

In the Matter Of:
WURTSMITH RESTORATION, ADVISORY BOARD

MEETING
November 20, 2024



ESQUIRE
DEPOSITION SOLUTIONS

800.211.DEPO (3376)
EsquireSolutions.com

WURTSMITH RESTORATION

ADVISORY BOARD (RAB) MEETING

Oscoda United Methodist Church

120 West Dwight Street, Oscoda, Michigan 48750

Wednesday, November 20, 2024, 5:01 p.m.

RECORDED BY: Marcy A. Klingshirn, CER 6924
Certified Electronic Recorder
Esquire Deposition Solutions
Firm Registration Number 8035

1
2 RAB CO-CHAIRS: Mark Henry
Steven Willis, Air Force
3
4 Local Government
Stakeholder RAB Denise Bryan, Local Health
Department, Members Present: (Virtual)
5 Tim Cummings, Oscoda Township
Chelsea Gary, MDHHS
6 Amy Handley, EGLE
Michael Munson, OWAA
7 Jessica Stuntebeck, U.S. Forest
Service, (Virtual)
8
9 Community RAB
Members Present: Dave Carmona
William Gaines
Arnie Leriche
10 Scott Lingo (virtual)
Greg Schulz
11 Daniel Stock
Josh Sutton
12 Rex Vaughn (virtual)
Cathy Wusterbarth
13
14 Also Present In Person: Darlene Abbott, Rachel Akers, Dan
Banks, Diane Banks, Brian Baumer,
15 Megan Berry, Natasha Bly, John
Boettger, Paula Bond, Kalan
16 Briggs, Greg Cole, Ann Dawley,
Mitchel Dykla, Greg Gangnuss,
17 John Gillespie, Celeste Holtz,
Kenny Johnson, Mark Kinkade, Mike
18 Kovacich, Mathew Lipiec, Kelly
Lively, Wendi Michael, Ryan
19 Morrish, Barry Nelson, Bill
Palmer, Kendra Reeves, Jim Romer,
20 Brenda Rush, Tony Spaniola, Dr.
Mark Stapleton, Andrea Stawowy,
21 Hannah Theodorovich
22
23
24
25

Also Present Virtually:

Cyndi Abbott, Amanda Armbruster,
Charles Bauer, Mary Blanchard,
Grace Borst, Cheryl Brewer,
Michelle Brown, Cindy Cash, Jeff
Crum, Garret Ellison, Marjorie
Findley, Stela Fuentez, Krystal
Gurnell, Dick Haefner, Jenny
Haglund, Andrea Keatley, Susan
Lampe, Trisha Lane, Kate Lynnes,
Charles Major, Mollie Miller,
Jeremiah Morse, James Mills, Mike
Neller, Jacob Newblatt, Tammy
O'Neill, Natalia Perez, Beth
Place, William Prenzler, Ravi
Ravichandran, Amy Rauser, Barrie
Selcoe, Mark Sembera, Erin
Simpson, Megan Thompson, Aneta
Veedomont, Becky, Verbruggen,
Peter Verbruggen, Sharon
Vriesenga, Roger Walton, Mark
Weegar, Dave Winn, Brian Zuber,
JP

TABLE OF CONTENTS

PAGE

| | | |
|----|-----------------------------------|-----|
| 1. | Welcome and Introductions | 5 |
| 2. | Stakeholder Member Updates | 15 |
| 3. | RAB Business Update | 38 |
| 4. | Air Force Technical Presentations | |
| A. | John Gillespie, AFCEC | 43 |
| B. | Paula Bond, Aerostar | 76 |
| C. | Celeste Holtz, BB&E | 81 |
| 5. | Project Forecast | 88 |
| 6. | RAB Member Questions | 99 |
| 7. | Public Comment | |
| A. | Tony Spaniola | 120 |
| B. | Dave Winn | 124 |
| C. | Bill Palmer | 126 |
| 8. | Conclusion | 135 |

Oscoda, Michigan

Wednesday, November 20, 2024 - 5:00:48 p.m.

