

Restoration Advisory Board Public Meeting
August 16th, 2023

WURTSMITH RESTORATION ADVISORY BOARD
PUBLIC MEETING

DATE: Wednesday, August 16, 2023

TIME: At 5:04 p.m.

LOCATION: 6000 N. Skeel Road
Oscoda, Michigan 48750

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1 WURTSMITH RESTORATION ADVISORY BOARD PUBLIC MEETING

2 Wednesday, August 16, 2023

3 Oscoda, Michigan - at 5:04 p.m.

4 * * *

5 MS. HOWARD: Hello. And welcome to the
6 August 23rd Wurtsmith Restoration Advisory Board
7 public meeting. My name is Jesse, and I will be your
8 facilitator this evening.

9 This meeting will be documented and
10 live-streamed by Urban Entertainment Studios, as well
11 as recorded by our certified by our certified court
12 reporter, Courtney Przeadzki. Courtney is joining us
13 tonight virtually, so I will ask that everyone who
14 addresses the RAB at any point, please say and spell
15 your first and last name before giving your comment or
16 statements, just so that she can kind of keep up for
17 the record.

18 Let's see. First, I would like to invite
19 our cochairs to make their opening remarks.

20 Mr. Willis?

21 MR. WILLIS: This is Steve Willis with the
22 Air Force. I want to welcome everyone. It looks like
23 we've got a good crowd; it looks like we're crowded up
24 here at the front table. It's good to see a good turn
25 out tonight. I'm looking toward forward to good

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1 discussions and a productive meeting.

2 MR. HENRY: My name is Mark. I am
3 seconding that. I welcome everybody and I hope you
4 will attend future meetings as well.

5 MS. HOWARD: Okay. Perfect. I will
6 quickly take attendance of the RAB members, just to
7 ensure that we have a quorum. And Amy, our RAB
8 Coordinator in the back, will respond for those
9 connected virtually.

10 I will start with the Community RAB.

11 Mark Henry, our cochair?

12 MR. HENRY: Present.

13 MS. HOWARD: Arnie Leriche?

14 MR. LERICHE: Present.

15 MS. HOWARD: Scott Lingo?

16 MR. LONGO: Present.

17 MS. HOWARD: Rex Vaughn?

18 (No audible response.)

19 MS. HOWARD: Rex's mic?

20 Cathy Wusterbarth?

21 MS. WUSTERBARTH: Here.

22 MS. HOWARD: Bill Gaines?

23 MR. GAINES: Here.

24 MS. HOWARD: David Winn?

25 MR. WINN: Here.

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1 MS. HOWARD: Greg Schultz?

2 MR. SCHULTZ: Here.

3 MS. HOWARD: Dave Carmona?

4 MR. CARMONA: Here.

5 MS. HOWARD: Kyle Jones?

6 MR. JONES: Here.

7 MS. HOWARD: And Josh Sutton?

8 MR. SUTTON: Here.

9 MS. HOWARD: All right. We have all the
10 Community RAB; and for the government RAB, Steven
11 Willis?

12 MR. WILLIS: Present.

13 MS. HOWARD: Tim Cummings from Oscoda
14 Township?

15 MR. CUMMINGS: Here.

16 MS. HOWARD: Eric Strayer from AuSable
17 Township?

18 MR. STRAYER: Here.

19 MS. HOWARD: Amy Handley from EGLE?

20 MS. HANDLEY: Here.

21 MS. HOWARD: Puneet Vij from the Department
22 of Health and Human Services?

23 MR. VIJ: I'm here.

24 MS. HOWARD: Jessie Stuntebeck from the
25 USDA Forest Service?

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(No audible response.)

MS. HOWARD: Michael Munson from OWAA?

MR. MUNSON: Here.

MS. HOWARD: And Denise Bryan from District
Health Number 2?

MS. BRYAN: Here.

MS. HOWARD: All right. Next, I will
quickly review the virtual participation checklist for
those with us virtually.

First off, if you prefer to join us by
phone, please dial the call-in number and enter the
access code. Once you have successfully joined the
meeting via phone, *6 will mute or unmute your device,
and *5 will raise or lower your hand.

For RAB members that are connecting via
Teams, please mute yourself when you are not speaking;
use your "raise hand" button to raise your hand. To
enable closed captions, click the "more button";
select, "language and speech"; and then turn on live
captions. Please use the "Q&A" tab for any questions,
or you can contact Amy, the RAB Coordinator, at
amy.rauser@wsp.com for additional help.

All right. So tonight's agenda is as
follows: We are in the Welcome and Introduction
ground rules right now. Next, we will have Member

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1 Updates, followed by the RAB Business Updates.

2 Then, we do have three presentations this
3 evening. We have the interim actions update, followed
4 by the remedial Investigation and Aircraft Alert Area,
5 IRA, update; and then the critical process analysis
6 overview.

7 We will then have RAB member questions,
8 public comment; and, finally, the conclusion of
9 tonight's meeting.

10 We do request that all the community
11 members please hold their comments until the end of
12 the meeting, and that portion of the agenda, just for
13 time's sake.

14 And I believe, at this time, we have a
15 statement from Congressman Bergman, who is connected
16 with us virtually this evening.

17 Congressman Bergman, if you could unmute
18 yourself and address the RAB?

19 MR. BERGMAN: Well, good evening,
20 everybody.

21 And, according to the rules, Jack, J-a-c-k;
22 last name, Bergman, B-e-r-g-m-a-n. Did I get that
23 right?

24 MS. HOWARD: Yes.

25 MR. BERGMAN: Okay. Well, I'm a Marine,

1 I'm a rule follower, so when you said, "state and
2 spell your name," that's my weak attempt at humor.

3 But the point is: I'm glad to be with you
4 guys tonight just to listen, to hear what you're
5 talking about; and to, if you will, for the next time
6 I'm physically in the area, to set the stage for
7 hopefully we can get together face-to-face and get an
8 update.

9 I have, you know, all the support for you
10 all in what you're trying to do. And this is like a
11 big, in some cases, ball of string that you need to
12 collectively unravel before you can put it back
13 together the way you know that the Wurtsmith
14 Restoration needs to happen for the betterment of the
15 community, and the betterment of just everything.

16 So, know you've got a partner in not only
17 me, but in my office, because we work, in your case,
18 out of the Traverse City office. That's our only
19 office below the bridge, but our representatives and
20 everything are very tightly tied to the area, and very
21 tightly tied to the issues at hand.

22 So, with that, you know, let's not waste
23 any time here. And, you know, politicians talk.
24 Let's just get on to the meat of the program. And
25 know that I am honored to be listening, and thank you

1 for all the effort you put in.

2 MS. HOWARD: Thank you very much.

3 Do we have any other state or local
4 government officials with us tonight that would like
5 to make a statement? Or with us virtually?

6 (No verbal responses.)

7 MS. HOWARD: Okay. Next, Mr. Willis is
8 going to give us an update from the Air Force.

9 MR. WILLIS: Yes.

10 So as most of you probably remember from
11 our last RAB meeting, we had Heidi Pulst, Christina
12 Harvey, Leann Fabiranti, and Tim Sulton, whose from
13 OSV, visit and do interviews, as well as observe our
14 RAB meeting.

15 And based on their first six installation
16 visits -- Wurtsmith being one of those six -- they
17 have put together kind of their initial findings and
18 recommendations. That information is gonna be
19 provided in a report that'll be posted on their
20 website on the 21st of this month, so it should be
21 available next week.

22 You see on the slides here, they've
23 provided instructions for accessing their website and
24 finding their report and other information based on
25 their initiative that they are working.

1 They also have a questionnaire. I know
2 that there was quite a few people that were interested
3 in speaking with them when they were here last time.
4 They only had time for a handful of people, and so
5 they have created a questionnaire that they've posted
6 on their website as well. So if anyone in the
7 community has feedback that they would like to provide
8 to them, this is an opportunity. Feel free to log
9 into the website and provide whatever information
10 you'd like to share with the OSD team on how things
11 are going with Wurtsmith, the communication efforts of
12 the Air Force, of OSD, any of that type of
13 information; I'd encourage you to do so.

14 Next slide?

15 So Wurtsmith was a hotbed of activity after
16 the RAB meeting. The following week, we had
17 Honorable Owens from the Office of Secretary of
18 Defense come visit and do a roundtable meeting with
19 some of the community members and stakeholders. The
20 attendees for that were Beth Place and Amy Handley
21 from EGLE, Mark Henry from the community, as well as
22 Cathy Wusterbarth from the Airport Authority. He met
23 with Jaime Downs. And from the Township, Tammy Kline
24 attended that roundtable discussion.

25 There was some very frank and open

1 discussion. And I think, to some degree, based on
2 that, a new policy out, which some of you may be
3 familiar with, in terms of encouraging unity across
4 the services to lean forward and try to implement IRA
5 ss wherever possible, intermediate remedial actions,
6 or IRAs.

7 We did host a technical session yesterday
8 afternoon. We had some very good discussions. The
9 RAB community submitted topics primarily related to
10 the Quality Assurance Project Plan addendum that we
11 put out for concurrent review by both EGLE and the
12 community. We talked -- I think we were actually able
13 to get through all of the comments that were
14 submitted. It was a very productive conversation, I
15 thought, and we'll continue to do those technical
16 sessions every Tuesday with the RAB.

17 During the last RAB meeting, I did indicate
18 that we would have a virtual meeting to go through
19 action items because it seems that we always run out
20 of time during the quarter RAB meetings to talk
21 through the action items. It's mostly Mark Henry and
22 I that talk about it in our cochair meeting, and I
23 just -- I didn't get to tell you the schedule that,
24 but I have scheduled that for the 12th of September.
25 Mark and I talked about it, and he said Tuesday seemed

1 to be the best for the community, and so we selected
2 the 12th of September at 6:00 p.m. for a virtual
3 discussion of action items. So I'll provide
4 additional information and links for everyone to join
5 that.

6 I know at the last meeting, Cathy asked for
7 us to post a list of the attendees for the RAB
8 meetings on the RAB website. So starting with this
9 meeting, we will do that for both the in person
10 attendees as well as for the virtual attendees.

11 And that's all I've got.

12 MS. HOWARD: Okay. Mr. Henry, did you have
13 an update for us?

14 MR. HENRY: Let's see. Since the last RAB
15 meeting, the community put together comments to the
16 UFP-QAPP, the Quality Assurance Project Plan
17 addendums, in a similar timeframe to what the state
18 did, and we submitted those to the Air Force. And we
19 have also had a couple internal meetings to discuss
20 technical issues and provide topics for the technical
21 meetings that are held in association with the RAB.

22 MS. HOWARD: Okay. Now I believe that we
23 have an update from Amy Handley, the project manager
24 at EGLE.

25 MS. HANDLEY: Thank you, everyone.

1 I have a couple of things that -- well,
2 it's kind of a longer list, so it's not just a couple,
3 I'm sorry -- of recent activities that EGLE has been
4 taking on.

5 We can go ahead and move to the next slide.

6 So the first thing on there is that EGLE
7 has been working with DNR and Air Force related to the
8 3 Pipes Pilot studies. We had DNR review it to look
9 at threatened and endangered species in that area, and
10 DNR has provided a letter with requirements that need
11 to be met by the Air Force in order to move forward
12 with this pilot study, and Air Force is planning to
13 meet all of those requirements. That letter was sent
14 in June; and that is available, if anyone would like
15 to see it.

16 Next, is the Purdue data that looked at the
17 bio sampling in Clark's Marsh. That has been given to
18 the Air Force as well, and the summary and the final
19 report for that are going to be posted on the MHeart
20 wildlife work group website; that's just in the que to
21 be uploaded.

22 The next thing related to the PFAS RI QAPP
23 Addendum; we, in our office, reviewed and commented on
24 that addendum, and we also looked at all of the
25 community comments that were left as well. We did

1 find that a majority of the comments did have some
2 overlap with what we commented on, so there is a lot
3 of common grounds that we are looking at together and
4 keeping track of.

5 The next item I have on here is the VI RI
6 work plan; that was the immediate sampling work plan.
7 We provided comments on that as well, and I believe
8 that work is starting this week or next week.

9 MR. WILLIS: Next week.

10 MS. HANDLEY: Steve? Next week?

11 Then the next item, the Aircraft Alert Area
12 substantive requirements document, the SRV. We have
13 been trying to find some common ground with Air Force
14 and WRD in how we can approach that. We are having a
15 meeting set next week to be able to discuss that
16 altogether so that we can all together and not be
17 e-mailing back and forth, so we're hoping to have a
18 decision made soon on that.

19 The next item we have, we are meeting with
20 the Air Force every other week to talk about all the
21 field activities that are happening with this PFAS RI.
22 That way, we can all address any concerns or any
23 changes that need to take place with any delays so
24 that we can all be up to speed. And we are also
25 reviewing field notes from both Air Force and AECOM --

1 or Air Force's contractors and AECOM, which is EGLE's
2 contractor -- so we can look for any inconsistencies
3 or things we need to address.

4 Next item, reviewed and commented on the
5 Aircraft Alert Area Interim Response Action proposed
6 plan. We did just submit our comments for that, and
7 we didn't see anything that was unexpected or of
8 concern.

9 I believe the community will get to see
10 that in a month or two. Is that correct, Steve?

11 MR. WILLIS: Yes.

12 MS. HANDLEY: We also had WRD and the
13 attorney general look at that as well, because they
14 are involved in those meetings to reach a resolution
15 for that SRD situation related to that site.

16 And then the next thing we have is the
17 review of the 3 Pipes Pilot Study work plan. We are
18 still working on that right now, and we do have DNR
19 and WRD looking at that as well for any concerns that
20 might be related to any additional threatened or
21 endangered species, or impacts to any water in the
22 area.

23 We can go to the next slide .

24 So these would be all the upcoming
25 activities that we have on our plan here. We do have

1 an SPP meeting planned with the Air Force that we're
2 actually doing tomorrow in Lansing all together. We
3 will be working through where we're planning to put
4 the monitoring wells, the permanent monitoring wells,
5 and discussing other RI field activities that are
6 taking place during this field season.

7 We are expecting to get the responses to
8 our comments on the Aircraft Alert Area -- or, sorry.
9 I'm jumping ahead of myself.

10 The PFAS RI QAPP Addendum, we're
11 anticipating getting those responses to comments
12 hopefully in the next few weeks, and I believe it is
13 going to also include some of the community comments
14 that were utilized in making some changes in the
15 addendum.

16 The next item we have here is the data
17 review of all the PFAS RI sampling. We do have -- we
18 have been looking at all of this and working with the
19 Air Force to kind of see where we should be looking
20 for any additional sampling beyond what has already
21 been proposed. We do have some additional documents
22 that we are anticipating getting between now and the
23 end of this year, or into the beginning of the next
24 calendar year. Listed up there, we just have the
25 VI RI QAPP, the Aircraft Alert Area QAPP, and the

1 MMRP QAPP, along with the 5-year Review, and an annual
2 report as well.

3 We do have field oversight going on right
4 now with AECOM, and they are doing QA sampling for us
5 as well. Currently, they are out there every other
6 week, and we are anticipating them being out there
7 more frequently in December due to the increased
8 variety of work that is going to be taking place.

9 And the last thing, we have been involved,
10 I think since they first decided they were going to be
11 doing this critical process analysis, to be included
12 on what's happening with it, the planning, what we
13 should be discussing. I think it's a great
14 opportunity for all of us to come together -- us,
15 Air Force, and all of their involved parties -- to
16 work through those to find solutions on what works
17 best for those proposed IRAs, and I believe we're
18 talking about those later as well.

19 So thank you.

20 MS. HOWARD: Thank you very much.

21 And just a reminder for the RAB members
22 with the mics in front, if you could just kind of lean
23 into those a little bit; that very round part on the
24 tip is what's getting your voice.

25 Do we have any other government RAB members

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1 that would like to give an update for us?

2 MR. VIJ: I can provide an update from
3 MDHHS.

4 MS. HOWARD: What was that? I'm sorry.

5 MR. VIJ: I can provide an update from
6 MDHHS, if we are asking about state government.

7 Can you hear me?

8 MS. HOWARD: Okay. You have an update for
9 us?

10 MR. VIJ: Yes. Yes, I do.

11 MS. HOWARD: Okay.

12 MR. VIJ: Regarding the resampling, the
13 fourth round of resampling started this month, so
14 that's the update regarding resampling.

15 And regarding exposure assessment, the
16 clinics are going smoothly for the number of residents
17 that have been registered and how many have been
18 tested so far. These numbers are available on our DEH
19 bio page. So that's pretty much all I have. Thank
20 you.

21 MS. HOWARD: Thank you.

22 Yes, Cathy?

23 MS. WUSTERBARTH: I'm so sorry. That was
24 very hard to hear.

25 MS. HOWARD: No problem.

1 Can you maybe turn the speaker down? We're
2 getting a little feedback in your speaker.

3 MR. VIJ: Yeah, no problem. Can you hear
4 me now?

5 MS. HOWARD: We're ready when you are.

6 MR. VIJ: Okay. So regarding resampling
7 update, the fourth round of resampling started this
8 month. An update related to exposure assessment; the
9 clinics are going smoothly for the number of residents
10 that have been registered and how many have been
11 tested so far. These numbers are available on the DEH
12 bio page, and it's being updated regularly.

13 That's pretty much all I have. I hope I
14 was clear enough this time.

15 MS. HOWARD: Is that better?

16 MS. WUSTERBARTH: Yes.

17 MS. HOWARD: Okay. Perfect.

18 Do we have any other government RAB with an
19 update? Mike, can I have you spell your name for the
20 record, please.

21 (Inaudible chatter.)

22 MR. MUNSON: Is that better? All right.

23 Taxiway, Alpha, Bravo, and Charlie
24 rebuilding project -- that's a two million dollar
25 project, by the way -- is in progress. There's been a

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1 slight setback due to the underlayment that was used
2 in the last rehab. It does not meet the, now, FAA
3 requirements. A complete replacement of the current
4 underlayment is in progress. Taxiway finishing times
5 have been extended to the 31st of August from the 11th
6 of August.

7 OWA is welcoming the northern strike
8 exercise to use OWA for training. Some of the local
9 residents may see additional aircraft traffic; but
10 remember, folks, these are our guardians practicing to
11 protect us. The movement of Poletta's residual
12 aircrafts is, for the most part, complete. They've
13 been moved over to the old alert area. The taxiway
14 used by Poletta in the past will be rehabbed for
15 pending new aircraft business. Several new small
16 businesses are in place in the airport proper and they
17 are growing. OWA Operation and Board is making the
18 airport a more profitable and a good member of the
19 community.

20 I'll be available after the -- after the
21 meeting for any questions, if there are any. Thank
22 you.

23 MS. HOWARD: Thank you.

24 Do we have anybody else from the government
25 RAB that would like to give us an update?

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1 MR. STRAYER: Yeah. Eric Strayer from
2 AuSable Township.

