent technology
14 will be evaluated using two different methodol- -- two
15 different, I guess, deployment methods. And we are using
16 those methods in tandem. And I briefed these at the last
17 RAB as well. One is sorbent mats which will be placed in
18 the bottom of the ditch to evaluate -- or to address
19 groundwater that's discharging up into the ditch. And then
20 a flow-through barrier in tubes or -- or bags to remove PFAS
21 from water that's actually surface water that's flowing
22 within the ditch.

23 And we're still in the planning phase of this
24 pilot study currently, so this may -- conceptually this may
25 change slightly, but we're -- we're still in the planning

1 phase.

2 Next slide, please.

3 Some things -- information about the Three Pipes
4 Ditch pilot study. The flow at the outfall typically under
5 dry-weather conditions is about 600 gallons per minute. The
6 material is that organoclay Geotextile mat is a quarter of
7 an inch layer of Fluoro-Sorb 400. The organoclay material
8 will be placed to address the PFAS at the
9 groundwater/surface water interface with the streambed.

10 And then the flow-through filtration tubes will be
11 a mixture of the organoclay material and pea gravel that
12 will be placed on top of the mat to address the surface
13 water flowing down in the ditch.

14 So these two methods will be evaluated in tandem,
15 not necessarily individually. So I wanted to make that
16 clear.

17 We did talk a little bit about this in the
18 technical session yesterday, and I'm -- I'm sure folks are
19 going to have some questions, but --

20 Next slide, please.

21 So this is the figure -- hopefully you guys can
22 see this on the slideshow -- a figure of the ditch and where
23 we are proposing to do the pilot study. You can see that
24 this is in the southern portion, or kind of central,
25 south-central portion of the ditch, and then there's a

1 little callout box that you can see that shows where the
2 proposed pilot study area is in relation to the AuSable
3 River.

4 And then in the smaller box in the right-hand
5 corner of the figure you can see overall where we're looking
6 at as it relates to the former -- former Base.

7 There's a couple of -- of pictures here that kind
8 of show looking up -- looking north and looking south down
9 the river, so you can kind see the -- the creek -- sorry --
10 ditch -- you can see where we're looking at putting that in.

11 And there was -- the rationale for choosing this
12 area really was specifically because of the topography here,
13 and the way that we could get in there and get access to
14 this area for the pilot study.

15 Next slide, please.

16 So that's really a real quick update on what we
17 have going on there, so now we'll be happy to take any
18 questions that anyone might have --

19 MR. DAVID WINN: I've got a couple of questions.

20 MS. PAULA BOND: -- on anything that we -- I just
21 briefed.

22 MR. DAVID WINN: Paula, I want to start with
23 the -- the IRA for the Alert Aircraft Area. Right now your
24 chart showed --

25 MS. PAULA BOND: Okay.

1 MR. DAVID WINN: -- 7,000 parts per trillion for
2 PFOS, and I understand that that well, based off the maps,
3 is further in --

4 MS. PAULA BOND: Uh-huh (affirmative).

5 MR. DAVID WINN: -- towards off the lake.

6 But this current schedule, again -- and I'm going
7 to go back to the schedule, because time lines are
8 important -- is that the current --

9 MS. PAULA BOND: Right.

10 MR. DAVID WINN: -- planning schedule shows the --
11 this IRA completion and construction the first quarter of
12 2025, which is two years away.

13 And my question is --

14 MS. PAULA BOND: Uh-huh (affirmative)?

15 MR. DAVID WINN: -- what -- I'm sure that
16 people -- the -- the residents of Van Etten Lake don't want
17 to see PFOS in Van Etten lake at 7,000 parts per trillion,
18 so what is the Air Force going to do in the meantime in
19 order to prevent this from happening? Can we fast-track
20 this IRA? Is there monitoring wells that can be put in? Is
21 there poor water sampling that can be done?

22 What can -- what -- what's the plan? Because I
23 don't see it here.

24 MS. PAULA BOND: Yeah. Okay. All right. So we
25 are looking -- so we're in the planning phase right now for

1 the IRA. We're working on the designs, we are working on
2 the discharge with EGLE. So all of that is -- is in -- in
3 the works right now.

4 We've already submitted the draft proposed plan
5 for the IRA to the Air Force. So, pending the outcome of
6 those -- those discussions with EGLE, we'll finalize that
7 proposed plan, get it over to you guys -- or to EGLE to
8 review, then we'll have the public meeting, go through that
9 process.

10 So we are moving forward with that, and we're
11 hopeful that really this fall, if we can get through those
12 phases, that we may break ground actually this fall so that
13 that treatment system will be in place in 2024, not 2025.

14 MR. DAVID WINN: Okay.

15 MS. PAULA BOND: And I do want to also point out
16 that if you look -- if you -- I don't know if you guys had a
17 chance to look at the maps during the poster session -- the
18 location of that 7,000 nanogram per trillion of PFOS is
19 further to the west. And if you look at the concentrations
20 as you move toward Van Etten Lake, those concentrations at
21 the boundary drop off significantly as you move toward the
22 lake, so I don't think we have 7,000 entering the lake at
23 this point. But we should have that treatment system online
24 in 2024, --

25 MR. DAVID WINN: Okay. So --

1 MS. PAULA BOND: -- not in 2025.

2 MR. DAVID WINN: So again, my question is what are
3 we -- what are -- what's being done ahead of time -- and,
4 Steve, you mentioned monitoring wells; right? I mean, are
5 we just going to wait until this thing runs, and then hope
6 that PFOS doesn't go into Van Etten Lake, or are we going
7 to -- is there monitoring wells that are going to be
8 installed ahead of time? Is there testing that's going to
9 be done on a regular basis?

10 What's going to be done?

11 MR. STEVE WILLIS: Yeah, so as part of the RI,
12 when we define the extent of these plumes we'll have
13 monitoring wells at that periphery to monitor that. So
14 those will go -- go along the -- the lakeshore.

15 And then to help accelerate the implementation of
16 this IRA, we're actually taking the design from the central
17 treatment system and making minor tweaks to it as opposed to
18 starting from scratch and designing a new system. So that
19 will -- that will cut significantly off the schedule.

20 MR. DAVID WINN: Okay. That's good. Okay.

21 My second question, the Three Pipes Ditch pilot
22 study, again, that's being -- it's in process I would
23 assume, but, again, the time line shows that that system --

24 MS. PAULA BOND: Uh-huh (affirmative).

25 MR. DAVID WINN: -- or that pilot study won't be

1 complete and up and running until the third quarter of 2024,
2 which is a year and a half -- 15 months away.

3 Is it really going to take --

4 MS. PAULA BOND: Right.

5 MR. DAVID WINN: -- 15 months to do that?

6 MS. PAULA BOND: Yeah, that's -- Dave, that's
7 because of the monitoring program that's associated with
8 that pilot study. So we'll get the infrastructure put in
9 place, but then there is a year of monitoring after that, so
10 that's why it is -- it crosses that schedule for -- for that
11 long.

12 MR. DAVID WINN: Okay. So what you're saying is
13 you're going to get -- the monitoring is part of that 15
14 months, but you --

15 MS. PAULA BOND: Right.

16 MR. DAVID WINN: -- we -- we still -- so this
17 pilot study, the material is going to be put into place so
18 the -- the remediation will get started ahead of time?

19 MR. STEVE WILLIS: This year; right.

20 MS. PAULA BOND: Oh, yes; yeah, it's going in this
21 year.

22 MR. DAVID WINN: All right. Thank you. Oh, I
23 have one more question.

24 East side of Van Etten Lake, QAPP IRA, --

25 MS. PAULA BOND: Uh-huh (affirmative)?

1 MR. DAVID WINN: -- what's the status of that, and
2 when are we going to -- when is the public going to be able
3 to see it?