(Welcome and Introductions at 5:00 p.m.)

MS. JESSIE HOWARD: Hello, and welcome to the November 20th, 2024, Restoration Advisory Board public meeting. I'm your facilitator, Jessie Howard. Irving Entertainment Studios is livestreaming and recording tonight's meeting, and we are also joined by our court reporter, Marcy, who is documenting as well.

I want to just give another reminder. Did everybody sign in at the sign-in sheet up here, and did everybody put their affiliation with that? If not, we are going to pass this around in a little bit for anybody to fill that out who has not.

Let's see. I just want to give a quick reminder to the RAB members up here to remember to speak into the end of that microphone so that we can all hear you. Also, please state your name for the record so those of us attending virtually will know who you are. I will now hand it over to our co-chairs for their opening remarks.

MR. STEVE WILLIS: All right. So good evening and welcome, everyone. I do have some senior leadership here tonight. They'll, they'll introduce themselves in a bit. But looking forward to a good meeting. We've

1 got lots to talk about and keep moving forward. Mark?

2 MR. MARK HENRY: Mark Henry with the RAB. I'd
3 like to thank everybody who has made it here this
4 evening. I appreciate the public participation. It
5 seems to have been waning lately, but we have quite a
6 few more people here than we've had in the past so I see
7 that as progress.

8 MS. JESSIE HOWARD: Definitely. Okay. I will
9 quickly take attendance of our RAB members here with us.
10 Steve Willis with the U.S. Air Force?

11 MR. STEVE WILLIS: Present.

12 MS. JESSIE HOWARD: Tim Cummings, Oscoda
13 Township?

14 MR. TIM CUMMINGS: Present.

15 MS. JESSIE HOWARD: Eric Strayer with Au Sable
16 Township? No Eric tonight. Amy Handley with EGLE?

17 MS. AMY HANDLEY: Present.

18 MS. JESSIE HOWARD: Michael Munson, with OWAA?

19 MR. MICHAEL MUNSON: Present.

20 MS. JESSIE HOWARD: Okay. Denise Bryan will be
21 joining us a little bit late also virtually. And
22 Chelsea Gary with the Michigan Department of Public
23 Health?

24 MS. CHELSEA GARY: Present.

25 MS. JESSIE HOWARD: And Jessica Stuntebeck with

1 the U.S. Forest Service? No Jessica tonight? Okay.
2 For the Community -- or the Community RAB members. Mark
3 Henry?

4 MR. MARK HENRY: Present.

5 MS. JESSIE HOWARD: Dave Carmona?

6 MR. DAVE CARMONA: Present.

7 MS. JESSIE HOWARD: Bill Gaines?

8 MR. BILL GAINES: Here.

9 MS. JESSIE HOWARD: Kyle Jones? No Kyle.
10 Arnie Leriche?

11 MR. ARNIE LERICHE: Present.

12 MS. JESSIE HOWARD: Scott Lingo? No Scott
13 tonight. Greg Schulz?

14 MR. GREG SCHULZ: Present.

15 MS. JESSIE HOWARD: Josh Sutton?

16 MR. JOSH SUTTON: Present.

17 MS. JESSIE HOWARD: Rex Vaughn? And Cathy
18 Wusterbarth?

19 MS. CATHY WUSTERBARTH: Present.

20 MS. JESSIE HOWARD: All right. Perfect.

21 MS. JESSICA STUNTEBECK: Just so you know,
22 Jessie Stuntebeck is online.

23 MR. STEVE WILLIS: Jessie, Jessie Stuntebeck
24 with the U.S. Forest Service.

25 MS. JESSIE HOWARD: Oh, hi, Jessie. Sorry. I

1 was trying to -- thank you. And next I will quickly
2 review our agenda. After the welcome and introductions
3 are over, we will have a Air Force senior leadership
4 introduction, followed by the RAB member updates, then
5 we will have the RAB business update, followed by the
6 AAA, PFAS, IRA update, the vapor intrusion RI update,
7 followed by project forecast, then we will address RAB
8 member questions, followed by public comment and the
9 conclusion and adjournment of tonight's meeting.