3 MS. HOWARD: Okay.

4 MR. STRAYER: We have gotten approval in
5 our township to complete several new testing wells;
6 modern testing. They're proceeding with that right
7 now. Also, the C2R2 grand engineering is ongoing with
8 resident hookups next year; municipal water supply.

9 And on a personal note, I would encourage
10 people to go get their blood tested. I did do that
11 myself, and it was a very positive experience, and it
12 doesn't take long, and it's very worthwhile to get the
13 data that they require.

14 So that's all.

15 MS. HOWARD: Denise, do you have an update
16 for us?

17 MS. BRYAN: I do not have an update from
18 local public health, but I would like to thank our
19 Congressman Bergmen for being present. His time and
20 any advocacy to help with our RAB action will be
21 greatly appreciated, and I look forward to following
22 up with him in the near future.

23 MS. HOWARD: Thank you.

24 MR. CUMMINGS: I do have a question.

25 Tim Cummings.

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1 Could you provide an update to all of us?

2 I know in previous RAB meetings, we've had questions
3 about the township being reimbursed for money you
4 borrowed for extending the drinking water system, and
5 we've had some calls between the Air Force and the
6 Township. I was wondering if you could just give
7 everyone an update on that process.

8 MR. STRAYER: Well, the meeting that you
9 had with the township Tuesday morning at 10 a.m., I
10 was not able to attend, so I don't know what was
11 discussed, not really.

12 MR. WILLIS: Okay.

13 MR. STRAYER: So last I was told, we are
14 waiting to put the letter together. We're working
15 with our attorney, so --

16 MR. WILLIS: Okay.

17 MR. STRAYER: -- that's --

18 MR. WILLIS: You are planning to submit
19 that?

20 MR. STRAYER: That is correct.

21 MR. WILLIS: Okay. Great. Thank you.

22 MS. HOWARD: All right. I think that was
23 all of our government RAB official updates. I know we
24 have some updates from the community RAB members as
25 well.

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1 Yes, sir?

2 MR. GAINES: Could we get a question here?

3 Amy mentioned meetings with the Air Force biweekly for
4 field work progress. Is there anything published on
5 that or anything -- any information made public on
6 what happens in those meetings or results of them in
7 that area? Could you enlighten us on that, please.

8 MS. BRYAN: I don't believe we have anyone
9 taking anyone taking any formal minutes or anything.

10 MR. WILLIS: We don't --

11 MS. BRYAN: They are just reviewing data
12 that we get back, which we have yet to receive data
13 back from the sampling that's been done so far.

14 MS. HOWARD: Can you just say and spell
15 your name real quick.

16 MR. GAINES: Bill Gaines, G-a-i-n-e-s.

17 MR. LERICHE: I have a question -- Arnie
18 Leriche, L-e-r-i-c-h-e -- for Steven and Amy.

19 On one of your slides, Amy, you had the
20 5-year review. My question for Steve is: What is the
21 date of that draft that you used for the study? How
22 long ago was it?

23 MR. WILLIS: Did we say where?

24 MR. LERICHE: The 5-year review draft sent
25 to --

1 MR. WILLIS: That's on the oncoming work
2 list. We have not submitted it to them yet; it's
3 still in internal Air Force review.

4 MR. LERICHE: Okay. So the draft has not
5 been shared with legal yet?

6 MR. WILLIS: Not yet; that's correct. That
7 was under, "Upcoming," on Mark's slide.

8 MR. LERICHE: Okay. I want it to be known
9 that this 5-year review was due September 30th, 2019;
10 it will be four years late and 45 days. Most EPA
11 regions, when they are the oversight agency, will have
12 issued a letter of noncompliance to the Department of
13 Defense or a Federal facility, and that has not been
14 done. I don't know if the state has a similar
15 availability of a slap on the wrist enforcement
16 action.

17 I'd suggest that it be done, just to get
18 management that's been, I think, asleep. And I don't
19 know why it should take five years or four years to do
20 a 5-year review. The impact of that is significant.
21 I'm not just chewing my gums.

22 That 5-year review is supposed to show any
23 system that has been running that's four and a half
24 years, or 92 weeks ago, that needed to be reviewed by
25 2019 to make sure it's effective. And if you don't

1 have that protectiveness analysis done and approved
2 and reviewed by the state, we don't know that those
3 Legacy systems and FT02, in my mind, should be
4 included for PFAS; that it's affective and it's gonna
5 meet it's goal to come into compliance, such as TCE,
6 trichologic, and other contaminants.

7 If that hasn't been proven, then that has
8 to be brought into the RI, and we haven't been talked
9 to about that in the RAB. And it's important because
10 if that's not in compliance with the ground water
11 standards, then that's serious, because our best and
12 bright families that CDC has said four and a half
13 years ago, have probable health affects happen because
14 of the TC pollution from the drinking water wells by
15 the Air Force.

16 So it's an important issue, and it should
17 be maybe an action item so that a good response can
18 actually be poled on this. I'm sorry, but 's
19 important.

20 MR. WILLIS: It is absolutely important.
21 We covered a lot. The 5-year review is an assessment
22 of remedies put in place by RI; the final remedy. And
23 we have done that assessment for the systems, which
24 does not include PFAS because we don't have a final
25 rod for those. But the 5-year review does address

1 PFAS, recognition that it's a concern and issue, but
2 there is no final rod for us to -- in the 5-year
3 review -- to assess the effectiveness of the system,
4 but we do still make an effort to talk about it.

5 You mentioned EPA and their -- the letter,
6 basically, if you're late. That only applies for MPL
7 sites. The Air Force policy is for non MPL: We will
8 still go ahead and do a 5-year review, even though
9 it's not required from a surplus standpoint because
10 it's not an MPL site, but we do it anyways.

11 And the reason it's late is: Because of
12 the 5-year review, which is a valuable process, we did
13 identify some deficiencies with documentation for some
14 of the treatment systems; not the effectiveness of the
15 system, but for MT02s system, we actually put the
16 system in place and was operating it for quite a few
17 years without a signed rod. The rod had been reviewed
18 by both the Air Force and, at that time, by the EDQ,
19 but it never actually got signed, so we're having to
20 go back and revise that, and update that, and get it
21 signed.

22 So it did identify -- the 5-year review
23 effectiveness did identify some deficiencies with
24 documentation. The systems are all operating and
25 meeting their rod requirements.

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1 MR. GAINES: And so that's a technicality.
2 Couldn't the draft, the technical part of it, been
3 sent to the state three years ago then?

4 MR. WILLIS: We're trying to fix the issues
5 before we submit it to the state.

6 MR. GAINES: For a final, that's important.
7 Okay. We can have another discussion maybe about
8 that. I don't want that to happen again.

9 MR. WILLIS: I agree. I agree.

10 MR. GAINES: Thank you.

11 MS. HOWARD: All right. Yes, sir.

12 MR. CARMONA: Thank you.

13 Dave Carmona, C-a-r-m-o-n-a.

14 MS. HOWARD: Thank you.

15 MR. CARMONA: This is for Amy and Steve.
16 These biweekly meetings involve public trust and
17 financing involved. By not publishing the minutes,
18 are you meeting the statutory requirements for
19 meetings involving public trust?

20 MR. WILLIS: As Amy indicated, we -- they
21 are informal meetings; we do not run minutes for them.
22 It's mostly a summary of the activities that have been
23 completed for the past two weeks and the planned
24 activities for the next two weeks; we review maps that
25 show those locations. And as we get data from the

1 lab, that data is put on the maps and we continually
2 update that, but there are no minutes generated from
3 the meetings.

4 MR. CARMONA: Well, whether they're formal
5 or informal, it is still a meeting regarding our
6 interests, as a public, and what occurs in these
7 meetings, and Amy indicated there were some agreements
8 as to well placement that would be occurring in some
9 of these meetings. And it would seem to me that you
10 would need to publish those; that we are aware of what
11 is going on. It seems disingenuous to hold the
12 meeting and say it's informal, even when you're
13 discussing formal information.

14 MR. WILLIS: Okay. We'll take that under
15 advisement. Thank you.

16 MS. HOWARD: Do you have any other updates
17 from the community RAB? I want to keep on track here
18 with just updates, and we will get to questions and
19 comments and things like that later on.

20 Yes, Cathy? If you could say and spell
21 your first and last.

22 MS. WUSTERBARTH: Cathy,
23 W-u-r-s-t-e-r-b-a-r-t-h.

24 I'd like to mirror Denise's statement in
25 thanking Congressman Bergmen for being in the meeting

1 today. We really appreciate him and his office; he,
2 and his office, engaging with the community in the
3 past, prior to this meeting, and we really appreciate
4 his presence here. So thank you.

5 I would like to make a note, and I don't
6 know if Jessica had mentioned, that there's handouts
7 at the back here for the slides for the attendees, and
8 the action item list that, in the past, has been sort
9 of this thing that just kind of floats around that you
10 can't see. It's also in the front, also, if you'd
11 like to see those actions items listed.

12 And I'd like to make a request, at this
13 point, when we get to that action item line, one of
14 them are closed out, and the -- you know, what we
15 printed out does not show closed action items, so I
16 would like for the cochairs to address what that item
17 was and why was it closed and do that sort of thing,
18 once you get to that slide. So maybe somebody can
19 open that file up for you guys.

20 All right. Thank you. And I would like to
21 expand on what Puneet had reported in terms of the
22 Oscoda area exposure assessment; the blood testing.

23 Currently, there are 505 reported
24 individuals that have enrolled, which reflects 370
25 households. The number that has been -- I don't know

1 the numbers, but 505 have enrolled. So they're
2 continuing to look at engaging families and
3 adolescents 12 years and older, as that enrollment is
4 pretty slow at this point.

5 I would like to express that the
6 communities continue to feel that the four IRAs that
7 have been discussed in these RABs for almost a year
8 now are -- we want them -- we consider them warranted,
9 and we'd like to see them implemented as soon as
10 possible.

11 One other item for the people, in general,
12 in the room that are working with PFAS, the National
13 PFAS Contamination Coalition is hosting a national
14 conference in June of next year in Ann Arbor. So all
15 our welcome, registration and information will be
16 coming soon.

17 And, lastly, regard RAB business, an
18 organizational chart was requested for this RAB; the
19 decisionmakers. When we -- you know, when Steve and
20 leadership talk about decisions, we really don't know
21 who is making these decisions at this point, so we
22 really would like to see an organizational chart.

23 And with that said, I'd like to have our
24 guest -- or your guest that's here today be introduced
25 so we can understand his role in the RAB, Greg.

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1 MR. WILLIS: Sure. So we got Greg
2 Gangnuss, who is our BRAC division chief, so he's
3 responsible for all the BRAC work for the Air Force.

4 And then next to him is Gordon Smith; he's
5 my direct supervisor.

6 MR. GANGNUSS: Yeah, I appreciate it. This
7 is my first time here on the Air Force Civil Engineer
8 Center -- I think they both retired a little over a
9 year ago.

10 MS. WUSTERBARTH: Greg?

11 MR. GAGNE: Yes?

12 MS. WUSTERBARTH: You need a microphone.

13 (Inaudible chatter.)

14 MR. GAGNE: I'll talk loud. It's show time
15 now, how about that?

16 But I will say thank you, I had a warm
17 welcome here from most of the folks in the crowd here.
18 It's my first time back here, of course, but it's been
19 20 years. But I'll tell you it's beautiful. I wanna
20 say you guys are special. I've been to many, many
21 RABs, and I think this is the first time I have
22 actually had a real live congressman on, usually a
23 staff or somebody attends. But it shows that the
24 attention is being focused here at Wurtsmith, and I
25 think everybody here appreciates all the work that's

1 being done.

2 I'm here not as a member of the RAB,
3 obviously, but a concerned member of the Air Force. I
4 wanna support the RAB. Of course, the Air Force, we
5 want to continue the clean up, the investigations. We
6 have a multitude of great contractors here. I see the
7 varying interest of all the RAB members, and you guys
8 are really dedicated.

9 And, of course, EGLE, who are partners, who
10 are part of the RAB; we're actually meeting with EGLE
11 tomorrow. And, you know, we want to continue the
12 discussion, the relationship. You know, I feel the
13 IRAs that everybody keeps bringing up before; you
14 heard the critical path analysis. You know, that's
15 something that the Air force is putting on a fast
16 track. I want to bring a lot of attention to that.
17 And we also want to get to some resolution with those
18 and continue on with the great work that's being done
19 out here.

20 So I'll be here, I can't promise every RAB,
21 but I will be a part of the critical process analysis.
22 I'm included in that team; I'm included in EGLE's part
23 of that team.

24 So, again, I want to say thank you. Thank
25 you for having me and thank you for the warm welcome.

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1 After the meeting, you can come up and chat with me
2 for a little bit or -- you know, I left my name and
3 e-mail on the sign-in list; I hope that's not a
4 mistake. Anyway, it's there; send me an e-mail and
5 I'll respond.

6 Thank you.

7 MS. BRYAN: This is Denise Bryan,
8 B-r-y-a-n.

9 I'd like to welcome you back after
10 20 years. I would share to my neighbors here that I'm
11 the local health department's health officer, And time
12 and health are currency to my neighbors here. And
13 both are very fleeting, but we deserve to have our
14 time used effectively, and the health that we really
15 demand for ourselves, good health. And for our
16 families should not be jeopardized by a slow response.

17 So I heard you use the word, "fast track."
18 And I really would implore you to keep the RAB here
19 with -- you've heard a number of times, I've already
20 heard three different time where we have been delayed.
21 And, again, what's on the table is the health of this
22 community; and it's also the veterans. So thank you
23 for your service. I have family members serving.

24 And I've been engaged for nine years. Your
25 predecessor called me a Renegade, and I made a

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1 commitment to this community to see it through. So I
2 hope you're a man of action and you won't disappear
3 for 20 years, because we're gonna count on you, and
4 I'll be glad to get your e-mail.

5 So thank you.

6 MR. GAGNE: And I appreciate it.

7 The -- you know, just the emotion and the
8 -- you know, when you talk about your home, I mean, I
9 drove here from Tawas to, I hope I'm saying it
10 correctly, Oscoda?

11 MS. HOWARD: Yup.

12 MR. GAGNE: Got it.

13 You know, I'm from south Texas; I still
14 say, "pico de giyo," and it should be "pico de gallo,"
15 so forgive me, but --

16 (Laughter.)

17 MS. BRYAN: We say PFAS and PFOS both; so
18 we're looking for the answers, so we appreciate you
19 coming today.

20 MR. GAGNE: Thank you, Denise. Thank you
21 very much.

22 MS. HOWARD: All right. Thank you very
23 much.

24 Did we have any other community RAB updates
25 or --

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1 MS. LYNNE: Yes.

2 MR. WILLIS: Microphone?

3 My apologies, Kate. You're a regular now,
4 so . . .

5 MS. LYNNE: I know i don't count.

6 For those of you I haven't met, my name is
7 Kate Lynnes. I'm the senior technical advisor for
8 restoration and emergent contaminants for the
9 Secretary of the Air Force's office. I worked for
10 Deputy Assistant Secretary Nancy Baukus up in the
11 weird world of the Pentagon, but I'm also a native
12 Michigander; I grew up on the other side of the state.

13 And I'm really pleased to be here again.
14 And I think tonight, you know, Cathy, specifically to
15 your comment, the presentations that Steve's gonna to
16 make and that I'm going to add to, I think will start
17 to show that the turn in the orator that I think
18 everyone has been waiting for.

19 So I just want you to know that you've been
20 heard. The commitment is at the highest level in the
21 Air Force; I want everyone in the RAB to know that.
22 And it's not just because I'm from Michigan and I bug
23 them all the time. So I do want you to know that.
24 And we may not be as fast as everyone would like;
25 that's an understatement . You know, I was talking to

1 Bob Delaney and Mark Henry the other night, and it's
2 like, it's difficult. Right? But everything is
3 moving so fast; analytical methods, screening levels,
4 clean up levels haven't been established, all this
5 kind of stuff, and everybody is scrambling. But we're
6 on this, and we've heard you, and I want you to know
7 that. So with that I will -- enjoy the rest of the
8 RAB.

9 MS. HOWARD: Thank you very much.

10 Yes?

11 MR. CARMONA: Dave Carmona, C-a-r-m-o-n-a.

12 I want to make a plea out to public
13 citizens of Oscoda and in area that are here. Steve
14 brought up the sampling of the community survey. If
15 you need a link to that, you can get it from
16 Cathy Wusterbarth, or myself, or potentially any of
17 the RAB members. It's easy; it takes about 10
18 minutes. About a dozen of people have done it
19 already. It's very important to we get your thoughts
20 and concerns about communications from the DOD, BRAC,
21 EGLE.

22 Whatever commentary you feel you need to
23 make, this is how you can get directly involved as the
24 public, and I encourage you all to take that
25 opportunity. Get ahold of me; I will get that link to

1 you. Like I said, it takes just a few minutes.

2 Thank you.

3 MR. LERICHE: Arnie Leriche.

4 I just want to add one quick thing. In the
5 directions for that questionnaire, they will only --
6 they only want one per person. So if you don't have
7 all of your thoughts on that, you're gonna lose them
8 if you add one meant comment later on. So you only
9 get one shot at submitting, so definitely do it. I
10 think it's important.

11 MS. HOWARD: Okay. Any other updates from
12 the community RAB? Just updates.

13 MR. LERICHE: Arnie Leriche, L-e-r-i-c-h-e.

14 A quick thing In the research that I've
15 been doing since the last RAB. And since the last
16 RAB, I've added an action item regarding the surface
17 water foam that many of us have seen. I'm sure you've
18 seen it on Bennett Lake, and also on Lake Huron.

19 That action item, I asked for the Air Force
20 and EGLE to contact the researchers that DOD and EPA
21 have had for the last six years doing research that
22 you can sample, and so that's what I was asking for in
23 that action item.

24 There has not been a response yet. So on
25 the 12th of September, I'm looking forward to that

1 conversation. But what I wanted to add for your
2 information is: There's been a lot of sampling of
3 surface water going on in addition to the people and
4 the agencies in this room. Congressman Bergmen
5 actually passed a bill and got money to have the USGS
6 sample around the Great Lakes, and around the nation,
7 actually. And there's been some compilations of all
8 of the samplings that have gone around, including
9 foam.

10 So there are researchers, and the
11 Department of Defense and EPA, who believe 's
12 important enough to spend millions of dollars to have
13 these researchers sampling for the surface water foam,
14 and what is called the micro layer that you can't see;
15 it's not there, but there is one or two molecules
16 thick floating.

17 That increases -- that has a natural -- the
18 chemical has a natural process to come out of the
19 water in the lake and concentrate itself because it
20 wants to be touching the air; it's a natural process.
21 And I'm sure there's some other things going on, too,
22 but that's an important one, and that means that no
23 one is seeing it, but its happening 24/7 wherever
24 there's a source of PFAS going into that water body.