4 MS. PAULA BOND: So we are working on the UFP-QAPP
5 addendum right now. That hasn't been submitted to the Air
6 Force yet. We are developing those plans of where we're
7 going to go and what we're going to do on the other side.
8 We worked through a little bit of that when we had our
9 meetings with EGLE. We worked through, quite frankly, some
10 of that yesterday in the technical session.

11 So we're going to get that UFP-QAPP to the Air
12 Force to review in the next few weeks, and then as soon as
13 they comment on that and we get those addressed, then it
14 goes out to you guys and EGLE for review.

15 So it's going to be this -- this spring; later
16 this spring when you guys will see that.

17 MR. DAVID WINN: Okay. I guess the question is --
18 Steve, you mentioned yesterday possibly April. Is that
19 feasible, or not?

20 MR. STEVE WILLIS: April -- we will start field
21 work in April, but that work will be based on the existing
22 QAPP. These areas on the east side of the lake
23 incorporation -- formally incorporating these lower RSL's
24 that Paula talked about will be done in that QAPP addendum.

25 But in the meantime we can go ahead and start

1 field work in April. So the -- the two are not linked, and
2 the QAPP addendum is not going to prevent us from starting
3 field work this year.

4 MR. DAVID WINN: But it -- but it doesn't tell us
5 what's going to happen on the east side of the lake. So --

6 MR. STEVE WILLIS: You'll see the QAPP addendum,
7 and that will -- that will outline our plan.

8 MR. DAVID WINN: And when is that going to be?
9 When are we going to see the QAPP addendum --

10 MR. STEVE WILLIS: It will --

11 MR. DAVID WINN: -- is what I want to know.

12 MR. STEVE WILLIS: It will probably take the Air
13 Force about 30 days to review and comment on the document.
14 Aerostar will address our comments and then prep the draft
15 final for EGLE and the public review. So it's probably 60
16 days out.

17 MR. DAVID WINN: Okay.

18 MS. JESSIE HOWARD: Mr. Henry?

19 MR. MARK HENRY: Paula, Mark Henry here. I have
20 a --

21 MS. PAULA BOND: Hi, Mark.

22 MR. MARK HENRY: Hi. I have a somewhat esoteric
23 question for you, for lack of a better word.

24 I'm looking at your -- your little bar graph here
25 for the IRA Alert Aircraft Area highest groundwater

1 concentrations at -- at that area, and I see that -- at the
2 highest concentrations here I'm looking at PFOS being 99.9
3 percent of the PFOS in this area, and that seems very
4 unusual to me. Because you've got 7,000 parts per trillion,
5 and then the PF- -- PFOS, and then the PFOA only has, like,
6 54 parts per trillion, and that ratio does not seem to exist
7 in other parts of the Base, unless I have overlooked that.

8 So I'm wondering why there is such a high
9 concentration of PFOS associated with this plume that
10 doesn't seem to be in other parts of the Base.

11 MS. PAULA BOND: Well, a lot of the areas of --
12 of -- plume areas on Base have higher ratios of PFOS than
13 others. And then there are some portions, like down at the
14 WP04 that have the higher ratios of PFOA to the other
15 analytes.

16 So one thing I want to make sure everyone is aware
17 of is we're not finished with the RI -- right? -- so there's
18 still more investigation to be done in this area even though
19 we're moving forward with an IRA.

20 So these are the numbers that we have seen, and
21 these are numbers across that plume. It's not just at -- at
22 one location or one well. So these -- these highest
23 concentrations are across that -- if you can maybe go back
24 to that figure -- are across that whole little plume area
25 that we're looking at.

1 So not all of these numbers came out of the exact
2 same location. And then as you move further away, like I
3 was saying, the 7,000 is further upgraded, I'll say, to the
4 far left of the -- the hot plume area, and then some of
5 those other numbers they get lower as we move away.

6 So I would say the rationale for currently looking
7 at this is we haven't finished the RI, so there could be a
8 smaller plume area that we're looking at where that higher
9 concentration of PFOS is to some of -- relative to some of
10 the others. So I think that that's really the best answer I
11 can give you at this point.

12 MR. MARK HENRY: Thank you.

13 MS. JESSIE HOWARD: Mr. Gaines?

14 MR. WILLIAM GAINES: Yes. Back on slide 42 you
15 show the work complete on the biota sampling plan. I'm
16 not --

17 MS. PAULA BOND: Uh-huh (affirmative).

18 MR. WILLIAM GAINES: -- familiar with anything
19 that's been done as far as the Air Force on biota sampling.
20 I know about all other -- a lot of other kinds -- other
21 agencies that have done biota sampling, but it's darn
22 misleading to say that there's any biota sampling in what
23 we've seen from you people. And when does that take place
24 if the -- if the work plan is complete?

25 MR. STEVE WILLIS: The -- the sampling plan --

1 MS. PAULA BOND: So --

2 MR. STEVE WILLIS: -- is complete, and it's on the
3 admin records, so it's available for you to take a look at.
4 The actual sample collection for that biota sampling has not
5 occurred. That will come after we've delineated the extent
6 of the contamination.

7 So it -- it has not occurred yet. That's why you
8 haven't seen any information or updates on it, because we
9 haven't done it. Once it's done, then we will update you.

10 MR. WILLIAM GAINES: Okay. So the -- but the plan
11 is on -- is in there?

12 MR. STEVE WILLIS: Yes.

13 MR. WILLIAM GAINES: Okay.

14 MR. STEVE WILLIS: Yup.

15 MR. WILLIAM GAINES: I'll -- I'll have to take a
16 look at that.

17 Slide 44 you talked about the strategic planning
18 meeting. We get minutes of the BCT meeting. Are we going
19 to get something on what took place at this strategic
20 planning meeting?

21 And I guess for -- for Beth, are there places
22 where the Air Force really hasn't satisfied EGLE on what
23 they -- what they plan to do?

24 MS. BETH PLACE: So right now the minutes of that
25 meeting are under EGLE review. I don't know if Steve plans

1 to release them to the public, or not, when that's complete.

2 MR. STEVE WILLIS: And honestly I haven't given
3 that any thought, --

4 MS. BETH PLACE: Yeah.

5 MR. STEVE WILLIS: -- but I can look into it. The
6 maps that resulted for that -- from that meeting are what
7 are on the posters in the back. And, as Mark and I were
8 talking on the break, they will be posted to the RAB
9 website, and I'll also provide them electronically to each
10 of the RAB members.

11 MR. WILLIAM GAINES: Okay. Thank you. Oh,
12 another question.

13 You talked about periphery, and we hear a lot
14 about periphery. There hasn't been, to the best of my
15 knowledge, any remediation or intermediate remediation
16 outside the periphery, yet things over the tolerance have
17 been tested outside the periphery.

18 What kind of plans do we have in mind to clean up
19 things outside the periphery of the Base that have already
20 escaped the Base boundary?

21 MR. STEVE WILLIS: So that will be part of our
22 feasibility study. Once we've completed the RI, we've
23 determined the extent of these groundwater plumes as well as
24 any soil contamination, then we'll do a feasibility study to
25 look at alternatives to address that -- the -- the

1 groundwater and soil.

2 And as -- as was described earlier, once we've
3 identified those alternatives we go through a nine-step
4 evaluation criteria that the EPA has published to evaluate
5 those alternatives and identify a preferred alternative,
6 which gets documented in a proposed plan. And then we'll
7 have a public meeting to go through that preferred
8 alternative with the public. And then the final remedy is
9 put in a record of decision; or ROD.