10 So I would like to now hand the mic over to the
11 Air Force officials who are with us this evening who
12 would like to introduce themselves. Oh, he's going to
13 bring you a mic real quick.

14 MS. BRENDA RUSH: Thank you. Testing. I think
15 it's working. Okay. Hello, everyone. My name is
16 Brenda Rush. I am from San Antonio, the Air Force Civil
17 Engineer Center. I am the director of installations.
18 My directorate is primarily real property transactions
19 which is why BRAC with Steve Willis and Greg Gangnuss is
20 here. It's under my directorate. Because in the old
21 days, BRAC was primarily real property transactions. We
22 were transferring our federal property to the
23 communities.

24 Now, 98 percent of our real property
25 transactions are over for BRAC and so really what Greg

1 Gangnuss and his team works on is environmental
2 restoration and cleanup. So I've also got Kenny Johnson
3 here with me who is our active environmental cleanup
4 directorate and he'll, you know, I'll be introducing him
5 in a little bit. But essentially we're working together
6 now because it's not just real property transactions we
7 want to be focusing on here.

8 So we, both Kenny and I, decided to come here
9 today so we can introduce ourselves. We are very
10 committed to cleaning up the environment. I just want
11 get, let you know a little bit about myself. I have
12 three children and we bought a lake house in Minnesota.
13 Actually, Turtle Lake at the headwaters of the
14 Mississippi, a little more north than Itasca State Park
15 and we consider it the true headwaters, right at the
16 international, you know, right at the continental
17 divide.

18 So my kids have grown up swimming in the lakes,
19 right, and we get concerned about invasive species and
20 contamination ourselves, so much so that my oldest
21 daughter is now at UT Austin studying environmental
22 engineering on, going to be focusing on water quality.
23 So it's kind of in our DNA and it's our passion to clean
24 up the environment.

25 Kenny Johnson has got 40 years experience, 30

1 years in environmental cleanup, 25 of those in Europe
2 and he right now has got about 190 PFAS sites -- Kenny?
3 -- that you're working. So he's got a lot of lessons
4 learned under his belt. So I'll be working with Mr.
5 Johnson directly to make sure we're bringing all of our
6 experts to bear to help this community clean up the
7 sites.

8 And I want to acknowledge the concerns we've
9 heard from you. And there's three primary concerns
10 we've heard from you and that's the timeliness of our
11 interim actions and the actions we're taking, our
12 transparency with our data and how we're going about
13 cleaning up those, those sites, and we've also heard,
14 you know, we would like a little more design
15 collaboration with us early on to help us really ensure
16 that you all are onboard with how we're designing the
17 system.

18 So you've got a lot of really wonderful
19 excellent experts here locally and we need to pull in
20 your expertise early before the RAB meeting so we can
21 open up those designs and that data and make sure not
22 only are our experts that we have, you know, creating
23 those designs with our contractors, but we're, we're
24 pulling on the local experts that you have and we're
25 tweaking those designs so there is full trust and

1 confidence that when we move to the next step and we're
2 presenting to you at the RAB, those designs were already
3 all on board. All the experts have already looked at it
4 and are kind of locked on from that.

5 So that's our commitment to you. Kenny and I
6 commit to you that we are going to increase the
7 transparency. We're going to really work hard on
8 accelerating timelines. Steve Willis is going to talk
9 about that in his presentation, the current timelines,
10 and how we're going to try and accelerate those. And
11 then we're going to really be working hard to do things
12 like we did last week where we're bringing in the
13 technical experts, open up the doors a little bit more
14 to talk about the designs well before the RAB, you know,
15 the week prior. So we're committing to you on that.