25 So the Air Force, at this site, has not

1 responded and has not acknowledged it. They said
2 there's not enough research, there's no sampling
3 methods that have been approved. Well, we're in the
4 remedial investigation phase. Site-specific
5 investigation has to be done and concentrated here
6 again so that we get some answers as to what's going
7 on here, even if this is the only site in the nation
8 and/or internationally that this is happening to the
9 extent that it is happening here. So it's gonna be an
10 interesting discussion in September and I hope we have
11 some answers, because it's significant. And I have a
12 handout, if anyone wants to see what I'm referring to
13 about how it increases and what levels. I have a
14 handout for anyone that's interested.

15 Sorry.

16 MS. HOWARD: Nope. You're fine.

17 Anybody else with any other updates on the
18 RAB?

19 (No responses.)

20 MS. HOWARD: Okay. Next on our agenda is,
21 the RAB business inspection.

22 Mr. Willis, I think you're gonna talk to us
23 a little bit about the action items.

24 MR. WILLIS: Yeah.

25 So I did e-mail the action item list out to

1 the RAB members. As Cathy indicated, there are some
2 hard copies in front of the church here. We are gonna
3 have a virtual meeting to go through the action items
4 and talk about them. Historically, it's mostly been
5 Mark and I that talk about them, discuss the summary
6 or status of them, and close them. But we're gonna
7 open it up and include the rest of the RAB in those
8 discussions, and closure of actions items, as well as
9 introductions of new ones. And, again, that's
10 scheduled for the 12th of September.

11 Since our last meeting, we opened a total
12 of 7 action items, 121 through 127. We closed action
13 item 112, and that one dealt with adding labels to the
14 Air Force treatment systems. And the Air Force is not
15 going to put up signage on them identifying them as
16 Air Force treatment systems. I think I've previously
17 responded in a RAB meeting that I've consulted with
18 the Air Force team, and that's not something that
19 we're gonna be able to do. And we've got a total of
20 27 ongoing action items.

21 Arnie, I know you mentioned the five-year
22 review that you wanted an action item. That is one of
23 the ongoing ones, so that has been captured.

24 That's all I have.

25 MS. HOWARD: Okay. Perfect.

1 Before we begin tonight's presentations, I
2 do want to remind the RAB members to, please, hold
3 their question or comment to the end of each
4 presentation. We will have a section after each for
5 discussion.

6 And we will begin with an interim actions
7 update from Justin Gal at WSP.

8 MR. GAL: Thank you.

9 Good evening. My name is Justin Gal. I am
10 the technical lead for the operations and maintenance
11 and moderating team on the treat systems at the base,
12 the former installation. And I'm here to talk about
13 two of the interim actions and give an update on two
14 of them; one, being the FT02 system; and the other
15 being the VEL at the Ken Ratliff Memorial Park system.

16 You can go to the next slide.

17 This is supposed to give us an indication
18 of where they're at. You can see -- if you focus
19 around Van Etten Lake, the central treatment system is
20 the VEL system, what I'm referring to; it's the
21 Van Etten Lake system. And it's a line of wells --
22 there's the lake. It's a line of wells right where
23 the cursor is. Thank you very much. And then we'll
24 talk about that one actually second.

25 The first one we're talking about is the

1 FT02 IRA, which is by Clark's Marsh on the other side
2 of the base. I don't know if you can see it; I wish I
3 had a laser pointer. But it's labelled there along
4 the runway to the south where Clark's Marsh is. And
5 I'll be talking about the performance of them, and how
6 we've been monitoring the performance over the past
7 several few quarters. We'll talk about the
8 hydraulics, which is a big piece of how we evaluate
9 the pump and treat systems; and that's a big one,
10 especially when we're following some guidance
11 documents that I can refer us to. And then, also,
12 mass removed; some other key components about
13 hydraulics, such as how much water we are actually
14 extracting from the subsurface to mitigate the
15 situation and intercept some of the PFAS -- or the
16 PFAS and the heart of the problem -- and some of the
17 monitoring and the calculations that are done to
18 evaluate our performance.

19 So next slide, please.

20 So first of the two systems, the FT02
21 remedial action system; and we're going to evaluate
22 the capture. What we're looking at here is the
23 extensive capture, so I will kind of walk us through
24 the picture by using the key, the symbol key.

25 So we have what's called the "post IRA,"

1 and the, "pre IRA," extraction wells; that's the
2 orange and the green symbols to show where we pump
3 from, where we extract ground water from the ground.
4 And you can see there's two different colors; one is
5 what was installed back in 2015, and that is the
6 green. Right? Green?

7 And then the "post" -- so the green is the
8 alignment to the north, or to the top of the page.
9 And you could see what that alignment is. It's
10 connected through those yellow lines, which are a
11 network of piping that allow the water to be extracted
12 and then conveyed to the treatment system, which is
13 also shown on this figure.

14 So that yellow line also is connected to a
15 string of orange symbols which are the extraction
16 wells that go down to the south, or the bottom of the
17 page, towards the marsh. And that is also a network
18 of extraction wells that are meant to capture ground
19 water and intercept it from the upgrading source,
20 which is the fire training called, "FT02."

21 Now, what you also see on this -- and this
22 is on the symbol key -- is a purple "capture extent,"
23 and a green, "capture extent." The purple is what was
24 captured, and is still being captured; and that is
25 based on measurements and calculations with a model

1 that uses actual calculations. It's not based on a
2 assumptions; it's based on, also, water level data.
3 We're using gradient hydraulics mostly here, so that
4 purple is what's showing the ground water coming from
5 upgradient, down to the wells, and what is captured,
6 essentially, as a backstop, or a net, or an extraction
7 well interception barrier for ground water. And that
8 is what we're measuring for the FT02 system before the
9 IRA.

10 Now the IRA has been installed in
11 August 2022, and we are measuring the green system, or
12 the green system capture network, which is what was
13 expanded on based on the need that was established
14 with the community and with the Air Force. And I'm
15 here to talk about how we know that, and where it is
16 today.

17 I think we can go on to the next slide.

18 So one of the methods to evaluate
19 performance, again, is that capture network. And
20 before we do that, we also wanted to talk about,
21 quotes. So how do we know where capturing this
22 amount? How do we know we're doing okay and we're
23 actually extracting the ground water that is migrating
24 or upgrading down towards the south of the site.

25 And what we have here is: We have here on

1 the left side of this table, and the same figure to
2 the right, is a list of all the wells in the column to
3 the left. And then moving all the way to the right,
4 we have what was extracted from each of those wells.
5 And then moving to the right further, we have target
6 flow rates, which we have established as targets
7 because it has shown through our measurements, and
8 confirmed through a calibrated ground water model,
9 that that has intercepted the ground water that we
10 were targeting. And then we also have -- keep moving
11 to the right of the table -- an additional target flow
12 rate and extraction -- well, actual measurements once
13 the IRA system was installed.

14 So, again, left is what was; and then to
15 the right is what we're doing as of March 2023. And
16 what we like about this is: If you look at the ranges
17 and actually what were done, we are within the range
18 that we have established based on our hydraulic
19 measurements to say, "Yes, this is good. This is
20 matching what are capture network is showing to the
21 right." And then we generate the picture on the
22 right, which we just talked about on the previous
23 slide.

24 You can go to the next slide.

25 I should say, also, the picture is not just

1 based on those flow measurements; they're also based
2 on water level measurements, which I can talk about a
3 little bit more as well.

4 So another way to evaluate the performance
5 of the system is: What are we pulling out of the
6 ground volume wise and mass wise? How much PFOS and
7 PFOA are we actually extracting at the ground?

8 Now, it's kind of a relative term, because
9 if you look at the PFOS mass removed on the right,
10 we're at 38.74 pounds before the IRA system was
11 installed. Well, is that a lot or a little? It's
12 relative to what our criteria is, but we have
13 established that amount of mass, and we have 832
14 million gallons of water pumped out of the ground to
15 match that mass -- that is used to calculate that mass
16 removal, starting back in 2015 when the system was
17 started up, all the way -- and I'm using the table on
18 the left -- to when -- right before the IRA system was
19 installed at FT02.

20 And then after that system was installed,
21 we're just in the infancy stages of tracking mass
22 removal even more. So if you stay with the table at
23 the left, there's one more row at the bottom, it's
24 sandwiched in between the two green rows. That is
25 what we've accomplished so far, to date; again, at

1 it's infancy stages. And that's how much mass we have
2 calculated from removing from 141 million gallons from
3 the subsurface.

4 And so then you get the bottom row, and
5 that says how we have evaluated performance from a
6 mass removal standpoint, and from a ground water
7 extraction standpoint.

8 Same idea on the right for PFOA; but, being
9 PFOA, we have a different number. We have 6.99 pounds
10 removed since 2015 before the IRA, and then another
11 .49 pounds; totaling 7.47 pounds. Not to read the
12 slide to you, but that's how we've been evaluating
13 mass removal from the performance perspective; so
14 we've got hydraulics and we've got mass removal.

15 And we can go to the next slide.

16 We've also been looking at trends, and
17 what's coming in and what's coming out. And, here, is
18 average; we have a lot more data than just one point
19 per year. But, on average, we're seeing the top, this
20 is what average is coming in. So in 2015, which is
21 the left side of the graph, you can see PFOS was at
22 8,000 nanograms per liter. And based on the
23 continuous operation -- we move all the way to the
24 right -- we're seeing a trend of -- a downward trend
25 for PFOS.

1 Similarly, but because the scales are less,
2 we have a PFOA trend, which is the orange line on the
3 influent from left to right, starting at maybe 1,500
4 down to maybe 500, on average terms here.

5 The thing about this is you go, "Well, what
6 does that mean? Yes, removing mass but are staying
7 within our criteria before it's discharged through?"
8 What I didn't discuss was where we discharge; where we
9 discharge through the injection galleries.

10 So can you go back a couple slides
11 actually? I want to point out the injection
12 galleries.

13 So here's a picture. Again, the discharge
14 which I didn't talk about, and my apologies, is the
15 injection gallery. So you can see these green
16 rectangles. There's actually one orange rectangle
17 that was added for the IRA. That is: Water is
18 treated and then reinjected into galleries, and it's
19 monitored to meet criteria that is established through
20 negotiations called an SRD with EGLE. So we've got
21 this approved discharge criteria to reinject the
22 treated water through these injection galleries.

23 All right. We can go to the next slide
24 now.

25 So with this slide, what I'm comparing to

1 is this SRD, or this substantive requirements
2 document, dated April 2016. We are staying below that
3 on average, and I'm showing that here to show that
4 from a performance standpoint, we are meeting that
5 criteria for both PFOS and PFOA. So you can see the
6 orange line is below the dashed orange line. The
7 dashed orange line being the criteria; the solid
8 orange line being what we were actually discharged.
9 Same thing with the blue.

10 Next slide, please.

11 Okay. So that's like -- that's extraction;
12 that's what we pull out of the ground. Now, actually
13 what's happening downgradient is the next question
14 that many folks will be asking or be wondering.

15 Now, again, this is in it's infancy stages;
16 the systems have just started. However, with the FT02
17 system starting in 2015, there is some trends that we
18 can look at, and we're showing those here. We picked
19 -- there's a number of wells. We picked three of them
20 for the time -- to use everybody's time wisely.

21 But what we show here is three of those
22 down the spine of the plume. You can see them as NW5,
23 NW7M; and then down towards the south, or the bottom
24 of the page, and NW8D. Those were selected based on
25 where they're at elevation wise, and also from

1 upgradient to downgradient to see what has been
2 happening over the years, and give us a little picture
3 on how long things last, and how we're doing, and the
4 performance of the system in general, where we don't
5 extract the downgrading of the extraction wells.

6 So, again, upgradient, or to the north, is
7 where ground water is coming from. The particle comes
8 down, it's intercepted by the extraction wells, and
9 then we look at happens downgradient in those
10 monitoring wells NW5, NW7, and NW8.

11 And so what you can see from all of them,
12 we do have a downward trend for all of them. So I
13 don't need to go through all of them in detail, but
14 for the left is when the system would start up, and
15 then the right is where we are today.

16 And these were not within the extraction
17 network, so the key thing here is, it takes time
18 for -- to intercept ground water, and for any of that
19 contamination that might be entrained in the pore
20 space of the soil -- therein, the aquifer -- to
21 actually evacuate or flush through these monitoring
22 wells where they are located. And you can see that
23 downward trend, but at the same time, it's not a
24 straight path for this ground water; it actually has
25 some particle tracking, and some tracking that's not

1 straight. So it does have -- so there is some -- and
2 if you are zoomed in -- and I'm not asking you to zoom
3 in, but if you zoomed in to some of these wells, the
4 way ground water flows, is it actually pulls from the
5 contamination into the wells, so you're pulling more
6 and more into these extraction wells, which are those
7 orange and green symbols on the picture as well -- or
8 the site plan as well.

9 We can go to the next slide.

10 So, of the things that we also do is: We
11 overlay what we capture, which is what our goal is;
12 our capture extent, what we're trying to capture, and
13 with the actual extent of contamination.

14 So, simply, the way I see it, at least, is
15 the picture here is the same map we've been looking
16 at, but now we have an outline of that capture extent
17 that I've explained once or twice. And that is the
18 ground water that is actually coming from upgradient
19 where the fire training area is, migrating down and
20 intercepted by these ground water extraction wells.

21 Now, at the inside of that, which is the
22 heart of the plume maybe, that would be the highest
23 concentration, which that was -- that is what was
24 targeted. We're trying to capture and intercept the
25 highest amount of mass.

1 On the extent, you can see that there is
2 some contamination outside that was not targeted, and
3 that is represented by -- PFOS concentrations is what
4 this is. You can see, for example, on the east side,
5 sidegrating outside of the capture extent. You do see
6 a green color that was modeled. There's not
7 monitoring wells all in there, but modeled based on
8 data that was collected and is continuing to be
9 collected through the IRA that needs to be used to
10 update these, for sure, that there is contamination
11 outside of the capture extent.

12 And that's the same thing on the left side
13 -- or the left side of the page. And also the same
14 thing, and very importantly, on the downgradient side,
15 to the south of the capture extent. And, again, the
16 capture extent was that purple and green picture we
17 were talking about in the previous slide, but 's also
18 outlined with a bold, black line to show you what's in
19 the capture extent and what's out.

20 And you can go to the next slide.

21 So a similar type of evaluation that I'll
22 talk about with the --

23 MR. JONES: Justin?

24 MR. GAL: Yes.

25 MR. JONES: I'm formulating some questions.

1 I'm happy to ask them about FT02 after you do
2 Van Etten Lake. Or might it be more useful if we ask
3 questions about FT02 now?

4 MR. GAL: I'm indifferent. We can do it
5 now. Now is good.

6 MR. JONES: Okay. All right.

7 MR. WILLIS: Kyle, could you, please, state
8 your name.

9 MR. JONES: Oh, sorry. Kyle Jones.
10 K-y-l-e, J-o-n-e-s. And I'm a community RAB member.

11 MR. GAL: Is there a slide that we should
12 go to that would help?

13 MR. JONES: Yeah. Actually, slide 21,
14 please.

15 So, Amy, this question is actually posed to
16 you. We're looking at the concentration trend.
17 Justin pointed out that the concentrations post
18 capture zone, or the effluent concentrations, are
19 below the SRD values.

20 My question is: Is the water in that area
21 that they're measuring considered to be drinking water
22 source or a non drinking water source? Because the
23 SRD numbers apply to non drinking water sources.

24 MS. HANDLEY: The SRD, I believe, is
25 established with WRD, so that's not my office. I'm

1 not sure if we have anybody from WRD online that could
2 better answer that, because I don't want to.

3 MR. WILLIS: WRD is the water resource
4 division. That's just everybody.

5 MR. JONES: That WRD --

6 MR. WILLIS: I can't clarify that that area
7 is not identified as a drinking water source.

8 MR. JONES: And is that in agreement,
9 Steve, with EGLE?

10 MR. WILLIS: It's based on EGLE's guidance
11 on what is, and what is not, a drinking water source.

12 MR. JONES: Okay.

13 Amy, could I ask you to circle back with
14 your colleagues and just verify. I know that Steve is
15 citing guidance, and that's an interpretation by the
16 Air Force. I think it would just be good if the state
17 of Michigan agreed with that, especially if it's
18 migrating, say, to the AuSable, which then flows to
19 Lake Huron. You know, we can get into the waters of
20 the United States issues and I don't want to confuse
21 that; but, you know, where it goes matters, too.

22 So, for Justin, if we could go to slide 22.

23 MR. GAL: Yeah. The next slide?

24 MR. JONES: We just went through what the
25 SRD values are from the state of Michigan. And

1 looking at the slide on 21, the 40 for PFOA and 20
2 nanograms per liter for PFOS. What I'm looking at,
3 though, here, is a scale of your figure that goes from
4 0 to 5,000. It's very difficult, then, for us to
5 determine what those values are when the order of
6 magnitude is either 20 or 40. And so is there -- can
7 you actually describe what those values are, say, in
8 August? in October? in July?

9 As we move to the right on the X-axis of
10 those two figures, because it really isn't meaningful
11 to look at a scale of 0 to 5,000 and then try to
12 figure out whether that's meeting an SRD value.

13 MR. GAL: Yeah. So definitely a good
14 question; one that I've heard about through a lot of
15 our team members.

16 So the answer is, yes, as we move forward
17 we will continue to watch. But the key thing to keep
18 in mind here is: These wells are different than maybe
19 wells that would be outside of our performance
20 monitoring network or outside of the capture extent.
21 So as we pump water from the alignment that's going
22 down the spine of the plume, it is pulling more and
23 more contamination in, so we don't really have a
24 strong feeling that it's necessarily going to drop
25 down more, and more, and more. It's kind of reaching

1 an acidotic value right here, is what it looks like.
2 But what's more important is outside of the capture
3 network, is that's starting to decrease and get lower
4 and lower. Because in here, what I'm saying is, we
5 got this covered; we're actually extracting water in
6 this area. And that's why it was installed; because
7 the numbers are high, so that's one thing.

8 I think the question might be more pointed
9 to ask about a monitoring well that is outside of the
10 capture network because that is actually not captured.

11 MR. WILLIS: Let me just interject here.

12 This is Steve Willis.

13 I think really your question, Kyle, was:
14 Are we meeting the discharge requirements in the SRD
15 or not? And you can't tell from this graph, based on
16 the scale. And the graph was really intended to show
17 a trend from really high concentrations when we
18 started the system; a consistent trend in dropping.

19 And, yes, we do, every month, report our
20 data to EGLE; and every month we are below the I
21 discharge requirements in the SRD. We're typically
22 down at a non detect level. Occasionally, we will get
23 some detections, but they are always around 4. And as
24 you said, 20 and 40 are our discharge requirements in
25 our SRD.

1 So, yes, we consistently meet the
2 requirements.

3 MR. JONES: So what you're saying, Steve,
4 is after that extraction, what ground water is
5 treated, that water is below the SRD values?