10 And that's much how we did the IRA's as well. We
11 did a proposed plan and an interim ROD for those, had public
12 meetings, and so we'll do the same thing.

13 But we'll do a feasibility study, and we're going
14 to look at -- at the Base-wide area and what remedial
15 alternatives would be required.

16 MR. WILLIAM GAINES: So -- so something in the
17 future sometime you'll be telling us what you plan to do to
18 remediate outside the boundary?

19 MR. STEVE WILLIS: Right.

20 MR. WILLIAM GAINES: Okay. Thank you.

21 MS. JESSIE HOWARD: Did we have any other
22 questions for Paula? Cathy?

23 MS. CATHY WUSTERBARTH: This is not for Paula.
24 It's when we get to the RAB group questions. Sorry.

25 MS. JESSIE HOWARD: Yeah. Go ahead.

1 MR. BILL PALMER: Yeah, Paula, hi. This is Bill
2 Palmer. I just -- in your Alert Aircraft Area you're --
3 you're suggesting a building that will be built to have
4 additional capacity. I'm just curious --

5 MS. PAULA BOND: Right.

6 MR. BILL PALMER: -- what you have in mind that
7 might require additional capacity? Would that be the DRMO
8 facility? The Landfill 30/31?

9 Because this -- this facility would be just north
10 of the CT02 facility which was just put in, and --

11 MS. PAULA BOND: Right.

12 MR. BILL PALMER: -- so it's extending those
13 extraction wells farther to the north.

14 Is -- is that what you have in mind in terms of
15 expansion in the future, is to cover those -- those areas to
16 the north of there?

17 MS. PAULA BOND: Yeah, so we're looking -- or we
18 are open to looking at different options. So if -- and it's
19 hard to tell on this small figure, but if you recall the
20 larger plume maps that are out in the poster session, if you
21 look upgradient or to the west of the Aircraft Alert Area,
22 it is the integrated maintenance facility, which there is
23 also a large -- a higher concentration plume up there.

24 So once the final remedy is determined, the
25 additional capacity in this treatment system could be used

1 to support the final remedy for integrative maintenance,
2 which is just upgradient, it could be used to expand out
3 slightly south or to the north to capture areas that the CTS
4 doesn't capture, depending on what that final remedy is.

5 I don't think that -- there is no specific plan
6 for where that additional groundwater is going to come from
7 for this treatment system. That's why we're building it
8 with that flexibility. As we move through the RI, if we
9 find something else, find something that's closer, find
10 something that needs to be addressed, the Air Force has the
11 flexibility to do that.

12 So I don't think there is a specific thing that we
13 are looking at currently. We want to collect additional
14 data to see what might be the best use for that, but I don't
15 think anything is -- is necessarily off the table for that.

16 MR. BILL PALMER: Okay. Thank you.

17 MR. STEVE WILLIS: Yeah, build- -- building that
18 additional capacity gives us the flexibility in the future
19 to put in an additional treatment train fairly quickly
20 versus having to build a new building from scratch.

21 So the cost to basically double the size of the
22 building is not -- not that significant relative to putting
23 in a treatment system from scratch. So we go ahead and
24 build the capacity, and that way we've got the option, if --
25 if we need it, to expand treatment in the future at a much

1 quicker pace than we would otherwise if we have to, you
2 know, pour a slab and build a building.

3 MR. BILL PALMER: Sure. Thank you.

4 MS. JESSIE HOWARD: Mr. Leriche?

5 MR. ARNIE LERICHE: Paula, this is Arnie Leriche.

6 And --

7 MS. PAULA BOND: Hi, Arnie.

8 MR. ARNIE LERICHE: Hi. My question is, on the
9 ecological risk assessment part of the RI. I don't
10 believe -- and I apologize if you did discuss it, but I
11 don't think you have -- while I was out of the room.

12 So my question is -- there has not been much
13 attention by us -- and that's our fault; I'm -- "us", I'm
14 including myself -- since the presentation we received 15
15 months ago by your contractor. And the sampling is going to
16 be starting pretty soon, from my quick look at the work
17 plan, and I have a lot of concerns about that.

18 And last night I raised the question of if we
19 could have a technical, maybe -- probably virtual, or a
20 mix -- before the next RAB. But now I'm getting really
21 nervous, because I have not found any kind of a detailed
22 schedule of when they're going to be doing the fish
23 sampling, how do they pick the date or the month they're
24 going to be doing it; which I think is April and May; and I
25 don't think some of the migratory fish -- that that's going

1 to be the best time, and especially not for Atlantics.

2 So that's just one detail that has kind of been
3 flying right through us here because we've been
4 concentrating on groundwater.

5 MS. PAULA BOND: Right. Yeah, so we are
6 developing the schedule, right now actually, for the field
7 activities that are going to happen this summer, and we have
8 the biota sampling, which includes the fish tissue, small
9 mammals and vertebrates, which is going to take place in the
10 summer months; like June -- late June, early July and
11 through August. So we'll be planning that work for those --
12 those times.

13 We're hoping to do tandem sample collection for
14 the biota and subsurface water and sediment, but we want to
15 get more of the that done and the groundwater investigation
16 done before we do that so if we identify areas with the
17 groundwater plumes where things may be going into the water
18 bodies, that we can focus our surface water sediment
19 sampling and biota sampling in those types of areas.

20 So that was one of the reasons why we have been
21 focusing on groundwater so much, so if we know where the
22 groundwater is going, that gives us a better idea on where
23 to do some of that sampling. So -- but we -- right now on
24 the schedule we have that planned for the summer.

25 MR. ARNIE LERICHE: When do you think you could

1 share some of that, even if it's rough draft, just to give
2 us an idea; not for comment, but just to get us -- help us
3 get up to speed on this significant issue of wildlife and
4 food consumption risk assessment?

5 MS. PAULA BOND: Uh-huh (affirmative); --

6 MR. STEVE WILLIS: Are you -- are you looking --

7 MS. PAULA BOND: Yeah --

8 MR. STEVE WILLIS: -- for the sched- -- the
9 schedule, or are you actually looking for the work plan for
10 that sampling?

11 MR. ARNIE LERICHE: Say again. I'm sorry.

12 MR. STEVE WILLIS: Are you looking for the
13 schedule for that piece, or what --

14 MR. ARNIE LERICHE: Right. The detail of how the
15 work plan, and when, is being implemented for the different
16 species, --

17 MR. STEVE WILLIS: Okay. All right.

18 MR. ARNIE LERICHE: -- and the number of samples,
19 the -- the targeted -- I'm -- I'm really not happy that
20 there's been a decision not to sample any deer; really
21 unhappy.

22 MR. STEVE WILLIS: And -- and as I indicated
23 yesterday, that was before my time. I'm not sure of the
24 process for why deer were or were not, you know, included in
25 all this, but I'll look into that.

1 MR. ARNIE LERICHE: Okay. And what I would hope
2 you would be able to give us really quickly is what data are
3 you -- you've received all of the State data, so I'm
4 assuming -- and I don't want to assume, so I'm asking -- the
5 DNR study that was done by --

6 MS. PAULA BOND: Uh-huh (affirmative).

7 MR. ARNIE LERICHE: -- Purdue, and the DNR
8 sampling of fish -- or the EGLE sampling of fish, and the
9 DNR's sampling of other species in Clark's Marsh.