16 We've had some really tangible successes. Last
17 year we got a couple sites put on contract in under a
18 year. I really pushed the team to do that. Really
19 pushed their, their boundaries to, to accelerate,
20 getting some work on contract before, you know, money
21 disappeared. We did it. And so now we're going to be
22 actively looking at those designs with you all and your
23 experts to make sure we're all really in lock step on
24 how we're proceeding from here on out. So I think
25 you're going to see some great improvements.

1 But, again, I'm not an environmental expert.
2 I've got about eight years experience, 30 years Civil
3 Service. I'm primarily now a business woman, try to
4 get, get the money, advocate for the money, keep
5 timelines moving, keep things on track, making sure
6 we're all communicating and everybody is getting what
7 they need.

8 So I'm here to listen. If you hit me up with a
9 tough question that's technical, I might have to defer
10 it to my experts here. But, again, Kenny, would you
11 stand up and wave? I want to make sure everybody
12 understands that Kenny here, and I are here to answer
13 questions at the break.

14 We've got thick skin, so please bring it on.
15 Tell us what your concerns are. We are here to listen
16 and we will go back and take action on it. So, again,
17 I'm Brenda Rush and just it's a pleasure to meet you
18 all. It's been a lovely week so far in your community.
19 I really have fallen in love with it. Okay.

20 MS. JESSIE HOWARD: Thank you so much.

21 MR. BRIAN PALMER: Brian Palmer, general
22 counsel's office. I handle real property transactions
23 for the BRAC department.

24 MR. KENNY JOHNSON: Again, Kenny Johnson. I,
25 I'm responsible for active Air Force, Space Force,

1 reserve command as well. We have 190 PFAS sites. We
2 have 8,000 sites across the world. So we've been doing
3 this for awhile. We have the technical team, Mr.
4 Gillespie and his team and the Ph.D.s. And, and so we
5 have a, a wide range of resources. We have about 458
6 people, the scientists and engineers that know
7 environment. So we, we're here to help. We're here to
8 do whatever we can to move this program forward. So I'm
9 excited to be here. And thank you for inviting.

10 MR. GREG GANGNUSS: Hey, good to meet you all
11 again. Good to see you all again. My name is Greg
12 Gangnuss. I'm with the Air Force Civil Engineer Center.
13 I am the Air Force chief of BRAC, 40 installations. I
14 have 5300 sites under my belt. But tonight, right now,
15 Wurtsmith is my number one base.

16 And you see it by the leadership here. You see
17 Kenny, you see my boss, a phenomenal, phenomenal
18 introduction here. But, and to kind of indicate what
19 Mark just identified, there's a lot more folks here than
20 the last time and I think that is a good precursor of
21 good, you know, things to come. There's a lot more
22 interest here in the community and we want to see that.

23 You're going to hear tonight we have a lot of
24 stuff going on, we have good cleanups ahead and you're
25 going to hear about the AAA, some of our interim

1 remedial actions that we have planned, you'll hear more
2 about that tonight. And questions, any questions, you
3 know, please bring them up. You got a lot of folks
4 here: Air Force, we have contractors, you have Q&E
5 members so don't, don't be shy. And, again, appreciate
6 everyone's attendance here. All right. Thank you.

7 MS. JESSIE HOWARD: Thank you. Were there any
8 other members of the Air Force or any state or federal
9 government members who would like to introduce
10 themselves to the RAB as well? They'll bring you the
11 mic.

12 MS. KELLY LIVELY: Hi, everyone. My name is
13 Kelly Lively. I'm with Senator U.S. Gary Peters'
14 office. I'm the regional director for northern
15 Michigan.

16 MS. JESSIE HOWARD: Thank you. Anybody else
17 with us or joining us virtually who would like to
18 introduce themselves to the RAB?