6 MR. WILLIS: Yes.

7 MR. JONES: And that is what is being
8 reinjected as shown on --

9 MR. WILLIS: Well, correct.

10 MR. JONES: -- right on 22 with those very
11 skinny rectangles?

12 MR. WILLIS: Right.

13 MR. GAL: The graph values, yeah.

14 MR. WILLIS: They're actually infiltration
15 galleries. We don't actually inject it back into the
16 aquifer through a gallery. It's just like a septic
17 system.

18 MR. JONES: Yeah, yeah, yeah. It's going
19 down by gravity.

20 MR. GAL: That's right. Thank you.

21 MR. WILLIS: That one interacts with the
22 environment, injecting it versus infiltration; it's a
23 little different.

24 MR. JONES: Understood. That's all I had
25 on this part of your slides.

1 MR. GAL: Thank you for the clarification.
2 I had a question on FT02.

3 On the infiltration gallery of the east
4 end --

5 MS. HOWARD: Your name?

6 MR. CARMONA: Oh, Dave Carmona,
7 C-a-r-m-o-n-a, community RAB member.

8 On the east end of your infiltration
9 gallery, you have a spike of purple pretreated water
10 coming down indicated in your hydraulic model here.
11 How do you note any breakthrough beyond the
12 infiltration gallery in that area? It's on the
13 backside of a ridge, based on your data that you have
14 displayed here, and there are no monitoring wells
15 beyond that.

16 Everything is in the main area that goes
17 into Clark's Marsh; your model shows that that's going
18 to transport into the southern edge of Clark's March.
19 So why are there no monitoring wells there to capture
20 data?

21 MR. GAL: A picture speaks a thousand
22 words. I think what you're saying -- and correct me
23 if I'm wrong -- is you're wondering, near Clark's
24 Marsh, why are there not monitoring wells closer to
25 Clark's Marsh?

1 MR. CARMONA: No. Why are there not
2 monitoring wells closer to the east end of the
3 infiltration gallery? You indicate water coming down
4 into the infiltration gallery of levels equivalent to
5 what you're extracting.

6 MR. GAL: Okay. Thank you.

7 MR. CARMONA: If you're getting rid of it
8 there, then how do you know? Because there are no
9 monitoring wells in that area.

10 MR. WILLIS: So you have to keep in mind
11 that the intent of the IRA for all the IRAs we've done
12 is to capture and treat the highest concentrations.
13 These are interim actions; they're not the final
14 remedies. We still need to finish the RI. We'll do a
15 feasibility study. And coming out of that, we'll
16 identify final remedies, which will get documented in
17 a proposed plan and ROD. And once that ROD is signed,
18 then we can go actually implement those. So those
19 final remedies will take advantage of these IRA's that
20 we're putting in, but these are only interim actions;
21 they are not the finals.

22 So, yes, you're right; we likely have lower
23 concentrations beyond our extraction well system. And
24 we'll address those in the final remedy. These were
25 just attacked; those highest concentrations going off

1 base.

2 MR. CARMONA: I understand that. But
3 yesterday, you, Kate, and Paula, specifically stated
4 that you want to fill data gaps. At this point in the
5 RI, it seems to me, that might be a data gap that you
6 want to fill --

7 MR. WILLIS: With a single well?

8 MR. CARMONA: I'm not saying you put a
9 whole bunch of monitoring wells, but how difficult is
10 it to sink a single well in that spike area just to
11 monitor it so you fill that data gap now, rather than
12 waiting on the feasibility study?

13 MR. WILLIS: Okay. We actually do. And we
14 have not finished the RI, so we have not put in the
15 monitoring wells for the RI. But this is only showing
16 you the monitoring --

17 MR. CARMONA: You mean the IRAs?

18 MR. WILLIS: -- wells specific to the IRA.
19 We have monitoring wells all over the base for all of
20 the legacy contaminants that we've been treating for
21 years and continue to monitor, so, likely, we've got
22 plenty of wells in that area. The IRAs, also, like I
23 said, are putting in wells to monitor the extent of
24 all of the contamination.

25 MR. HENRY: Mark Henry.

1 Could you please turn to slide 21?

2 Right around here is when the source area
3 for the fire training area was dug up and hauled away.
4 Do you attribute the greater slope right in this
5 section here to the removal of the source area? Or do
6 you think it was just representative of the natural
7 trend?

8 MR. GAL: It's inconclusive, at this point,
9 but it's definitely a question that a lot of folks are
10 asking. What happens after you remove the source? Do
11 concentrations diminish? It's all about velocities
12 and how fast the contamination flushes through. And
13 we don't have that evaluation as part of this, so I
14 can't say for sure, but it's definitely a question
15 I've asked myself.

16 MR. CARMONA: Thank you.

17 MR. GAL: Yup.

18 MR. WINN: Steve Winn, W-i-n-n, Community
19 RAB.

20 I'd like to go to slide 19.

21 Those rates that you show on the bottom
22 there, you show the 227.9 pre IRA setup, and then
23 376.3, which is the additional IRA; correct?

24 MR. GAL: Yeah. Yup.

25 MR. WINN: Okay. My question is: Out of

1 those rates compare to the system as it was designed?
2 I mean, that system started up about a year ago now.
3 Okay? So do you have any idea as to how that system
4 is running as it was designed -- you know, these
5 rates, as per the design. When you did the design, I
6 mean, you obviously had to have some sort of a rate or
7 efficiency established.

8 MR. GAL: So these rates on the right
9 column, so those are the design rights; what we
10 targeted for the design.

11 So there's two -- there's the post IRA
12 startup. We have March 2023, which you're referring
13 to, which totals those almost 376 gallons, and then
14 the design of what we targeted is to the right of
15 that.

16 So I hope that answers your question. So
17 how that 376.3 relates to the design? Thankfully, it
18 performed well and met the design criteria because we
19 are within the target zone.

20 MR. WINN: So the design rate was 345.7 to
21 426.1?

22 MR. GAL: 348.7 to 426.1; that was what we
23 targeted to meet our objectives to perform correctly.

24 MR. WINN: If I remember correctly, that
25 system is capable of running 500 gallons per minute.

1 MR. GAL: Capable? The wells, for sure,
2 will pull the amount that they are. But the carbon,
3 you could buy carbon that can do a lot wider range,
4 for sure. So, like, if you by a 20,000-pound carbon
5 vessel, yeah, it can do 500 gallons per minute, but
6 you don't have to go through that.

7 MR. WINN: I understand. The system has
8 been running for a year. My question is -- I guess,
9 in the essence, is: How is the efficiency rating
10 based on these numbers compared to what it was
11 designed to do?

12 MR. GAL: Good. Yeah, sorry. And thank
13 you for asking that.

14 Very good. And the point of this slide was
15 to say: It is good because we are within the target
16 design; the flow rates that we targeted, that we
17 designed.

18 MR. WINN: Okay. But there's -- so, I
19 guess, is it safe to say as well that there's
20 additional efficiencies that can be gained as the
21 system runs?

22 MR. GAL: I mean, we're always trying to
23 optimize, if that helps answer the question; but as
24 far as meeting target, that's really the focus. So I
25 wouldn't say this system, to perform in the way it was

1 intended, which is to deal with the source, to
2 intercept the middle of the plum. It's performing
3 pretty well. Can it be optimized. No one is telling
4 me that we need to pull more of the ground, because
5 we're within the target zone.

6 MR. WINN: Okay. Another question I have
7 is slide 23, the concentration map.

8 If I look down in the area towards Clark's
9 Marsh, it looks like you have three monitoring wells
10 in that area, and it looks like its pulling between
11 1,000 and 10,000 parts per trillion of PFOS, and it's
12 going directly into Clark's Marsh. So that's not
13 being captured currently; right?

14 MR. GAL: Correct.

15 MR. WINN: So that, to me, would be a
16 concern.

17 Steve, I understand it's only an IRA, but,
18 I mean, to me, that's a lot, but that's just my
19 concern.

20 MR. GAL: It's dully noted. Yeah, I
21 understand.

22 Next question? Go ahead.

23 MR. LERICHE: Arnie Leriche, Community RAB.

24 Does the Air Force -- in all this analysis
25 that you're portraying here, do you have either a 2-

1 or a 3-dimensional graph or representation of the
2 plume?

3 MR. GAL: Like a cross-section?

4 MR. LERICHE: Yeah. Well, there's 2, or
5 possibly --

6 MR. GAL: Like, 3D visualization software?

7 MR. LERICHE: Well, I mean, do you have a
8 2-dimensional plume that came out of using some of
9 this data that could show us some of these questions?

10 MR. WILLIS: This is the 2-dimensional.

11 MR. LERICHE: I know this is.

12 MR. WILLIS: Yeah.

13 MR. GAL: I don't think that we have a tool
14 to display -- I understand what you're saying. I
15 don't know that we have a tool that would display the
16 3-dimensional model.

17 MR. LERICHE: Well, there are some.

18 MR. WILLIS: There are, yes.

19 MR. LERICHE: And what it would be used for
20 is to identify the velocity of the mass plume of PFOS
21 in and out of that system.

22 And we brought up the flux rate issue, and
23 Mark brought it up also. And another Air Force site,
24 Peterson, is basing their RI on flux VAS based
25 analysis. So I'm hoping that when I read their RI, or

1 plan, that they have a model to be able to accomplish
2 that analysis, so you may want to their contractors.
3 You may luck out and figure it out.

4 MR. WILLIS: Right. Right. I'll look into
5 that.

6 MR. GAL: Are there other FT02 questions?

7 (No verbal responses.)

8 MR. GAL: We can move on to the VEL slides.
9 I think there's a couple more, but go one down,
10 please.

11 So similar evaluation, but for a much newer
12 system. We have baseline, and two quarters, of
13 gauging and sampling analysis for this system, the
14 VEL, the Van Etten Lake system at Ken Ratliff Memorial
15 Park.

16 So here we're showing -- I'll walk us
17 through the key map, which does not have infiltration
18 galleries at this one, which I skipped on the last
19 one. So you can see here on the key map, we have a
20 few of the monitoring well systems show, which are the
21 black symbols. The extraction well network, which is
22 the alignment of wells along -- I put F41 there -- and
23 they're connected with an orange piping -- a force
24 made, or a pipe system that would convey the extracted
25 ground water to the treatment system.

1 And then we have contour shown in the
2 ground water flow direction just towards Van Etten
3 Lake. And then you can also see the green capture
4 network, which is based on a series of hydraulic
5 measurements or water level measurements, and you can
6 see water flowing upgradient away from the lake to the
7 wells, and you can see there is a little bit of a
8 wraparound where water is tracked through those green
9 lines and it wraps around and it enters through these
10 wells. That is through measurements that is
11 calculated through the model that we've been using and
12 displaying and presenting throughout a lot of these
13 RABs.

14 We can go to the next slide.

15 So, here, just to show how things are
16 starting up -- And, again, this is -- hopefully, I
17 have explained this a little bit better so it's
18 clearer. We have a design, or a target flow rate on
19 the righthand column. So we're trying to continue to
20 have all the ground water that is upgradient
21 intercepted by these wells. And the way we -- one of
22 the ways that we know -- one of the lines of evidence
23 that we know, or feel confident, that ground water is
24 intercepted is having these target flow rates, which
25 is our design. And you can see on the righthand

1 column, what target flow rate -- or the range we're
2 trying to focus on.

3 In the middle column, after the system
4 startup, you can see what rates we were pulling out of
5 the ground from each extraction well. And what makes
6 us feel that we are performing and intercepting ground
7 water is because those numbers are within the range
8 that we have designed to have.

9 So, for example, at the top, that first
10 well; we're pulling 49.1 gallons per minute out of the
11 ground, and it's within the range to the right of 44
12 to 53.9. And that's based on measurements and the
13 ground water model that is calibrated with the
14 measurements.

15 And then the total at the bottom, we're
16 getting close to 500 gallons per minute with this
17 system that we're continuously pulling out of the
18 ground.

19 You can go to the next slide.

20 So this is a similar evaluation that we did
21 for FT02, except the data set is much more limited
22 because this is a newer system, a much newer system.
23 We can see the PFOS mass removed on the left, and the
24 PFOA mass removed on the right.

25 I'm just going to go with the totals on the

1 bottom. We have data starting in October 2022 through
2 April 2023; and that is because that is the validated
3 data that we've received from laboratories. So we
4 sample and we wait for the laboratories to receive the
5 data package, then we go through a process before it's
6 available to publish and to use. It's not -- we have
7 up until April 2023.

8 And with that data, we can see that we've
9 pumped 134 million gallons out of the ground and 2.07
10 pounds on the left; and similar, you can see on the
11 right.

12 Next slide.

13 So, again, a similar evaluation. This is a
14 little -- a much simpler -- you can see what's coming
15 in. We're roughly around 2,000 parts per trillion of
16 PFOS. On the top, I'm looking at the average influent
17 on the top graph; and then that's for PFOS, that's the
18 lighter blue line. And then the bottom one, which is
19 -- that's supposed to be PFOA -- that's a little under
20 500 hundred parts per trillion.

21 So that's what's coming in, and you can see
22 it's a lot more consistent because we're at it's
23 infancy stages of the system right now.

24 And then on the bottom, you can see the F1
25 concentrations again compared to the SRD. That is

1 established for the system, the central treatment
2 system. And you can see at the bottom, these dash
3 lines. We actually do not have detections yet on the
4 F1, so we're not seeing concentrations on the
5 discharge of the system today, on average.

6 We can go to the next slide.

7 We tried to do the same thing here that we
8 talked about with FT02s. So what we did is, we
9 overlaid the extraction network to see what we are
10 capturing. And then on the periphery, to everybody's
11 interest, is what we are not capturing. I've heard a
12 lot of questions about that.

13 Again, we are -- we are in the middle. We
14 are focusing on extracting ground water that flows
15 through the heart of the plume. That was the focus;
16 that's what we were targeting. And this capture
17 network, which was based on what we actually measured
18 as far as what was extracted from the ground, you can
19 see what that overlays and what that does not overlay,
20 too; so we were questioned before.

21 MR. WINN: Dave Winn.

22 I have one more question on this slide.

23 MR. GAL: Yup.

24 MR. WINN: And I'm gonna revert back to our
25 technical meeting we had yesterday relative to surface

1 water sampling.

2 If I look at that map, even though you have
3 the extraction wells, you've got a long stretch along
4 Air Force beach that is averaging between 1,000 and
5 10,000 parts per trillion of PFAS; is that true?

6 MR. GAL: Yes.

7 MR. WINN: So that -- again, like I said,
8 and my whole point yesterday was, there is no surface
9 water sampling that is currently being done in that
10 area where you've got a situation that far, far
11 exceeds the 70 parts per trillion that was
12 established. Okay? So I have a big concern over
13 that, and I everybody else does.

14 MR. GAL: I want to address that question,
15 and then I see a question here, too.

16 One of the things that might be a little
17 misleading on this map compared to FT02, which you had
18 the same concern with, I believe, is this one -- and
19 this is based on infancy stages, so -- but the
20 measurements show -- and it's hard to see, but what
21 was produced by the calculations from the model, and
22 measurements based on water level and gradient -- we
23 really haven't established this -- is that there is a
24 direction of flow that's reversed towards the well.
25 We're still looking into it, so I think there's more

1 measurements that need to be done to actually address
2 what you're getting after here.

3 But what is produced from our measurements,
4 and what is -- the output of that calculations being
5 in the form of our model but based on measurements, is
6 that there is -- and you can kind of see it; it's
7 vague. I think a zoom in would do it justice.

8 There is some particle tracking coming from
9 the lake towards the well. It's not outlined very
10 well, and it does need some more evaluation, for sure,
11 to address your concern. But the intent for this
12 system, based on starting up -- and this is start up
13 -- was to reverse the flow and have it go towards the
14 well there. I don't know to what extent yet, and
15 we're still measuring it.

16 MR. WINN: I understand. But my point is,
17 like I said, we've got a big situation with foam on
18 the lake. Okay? It happens everyday. That's one
19 major source area, like I said. Your chart shows
20 between 1,000 and 10,000 parts per trillion; that, to
21 me, is a lot.

22 So even though that system has been running
23 eight or nine months, okay, we're still getting a ton
24 of PFAS in the Van Etten Lake; and it's going across
25 the lake by foam transport, however. But as I was

1 told yesterday in a technical meeting, is that the
2 surface water sampling was gonna be done after the
3 plume delineation was completed.

4 And my view is -- and that's what I was
5 upset about yesterday -- that is wrong. That should
6 be tested right away, to tell the people of this
7 community what's going into that lake.

8 MR. WILLIS: Thank you.

9 MS. WUSTERBARTH: Okay. I have a comment.

10 Just from a historical perspective --
11 excuse me, Cathy Wusterbarth.

12 A historical perspective: This is an
13 interim remedial action. Remember? So you said the
14 things that we're putting into place before everything
15 is totally complete. And the community asked for this
16 IRA, and we asked for it to be 1,500 meters, yards,
17 feet, longer than what it is, to go to the north. And
18 this picture shows why that's needed, so community
19 input is important and should be considered that.

20 MR. CARMONA: Dave Carmona, community
21 member.

22 So based on the Owen's memorandum that just
23 came out where they're pulling pushing on the IRAs,
24 since this is in it's infancy, can it be modified at
25 this point?

1 MR. WILLIS: Yeah, we can -- this is
2 Steve Willis.

3 Yeah, that's something we could look at.

4 MR. CARMONA: And I'm assuming that all
5 blue dots that are along Ratliff Park are monitoring
6 wells, so these are direct sample numbers that you're
7 getting up to 10,000?

8 MR. WILLIS: Correct.

9 MR. CARMONA: Okay. Thank you.

10 MR. LERICHE: Arnie Leriche, a community
11 rep.

12 And that brings me to the point that I
13 raised earlier of having a model and the data sampling
14 to show the whole mass and where it is flowing in the
15 plume before, after, and in the future, that you need
16 to plan for with your IRA and the feasibility with the
17 final.

18 And if you don't have that model to do that
19 type of analysis, then you-- in my mind, you're behind
20 what Peterson Air Force base in Colorado is planning
21 for, because they committed to do a flux-based IRA.

22 I may be wrong. This is not my major
23 field. Okay? But this is why we need to know the
24 mass of PFAS and a 3-dimensional analysis of where
25 it's coming from -- 1,000 yards upstream, upgradient

1 -- of where the wells are, the capture wells; what's
2 coming right there, which is what you've got here
3 pretty much, where you've analyzed right at the wall
4 of the wells where it's flowing and what you're
5 capturing.

6 But then, you're still showing, or
7 assuming, I don't know; you haven't sampled on the
8 beach or under the beach. Then, you're showing that
9 there's still high concentrations, up to maybe 5,000
10 to 10,000 parts per trillion.

11 MR. WILLIS: So we did use a 3D model to
12 design the extraction well system to know -- the
13 aquifer is, for instance, 30 feet thick, and we need
14 to know is the PFAS at the top hood, to the middle, or
15 the bottom. And so we do have a model; what we don't
16 necessarily have is a good visualization for you to
17 look at, a model that rotates and all that stuff.