10 Can you share that with us of what information you
11 have decided the State data is adequate and you don't have
12 to sample because you're using their data and analysis
13 versus we don't know how you decided not -- why you decided
14 not to sample certain species and so forth?

15 MR. STEVE WILLIS: Paula, I -- correct me if I'm
16 wrong -- but I don't think we eliminated anything in full
17 reliance on the State's data. I think we -- we're using
18 that information to tailor and target our investigation, but
19 I don't -- I don't think we've got any full reliance on
20 their data, do we?

21 MS. PAULA BOND: No. You're -- you're right. So
22 we're -- we are using all of the data in the risk
23 evaluation, but the data for the risk assessment will be
24 data that we collect, so -- biota data that we actually
25 collect.

1 So -- and I'm hoping that we can have a technical
2 session with the risk assessors that come in and give some
3 more detailed information on the risk assessment, the human
4 health and the eco risk, like you were saying, to hope --
5 hopefully answer some more of these questions in a little
6 more detail.

7 MR. MARK HENRY: I have a question for Beth.
8 Beth, will the State be doing any split-sampling for the
9 ecological sampling that will be going on so that the
10 samples can be processed the same way that the State has
11 been processing samples?

12 MS. BETH PLACE: So right now I don't have an
13 answer for you on that, but it's on -- it is under
14 discussion. So I can get -- get back to you.

15 MR. MARK HENRY: Thank you.

16 MS. JESSIE HOWARD: Does anybody have any other
17 questions for Paula?

18 MR. ARNIE LERICHE: (indicating)

19 MS. JESSIE HOWARD: Okay.

20 MR. ARNIE LERICHE: Sorry, Paula.

21 MS. PAULA BOND: That's okay.

22 MR. ARNIE LERICHE: Regarding -- in the risk --
23 the ecological risk assessment has any of your contractors
24 and the -- or the Air Force reached out to the community
25 members, residents, to ask them what do they consume, where

1 do they go to hunt, how much do they -- of the fish do they
2 eat, do they follow the safe -- fish-safe numbers?

3 And I've seen in other sites where the R- -- at
4 the RI plan -- developing of the RI plan they actually go
5 out and send out surveys and ask --

6 MS. PAULA BOND: Right.

7 MR. ARNIE LERICHE: -- multiple questions to
8 answer those kind of questions; do they have gardens, have
9 they used irrigation wells for those gardens.

10 Now, we may assume no one is going to have an
11 irrigation well on the Base, because that's been prohibited
12 for so long, but what about the west side of Van Etten Lake,
13 what about the east side of Van Etten, what about the south
14 side of the AuSable River?

15 How far out is the Air Force or your toxicologists
16 looking for potential uses of groundwater and it affects --
17 potentially affects human consumption?

18 MS. PAULA BOND: Okay. So there's a lot of
19 questions in there, --

20 MR. ARNIE LERICHE: Right. Well, --

21 MS. PAULA BOND: -- so --

22 MR. ARNIE LERICHE: -- with my memory, when I'm on
23 a roll, I've got to throw it all out.

24 MS. PAULA BOND: So I'll try to get them all.

25 So, number one, the risk assessors have not

1 reached out to community members to evaluate their
2 consumption patterns or uses. There was some talk of that
3 initially, but I think that was discontinued just to -- and
4 use literature values and other information and other
5 studies that have been conducted in Michigan for that.

6 But I -- I can get with the risk assessors and
7 check back with you on that one, Arnie. I don't want to
8 give you misinformation.

9 MR. ARNIE LERICHE: Okay. Can I just suggest --
10 because it came to mind -- the NOW group and the -- there
11 was a film crew, and there's a movie, and it's about people
12 that live around this area, still live around this area, and
13 they hunt and they fish, and all the information -- and I
14 forget the guy's name that was interviewed. So if you could
15 talk to Cathy and get a copy of that video; the movie; and
16 watch it and have your toxicologist watch it.

17 And then look -- I suggest you look at the Pease
18 Air Force Base RI work plan and RI -- the draft RI and see
19 how that -- those questionnaires were used in the sampling
20 program over a three-year period.

21 MS. PAULA BOND: Uh-huh (affirmative). Okay.

22 MR. MARK HENRY: Arnie, just to answer part of
23 your question, I believe that the gentleman who was
24 interviewed in that No Defense film has passed away.

25 MR. ARNIE LERICHE: He was pretty young.

1 MS. CATHY WUSTERBARTH: No; you're thinking of
2 someone else.

3 MR. MARK HENRY: Oh, okay.

4 MS. CATHY WUSTERBARTH: Yeah.

5 MR. ARNIE LERICHE: It was a woman --

6 MR. MARK HENRY: My mistake. Sorry.

7 MR. ARNIE LERICHE: -- who passed away.

8 MS. CATHY WUSTERBARTH: Yeah. Yeah, I'll -- I'll
9 give that information to Paula.

10 MR. ARNIE LERICHE: Okay. Thank you.

11 MS. JESSIE HOWARD: Did we have any other
12 questions for Paula, or was she finished answering yours?

13 MR. ARNIE LERICHE: Paula, was there another part
14 of my -- what I put out that you were going to talk to, or
15 did I interrupt you?

16 MS. PAULA BOND: Now I don't remember what it was,
17 Arnie. I'm sorry.

18 MR. ARNIE LERICHE: Okay. Well, we'll have --

19 MS. PAULA BOND: Oh, you asked how for the --

20 MR. ARNIE LERICHE: -- the video.

21 MS. PAULA BOND: -- how far the risk assessment
22 was going to go.

23 So the risk assessment and all of the pathways
24 that they're evaluating are listed in the risk assessment
25 work plan. So they're -- I don't have it in front of me so

1 I can't recall all of them, but all of those exposure
2 pathways are -- and receptors are listed in the risk
3 assessment work plan. So it doesn't matter if you're a mile
4 away or two miles away, that -- if you are within that
5 exposure pathway and you are that receptor, that will
6 account for the risk.

7 Does that make sense, or did I horribly butcher
8 that?

9 So if you are -- for example, if you have a
10 drinking water well, whether you're a mile away or right on
11 Base, if your drinking water is impacted, the risk to that
12 will be evaluated with that exposure pathway and that
13 receptor.

14 MR. ARNIE LERICHE: Okay. But we just learned
15 last night by --

16 MS. PAULA BOND: Does that make sense?

17 MR. ARNIE LERICHE: -- experts in hydrogeology
18 that they may not know all the different paleochannels or
19 small movement that have happened in the last 50 years
20 that --

21 MS. PAULA BOND: I think that you're thinking
22 maybe -- I think you're thinking the difference between --
23 delineation and the risk assessment are -- are kind of two
24 different things.

25 MR. ARNIE LERICHE: Okay. Well, I -- the

1 "discontinued" word -- word that you used is troubling to
2 me, because I think it's -- CERCLA and Superfund is
3 site-specific, and not going out to the public and checking
4 to make sure the norm within Michigan of what people eat and
5 what they grow and so forth, I don't think it should be
6 assumed that we're the norm.

7 MS. CATHY WUSTERBARTH: I'd like to remind
8 everybody about an exposure assessment that Oscoda and
9 AuSable is participating in right now that the State of
10 Michigan is providing, and the people are getting their
11 blood tested, they're getting those questions about, you
12 know, what they eat and -- and all of that. So certainly at
13 some point when that project is finished the Air Force will
14 have access to that information, so --

15 MR. ARNIE LERICHE: That may be true. However,
16 from last night's discussion -- and correct me if I'm wrong,
17 John -- if John's still here -- but the contamination that's
18 found in those wells, I'm wondering if it was an old
19 paleochannel that now has been cut off, but it brought PFOS
20 under the AuSable River, but it's still possibly moving it
21 there now as we speak.