19 MS. MICHELLE BROWN: Certainly. Good evening.
20 This is Michelle Brown. I'm representing the office of
21 the deputy assistant secretary of the Air Force, and I
22 am the environmental director for the Environmental
23 Policy and Programs directorate.

24 Ms. JESSIE HOWARD: Thank you. Anybody else
25 joining us virtually, Wendi?

1 MR. ROGER WALTON: Yeah, this is Roger Walton,
2 the chief of the central --

3 MS. JESSIE HOWARD: Okay. Thank you. If
4 there's nobody else who would like to introduce
5 themselves virtually, we can move on to the Air Force
6 Update. Next slide, please.

7 (Stakeholder Updates at 5:12 p.m.)

8 MR. STEVE WILLIS: All right. So I've got a
9 couple of different IRAs here that I'll talk about. So
10 the first one, the Alert Aircraft Area IRA, I'm sure
11 most of you have noticed the construction going on
12 between the end of the runaway and Van Etten Lake. We
13 started that construction the end of July after the
14 record of decision was signed.

15 Our plan was to have the system up and running
16 by the end of December. But this week when I got up
17 here after talking to the team, we've had a couple weeks
18 of weather delay getting the roof on the building. So
19 it looks like we probably won't start up by the end of
20 December, but we're bringing in additional staff to try
21 and get more people on it to get that building finished
22 whenever the weather is nice. We're also going to work
23 weekends.

24 So we're, we're doing what we can to accelerate
25 and make up any lost time and we'll have that system up

1 and running as quickly as possible. I, I suspect
2 probably mid-January or so if the weather cooperates and
3 we can get that roof on because that's kind of our
4 limiting factor right now.

5 As, as many of you know, we had that technical
6 session last week up here in person. John Gillespie and
7 Mark Stapleton and a handful of others came up to talk
8 about the Alert Aircraft Area IRA. The Air Force did
9 have Noblis do an independent evaluation of the design
10 that the BRAC team had put together. And so they did do
11 a presentation on that, and so John and Mark will
12 provide a real short summary of that meeting last week.
13 I think they had 40 or so slides last week. I think
14 they've got six or seven tonight. So they'll give us a
15 quick summary for those that missed the presentation
16 last week.

17 Our next IRA that we're tackling is the DRMO
18 and LF 30/31 sites. We did award the contract for that
19 the end of September, been working with the contractor.
20 I've got a schedule later in the presentation in the
21 forecast. Based on the work we've done with that
22 contractor, we're going to be able to accelerate that.
23 So sometime after this meeting I'll get an updated
24 schedule out. I'm not going to wait until the next RAB
25 meeting for that. So I will share an updated schedule.

1 But we are going to be able to accelerate the
2 timeline for that IRA. That IRA will include the
3 recommendations of the critical process analysis team.
4 That team presented to the, to the RAB and community in
5 January of this year, recommendations for the DRMO site,
6 the LF 30/31 site, the wastewater treatment plant, and
7 the Three Pipes Ditch site.

8 And so this is the first of those four sites
9 that were evaluated that we're moving forward with. For
10 the wastewater treatment plant and Three Pipes --
11 particularly the wastewater treatment plant, that site's
12 a lot more complex than the sites we've been doing IRAs.
13 And so we've reached out to Noblis, awarded a contract
14 to them to help us put together the scope to both design
15 and build and implement those IRAs. I did get their
16 draft reports for the scope of that work last week and
17 so we are reviewing that. We'll work with them to
18 resolve any questions or comments we have on it and
19 we'll feed that into the documents to scope and award a
20 contract for that ne-, those last two IRAs.

21 Next slide. For the PFAS RI, as you all know
22 that's an ongoing project. We've been collecting data
23 in the field for the past three summers. We still have
24 some additional data we need to wrap that up. And so
25 we're going to award the contract to finish that RI in

1 early next year. We did meet with EGLE in the Lansing
2 office after the last RAB meeting and went through the
3 maps and the data to identify data gaps as well as
4 additional needs to support the feasibility study so we
5 can select final remedies for these sites. I did
6 compile that into a table and I did share that with the
7 RAB.