18 Do we have a tool that would be good for
19 public demonstration that shows a 3D? We did
20 evaluation it across the vertical spectrum of aquifer
21 to design where the extraction -- the screens would be
22 for the extraction well, so we did look at that.

23 MR. LERICHE: Well, if you have the data
24 with the mass --

25 MR. WILLIS: We have the data --

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1 MR. LERICHE: -- why don't you share that
2 with us and maybe I'll be quite for awhile.

3 MR. WILLIS: Would you like to see it?

4 MR. LERICHE: So you got to show it to me
5 in some fashion or --

6 MR. WILLIS: Yeah. That's the challenge.

7 MR. LERICHE: -- We'll have to spend 10
8 hours telling me how to interpret the data.

9 MR. WILLIS: Okay.

10 MR. LERICHE: Thank you.

11 MR. GAL: I think you were first, yeah.

12 MR. JONES: It's Kyle Jones again from the
13 community RAB.

14 Amy, I would ask, again, that with respect
15 to Van Etten Lake, that you would be check with your
16 WRD colleagues about -- you know, especially here,
17 this water is between ground water and surface water
18 interface on the east side of Van Etten Lake, where
19 there are wells, and I assume there are wells on the
20 west side of the lake as well, where there are
21 drinking water wells. So this is not a marshy area
22 that may be flowing to the river; this is a surface
23 water body that is a recreational lake, on the one
24 hand. But on the other hand, it has a direct
25 hydrogeologic connection to drinking water wells.

1 So to the degree that 1,000 to 10,000 parts
2 per trillion PFAS is flowing into the lake, and that
3 lake is a drinking water source, I think we need to
4 know that. I think RD needs to understand that, too;
5 instead of saying, "I need to talk to my colleagues."

6 I really -- you know, in order for you to
7 enforce what the actual law is for these folks to
8 meet, because your remediation, I think you need to
9 understand what the enforcement values are without
10 relying on a sister division.

11 Justin, the green circled arrows and arrows
12 that flow westerly or southwesterly from the lake
13 toward -- or in that land between the extraction well
14 hydraulic barrier and the lake.

15 At first, I was thinking is, you describe
16 it that there was some water that was passing by the
17 barrier, some of it circled back. But then I heard
18 you, just in your explanation to Mr. Winn, do I
19 understand that actually the zone of influence of the
20 extraction wells is actually drawing water out of the
21 lake, passed the ground water surface water interface
22 there, in the ground -- well, I should say it this
23 way.

24 Surface water ground water, and back to the
25 wells? Did I understand that's what you said?

1 MR. GAL: There is a component that we're
2 evaluating that a small percentage of what's coming
3 into the system -- Steve, I didn't mean to interrupt.

4 MR. WILLIS: No, He's right. The system
5 was actually designed -- and I don't a small remember
6 the number; it's small, 3 to 4 percent?

7 MR. GAL: Yeah.

8 MR. WILLIS: -- to actually pull water from
9 the lake to try and capture all that orange that you
10 and Dave were concerned about.

11 MR. JONES: Yeah. But does that mean that
12 there's no pass-through from upgradient passed the
13 hydraulic barrier to downgrading it?

14 If the zone of influence from those
15 extraction wells extends to the lake, is it actually
16 physically possible for water to bypass the barrier?
17 Because it would just be swept back by the water
18 that's coming from the lake. No?

19 MR. WILLIS: It's not -- yeah. It's not --
20 water is not bypassing the line of extraction wells,
21 if that's your question.

22 MR. JONES: Well, but that's what seems to
23 be depicted by these Curly-Q lines beyond the east of
24 -- or northeast of the extraction well line, Steve.

25 MR. WILLIS: And that's what I'm not

1 following.

2 MR. GAL: Those lines are not particle
3 tracks for ground water passing through the barrier.

4 MR. WILLIS: Okay.

5 MR. GAL: They are actually lines reversing
6 the gradient towards the wells.

7 MR. WILLIS: Okay.

8 MR. JONES: Yeah, yeah. Well, okay. But
9 when they're Curly-Q, I mean --

10 MR. WILLIS: Yeah.

11 MR. JONES: I mean, you know, again, a
12 picture is worth 1,000 words, Justin. You know, we
13 totally get it, but if you're saying that it's not
14 bypassing . . .

15 MR. GAL: That's where we're at right now.

16 MR. JONES: What we don't see in any of the
17 slides, though, is any data from the monitoring wells.
18 Do you have data from the monitoring wells?

19 MR. GAL: We do. We are generating that
20 data right now. We've gone through two quarters of
21 data of gauging -- well, three, if you count the
22 baseline -- gauging analytical sampling.

23 MR. JONES: Is there some reason you
24 decided not to put this in the slide then?

25 MR. GAL: There were no trends established

1 yet.

2 MR. JONES: Well, we'd like to know the
3 data.

4 MR. GAL: The data is -- so --

5 MR. JONES: Well, I don't care
6 about that --

7 MR. GAL: We're not trying to --

8 MR. JONES: -- honestly.

9 MR. GAL: Okay, yeah. Sorry, I didn't mean
10 to interrupt.

11 MR. JONES: No. Yeah, I mean, trends are
12 important, but raw data is important, too, just so we
13 know the status quo.

14 MR. GAL: Yeah. So we thought we were
15 giving you the data by showing you the plume, which
16 shows the concentrations that came in question. If we
17 were going to put boxes with each concentration in
18 there gonna put boxes with each concentration in
19 there, we thought it'd be overwhelming; and we still
20 depicted the data that you're asking for.

21 MR. JONES: Fair.

22 Is it the case that the yellow
23 1,000 to 10,000 parts per trillion, those
24 concentrations obviously existed prior to the
25 installation of the extraction wells; right?

1 MR. GAL: Correct.

2 MR. JONES: In other words, if you went
3 from the northeast to the southwest and, you know, had
4 some kind of gradient of concentrations in the plume,
5 it would get more concentrated as you went southwest.

6 But I guess what we're understanding now,
7 Justin, is that the concentrations of ground water
8 that were, until this IRA was installed, between
9 1,000 to 10,000 parts per trillion in that area, and
10 then, you know, lower concentrations of 100 to 500 a
11 bit north, etcetera; right? That all existed.

12 MR. GAL: In higher upgradient, yes.

13 MR. JONES: Yes, yes.

14 But what I want everybody to sort of
15 understand is: That yellow isn't a failure of the
16 system; it's -- it's what existed prior to the system
17 being installed; am I right? Am I right about that?

18 MR. GAL: That's right.

19 MR. WILLIS: Yes, that's correct.

20 MR. JONES: And so if the water, the ground
21 water, is being drawn -- in other words, let's say it
22 this way: The zone of influence of those wells
23 extends to the lake. Is that right, Justin?

24 MR. GAL: The zone of -- say it again,
25 sorry.

1 MR. JONES: The zone of influence of the
2 extraction wells is the IRA extends northeastward to
3 the lake?

4 MR. GAL: Between the line of wells and the
5 beach front, the lake -- it sounded like --

6 MR. JONES: Yes.

7 MR. GAL: -- that zone of influence is
8 designed to include 3 to 4 percent, like Steve said.

9 MR. JONES: Okay. And you'll be able to
10 verify that 3 to 4, or whatever percent it is, for
11 future monitoring?

12 MR. GAL: That's right.

13 MR. JONES: Okay.

14 MR. GAL: That's the plan.

15 MR. JONES: Okay. What's happening to the
16 treated water?

17 MR. GAL: So this water is captured and
18 rerouted to the central treatment system. So the very
19 first slide we talked about, I showed the location of
20 each system, but I didn't go into detail or want to
21 spend too much time with it; but on there, there's an
22 existing treatment system called the central treatment
23 system that has --

24 MR. JONES: Yes. Yes.

25 MR. GAL: -- that has another whole bank of

1 carbon vessels that are dedicated to the extracting of
2 water from here, which treats this and discharges it
3 to the same location that the central discharge system
4 was already discharging to.

5 MR. JONES: Which is?

6 MR. GAL: That's the --

7 MR. JONES: The storms?

8 MR. GAL: Yeah, the storms, excuse me.

9 MR. JONES: Oh, the storm sewer.

10 MR. GAL: Yes.

11 MR. JONES: Okay.

12 MR. CARMONA: So this outlook, you're
13 putting in 4.2 billion gallons a year in addition to
14 the CTS?

15 Oh, David Carmona. Sorry.

16 You're putting an additional 4.2 billion
17 gallons annually into the storm sewer system. What
18 are the effluent readings that you're getting going
19 into the storm system right now? And how much are you
20 pumping into that storm system before you added this
21 load?

22 MR. GAL: Well, before -- I'm not prepared
23 to talk about before. That I was an existing central
24 treatment system that I was -- I thought this RAB had
25 already been given that data of what was going on

1 beforehand with the -- so there's two central
2 treatment systems. And this is the new path, this is
3 the new one; we're just presenting the new one. The
4 old one was what was going on before, and then this
5 new one, to answer your question, what's going into
6 the storm system now was that graph that I presented.
7 That would --

8 MR. WILLIS: Dave, I could get you that
9 information.

10 MR. GAL: So it was not exact.

11 MR. WILLIS: That would be the total
12 discharge from the central treatment system? I can
13 get that to you.

14 MR. JONES: Yeah, that's what I'm curious
15 to see; are we getting that it detects what's going
16 into the storm.

17 We may want to consider, when you put up
18 visuals like this, because I think a lot of us were
19 under the impression that these monitoring wells were
20 detecting breakthroughs at 1,000 to 10,000 level; and
21 that, in fact, that is old data and not occurring.
22 You might want to lead with that to make it more
23 clear.

24 MR. GAL: Sure. Thank you.

25 MR. WILLIS: But its not old data; it's

1 current data.

2 MR. GAL: It is current data.

3 MR. WILLIS: It's just that it existed
4 before the IRA was installed, and so it is being drawn
5 back; and eventually, right, they will be reduced.

6 MR. CARMONA: And that was Kyle Jones, by
7 the way.

8 MR. GAL: Right. Yeah, the key is:
9 There's no breakthrough, to our understanding, the way
10 we're evaluating it now, and it is old data that
11 you're seeing there. The current data -- but it
12 preexisted the installation of those ones.

13 Any other questions?

14 MR. HENRY: Yeah.

15 Mark Henry.

16 I understand what you've done here. And as
17 a desktop exercise, it looks like you've done a good
18 job.

19 I was wondering if you were going to verify
20 your calculations based on actual field measurement
21 techniques of ground water velocity, like a colloidal
22 borescope or a deep pulse flow meter. You've got a
23 bunch of nice new monitoring wells here that haven't
24 been fouled over 50 years of use, and the ground water
25 should be moving through them. And that's something

1 that can be measured, and you can measure the
2 direction. I was wondering if you have any plans to
3 do so.

4 MR. GAL: Right now, it's been purely
5 hydraulic water levels, and sampling, and performance,
6 but we can definitely take that under advisement.

7 No, I haven't talked to anybody about that.

8 MR. HENRY: Thank you.

9 MR. GAL: Sure.

10 Okay. Can you go to the next slide?

11 I wasn't intending to present this, but I
12 did, since it's here --

13 MR. WILLIS: I'm not sure we have time,
14 Justin.

15 MR. GAL: All right. We're good.

16 All right. Thank you.

17 MR. JONES: May that be provided to us?

18 MR. WILLIS: Yeah, definitely. We can get
19 that to you. Yeah, we're just -- we've got a lot of
20 material to cover and we've spent a lot of time on
21 this.

22 MS. HOWARD: Thank you, Justin.

23 MR. WILLIS: It was good a discussion, but
24 we do have other topics to cover still.

25 MS. HOWARD: So we do have two more

1 presentations to get to this evening, but I am gonna
2 have you wait just a minute, Paul. We're gonna have
3 to take our 10-minute break, since we're more than
4 halfway through the meeting, and then we'll be back in
5 10 minutes.

6 Thank you.

7 (From 6:49 to 7:01 p.m., break taken.)

8 MS. BOND: Paula Bond.

9 All right. I will give a quick update on
10 the Remedial Investigation and the Alert Aircraft Area
11 Interim Remedial Actions that's going on.

12 Next slide, please.

13 So for the PFAS RI, we've done a couple of
14 things recently. As most of you are aware, we have
15 issued the draft RI UFP-QAPP addendum that went to
16 EGLE and the public for review. We have received both
17 EGLE and public comments on that document, and we're
18 working on responses currently.

19 The second thing that we have been doing
20 which is field work, has been conducting -- or
21 continuing on with our vertical aquifer sampling,
22 which is our ground water sampling at different
23 intervals in the aquifer.

24 We began early July doing that. And as
25 data becomes available, we'll share it. We don't have

1 any new data to share now, so I'm hopeful for the next
2 RAB, we'll have some more data to sure.

3 We are gonna continue the remedial
4 investigation field work. The primary portion of that
5 that would be completed in December. We have the
6 transducer study that will run for another year, but
7 most of the field work will be done by the end of this
8 year.

9 Next slide, please.

10 So I just mentioned -- oh, thank you.

11 I just mentioned the vertical aquifer for
12 sampling. This figure shows the proposed vertical
13 aquifer sampling locations that we were gonna do this
14 year. The green ones -- and hopefully you guys can
15 see this. The green ones are the ones that are
16 completed; and the orange ones, red ones, are the ones
17 that we still have yet to complete.

18 As you can see, everything that was on the
19 former installation has been completed, so we're just
20 waiting for access to some of those offsite areas, and
21 then we'll complete those as we get access. But
22 everything on the former base has already been
23 completed.

24 Next slide, please.

25 So as part of the IRA, we are going to

1 update the well inventory. The reason that I'm doing
2 this is: Because we've been moving forward with the
3 RI, we've collected quite a bit of data, we know more
4 now than we did when we started, so we want to update
5 our inventory to make sure there are no private
6 drinking water wells being used for drinking waters
7 that are downgradient of the former base, where we
8 know that are ground level plumes that are coming from
9 the base are.

10 What we're gonna do with that is a well
11 record through databases, through state databases, and
12 any information that we can find. That's the first
13 step, is the administrative piece. We're gonna look
14 at utility information from the township -- sorry if
15 you're having a little feedback there -- utility
16 information from the township.

17 And then we're gonna follow that up with a
18 letter campaign to folks living in our research area
19 to ask the question: "Do you have a drinking water
20 outbreak? Do you have a well? Are you using it for
21 drinking water?"

22 Sorry.

23 "Are you using it for drinking water?"

24 Can you guys hear me?

25 And then we're gonna followup. Once we get

1 those survey letters back, we're gonna followup with
2 the door-to-door survey for those areas where we don't
3 get a response or we wanna confirm some information.

4 Next slide, please.

5 So we are moving forward to the east side
6 of Van Etten Lake, and we are looking for other
7 sources on the east side of Van Etten Lake, and we are
8 looking at including foam deposition.

9 We are going to be contacting homeowners on
10 the east side of Van Etten Lake to try to get access
11 to some of those properties for sampling. So we
12 talked a little bit about this in our technical
13 session yesterday. And to identify these locations
14 where we may sample surface water, we may sample
15 sediments, soil, ground water, and soil monitoring
16 wells. So we are looking for areas where that may
17 help. And we're asking the community for help in
18 maybe identifying some areas where that may be
19 possible where we could get access.

20 We're looking to sample possibly private
21 wells. We know that the Township has provided water
22 service to a large portion of the area. We do know
23 that there are still some private wells that exist
24 over there that we would like to sample in certain
25 areas, if possible.

1 Soil, I just talked about that. Maybe do
2 vertical aquifer sampling on that side of the lake as
3 well where we're, again, looking at the vertical
4 distribution of PFAS in ground water; and, again,
5 maybe installing monitoring wells or piezometers, if
6 necessary.

7 Next slide, please.

8 That's all I have for the RI. I'm gonna
9 move on to the Aircraft Alert Area Remedial Design and
10 that IRA.

11 Currently, the 90 percent design drawings
12 are complete, but we anticipate that the 100 percent
13 design drawings will be done by the end of this month.
14 We are anticipating right now the proposed plan to be
15 issued to the public in September; as Amy mentioned,
16 that's out for review right now with the regulators.

17 And we're looking at a public comment
18 period mid-September through 2023, but that will be
19 based on when we get comments back from the regulatory
20 agency and get those responded to and work through
21 that process. So that may be updated, but that just
22 kind of gives everybody an idea of when that might be
23 coming so you can put it on your calendars.

24 Public meeting we're anticipating early
25 October 2023.

1 Once we finish the proposed plan, next
2 comes the Record of Decision, or the ROD; and we're
3 projecting that in 2024. Groundbreaking, we're
4 projecting spring of 2024.

5 And then we have all heard some discussion
6 about the SRD for the Aircraft Alert Area. The
7 Air Force is continuing to work with EGLE on
8 negotiating that, and, hopefully, a resolution on that
9 will be forthcoming.

10 Next slide, please.

11 So the Three Pipes Ditch Pilot Study
12 progress. We have been collecting flow data from the
13 three pipes ditch we installed. I think we had last
14 time a rain gauge flow meter and some instrumentation
15 on it where we're tracking the flow, looking at
16 rainfall data versus the level of the water in the
17 creek, the flow rates, so that we can do a better job
18 of estimating how we're going to install the materials
19 that we're gonna put in there.

20 We've been looking at big scale hydraulic
21 conductivity testing so that we can hone in on the
22 mixture of the gravel, and the Fluoro-Sorb, the
23 organoclay material that we're going to be putting in
24 the tubes that we've briefed previously. And we're
25 evaluating that flow through the tube so that we can

1 fabricate those tubes to meet our design parameters so
2 that we can make sure that we don't, basically, back
3 up the creek when we put those across through there so
4 that we get flow through and we get the contact time
5 that we need.

6 We're anticipating the installation of
7 those in September, so that's coming up pretty
8 quickly. I do have a chart that I'm showing here that
9 I'm showing here on the right that shows some of the
10 rainfall data and the flow data that we've collected
11 from Three Pipes Ditch so far. You can see really
12 kind of a stand out -- if you can't read the numbers
13 on the graph, there is one point where there was a
14 significant rain event; it was a little over
15 1.4 inches. And when you look at that compared to
16 your flow, which we measured at about 14,000 gallons a
17 minute down at the confluence of the ditch going into
18 the AuSable river. So we're measuring down there
19 across the whole river, so you can see the flow really
20 went up with the rain.

21 Next slide, please.

22 Oh, yes, Mark?

23 MR. HENRY: Mark Henry.

24 Is there a pilot test being conducted by
25 Aerostar or is it being conducted by another party for

1 Aerostar?

2 MS. BOND: We are conducting the pilot
3 study for the Air Force.

4 And just to make sure -- everyone, just a
5 reminder that that is a pilot study; it's not an
6 interim remedial action. So we are evaluating this
7 technology for use and other areas potentially on the
8 installation.