22 So the Air Force does have to find that within
23 reasonable expenditures of resources.

24 MR. MARK HENRY: Cathy, unfortunately I don't
25 qualify to participate in that health study, and so I didn't

1 get to read all the questions that come in their form, but
2 do they have specific questions about if you eat wild game,
3 if you use -- you know, how much you recreate in surface
4 water, --

5 MS. CATHY WUSTERBARTH: Yeah. And I --

6 MR. MARK HENRY: -- things like that?

7 MS. CATHY WUSTERBARTH: -- think Puneet could
8 answer that question better than I.

9 MR. MARK HENRY: Oh, okay.

10 MR. PUNEET VIJ: Yeah, we have those kind of
11 questions like, you know, how often you eat wild game, how
12 often you eat fish", and, you know, from where. So we have
13 all those questions, yes.

14 MR. MARK HENRY: Okay.

15 MR. ARNIE LERICHE: And how many do you have
16 enrolled to date?

17 MR. PUNEET VIJ: I don't have the exact numbers,
18 but we're going to start our clinics in March again.

19 MR. ARNIE LERICHE: Because typically it's hard to
20 get high numbers; high enough numbers.

21 MR. PUNEET VIJ: Like, numbers in terms of
22 results, you're asking, or number of participants that
23 enroll in the study?

24 MR. ARNIE LERICHE: I don't understand.

25 MR. STEVE WILLIS: I think he's -- I think he's

1 looking for the number of participants in the study.

2 MR. PUNEET VIJ: Okay. I don't have that exact
3 number yet.

4 MS. CATHY WUSTERBARTH: Well, I -- I mean, I have
5 some feedback on that.

6 MR. ARNIE LERICHE: Right.

7 MR. WILLIAM GAINES: If you could give some kind
8 of a population percentage to give at least an idea of how
9 valid -- how large your sample is, that would be helpful.

10 MR. PUNEET VIJ: Yeah, I can -- I can get back to
11 you on that. I can refer back tomorrow and I -- I -- I can
12 email that.

13 MR. SCOTT LINGO: My question would be how do you
14 determine the people in which you are sampling? I would
15 suggest perhaps that you get looking at the Department of
16 Natural Resources deer licenses purchased within this
17 specific geographic area, the people that are buying fishing
18 licenses that live within our 48750 Area (sic) Code, then
19 take a look at the Zip Codes that you find along Loud Drive,
20 F-41, Lakeview, all the streets that surround Van Etten Lake
21 so that you can get a more concise random sample.

22 If you're just sending them out to people in
23 Oscoda, not everyone hunts. But I've got lots of friends,
24 myself included, we're avid deer hunters, we're avid
25 fisherman.

1 I used to fish Van Etten Lake religiously. I grew
2 up at Van Etten Lake. My cottage was there. I drank the
3 water from a well at 6169 Loud Drive for twelve years
4 approximately. And I'm still shooting deer and consuming
5 deer, and I can't wait to get my blood tested, because I've
6 got a ton of friends that I know that eat deer as a large
7 portion of their protein intake on a yearly basis.

8 So I think that you need to really narrow your
9 sample so that we're getting accurate results. If we just
10 start sending these around willy-nilly, you're going to get
11 nothing.

12 And it's just like when you test your fish, don't
13 test Van Etten Lake for walleye during May when the fish are
14 coming out of Lake Huron in April to spawn. Check for the
15 resident fish that are there in September. You know,
16 there's various times of the year when these fish
17 populations fluctuate tremendously depending upon when
18 they're spawning and where they're coming from, so that's
19 going to also have a large affect on the results that you
20 get when you start pulling flesh samples and doing your
21 studies.

22 Just my opinion as a layperson.

23 MR. PUNEET VIJ: I think all these methods were
24 followed regarding the recruitment for exposure assessment.
25 But the fish-related question, I think EGLE can better and

1 that.

2 MR. ARNIE LERICHE: And -- and actually we're
3 talking two different things. Your study; the exposure
4 study; is a -- a human blood --

5 MR. PUNEET VIJ: Yes.

6 MR. ARNIE LERICHE: -- targeted for drinking water
7 exposure, whereas the Air Force and the risk -- ecological
8 risk assessment is more the overall -- you know, how many
9 people are eating wildlife --

10 MR. SCOTT LINGO: Right.

11 MR. ARNIE LERICHE: -- for their sustenance. And
12 so it's a -- that's an Air Force responsibility in the risk
13 assessment. Their study can add some information, --

14 MR. PUNEET VIJ: Yes.

15 MR. ARNIE LERICHE: -- but it's targeted for a
16 different purpose.

17 MR. PUNEET VIJ: Yeah; it's targeted for drinking
18 water.

19 MR. SCOTT LINGO: Okay. All right. But, again,
20 it's just a different -- we need valid results from our
21 statistical analysis, and I think that those results can be
22 swayed quite a bit depending upon the time of year in which
23 you're doing your sampling, I guess is my point. And I
24 don't know if they've ever considered that, you know, as far
25 as how fish are coming and going out of the system, so to

1 speak.

2 MR. ARNIE LERICHE: So to my question of when will
3 we receive information about the schedule of sampling for
4 the ecological risk plan?

5 MR. STEVE WILLIS: Paula said she was working on
6 that schedule, so as soon as we've had an opportunity --

7 MS. PAULA BOND: Uh-huh (affirmative).

8 MR. STEVE WILLIS: -- to review it, vet it, we'll
9 make it available.

10 MR. ARNIE LERICHE: So it's going to be within the
11 month?

12 MR. STEVE WILLIS: Paula?

13 MR. ARNIE LERICHE: I mean, sampling is going to
14 start in --

15 MS. PAULA BOND: Sure.

16 MR. ARNIE LERICHE: -- April maybe?

17 MS. PAULA BOND: Yeah. Sure.

18 MR. STEVE WILLIS: The -- the biota sampling was
19 going to be later in the year.

20 MR. ARNIE LERICHE: Right.

21 MR. STEVE WILLIS: Yeah.

22 MS. PAULA BOND: Yeah. But, yeah, Arnie, we
23 can -- and -- yeah, a week -- a couple weeks; two weeks for
24 sure.

25 MR. ARNIE LERICHE: Okay. Thank you.

1 MS. JESSIE HOWARD: I do have Greg Schultz on with
2 a question as well virtually. Greg, if you could unmute
3 yourself and then address the RAB when you're ready?

4 MR. GREG SCHULTZ: Yeah, I guess my question
5 wasn't actually addressed for Paula. But I was thinking
6 about the plume data that now shows it doesn't stop right at
7 airport -- Air Force boundaries and does show on private
8 land, but we have obscured any well data information to
9 protect people's privacy, and that came out a couple years
10 ago that the DOD needed to do that. And at the time they
11 said they were going to ask for a release for private
12 property wells so they could share that data, and apparently
13 we haven't been able to come up with a release form.

14 I guess I'm offering my services to write that if
15 the DOD can't write one. And I would suggest that the State
16 of Michigan also sends it out to the wells that are private
17 drinking wells, just because I'm guessing that most of the
18 people would be willing to release that data that have
19 allowed the Air Force to put wells on their property or
20 private drinking wells that are allowing the State of
21 Michigan to sample.

22 So it seems like it would be pretty easy to get a
23 release form sent out so that that information can be
24 shared.

25 MR. STEVE WILLIS: Rex (sic), those should have

1 been mailed out. I signed those a week or so ago for all of
2 the existing access agreements we have. There's a
3 supplement to it asking if we can release that owner's data.
4 And then for all the new access agreements that clause is
5 actually built into it. It's -- so it's a two-part. One,
6 "Do you agree to provide us access to your property to put
7 in a well", and then second, "Do you authorize us to release
8 that data once we've done -- done the well and sampled it."

9 MR. GREG SCHULTZ: Okay. Great. Thanks.

10 MR. STEVE WILLIS: I would like to remind
11 everybody we're -- we're at the top of the hour. The
12 meeting was scheduled to run until 8:00 and we still haven't
13 gotten to the public comments, so, if we could, let's try
14 and move it along so we don't have everybody here all night,
15 just to give -- give the public an opportunity to -- to
16 bring questions forth.

17 MS. JESSIE HOWARD: Thank you, Steve. I think
18 Cathy had one.

19 MR. STEVE WILLIS: Okay.

20 MS. CATHY WUSTERBARTH: Yeah, I have some general
21 questions if you were moving past Paula.

22 One of them is that we're fortunate to have a --
23 an entrepreneur here in Oscoda. His name is Dean Wiltse,
24 and he has a PFAS testing lab. And he has the capability to
25 test multiple types of sampling for PFAS. And I understand

1 there's some challenges related to using his lab for
2 sampling here on the Base, and I am just requesting that the
3 Air Force look at that; look at those challenges; and try to
4 overcome them.

5 From my understanding, the sampling that we're
6 doing is sent out to certified labs that the Air Force uses,
7 and that can take up to a month to return those -- those
8 sample results back. And he had -- that his lab has the
9 capability to get those samplings back in less than a week.

10 So when we're talking about time lines, having
11 those results could speed up the time lines that we're
12 talking about, and I -- I'm just requesting that the Air
13 Force look at that situation again and try to break down
14 those barriers for using that lab.

15 MR. STEVE WILLIS: Okay. And, yeah, I know the
16 last time we looked they were actually working on getting
17 their DOD accreditation. I'm not sure where they stand in
18 that process, but, yeah, we can look at it.

19 MR. MARK HENRY: If I can add just a little bit to
20 that. The on-Base lab could potentially be used for
21 screening-level samples, and not necessarily the final, but
22 DOD-approved QA/QC samples.

23 MR. STEVE WILLIS: Right; right.

24 MR. MARK HENRY: And so if you needed to make
25 decisions, you could get sample results back very quickly on

1 a screening level type of data quality.

2 MR. STEVE WILLIS: Okay. Thank you.

3 MS. JESSIE HOWARD: Okay. Do we --

4 MR. BILL PALMER: One quick question if I might.
5 I'm here to represent Oscoda Township.

6 One term we've -- an acronym we've heard a lot
7 during this time with the Air Force is the CERCLA process,
8 which the Air Force has said they have to strictly follow.
9 And I'll remind everybody that CERCLA stands for
10 Comprehensive Environmental Response, Compensation and
11 Liability Act.

12 My question relates to the compensation part.
13 Oscoda Township has taken on some significant expense due to
14 this contamination forcing us to extend water mains. I'm
15 wondering if the -- in someplace -- somewhere in this whole
16 process Oscoda Township would finally get some remuneration
17 from the Air Force for some of the costs that we have had to
18 take on.

19 It's kind of a general question, but -- I don't
20 know that you would have the answer to that, but --

21 MR. STEVE WILLIS: I don't necessarily, but I -- I
22 can look into it.

23 MR. BILL PALMER: Because we have at this point
24 about 1.6 million dollars that we've taken debt on to extend
25 the water mains.

1 MS. JESSIE HOWARD: All right. Did we have any
2 other questions from anybody on the RAB before we move on to
3 our public comments?

4 (No verbal response)

5 MS. JESSIE HOWARD: No? Okay. So I'm just
6 quickly going to review some guidelines for the public
7 comment. Number one, indicate that you would like to make a
8 comment by raising your hand. Once I acknowledge you,
9 please approach the mic there in the middle of the room,
10 clearly state your name, and begin your comment. Number
11 three, if we could please keep our comments to three minutes
12 or less. We are already running over our meeting time, so I
13 will kind of have to enforce that unfortunately. Number
14 four, RAB members will determine if follow-up is needed
15 regarding your question or comment.

16 Do we have anyone who does have a public comment?
17 The gentleman in the black and blue shirt back there.

18 REPORTER: Would you also spell your name.

19 MR. DAVID CARMONA: What's that?

20 REPORTER: State and spell your name.

21 MR. DAVID CARMONA: David Carmona; C-a-r-m-o-n-a.

22 I want to start by thanking you. You've answered
23 a lot of the questions I brought with me this evening, but
24 unfortunately created a whole bunch more. So I'm going to
25 shoot these questions out. I don't expect an answer now. I

1 will get these to you through Cathy through the -- to the
2 RAB so you can address them.

3 The first one is can we obtain as the public a
4 copy of the action item list and resolution, since the
5 action items generated here are only closed out by giving us
6 a number without what the content is or what the resolution
7 is? I think for the public interest we need to get that.

8 What VOC's are of concern? We know
9 trichloroethylene and benzene have been here for decades.
10 These plumes have been going forever. I would like to know
11 if there's specific ones they're looking for, or if they're
12 just looking for VOC's in general.

13 Reference the VOC's, since the PFOS is amending
14 their QAPP, I would think that the VOC (sic), while they're
15 in their CSM phase, would look at that hydrological or
16 stratological data and include the homes around Van Etten
17 Lake in the VOC sampling. There are a lot of homes there,
18 this stuff has been moving for decades, I can almost
19 guarantee it's probably there.

20 Are operational records; logistical or
21 operational, or otherwise; available to you through the
22 National Archives or DOD repositories to do your
23 investigations?

24 Will Michigan Department of Health & Human
25 Services provide its public -- the public information based

1 on the VOC's present to educate us on precautions, interim
2 steps that we can take until IRA's or they put out the
3 record of decision?

4 The three RI's that are currently in process, are
5 they competing for the same pot of money, and how is that
6 going to impact the implementation phases when the record of
7 decisions come? Because you have limited pots of money.
8 Granted, DOD is nondiscretionary mandatory spending, but
9 within the DOD the DOD has discretion as to how those funds
10 are disbursed. So what kind of fights do we have ahead that
11 we need to get our congressional members and the public
12 involved in so that we ensure that the funding continues.

13 And the last one, why isn't Michigan DNR biota
14 sampling sufficient and you have to create your own data
15 when you have a sampling set already there based on their
16 knowledge of what goes on, how hunting patterns, fishing
17 patterns? As Arnie said, some of your dates of data
18 gathering appear to skew the information one way or another.

19 So those are my questions. I thank you very much.

20 MS. JESSIE HOWARD: Now I do think that we have
21 somebody virtually who would like to make a comment or have
22 a question. Her name is Marjorie.

23 Marjorie, if you could please unmute yourself, say
24 and spell your name for the record, and then address the
25 RAB?

1 MS. MARJORIE HARRISON: All set?

2 MS. JESSIE HOWARD: Yes.

3 MS. MARJORIE HARRISON: Marjorie Harrison. I have
4 a question and a comment.

5 Just to let you know, today I did receive the
6 questionnaire in the mail from MDHHS, and it's something
7 that doesn't outline the -- the questions. Simply that it's
8 a 30-minute questionnaire that can be done online or over
9 the phone, and a 30-minute appointment for blood and urine.
10 So anybody from MDHHS that's there could be a speaker, you
11 know, as far as details on that, because you would have to
12 call in to find out.