9 So I have a picture here of some
10 Fluoro-Sorb and the gravel that we're gonna be using,
11 and then an example of a flow-through tube, just to
12 give you an idea of kind of what it looks like.
13 That's for the Zoom portion of the presentation.

14 We do have samples of the Fluro-Sorb
15 gravel, and we also have mockup of a flow-through tube
16 that's outside, if anybody is interested in taking a
17 look at that after we're finished here, but it's just
18 outside the front door.

19 Next slide, please.

20 So I'm gonna quickly roll through the
21 schedule here. So this is our one-year outlook
22 starting in July, making our way through June of next
23 week. Most of these items have been shown on previous
24 slides, previous schedules. We are still on the same
25 schedule that we have been presenting as far as the RI

1 is concerned. We've got the RI Work Plan addendum up
2 there. That was issued, like I said. We have
3 received comments from EGLE and the public, and we are
4 looking at those.

5 We have the RI Field Sampling and
6 Transducer study. Again, most of the field work is
7 gonna be done by the end of this year. The transducer
8 study will run for one year, so that will, obviously,
9 carry over to next year.

10 I have an SPP meeting on here I'm
11 estimating that we're gonna with EGLE. As Amy and
12 Steve have already mentioned, that's gonna happen
13 tomorrow.

14 And then we're gonna start working on the
15 RI report in the not too distance future, and then all
16 of those tasks will roll over into the next year, but
17 this is just a snapshot of this year.

18 The Aircraft Alert Area Proposed Plan: You
19 can see that on top. Again, that's in regulatory
20 review right now. We had been working on the Remedial
21 Design Work Plan, and we hope to move forward with
22 that, and we're anticipating completion in March, and
23 then the ROD will roll into that as soon as the
24 proposed plan is done. And then we also have the
25 proposed plan public meeting on here slated in

1 October.

2 Again, all of this is predicated on review
3 times and getting everything back, so these dates s
4 could be adjusted as we move forward into the future,
5 but this is kind of what we're planning right now.

6 That Pilot Study Work Plan: That one was
7 completed in July, so that's why that one is just a
8 really small dot; that's already finished.

9 And then the Three Pipes Ditch Pilot Study
10 implementation and monitoring: Like I said, we
11 installed rain gauges and some of the other
12 instrumentation into the creek. That will continue on
13 with the major installations of the flow-through tubes
14 in October, and then monitoring of that for a year.

15 Next slide, please.

16 MR. WINN: Well --

17 MS. BOND: Yes, Dave?

18 MR. WINN: Dave Winn.

19 I got a quick question on the RI.

20 MS. BOND: Sure.

21 MR. WINN: The changes that we were talked
22 about yesterday relative to the processes and the
23 additional work that's gonna be done on the east side
24 of Van Etten Lake.

25 MS. BOND: Right.

1 MR. WINN: The changes that are gonna be
2 the final RI report, is that gonna be in the final RI
3 report?

4 MS. BOND: Yes.

5 MR. WINN: So all those changes will be
6 incorporated?

7 MS. BOND: Yes.

8 MR. WINN: Second question I had: The
9 Aircraft Alert update. When does the SRD between EGLE
10 and Air Force need to be signed up by?

11 MS. BOND: Well, that's -- of course,
12 that's for the discharge, so the treatment system will
13 have to be -- before that -- I guess the -- yeah. The
14 dropdead is when the treatment center before it's
15 actually turned on live, so there is still some time
16 to negotiate that out.

17 MR. WINN: Okay.

18 MS. BOND: Yeah.

19 MR. WINN: Because, if I remember
20 correctly, based off of the last RAB, there was a
21 considerable difference between what Air Force's
22 interpretation was and EGLE's interpretations were.
23 Are you guys getting any closer with that or are you
24 guys still that far apart?

25 MR. WILLIS: I feel like -- this is

1 Steve Willis.

2 I feel like we're getting closer. I don't
3 think we're at an impasse that we won't be able to
4 work through.

5 MR. WINN: Great. Thank you.

6 MS. BOND: Yes, Arnie?

7 MR. LERICHE: Arnie Leriche, community RAB.
8 Could you go to slide 36?

9 Earlier in the conversation about the SRDs
10 were sort of like a permit for these controlled
11 devices and gaps. The last bottom line there, I would
12 like to start by requesting an action item that we get
13 a technical -- because, Amy, you rightfully said that
14 there's not anyone in the mediation division that
15 deals with the SRDs predominately; it's the amount of
16 resources. And we have had representatives in the
17 past come to our RABs; not so much lately. And so I'd
18 like to request a technical session be set up and run
19 by the mediation division, yours, and water resources;
20 to brief us on when and why not these SRDs can start
21 to appear and promote reality numbers of what these
22 systems can do.

23 Because the requirements of the SRDs were
24 originally based on what was known at the time in 2013
25 or 2014 on what the technology could do; and that's a

1 rightful way to do it when you're starting off with a
2 lot of unknowns. But we're a long passed that and
3 many different sites and much lower than the previous
4 presenter hs shown as.

5 So I would like to see that happen pretty
6 quickly because if we are on our third system being
7 negotiated between the Air Force and the Water
8 Resource Division; and we're not a part of that, and
9 we don't get updates. And we have a problem with the
10 reluctance to bring those requirements closer to
11 reality and what the state's standards will be, or
12 are. We want to know how you're going to make them,
13 if we're not rationing down to these systems to
14 control to these levels.

15 MR. WILLIS: So this is Steve Willis.

16 I can tell you, Arnie, that for the Alert
17 Aircraft IRA that we're designing, we have proposed in
18 the proposed plan to meet the state requirements for
19 the discharge of that system.

20 MR. LERICHE: And the requirements are
21 quickly?

22 MR. WILLIS: I don't remember the numbers
23 off the top of my head. It's whatever the EGLE
24 standard is.

25 MR. LERICHE: Are there any wells in that

1 area as soon as it comes out into the ground water? I
2 don't know. Okay.

3 But if you could add that as an AI so that
4 we have you updating us, and the state, also, on when
5 the technical session could happen.

6 MS. BOND: Yeah. We'll talk with WRD on
7 that, and see what we can do on that.

8 MR. LERICHE: Thank you.

9 MR. CARMONA: Dave Carmona.

10 You referenced the Three Pipes Pilot
11 Project. Another site has done a similar pilot
12 project. They have preliminary data. I understand
13 that until it's finalized, it can't be shared with us,
14 But why can't it be shared internally so that if they
15 learned some lessons and there were some issues,
16 you're not reproducing the same thing and getting the
17 same result? I would think that in-house,
18 politically, that it would be expedient for you to
19 learn those lessons before you went and installed the
20 system.

21 And so I'm asking that, internally, you get
22 that data; and when it's finalized, of course, we
23 expect to see it.

24 MR. WILLIS: And we have had those
25 conversations with them. We're doing things a little

1 bit differently based on some of their lessons
2 learned.

3 They actually put in pole water samplers to
4 monitor throughout the winter and found out they all
5 froze and so they didn't provide any value, so we're
6 not planning to use those.

7 MS. BOND: All right. And I think --
8 really, just the last slide I have is just the 5-year
9 outlook on the schedule. This is similar to what it
10 has been in previous RABs and we so just kind of laid
11 out everything from the RI to the Aircraft Alert area.

12 And, really, I think the big thing I want
13 to draw your attention to is -- and this is for the
14 sideways RI. So the RI -- or the feasibility -- it's
15 a little hard to see this from the side.

16 We're looking at Quarter 4 of 2024 to get
17 that started, and then we'll move into the proposed
18 plan following the circle process, like we've done on
19 the other projects; although this will be the final
20 remedy, not an interim remedial action. So as we work
21 our way down in the schedule, you know, remedial
22 design in 2026, and then the final remedial action in
23 2027, is kind of where we're tracking at this point.

24 Yes?

25 MR. JONES: Kyle Jones.

1 Very simple question. And I'm quite
2 certain -- if you go to slide 31 -- it's just
3 terminology, Paula, that I'm not aware of and it would
4 be useful.

5 MS. BOND: Sure.

6 MR. JONES: The figure shows -- well,
7 that's -- now our numbers aren't squaring up.

8 This is the -- there it is. Thank you.

9 MS. BOND: Okay.

10 MR. JONES: The figure shows, "completed
11 vertical aquifer sampling point with HPT," and I don't
12 know what that term means.

13 MS. BOND: "HPT," sorry, is hydraulic
14 profiling tool. So that is a direct push tool where
15 we -- at are vertical aquifer sampling locations, we
16 first go in and use that tool to identify
17 hydrogeologic properties of the aquifer. We're
18 looking for the clay layer. So we use that tool to
19 gather that data so that we know where the clay is.

20 MR. JONES: Yeah. Okay. You're just
21 saying what tool you're using?

22 MS. BOND: Yeah.

23 MR. JONES: Okay. Thank you.

24 MS. BOND: Sure.

25 Yes, Arnie?

1 MR. LERICHE: Arnie Leriche, community RAB.

2 When you were talking about the prior well
3 survey that you want to do east of Vat Etten Lake and
4 you specified drinking water wells, are you not -- or
5 I suggest you possibly want to look at irrigation
6 wells within the ground water at the same time so you
7 don't have to do back. Okay?

8 MS. BOND: Right.

9 MR. LERICHE: But, also, we never know when
10 a study is going to start showing that some of the
11 PFAS are taken up by certain plants, vegetables,
12 consumption, things like that. And maybe, at the same
13 time, do a little search and talk to the state, okay,
14 to find out if they're doing anything in that area of
15 measuring, you know, consumption of vegetables and
16 PFAS and things like that.

17 MS. BOND: Yeah, uh-huh. And we're looking
18 at -- one of the reasons that we're looking at
19 drinking water wells is because they're already there
20 and they exist, so that's a lot easier for us to
21 sample than installing a new well or doing something
22 like that.

23 And that's for -- for the well inventory,
24 it's definitely drinking water; but for the other work
25 that we're doing, the investigation part of the RI,

1 we're looking to sample existing wells, if they're
2 there, so that we may not have to be so intrusive and
3 collect other data.

4 MR. WILLIS: And we have talked about in
5 the questionnaire: "Do you have a well? And if you
6 do, do you use it for drinking water or do you use it
7 for irrigation or other purposes?"

8 So yeah, we have accounted for that.

9 MR. LERICHE: A year ago, I mentioned that
10 at another site, before the IRI started, they did a
11 community outreach and two questionnaires so that they
12 knew what and how the citizens around the base, I
13 think, responded to it.

14 So when you're doing these for other
15 purposes to have, look a little broader and collect --
16 since you're already doing a survey or some type, see
17 if you can do it all at once.

18 MS. BOND: Yes, Mark?

19 MR. HENRY: Mark Henry.

20 I understand that the installation of city
21 water over on the east side of the lake has progressed
22 in phases and that they've used various funding
23 mechanisms for getting that done.

24 I'm sorry told that if the funding came
25 from the federal government, that they did not

1 necessarily, and probably didn't have, a stipulation
2 in there that the private well be abandoned, and so I
3 know that with state funding, that is a requirement.
4 But it's very possible that there are uncapped
5 residential wells to homes over there that might be
6 available for sampling independent of them having city
7 water.

8 MS. BOND: Right, yeah. And that's one of
9 the reasons that we're sending out these well
10 inventory boards; because we do know that some were
11 abandoned, some were not, so we just want to see
12 what's available to us and what's there.

13 And, again, you know, the primary objective
14 of the Air Force is to identify and mitigate any
15 drinking water exposure, so that's the number one
16 priority. So when we're doing this well inventory
17 based on the new data that we have from the RI, that's
18 really to support that particular objective. So then
19 in addition to the investigative work that we're doing
20 for the nature and the extent.

21 MR. WILLIS: Great comment with value
22 added.

23 MS. BOND: Yeah, perfect.

24 Yes, Arnie?

25 MR. LERICHE: Another thing that I want to

1 know when you do the survey. But, also, humidifiers.
2 People don't want to pay the high cost of municipal
3 water, so if you keep the well functioning, they will
4 use that water to humidify during the winter. And I
5 lived in a place for only a week after her husband
6 died, and I was changing the water for her and all of
7 a sudden it dawned on me. I was going to the laundry
8 room to get the water, and I asked, "What are you
9 pouring that water into?" They're not getting it from
10 the clean, the filtered water, that had already been
11 provided to them under the sink.

12 And that's when it dawned on me: That just
13 goes out into the home and rolls down into everything
14 else.

15 MR. WILLIS: Yeah. That's good. We hadn't
16 thought of that, Arnie. That's good. Thank you.

17 MS. BOND: Are there any other questions?

18 All right. Thank you. And, again, we do
19 have the Fluoro-Sorb and the gravel outside, and the
20 mockup bag, if anybody is interested.

21 MS. HOWARD: All right. Thank you, Paula.

22 And our final presentation tonight is the
23 critical process analysis overview from Mr. Willis.

24 Do you want to stay there or come here?

25 MR. WILLIS: I'll just stay here, if that's

1 all right with everyone.

2 So this presentation is sort of a followup
3 to the commitment that Ms. Laucus made during the
4 October Senate field hearing in Lansing; and, also,
5 based on -- oh, it was August, that's right, that's
6 right. Thank you.

7 And us taking a much deeper look at the IRA
8 locations. This presentation was actually put
9 together by John Gillespie. I think most of you
10 probably know him, but he was not able to travel and
11 attend the meeting in person, but he did put this
12 together for me.

13 Next slide.

14 So what the Air Force is planning to do,
15 and you heard Amy mention it earlier, and I think I
16 mentioned it as well, is a Critical Process Analysis
17 for the IRA locations. And it's really a deep dive
18 into each of them to do an assessment of the data we
19 have and look at what remedial technologies would be
20 most suitable for some type of interaction at the
21 sites to determine what may be appropriate, and
22 determine what's appropriate at each of the locations.

23 It's being done by our organization, the
24 Air Force Center for Civil Engineering, the Civil
25 Engineering Center. And it's a process that John

1 Gillespie and his team has used at many sites across
2 the Air Force. This will be the first BRAC location
3 that they've actually done it, but it includes the
4 subject matter experts. You met John, and you also
5 met Kent, when we had the technical workshop here last
6 -- I think that was in October.

7 We've also engaged with EGLE and they're
8 actually going to be a part of the team that does the
9 deep dive; it's not gonna be an Air Force rider report
10 and we ask them to look at it. They're gonna be
11 sitting there at the table with us, going through the
12 data, evaluating each of the sites and identifying
13 what we need to do at each one. So they'll be in the
14 process from the beginning.

15 And then we're also gonna bring in an
16 independent consultant. The BRAC team is very
17 involved and very intimately aware of stuff at
18 Wurtsmith. There's a potential that we've got some
19 bias based on our experiences here, so we've got an
20 independent contractor that's gonna work with John,
21 And that contractor has worked with him on multiple
22 sites before. They've got a process worked out;
23 they've used it very successfully on their site, and
24 so we're gonna do this for -- as you can -- it's
25 actually on my next slide -- but we used this for the

1 four IRA locations that were identified by EGLE, the
2 community, and other stakeholders.

3 The CPA process is used in a really high
4 cost, high complexity, and/or higher risk sites.

5 Next slide.

6 So the schedule we've mapped out to do this
7 CPA is we're ending the contract awarded for that
8 independent contractor that will work with the team on
9 that. We're planning a site visit to bring everyone
10 that has not been to Wurtsmith up here in the early to
11 mid October, to get them familiar with the sites.

12 Not only do we want to look at the data, we
13 want them to physically see the sites and have an
14 understanding of how Clark's Marsh is situated
15 relative to the waste water treatment plant; or how
16 deer is situated based on Vat Etten Lake and the
17 campground and so forth.

18 So we'll bring the team up here. We'll do
19 a tour of the sites so that will make you familiar
20 with the actual physical locations. And then the team
21 will go back -- and we plan on using two teams,
22 because we've got four sites; each team will do two
23 sites. Over a two-week period, they'll basically do a
24 deep dive of all the data. Based on that assessment,
25 we'll come out of that with results of their

1 evaluation and recommendations for what needs to be
2 done at each of the four sites.

3 And then our plan is to meet with the
4 community in RAB in December. I'm not sure whether
5 that's gonna be a virtual or an in person meeting, but
6 we'll meet with you guys and discuss the results and
7 the recommendations of that assessment.

8 And then we'll write the report. So this
9 is your opportunity to see it before it's in a report
10 and provide us with feedback. And, again, it's at
11 four locations that have been identified in the MRO,
12 the landfills on 30 and 31, the Three Pipes Ditch
13 Drain area, and then the waste water treatment plant.

14 Next slide.

15 So after we've done the briefing, and we'll
16 brief EGLE management, and then we'll also brief the
17 community, and we've got buy-ins from all the
18 stakeholders, then we'll actually put together an
19 after action report that will document those findings
20 and recommendations and factor in the input we get
21 from the briefings.

22 And then the expectation is that consistent
23 with the existing Air Force DOD policy, as well as
24 federal regulations, we'll identify response actions
25 that would be appropriate for each of the sites and

1 then move forward with those.

2 I'll show the next slide. There's a couple
3 phases to it, but the final output of this will be
4 roughly a 30 percent design; whatever interim actions
5 are recommended, as well as the information we need to
6 actually scope a contractor, to get the funding, and
7 to award a contract so that we can actually go out and
8 start building these things.

9 The next slide.

10 As I alluded to, there's a couple phases.
11 The first phase will take us up through that December
12 meeting with the stakeholders to present the findings.
13 That's the deep dive analysis, and the results, and
14 assessments, and recommendations of the team. And
15 based on the report from them, we'll move into
16 phase 2, which provides us with a 30 percent design,
17 the information that we can actually scope it so we
18 can award a contract to somebody to implement whatever
19 those remedial actions may be. And then we'll get a
20 report out of that as well.

21 So we've heard you. You know, we're
22 listening. We're accelerating to try to get this done
23 as quickly as possible, and we'll include you in the
24 process.

25 And then, Kate, I think, had an

1 announcements of late, breaking news.

2 MS. LYNNE: Thank you.

3 So, I'm Kate Lynnes.

4 And, you know, I'd like to begin by
5 reiterating what Steve just said. You know, I
6 acknowledge it hasn't been fast enough, but we've
7 heard you. And please, as we talked about yesterday,
8 for those of you who were at the technical meeting,
9 this isn't just for a study. I know everybody is
10 tired of studying. This is the kind of expedited
11 process that lets us do it right. And, you know,
12 we've been requested to bring in some additional
13 technical expertise; we're bringing in the best we've
14 got. And, in fact, if the contract goes the way I'm
15 hoping it will, we'll have the best remedial guy I've
16 ever seen in 40 years, and he's bringing his A team
17 here.