13 Regarding the pilot for Three Pipes, how long will
14 that last; the pilot? And if -- I guess that would be --
15 that was under Paula, but I'm sure it's -- everyone would
16 know. It's just a matter of having it said or, you know,
17 given in the news and such.

18 Again, this is along the lines with the last
19 speaker that talked about the three IRA plans, --

20 MR. JIM ROMER: I can -- This is Jim --

21 MS. MARJORIE HARRISON: -- all the action --

22 MR. JIM ROMER: Excuse me. I didn't mean to talk
23 over you. I just had the answer to that. We did speak to
24 it earlier. The implementation for the Three Pipes is
25 scheduled for this summer/fall, and then the monitoring

1 would be a year following that.

2 MS. MARJORIE HARRISON: A year?

3 MR. JIM ROMER: Correct.

4 MS. MARJORIE HARRISON: Thank you.

5 MS. MARJORIE HARRISON: Just a comment would be
6 that for, you know, citizens, residents, local folks, for
7 all of us to understand the differences in these three
8 concurrent projects now that we're learning about; the VOC,
9 MMRP, and then in addition to the PFOS; the communications
10 on that are very difficult to follow for folks, and it's
11 going to be tough to outline that in the newspaper, but it's
12 going to be necessary. Just to try to keep in mind the
13 acronyms are, you know, overwhelming.

14 And then the last one, I guess, is for Mark Henry,
15 and probably anybody else there. The wastewater lagoon and
16 the contaminated beds there, at one point it was talked
17 about having that hooked into the newer sewer line along
18 US-23, and I believe I heard Mark say that that has been
19 disconnected.

20 MR. MARK HENRY: A little clarification. I'm not
21 sure about what you're referring to along US-23. I know
22 that AuSable Township hooked into the sewer and that it was
23 extended into AuSable Township.

24 As far as the disconnection goes, my understanding
25 is that in the hangers; the large hangers where Kalitta is

1 working; one of those hangers had an aqueous film forming
2 foam fire extinguishing system in there, and there was a
3 release in that hanger, and the -- all that stuff went into
4 a lagoon next to the building.

5 And that lagoon was apparently connected to the
6 sanitary sewer, and so there was residual stuff in that from
7 long ago; probably 20 years ago. And that recently; I think
8 it was, like, early fall; the Township or the Air Force went
9 through and disconnected that system from the sewer so that
10 anything in there would no longer go to the wastewater
11 treatment plant. And I believe that they cleared out that
12 line --

13 MR. STEVE WILLIS: Not yet.

14 MR. MARK HENRY: Oh, I'm sorry. Not yet. But
15 they are working towards repairing the liner and getting
16 that system cleared out so that it no longer contributes to
17 the PFOS in the wastewater stream.

18 MS. MARJORIE HARRISON: Okay. Thank you. The
19 newer portion that I was speaking of is south of the river
20 that's running right along US-23 and it caused a lot of
21 construction for, you know, about a year, but that part's
22 done.

23 But then we learned that that -- the waste -- or
24 the sewer was going into the lagoon where the contaminated
25 beds were, which would further push out more PFOS eventually

1 into the river.

2 MR. MARK HENRY: Yes. The connection of the
3 AuSable sewer to the Oscoda system increased the flow
4 through the wastewater treatment plant that Oscoda is
5 running. And that increased flow is, in all likelihood,
6 increasing the pushing of the legacy contamination out of
7 the soil and into the wetland and the river.

8 MS. JESSIE HOWARD: Okay. So --

9 MS. MARJORIE HARRISON: So that's still happening.
10 Okay.

11 And I -- you know, I was at the meeting when this
12 was first learned; present at the AuSable Township meeting;
13 and I think it's a -- a legal financial issue in terms of
14 bringing AuSable into the combination of the PFOS. That's
15 my opinion.

16 MS. JESSIE HOWARD: Okay. We do need to move on.
17 I believe that we had another public comment from somebody
18 here. Yes, sir? You.

19 MR. CLAYTON JOLLEY: Good evening. I'm a member
20 of the Iosco Sportsmen's Club. A number of years ago we
21 acquired --

22 MS. JESSIE HOWARD: Sir, if I could please have
23 you state your name --

24 MR. CLAYTON JOLLEY: Oh, excuse me.

25 MS. JESSIE HOWARD: -- for the record?

1 MR. CLAYTON JOLLEY: Clayton Jolley; J-o-l-l-e-y.

2 You don't need me to spell "Clayton", do you?

3 MS. JESSIE HOWARD: No.

4 MR. CLAYTON JOLLEY: All right. Anyway, as I
5 said, I'm a member of the Iosco Sportsmen's Club, and a
6 number of years ago we were granted the use of what was
7 called the small-arms range for Wurtsmith Base, and we have
8 utilized that in a variety -- with a variety of ranges over
9 the years. And now hearing this evening that there's a
10 possibility that we could be subjected to the PFA's --
11 PFOA's, or whatever acronym we're using to describe this
12 poison.

13 At any rate, I wonder if there's a danger to us.
14 I'm not sure where our water comes from, but we do have a
15 drinking fountain in there, and toilet facilities, and we
16 make coffee there utilizing that water. Are we in any
17 danger there? Should our water be tested?

18 I'm getting blank looks. I hate that.

19 MR. STEVE WILLIS: We'll have to look into that.
20 I don't think we were aware there was -- the water -- a
21 water source there, so we'll have to look into it.

22 MR. CLAYTON JOLLEY: All right. Thank you very
23 much.

24 MS. JESSIE HOWARD: All right. Did we have
25 another virtual question as well?

1 MS. AMY RAUSER: (indicating)

2 MS. JESSIE HOWARD: From Tony. Tony, if could you
3 please unmute yourself, say and spell your name, and address
4 the RAB. Thank you.

5 MS. AMY RAUSER: Tony didn't unmute himself so you
6 can move on.

7 MS. JESSIE HOWARD: Okay; okay. Tony is having
8 some difficulties, I'm hearing here, so I believe that we
9 have a comment from Courtney, virtually as well. She can go
10 ahead and unmute herself and address the RAB whenever she is
11 ready.

12 MS. CATHY WUSTERBARTH: I think virtually they're
13 having a hard time unmuting. It won't let them.

14 MS. JESSIE HOWARD: Courtney --

15 MS. PAULA BOND: I think for the folks online, if
16 you want to unmute yourself, I think you have to unmute your
17 microphone in your Teams toolbar, not by your name. Maybe
18 try that.

19 MS. COURTNEY CARIGMAN: This is Courtney. Can you
20 hear me?

21 MS. JESSIE HOWARD: Yes.

22 MS. COURTNEY CARIGMAN: Okay. Sorry about that.
23 I've got to put my headphones on. So this is Courtney
24 Carigman; C-a-r-i-g-m-a-n. And I put my question in the
25 chat, but -- I'm sorry if I missed it -- I was wondering

1 whether and how the remedial investigation will consider
2 exposure to PFOS in surface water foams and the surface
3 microlayer for people recreating on the lake.

4 MS. PAULA BOND: So the risk assessment is going
5 to cover surface water sediment and groundwater and
6 vegetation, so there are a lot of different media that we're
7 looking at for the risk assessment, but we will be covering
8 surface water.

9 MS. COURTNEY CARIGMAN: Yeah, and so I used to do
10 these kinds of investigations, and -- and my recollection of
11 the process was that it wasn't specific to some of the
12 concerns that we have of PFOS's accumulating in surface
13 water foams and having high concentrations accumulating at
14 the surface microlayer. So I'm asking whether the remedial
15 investigation will take those special considerations about
16 PFOS into account?

17 MS. PAULA BOND: So we have been looking -- or
18 talking about the foam on the lake, and that is not going to
19 be included in the risk assessment. It will be looked at in
20 some of the uncertainty sections of the risk assessment, but
21 specific exposure concentrations will not be developed for
22 foam.

23 MS. COURTNEY CARIGMAN: Is there a process by
24 which that can be reconsidered?

25 MS. PAULA BOND: I'll -- I'll -- I'll defer to

1 Steve on that.

2 MR. STEVE WILLIS: That was all developed before I
3 started with the program, but I believe there's a lot of
4 still uncertainty associated with the foam in terms of how
5 to account for that, which is why at this point we're going
6 to address it --

7 MS. PAULA BOND: Right.

8 MR. STEVE WILLIS: -- in the uncertainties section
9 of the risk assessment. I mean, even -- even the analytical
10 method is -- is -- is not real clear at this point.

11 MS. JESSIE HOWARD: Was there any other questions
12 from anybody physically present? No? Okay.

13 Did we have anybody else virtually with any
14 questions or comments?

15 Okay. I think we've got Tony for his question or
16 comment. Tony, if you could please unmute yourself and
17 address the RAB when you're ready.

18 MS. CATHY WUSTERBARTH: He is telling me it's not
19 working, and so I would like to put him on my phone on the
20 speaker, please.

21 MS. JESSIE HOWARD: I don't have a problem with
22 that if --

23 MR. REX VAUGHN: That's not going to work. You've
24 got a double-feedback problem.

25 MR. TONY SPANIOLA: I'm going to fix that right

1 now. Are we all set?

2 MS. CATHY WUSTERBARTH: Yes. I think we can hear
3 you.

4 MR. TONY SPANIOLA: Okay. Thank you. And sorry
5 for the con- -- the confusion here. I can't get through
6 otherwise.

7 Yeah, my name is Tony Spaniola; S-p-a-n-i-o-l-a.

8 First off I would like to set the record straight.
9 There was a comment made by the Air Force at the last RAB
10 meeting indicating that the EPA bowed out of the BCT
11 meetings and participation of Wurtsmith. That was a
12 mischaracterization. EPA actually left Wurtsmith because
13 the Air Force and the Department of Defense withdrew its
14 funding, so that it was not able to participate any longer.
15 That happened several years ago. And in fact -- in fact,
16 the Department of Defense drove the EPA out much like it has
17 excluded and driven out the local community from
18 participating in the BCT meetings. I think it's also
19 important to note that that's also a violation of the EPA's
20 BCT regulations.

21 Also, I would like to thank Steve, and John
22 Gillespie, and -- and the entire group for holding the
23 technical meeting yesterday, and for John's involvement. I
24 think that in thinking about what happened yesterday I was
25 struck by the lack of perspective within the Air Force on

1 the impacts to the community of the decisions -- the
2 technical decisions that it's making. There is a tunnel
3 vision that's brought to these decisions that hopefully
4 these meetings will begin to impact. It's unfortunate that
5 it's taken this long for this to happen, but it's definitely
6 needed.

7 As an example, no discussion whatsoever in the
8 context of IRA's of the impacts of -- on -- of public
9 health. They're supposed to be considered when making IRA
10 decisions. That's wholly inappropriate, and it leaves a
11 community out in the cold, and violates CERCLA to the extent
12 that there are imminent and substantial threats to human
13 health that are being ignored here.

14 Again, I hope that improves. It's way too late.
15 And we're dealing with imminent and substantial threats that
16 our Health Department has identified and which the Air Force
17 sadly continues to ignore.

18 Also, whenever there are discussions of costs it's
19 cost to the Air Force. There's no discussion of the cost to
20 the Townships, to the impacted communities. We hear about
21 the Air Force wanting to cut costs, and cut corners, in its
22 step-outs and related decisions, but no discussion is made
23 about the impacts that are being had on a Township and on
24 residents like us who had to spend lots of money because of
25 the Air Force's failure to act for so very long.

1 In this effort to, I would say, cut corners on the
2 step-outs, maybe, maybe that might be appropriate if we were
3 in the first year, but we're now in the 14th year; entering
4 the 14th year. The sense of urgency to deal with the
5 problems that are facing our community is wholly lacking in
6 these discussions.

7 There are IRA's that need to be performed. We
8 need to stop the bleeding of the contaminants from the Base
9 into the waters of our community. I don't see a sense of
10 urgency or a sense of leadership in that regard.

11 Lastly I wanted to take up the topic of the storm
12 sewer system for Oscoda Township. What has gone on there on
13 the part of the Air Force is deplorable, and that's a nice
14 way of putting it. We're now four or five years into this,
15 the Air Force has reneged on its commitments, it refuses to
16 pay. And who pays? The taxpayers do. The message that's
17 sent to the community is the Air Force can't be trusted, its
18 commitments mean nothing, and it's a bad neighbor.

19 We have, I know, listening in tonight and involved
20 someone from Deputy Assistant Secretary Balkus's office. I
21 will ask -- I'm asking as an action item that this storm
22 sewer situation be resolved by the time of the next RAB
23 meeting, that her office intervene to make that happen, and,
24 if it doesn't happen, that we receive an update by the time
25 of that meeting. This has gone on far too long, and the Air

1 Force needs to stop freeloading off the Township.

2 Again, I want to thank John Gillespie for his
3 involvement, I want to thank Assistant Secretary Balkus for
4 making him and Jake -- who I know can't be here tonight --
5 available, and I hope that we can start to move this forward
6 in a much more productive fashion.

7 Thank you.

8 MS. JESSIE HOWARD: Thank you. And unless we have
9 any other public comments or questions, I would like to turn
10 it back over to our Co-chairs for some closing remarks and
11 to adjourn our meeting.

12 We do have one more public comment. Kate is
13 virtually with us. Kate, if you could please unmute
14 yourself and state your name for the record, that would be
15 great.

16 MS. KATE LYNNE: Hi. My name is Kate Lynnes;
17 L-y-n-n-e-s; and, as Tony just mentioned, I am with
18 Ms. Balkus's office and the Secretary of the Air Force. And
19 I had already made a note, Tony, to -- to revisit that and
20 check on it and get you guys an update. So my notes beat
21 you to it.

22 MS. JESSIE HOWARD: Okay.

23 MS. KATE LYNNE: And I will get you an answer
24 before the next RAB.

25 MS. JESSIE HOWARD: Okay.

1 MR. MARK HENRY: I would like to thank you all for
2 coming. I appreciate your questions. Hopefully we will be
3 discussing the action items that were brought up this
4 evening at our meeting in a few weeks. We'll get through
5 all these, and for the gentleman who requested the action
6 items, if you get ahold of one of the RAB members, including
7 myself, with an email, I'll be happy to send you the list of
8 action items.

9 MR. STEVE WILLIS: Yeah, I'd like to thank
10 everyone for coming out tonight. Based on the fact that
11 we're a half hour over schedule, I was obviously
12 overaggressive in what I thought we could cover tonight in
13 three hours, so we know for future meetings don't include so
14 much material, give us more time to talk.

15 But I appreciate everyone coming out and sticking
16 here -- sticking throughout the meeting. And I thought we
17 had some good discussions, look forward to more. And, as --
18 as Mark said, the action items are sent out to RAB members,
19 so we'll try and get that to people.

20 Thank you.

21 MS. JESSIE HOWARD: Thank you everyone for coming
22 out tonight. Have a great night.

23 (Meeting concluded at 8:33 p.m.)

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