18 And we're doing that because I've done this
19 in the private sector; we call it something else, but
20 it works because we have a complicated site, we want
21 to do this right, and we want to maybe not always
22 default to puppetry if we can do something else, and
23 this is the right team to look at that, and they're --
24 you know, they're kind a blunt tool, as we've all
25 talked about before . We might end up there, but this

1 is the team to help us see if we can do something
2 else. So please don't think it's additional
3 investigation; it really isn't. This is an expedited
4 process; it really truly is. And I -- we were a
5 little worried about making an announcement. I kept
6 checking my phone, so please don't think I'm rude.

7 But under Secretary of Defense for
8 Acquisition and Sustainment, Dr. William Leplant made
9 an announcement today that not only are we doing this
10 CPA process for all four of these IRAs, we're
11 expediting two of them beyond that effort. And so
12 we're going to take advantage of some existing
13 infrastructure at the Aircraft Alert apron, and we're
14 going to move up the IRA process for -- you know,
15 we'll still be doing the CPA to identify the raw
16 locations for the extraction wells and all that kind
17 of stuff, but we're gonna leverage the infrastructure
18 more into the process, because that building up there
19 is big enough to have a second treatment train.

20 And so and for the DRO and the landfill
21 3031, that is where we announced today that we are
22 pushing those even farther forward. So I'm happy I was
23 able to tell you that today because I didn't want to
24 hide the ball at the RAB meeting, but I didn't want to
25 step on his announcement either, so the timing was

1 perfect and I got this at 4:00.

2 So I just wanted to let you know we have
3 heard you. And, in addition, I'd just like to mention
4 something about the sampling on the east side of
5 Van Etten Lake. I know we that you said and I know we
6 talked about this in the technical meeting yesterday
7 as well. I know I heard the frustration, particularly
8 in your voice, Cathy, of the initial focus on the
9 septic system and blaming the property owners for the
10 issues. And we sat down and we looked at the data, and
11 we looked at, you know, evidence of foam on that side
12 of the lake, and that's why we changed the scope.

13 So I don't know how much we can all do in
14 one step, Arnie, because those are very different
15 things, and getting that soil data would help figure
16 out where you have to do that other kind of
17 evaluation. So it may seem like we could expedite
18 things that way, but it doesn't always work, but I
19 hear you, and we will look at it.

20 But the scope is gonna be designed to
21 figure out all of the potential sources, and we heard
22 you about the foam, because it's very critical
23 identify if that's made it, in fact, there. Because
24 there's also issues of incidental ingestion during
25 contact, other things like, if, in indeed -- you know,

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1 I remember playing on the beach when I was a kid on
2 White Lake and God only knows what I was exposed to
3 out by Muskegon when I was a kid; that explains a lot
4 probably. You're not supposed to shake your head yes,
5 Mark. Come on.

6 MR. HENRY: Why don't you sample there?
7 Who knows that's in there?

8 MS. LYNNE: So I just want to -- I should
9 -- I just walked into that one.

10 But I just wanted you to know we heard you.
11 That is the intent of this; the response is because we
12 heard you. And I'm sure Steve will be happy to answer
13 questions, as will I.

14 MS. HOWARD: Thank you.

15 Arnie, did you have a question quickly?

16 MR. LERICHE: Arnie Leriche, community RAB.

17 Thank you for this meeting today. That's
18 amazing. It's one of the first times that I have
19 heard someone from the Air Force say that they've
20 heard us. Cathy and others have said it to us about
21 the foam and other things and it's great.

22 Three quick questions.

23 Is this CPA process best practice or some
24 other certification that they given?

25 MR. WILLIS: It's -- no, no. It's not

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1 something called out and circled; it's not a certified
2 process.

3 MR. LERICHE: Okay.

4 Has it been used by BRAC, Air Force, or DOD
5 before?

6 MR. WILLIS: It has been used in active
7 Air force installations at numerous locations; it has
8 not be used at BRAC.

9 MR. LERICHE: Okay.

10 MR. WILLIS: This will be the first BRAC
11 site that we've done this.

12 MR. LERICHE: Can you provide us an example
13 or two of the most recent or most representative of
14 those uses?

15 MR. WILLIS: Yeah. I can talk to John when
16 I get back and see what's available.

17 MR. LERICHE: Thank you.

18 MR. LINGO: Scott Lingo, community RAB.
19 This portion goes out to actually Amy, and
20 Steve, and possibly Kate.

21 The critical process analysis. Earlier,
22 when Amy was speaking, she was talking about it, and
23 included at the meeting, a specialty contractor, an
24 Air Force subject matter experts, and EGLE; all
25 involved.

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1 Is this a private meeting in which our
2 community RAB cochair is not represented at that
3 meeting?

4 MR. WILLIS: That's correct. This is a --
5 yeah, it's a technical working meeting for the Air
6 Force.

7 MR. LINGO: Because as a RAB member, I feel
8 that, yes, the Wurtsmith RAB is very fortunate to have
9 knowledgeable participants such as Mark and guys like
10 Dave Winn, our new member Dave. I feel we're very
11 fortunate to have the science and the knowledge that
12 these people bring to the table.

13 I'm sure there's other installations from
14 other countries that are composed by people like
15 myself, just a layperson, a businessman, a person that
16 moved to Oscoda because his family had a cottage here
17 and loves the natural resources that it provides me
18 and my family.

19 And as a result of that, I feel that it's
20 EGLE against us; it's the Air Force against us. I
21 think Mr. Mark Henry should be sitting right next to
22 you. If I needed someone in my corner to fight, I
23 thank God that he's here, a gentleman like himself,
24 that gave and gave.

25 And the Army; these people have worked in

1 this arena their entire life. And I want to thank you
2 guys and I think there should be some consideration to
3 having our community cochair involved in this critical
4 process analysis. My lay term meaning of this is that
5 we're gonna look at the whole project and we're gonna
6 measure the success. And I think that if that is the
7 case, we should be represented.

8 Thank you.

9 MS. LYNNE: So this is Kate Lynnes again.

10 I hope you really don't see it as EGLE and
11 the Air Force against the people of this community,
12 because I know that's not how we feel, and I'm sure
13 that's not how EGLE feels either.

14 We knew this would be an issue when we
15 brought this up, but what I want us to stress when
16 Steve mentioned when he, you know, did his
17 presentation. There's two -- in these two very key
18 places where you have -- and people -- I mean, I've
19 listened to a lot of RABs and go to a lot of RABs; you
20 guys are far and away the most talented and
21 comprehensive expertise I've seen in the entire Air
22 Force, so we respect that, absolutely.

23 So there's a number of places where your
24 voice is critical before anything is locked. See, I
25 know there's been frustration here before. See,

1 again, we're listening. That we give you things when
2 they're already cooked and you get, like, 30 days to
3 look at them and they don't change. Right? It's just
4 we're gonna look at this and we barely were going out
5 in the field.

6 So what the process is here when the gang
7 comes out in October to come out into the field, one
8 of the things I was talking to Mark about is meeting
9 with our technical project team and going out with
10 them. You know, with that, we're gonna have super
11 access to be out in the field and point things out and
12 raise your issues, talk about that kind of stuff.
13 You're going to get to them before they go to
14 San Antonio and sit down, so that's one huge place to
15 bring up immediate and meaningful interaction before
16 anything is scoped. Right?

17 The second place is after we do the process
18 with the regulator, coming back; and it's not just
19 presenting to you -- and I would prefer it to not be,
20 I think, a virtual meeting because I think, ideally,
21 spreading the maps out on the table and pounding it
22 out. Right? Because we want your input before the
23 scope is set. Right? That's the whole purpose of
24 this.

25 So I know -- we knew there would be

1 consternation about not going to San Antonio, but we
2 built in two key places, I think, before scope, and
3 after we come back with draft ideas and explain why
4 we're headed in the way we are. And Mark could say,
5 "Well, you forgot about this. And this is why that
6 has to go over there." Right? And Kyle could ask a
7 question. So we want that, because we're doing it
8 this way so it's not lock scope. Okay? So I know
9 that's not exactly the answer you wanted, but I think,
10 I hope, that you see it as providing meaningful
11 ability to help craft these four IRAs as they go
12 forward.

13 MR. WILLIS: And as part of the process,
14 we'll solicit input before we write the report, not
15 after it's written, so you'll get an opportunity to
16 provide input upfront before anything is written in
17 terms of, you know, the recommendations and findings.

18 MS. LYNNE: And, frankly, that's part of
19 expediting this. If we did it the typical way where
20 we write it and go off and hide somewhere and write
21 something and then send it out to people and ask them
22 to look at it, it just takes longer. And so the
23 purpose of this, as part of this whole expediting
24 process, to be consistent with where we wanted to go,
25 and to where the OSD memorandum from Honorable Owens

1 wants us to go, is to approach it this way, where we
2 get to answer the questions and concerns up front
3 while it's being baked. Right? And that, to me, it's
4 valuable in that it involves community members, and
5 it's value in that it involves expediting.

6 Kyle?

7 MR. JONES: Kyle Jones.

8 I think echoing what Scott said, the value
9 for Mark and Bob, from Mark and Bob, is not merely
10 that they're super talented environmental
11 professionals, they know the site inside and out, and
12 they have history at the site that no one else has; no
13 one on the planet has.

14 So to you, Steve, and/or you Kate, is the
15 non participation of Mark an Air Force policy? What
16 is -- I mean, besides just we're not a regulator, what
17 is it that is preventing the participation of Mark as
18 a cochair -- RAB cochair, and the person who has the
19 most historical knowledge of this site on the planet?

20 MS. LYNNE: Well, I mean, I don't think
21 it's participating. I mean --

22 MR. JONES: Well, at the meeting --

23 MS. LYNNE: At the meeting, right.

24 MR. JONES: -- we hear what you're saying
25 and you are bending over backwards to give us

1 participation. I don't -- I'm just wondering is there
2 something written down that says, "Thou shall not have
3 non regulatory people at the meeting."

4 MS. LYNESS: I would have to talk to John
5 because this is his baby. Right? As Steve mentioned,
6 this is a circle affect. Right? I suspect it has to
7 do with this is a very unusual RAB where our cochair
8 is a former regulator with experience in both the
9 whole thing and at this site. Most of the time,
10 that's not the case, and that's supposed to be a rule
11 at a technical session. And I suspect that is the
12 general basis for having it be between the regulator
13 and --

14 MR. JONES: And --

15 MS. LYNNE: But don't quote me, because I
16 don't know. I will ask John.

17 MR. JONES: Okay.

18 MS. LYNNE: Okay?

19 MR. LINGO: Scott Lingo, community RAB.

20 We are so fortunate --

21 MS. LYNNE: Damn straight we are.

22 MR. LINGO: -- for people like you who are
23 smart, and that they should be able to sit in on these
24 critical process analysis so that they can come back
25 and tell us. Like Josh and I, and explain, and know

1 what happened. He has such a vast knowledge of the
2 area. He has hiked every inch of it. He knows where
3 there's seams out in Clark's Marsh that others do not
4 see and they've never even gone and tested. So that's
5 why I thought --

6 (Inaudible.)

7 MS. LYNNE: I totally understand what
8 you're saying, and I respect his expertise and many of
9 the other members of this committee who have amazing
10 technical knowledge of this area, so we're not saying
11 that. So let me go back to John and talk with him,
12 because I do understand what you're saying. I know
13 that, you know, it's not my baby; it's John's. And
14 I'll -- you know, we'll get back to you on that.

15 MR. LINGO: Okay.

16 MS. LYNNE: Did Kyle have one?

17 MR. JONES: Can I just make one quick
18 point? And then I'll have other questions, but Dave
19 can talk to this point.

20 And Scott, I hear what you're saying about
21 coming back and reporting back to this RAB, but I
22 think, truly, the real value in having Mark at the
23 meeting is so that, you know, in realtime, he
24 participates in the -- all of the technical
25 discussions that are forming through scoping, the

1 drafting, preliminary scoping of these four projects.
2 That's really important for John. I mean, I think
3 it's great for us and Scott to have Mark come back and
4 tell us what the heck is going on. But most
5 importantly, is having the very best of design of
6 these four projects, and I think that very best design
7 would be aided by having Mark at the meeting realtime.

8 I know you're gonna talk to John, but I
9 wanted to articulate that the value of the
10 participation by Mark is not so much to keep us in the
11 know, it's to keep -- it's to create the best project.

12 MS. LYNNE: I totally agree.

13 MR. CARMONA: Dave Carmona, community RAB.

14 (Whereupon technical issues occur.)

15 MR. CARMONA: -- and we're going to beat
16 this to death, but you've been very helpful, so thank
17 you very much. But one of the CFRs says that every
18 effort will be made to make the RAB whole and
19 effective. So if you can't participate and when I was
20 working on the O'Hare projects and we have VA, we
21 often had non participatory observers in the room who
22 would go back to the stakeholders with the information
23 and translate it. Is it possible to do that as well?

24 MS. LYNNE: Well, I think that would
25 lose it's value should Mark be in the room, if that

1 was the case, but I see what you're saying.

2 Again, I am not trying to dodge this. I
3 need to talk to John. Okay?

4 MR. JONES: Just because we're here and
5 talking about it -- this is Kyle Jones.

6 Absent Mark's realtime participation at the
7 meeting, I would propose that the best environmental
8 remedial professional you've known in 40 years, and
9 his or her team create -- we have a real brainstorming
10 session and create a list of questions that they would
11 want to know perhaps after they do the walkthrough
12 here.

13 MS. LYNNE: And that's what I'm
14 thinking.

15 MR. JONES: And they can talk to Mark while
16 they're here, but they're going to think of other
17 things once they're back on the plane and take a
18 shower.

19 MS. LYNNE: Right.

20 MR. JONES: So --

21 MS. LYNNE: Walking their dogs.

22 MR. JONES: Yes.

23 MS. LYNNE: That's when I have my
24 best thoughts.

25 MR. JONES: Well, yeah.

1 MS. LYNNE: So I heard the meeting is
2 a hard cutoff.

3 MR. JONES: I know. But I -- that exercise
4 is -- in my career, is super, super helpful to vet a
5 lot of issues.

6 MS. LYNNE: Absolutely.

7 MR. JONES: And, quite frankly, Mark and
8 Bob, and others on the RAB, can huddle up and think of
9 issues that we would want to bring to the quorum --

10 MS. LYNNE: Yes.

11 MR. JONES: -- for them. And those two
12 exercises are absent Mark being there and Amy; in
13 addition to Mark being there, those things have to be
14 done.

15 MS. LYNNE: I agree. That, we can
16 definitely do. I mean, I see that as in interactive
17 process where the team comes out and I can't think of
18 better people -- I mean, John knows the site really
19 well. I don't know if you recall from October, he was
20 stationed out here.

21 MR. JONES: Yeah.

22 MS. LYNNE: And then he was with the
23 USGS here, and so he knows the site really well, but
24 not like these guys. And so, I mean, I view it as an
25 interactive things where they come back with a list of

1 questions, or things you want to point out, and it's
2 like, "Hey, I forgot to say this when we were standing
3 there and I want to make sure that you know that
4 because did you know that there's this narrow plume
5 that goes out here and bubbles up when the water is
6 down in the winter from the dam being down? You know,
7 the water being down.

8 So those are the kinds of things, you know,
9 to go back and forth like the nerds do. I wish I was
10 still a nerd. My brain is broken and I'm no longer
11 nerdy. I've been so ashamed.

12 But I think that, you know, those are
13 separate and critical paths. I don't see it as you
14 come out here for a couple of days and go away and we
15 never talk to anybody again.

16 MR. JONES: I have one more question for
17 Amy.

18 Is EGLE bringing a consultant to the -- to
19 this meeting?

20 MS. HANDLEY: No. It will just be myself
21 and technical staff. We are not bringing the
22 consultant with us.

23 MR. JONES: Why not?

24 MS. HANDLEY: That was not our intent to
25 bring a consultant with us because our technical

1 staff, we talked about it, and I don't think Air Force
2 is having their contractor there either, so it was
3 just kind of more of a regulators, not with our
4 contractors there.

5 MR. JONES: I thought I heard Steve say
6 that you are bringing a contractor. You're --

7 MR. WILLIS: So it won't be the contractors
8 working -- currently working at Wurtsmith; it'll be a
9 separate independent contractor.

10 MS. LYNNE: So our intent is to have
11 a new contractor there. Right? I mean, they're part
12 of it.

13 MR. JONES: The separate contractor,
14 Steve --

15 MS. LYNNE: The separate contractor would
16 have to be --

17 MR. WILLIS: Yes, yes.

18 But we won't have Aerostar or WSP?

19 MS. LYNNE: Yes, yes.

20 MR. JONES: So my question, then, is Steve,
21 if this separate contractor is gonna be at the
22 meeting, is their sole job to talk about the -- what
23 is it? I forget. The CPA? The CPA -- just to be at
24 the CPA discussions? Or are they going to design the
25 projects?

1 MR. WILLIS: Yes. They will evaluate all
2 the data and give us the 30 percent or preliminary
3 design, yeah.

4 MR. JONES: Amy, I would very, very hardly
5 recommend that you go back to Mike and indicate that
6 it would be in EGLE's best interest to bring in an
7 environmental -- your -- if it's ECOM or whomever you
8 have, bring them along, because they've been working
9 for you at this site and they bring technical
10 expertise in addition to your own. And so I just
11 think that the state of Michigan's contributions to
12 the CPA will be really improved with having your --
13 you know, your contract -- your environmental
14 consulting cohorts with you.

15 MS. HANDLEY: Yeah. We'll go back and
16 we'll talk about it.

17 MS. LYNNE: And there's one other thing
18 that I wanted to add. So if it's the contractor,
19 frankly, I'm hoping it is, they bring a wealth of
20 other experience in terms of secret stratigraphy, in
21 terms of modeling, in terms of 3D visuals, in terms of
22 everything; they've got, like, the pros from Dover and
23 everything. And their value is, is that they may not
24 be considered independent by everyone because they are
25 hired by the Air Force, but they don't bid or

1 participate in the projects that they recommend. So
2 when they are looking at the data, there's no
3 financial benefit in the remedy that they select.
4 Right? And I think that's important to understand
5 that that's why we're doing it this way.

6 MR. JONES: I would just add that that
7 statement by Kate is -- I'm now talking to my fellow
8 RAB members.

9 An exceedingly important concept here is
10 that the appearance of bias or conflict, let alone an
11 actual conflict, is very, very important to us. You
12 know, I had over a 30-year career as an environmental
13 lawyer. Let me tell you, I can't tell you how many
14 times people distrust lawyers because, you know,
15 someone comes up to a lawyer and says, "Well, should I
16 sue that bastard? You know, the answer is "Yes, I
17 will take it on."

18 You know, so, anyway, I think -- I would
19 recommend that we take some psychological comfort from
20 this approach that they're bringing in, you know, the
21 best and the brightest for the design, but they take
22 no financial benefit from the implementation, as long
23 as the implementer does what they design.

24 MS. LYNNE: Well, and that's why by the
25 time it is -- you know, EGLE has participated, and you

1 guys have participated, we've selected it and we've
2 submitted it, you know, that has seemed effective
3 unless, you know, there's a significant change in the
4 organization of the subject, so yes.

5 Thank you.

6 MR. JONES: Jesse, I have other questions
7 to other -- on other issues. May I --

8 MS. HOWARD: That was the next thing I was
9 gonna do, is --

10 MR. JONES: Okay.

11 MS. HOWARD: -- as long as nobody has any
12 additional questions for Steve or anybody else, I was
13 going to open up the floor to RAB member questions.
14 At this time, we are just about at 8:00, just so
15 everyone knows. We are a little behind schedule. I'm
16 not gonna cut anybody off, but . . .

17 MR. JONES: My first question is to
18 Mr. Gangnuss.

19 This is Kyle Jones again.

20 My colleague, Mr. Carmona, mentioned 32CFR,
21 the regulation section that governs RABS. My question
22 is probably a simple one for you.

23 What is the installation commander for
24 Wurtsmith?

25 MR. WILLIS: I am.

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1 MR. JONES: Steven Willis is? I thought
2 you said you didn't know.

3 MR. GANGNUSS: I wasn't gonna volunteer.
4 Yeah, from a RAB perspective --

5 MR. WILLIS: You are the --

6 MR. GANGNUSS: I'm sorry. I wanted you --

7 MR. JONES: I mean, that's fine. I mean,
8 if that's who Air force has vetted and designated,
9 that's fine, Mr. Gangnuss. I just wanted to ask that
10 very question.

11 MS. VERTANGA: Well, wait a minute.

12 Can you all hear?

13 This is Sharon Vertanga.

14 That is not -- that's not accurate.

15 Under the Air Force Instruction -- and I'm
16 Sharon Vertanga. I'm an attorney with the Air Force.

17 And in Air Force Instruction 32.70.20, at a
18 BRAC location for RAB purposes, Mr. Gangnuss is the
19 wing commander equivalent.

20 MR. JONES: Is there a single RAB
21 commander?

22 MS. VERTANGA: Sir, what I'm saying is for
23 the roles of a wing commander would have on setting
24 the RAB membership and that sort of thing, obviously
25 BRAC doesn't have one, so that is you. When it comes

1 to who is actually going to be the RAB cochair, Steve
2 is correct, obviously; that always falls to the back
3 to be the RAB cochair.

4 MR. JONES: Sharon, this is Kyle Jones.

5 Is there a difference in terminology
6 between being a wing commander and an installation
7 commander?

8 MS. VERTENGA: I'm using them
9 interchangeably.

10 MR. JONES: Okay.

11 MS. VERTANGA: There are installations that
12 have more than one wing, but I am using the terms
13 interchangeably.

14 MR. JONES: Okay.

15 MR. GANGNUSS: Yes, there is a distinction
16 because you can have two quadrants at the base, and
17 you have the installation commander. The installation
18 commander is responsible for everything and everybody
19 that is officially on that base, but there is a
20 distinction.

21 MR. WILLIS: So it's Mr. Gangnuss who is
22 the installation commander for the former Wurtsmith
23 Air Force base.

24 MS. VERTANGA: No, sir. He is not the
25 installation commander.

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1 MR. WILLIS: Oh.

2 MS. VERTANGA: He serves in an equivalent
3 position for the purpose of appointing RABs under the
4 Air Force instruction.

5 MR. JONES: Is there someone else, then,
6 that's the installation commanders?

7 MS. VERTANGA: There are no installation
8 commanders at BRAC bases.

9 MR. CARMONA: That's not what it says in
10 the CFR.

11 This is Dave Carmona.

12 It says that, "installation commander shall
13 be designated."

14 MS. VERTANGA: Sir, the CFR was not really
15 considering the BRAC scenario when it wrote the RAB
16 rule, is my take on that. There are no installation
17 commanders at BRAC bases because they don't exist
18 anymore; there are no more Air Force personnel
19 present.

20 MR. CARMONA: So how does John fit into the
21 chain of command for decisionmaking?

22 MR. WILLIS: John?

23 MR. CARMONA: Greg, sorry.

24 MS. VERTANGA: Greg, I'm gonna turn this
25 back over to you. I was just trying to clarify what

1 the AFI said about what the RAG commander, wing
2 commander did, and all of that.

3 MR. GANGNUSS: Yeah. Thank you, counsel.

4 Yeah, I think Sharon Riley pointed out -- I
5 mean, I think the buck is going to stop with me. I
6 look at all my vets like Steve as the equivalency. He
7 works with the RAB. I do look at the RAB membership
8 and have the final say who is part of the RAB, or
9 who's elected into the RAB. We look at the
10 qualifications, the residency. And we have quite a
11 few RABs, so, you know, I'm where the final decision
12 is if the RAB gets to an impasse on membership,
13 whether or not to disband the RAB, but all my vets
14 have RABs. They're my equivalency of that, as I
15 mentioned earlier.

16 The installation commander; counsel is
17 absolutely correct. Obviously, we don't have
18 installation commanders or wing commanders at any of
19 our installations.

20 MR. CARMONA: Mr. Gangnuss, may I -- and
21 Sharon -- I'm reading right now from the CFR. This is
22 32 CFR part 202.1.

23 And the definition of an installation
24 commander, "shall include the commanding officer or
25 the equivalent of a commanding officer at active

1 installations; the installation commander or other
2 military or department officials who close the
3 facility and are responsible for its disposal at base
4 realignment and closure BRAC installations; or the
5 US Army Core of Engineers project district commander
6 at FUDS facilities.

7 We're at a BRAC facility, as far as I
8 understand it. So is there, then, an installation
9 commander who -- and, again, I've been dealing with
10 the CFR under 40 CFR for 32 years, so I understand how
11 language can get circular when agencies write
12 regulatory language.

13 So an installation commander is an
14 installation commander, or military department
15 officials who close the facility and are responsible
16 for its disposal at BRAC installations.

17 Is there someone who -- besides
18 Mr. Gangnuss, who has that role here at Wurtsmith?

19 MR. GANGNUSS: Yeah, I told you Steve does.

20 MR. CARMONA: Is Steve a military
21 department official?

22 MR. GANGNUSS: He's a DOD official.

23 MR. CARMONA: Okay. Okay.

24 MR. GANGNUSS: We all worked for the
25 Air Force.

1 MR. CARMONA: Right. So as I understand
2 it, then, whatever responsibilities --

3 MR. GANGNUSS: Steve is acting as a support
4 group commander as part -- as part of the RAB cochair,
5 he's acting as the equivalency of an active
6 installation, for example, with an active RAB.

7 MR. CARMONA: Right.

8 MR. GANGNUSS: It's normally -- it could be
9 the deputy commander, or it could be the civilian
10 equivalent of the deputy commander who serves on the
11 active installation as the cochair. That's what Steve
12 does for the RAB, for the Air Force, for a closed
13 installation.

14 MR. CARMONA: I think -- I think that maybe
15 we're talking to apples to oranges here.

16 MR. GANGNUSS: The RAB decisionmaking
17 process we understand, but what we're looking for is:
18 There are times that commitments may have been made by
19 Steve and somewhere else along the way, whether by
20 EGLE, or by a superior, or by a contracting office,
21 that decision has been overturned without any
22 explanation, without any process, and we're left in
23 the dark, wondering why are we getting this from our
24 cochair, and yet the Air Force is not following
25 through with that DOD letter, and that's what we're

1 looking for.

2 MR. CARMONA: And, Mr. Gangnuss, we are not
3 trying to trying to get confrontational here
4 whatsoever.

5 MR. GANGNUSS: Okay. Good. I didn't think
6 that, so --

7 MR. JONES: Good.

8 MR. GANGNUSS: -- you're doing somewhat of
9 a good job.

10 MR. JONES: In any event, there are other
11 responsibilities, according to the regulations, that
12 the installation commander has besides what Steve
13 does. And so that's why we didn't think Steve was the
14 installation commander.

15 MR. GANGNUSS: Well --

16 MR. JONES: And so --

17 MR. GANGNUSS: There's very little property
18 that's left at Wurtsmith. For all practicality, it's
19 been all completely transferred.

20 But I know in my history at other BRAC
21 installations, that that served that purpose to meet
22 that requirement as a RAB cochair, which is usually,
23 again, given to a deputy commander, a support group
24 commander, or something of that nature.

25 MR. JONES: I got it. Okay. Thank you

1 very much.

2 MR. GANGNUSS: Okay. And I will have a
3 good discussion with Sharon when I can.

4 MR. JONES: Yeah, no kidding.

5 MR. CARMONA: Dave Carmona.

6 So this goes to Steve.

7 We understand that you're a very busy man.
8 Is it possible to review your administrative processes
9 to speed up the flow of information to us; for
10 example, the BTC meetings that we don't participate in
11 but 's important for us to see the notes for those.
12 Sometimes they're as much as six to eight months
13 behind the meeting and we've moved on beyond those.

14 And I'm not sure how you could streamline
15 your processes, but there's a lot of information that
16 is not coming through in a timely manner.

17 MR. WILLIS: Yeah. One of the things that
18 Greg has offered is an initial support contractor help
19 for me to keep that kind of stuff up to date. So,
20 yeah, I will take advantage.

21 MR. CARMONA: Thank you, Greg.

22 MR. JONES: Kyle Jones again.

23 Amy, you mentioned, and in the slide
24 mentioned, additional documents that EGLE needed to
25 review; three different quality assurance project

1 plans, or QAPPs.

2 So to both you, and to Steve, I guess we
3 just reviewed a lengthy QAPP addendum. Are these
4 QAPPs different and were not included in that addendum
5 or are they sections of that addendum?

6 MS. HANDLEY: They are for different
7 things. So the VI one is for the vapor intrusion
8 portion.

9 MR. JONES: Yes.

10 MS. HANDLEY: And then there's the MMRP,
11 which is for the remissions, so they are for different
12 things. They are not the DFAS RI, so they are
13 different.

14 MR. JONES: Okay. Are they part of the
15 RIs? No?

16 MS. HANDLEY: They're different.

17 MR. WILLIS: They're all RIs, but they're
18 completely separate contaminants of concern.

19 MR. JONES: Ah.

20 MR. WILLIS: They're not about PFAS.

21 MR. JONES: Okay. Thank you. All right.

22 Steve, you and Tim had a quick discussion
23 on the lease of the waste water treatment plan site.
24 Or what is it that -- I'm going to -- can you help me
25 here? What was it that was in big contention at the

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1 last RAB between the Township and --

2 MR. CUMMINGS: Tim Cummings.

3 In the last RAB, I raised the question of
4 the payment by the Air Force for use of the storm
5 water.

6 MR. JONES: The storm water, right. Thank
7 you.

8 MR. CUMMINGS: So the question that Steve
9 asked at the beginning of the meeting was: What was
10 the progress on that? We've had e-mails, but he
11 wanted me to bring this up at the meeting. And since
12 it wasn't covered at the 10 a.m. meeting yesterday
13 between the Township and the Air Force, the answer
14 remains that we intend to pursue those, but the action
15 is currently with our attorney. We're still in
16 discussions.

17 MR. JONES: Perfect.

18 So, Steve, I was just wondering if there
19 was any difference in a perspective from the Air Force
20 on this issue at this time.

21 MR. WILLIS: At this point, we're waiting
22 for a letter from the township for what exactly they
23 are seeking.

24 MR. JONES: Okay. Very good.

25 My final question, really, is to Steve, and

1 to Kate, and to anyone -- and Amy -- and anyone else
2 who's going to participate in the CPA.

3 And, Steve, what I'm reacting to is a
4 comment you made earlier when Justin was up talking
5 about FT02 and the fact that there was significant
6 plume downgradient of the IRA extraction wells. And
7 your comment was something to the affect -- and I
8 don't want to butcher what you said, but you said,
9 "Look, you know, this IRA is intended to get the hot
10 spot, or the bulk of the contamination, but not all of
11 it."

12 Let me pause there and make sure I've got
13 the gist of what you said, Steve. Is that about
14 right?

15 MR. WILLIS: Yes. So these are interim
16 actions focused on the highest concentration.

17 MR. JONES: So I'm focusing -- after that,
18 I went and took a look at what EPA means by,
19 "interim," and, "interim actions." And interim
20 actions are not about doing part of the job; they're
21 full job installations prior to the selection of the
22 final remedy. So the word "interim" there means prior
23 to the final remedy, not 70 percent of effectiveness.

24 And I could go on, and on, and on here, but
25 just let me read. This is from EPAs website.

1 "One of EPAs primary goals for corrective
2 interim actions is to expedite risk reductions through
3 implementation of interim measure to control or
4 minimize ongoing threats to human health and the
5 environment. In many state and federal remedial
6 programs, interim measures are used to address risks
7 to human health and environment to advance the final
8 remedy selection."

9 Just what I said. It's earlier in the
10 process, not an incomplete job.

11 "EPA believes that the concept of interim
12 measures is especially appropriate at facilities
13 subject to corrective action since they are generally
14 operating, or facilities that threaten health and
15 environment where a final facility cleanup might not
16 be completed for many years." We heard 2028 or 2027.

17 So all I want to do with this little
18 soliloquy here is to recommend that when the CPA
19 undertakes it's efforts, that they are designed to
20 capture 100 percent of the flow of contamination, and
21 not some portion of it.

22 MS. LYNNE: I think it was my poor
23 language choice that it's a partial solution rather
24 than an earlier way to capture something to either
25 control or mitigate infiltration and contamination.

1 It's a different term, but it's the same thing.

2 MR. CARMONA: Yes.

3 MS. LYNNE: And, you know, I think where
4 things get a little confusing sometimes is maybe when
5 we're doing an IRA, and we are scoping it, you know,
6 the way it's designed, we're going to watch and expand
7 it and capture more than that's necessary, so it may
8 not capture everything, but we are watching out for it
9 and we're going to modify it later, but that doesn't
10 mean we review it as an interim in the sense of, "Oh,
11 we're only going to do partial." Right?

12 So the purpose of these -- I'm sorry. I
13 thought it was -- and so the purpose of these -- you
14 know, of the CPA process, is to address these IRAs and
15 to go after it all; it's not just to get a piece of
16 it. And I agree with you, that's the definition of
17 "remedial action" I've always used.

18 MR. CARMONA: Thank you very much, Kate.

19 MS. HOWARD: Okay. So next, I'm just going
20 to quickly review the public comment guidelines and
21 then we can get started with that.

22 The first guideline is: Raise your hand to
23 indicate that you would like to make a comment.
24 Number two, when you are acknowledged by me, please
25 approach the mic here in the middle, and say and spell

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1 your first and last name for the record prior to
2 giving your comment. Number three, please keep your
3 comment to three minutes or less. And number four,
4 RAB members will determine if a followup is needed. I
5 know in the past we've kind of asked some questions
6 and had some comments, but we will just be taking
7 comments tonight for time. We'll go over that at a
8 later time.

9 Do we have anybody that would like to make
10 a public comment?

11 Yes, sir.

12 MR. PALMER: Hi. My name is Bill Palmer.
13 I'm the Oscoda Township supervisor.

14 I've been involved with these meetings with
15 the Air Force since before there was a RAB. In fact,
16 I was one of three people in the committee that put
17 this RAB together originally.

18 I would like to make a comment just
19 briefly, I don't want to keep us too much later here
20 tonight.

21 My concern as a supervisor, and as a
22 previous board trustee, has to be with the health an
23 safety and welfare of the residents of Oscoda. And
24 with Mr. Gangnuss here, I would like to point out that
25 from the perception from most of the residents of

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1 Oscoda is that this remediation at the former Air
2 Force base has been going on for over 30 years. The
3 PFAS situation has been going on for approximately 13
4 years, the investigation.

5 I've witnessed various renditions of the
6 teams that have been here over the years. I'm
7 encouraged by the current team and their progress in
8 cleaning up the mess here and the contamination at the
9 former base, so I'm encouraged by that currently.

10 One of my concerns, like I said, is the
11 health, safety, and welfare. My second concern has to
12 be with the financial state of the Township, and what
13 I brought up numerous times is the cost that has come
14 about to the Township because of the contamination
15 through debt that we've had to take on to extend some
16 of our water mains. And I'm currently encouraged
17 because I've been told by the Air Force that they were
18 willing to consider looking at the debt that we've had
19 to take on. Of course, they're requesting a formal
20 letter requesting that rebate from them, and a
21 detailed explanation of what we spent the money on.
22 But, to me, that's a positive sign that I'm seeing
23 from the Air Force, that they're now willing to at
24 least consider that possibility, and that would be a
25 great benefit to this Township so that we're not in

1 debt roughly 1.4 million dollars because of the
2 contamination and the need to extend the water mains
3 that we've done.

4 I would like to correct Paula by just one
5 comment she made that the Township has extended the
6 water mains up the majority of the east side of the
7 lake. Unfortunately, we only had funding to do up to
8 Fellen Creek, which is only about a third of the
9 residents on the east side of the lake. So from
10 Fellen Creek all the way north, and on the north end
11 of the lake, all of those residents are still on
12 wells, so you have a lot to choose from there with
13 your well testing.

14 So thank you very much.

15 MR. HENRY: Okay. I'd like to thank
16 everybody for attending. We've had some wonderful
17 questions. We'll be generating more before the next
18 RAB meeting, and, hopefully we will have, by our next
19 RAB meeting, a path forward.

20 Thank you.

21 MR. WILLIS: Yeah. Thanks everyone for
22 coming this evening. We've had some great
23 conversations, and we've still got plenty of work to
24 do. We're comitted to working with the community and
25 do what we can to make things happen quicker.

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1 MS. HOWARD: Okay. Thank you very much.

2 I do have a sign-in sheet over here if
3 anyone would be interested in signing up for the AI
4 meetings. I do have a sheet where you can give us an
5 e-mail and you can get an invite for that.

6 MR. WILLIS: So for the meeting at the end
7 of September that I mentioned, I do have a sheet that
8 you can sign up on and I will include you in the
9 invitation for that virtual meeting.

10 MR. HENRY: And try to grab a copy of the
11 AIs over there on the table so you're well read before
12 you get to that meeting.

13 MS. HOWARD: Thank you.

14 Everyone have a great night.

15 (At 8:20 p.m., meeting concluded.)

16 * * *

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1 STATE OF MICHIGAN)

2 COUNTY OF OAKLAND)

4 CERTIFICATE OF NOTARY PUBLIC

5 I certify that this transcript, consisting
6 of 148 pages, is a complete, true, and correct record
7 of the meeting of the above-entitled proceedings held
8 on August 16, 2023.

9 I further certify that I am not related to
10 any of the parties or their attorneys or agents, nor
11 am I an employee of any of the parties or their
12 attorneys, and that I am not interested directly,
13 indirectly, or financially in the matter of
14 controversy.

15 _____
16 Courtney Przeadzki, CSR-8061
17 Core Litigation Support, LLC
18 Certified Shorthand Reporter
19 Notary Public, Oakland County, Michigan
20 My Commission expires 11/14/2028.

21
22
23
24 DATED: August 31, 2023
25