8 So if you guys have any thoughts on additional
9 areas that you think we need data to wrap up that RI,
10 please feed that to me as soon as you can and we'll take
11 a look at it so that we get any input we need to
12 incorporate before the contract is awarded. I don't
13 want to wait until after it's done and then have to go
14 through contract mods and all that. So the sooner you
15 can get it to me the better off we'll be in, in getting
16 that addressed.

17 This next contract will wrap up the RI. It
18 will include an RI report as well as the full risk
19 assessment, ecological and human health risk assessment.
20 We have, as I said, collected three field seasons of
21 data. Because we're moving from one contract to the
22 next, I want to capture all that information. So we are
23 putting together a preliminary characterization summary
24 report. That document is right out of the EPA guidance
25 as an interim deliverable in the RI process. And so we

1 will capture -- it'll basically follow the first four
2 chapters of a traditional RI report that takes you up
3 through the nature and extent, but it will not include
4 any of the risk assessment or any of the
5 recommendations. We've still got data to collect before
6 we can finish those sections. But we'll put that report
7 together, we'll review it with EGLE and then we'll share
8 that with the RAB.

9 Next slide. Next couple slides are updates on
10 the, the two BCT meetings since the last RAB. This was
11 our August BCT meeting. In this one, we discussed the,
12 the -- the focus was specifically on site SS057, but it
13 had broader implications. There's other sites at
14 Wurtsmith that fall under the same category of
15 aesthetics criteria in the ROD versus a health-based
16 criteria.

17 For CERCLA we should be focusing on
18 health-based cleanup, but in some of our early RODs
19 we've got aesthetic criteria and it changes the dynamic
20 of the plume size as well as the remedy that we've got.
21 So we're reevaluating a lot of those sites. These are
22 not PFAS sites. They're legacy VOCs.

23 MR. MARK HENRY: Could you inform the audience
24 where SS057 is, please?

25 MR. STEVE WILLIS: So if you're familiar with

1 where the airport office is, it's in that vicinity.

2 MR. MARK HENRY: Okay. Central part of the
3 base.

4 MR. STEVE WILLIS: Yeah, central part of the
5 base.

6 MR. MARK HENRY: Thank you.

7 MR. STEVE WILLIS: So, again, we've got some
8 homework to do. We'll provide some meeting with our
9 attorneys to evaluate the documentation and what changes
10 may be appropriate, and then we'll sit down with EGLE
11 and go through that to finalize it before we make any
12 changes. And those BCT minutes are on the AR so they
13 are available.

14 Next slide. So the September BCT meeting,
15 those minutes are not finalized yet so they're not
16 available, but as soon as we finalize those, I'll get
17 those added to the AR as well.

18 For this particular meeting, we talked about
19 the LF30 and 31 engineered wetland treatment system.
20 This is a legacy contaminant system treating both VOCs
21 and metals. There is manganese and iron. We've got one
22 of the extraction wells that's on the end of the, the
23 line that's been pumping clean water for a decade now
24 and so we discussed with EGLE shutting that well down.
25 And so we've, we've had the conversations and we're

1 waiting for some final feedback from EGLE on whether
2 they agree we can shut that off and continue moving
3 forward with the rest of the system.

4 Next slide. Now we've got EGLE's update. Amy?

5 MS. JESSIE HOWARD: Okay. Yes. Next we do
6 have an update from EGLE, but I believe that I missed a
7 couple of people that were with us virtually that wanted
8 to introduce themselves to the RAB that were with the
9 government, either the federal or state government. If
10 you'd like to unmute yourself and introduce the RAB? Go
11 ahead when you're ready.

12 MS. KRYSTAL GURNELL: Hi, everyone. This is
13 Krystal Gurnell from Rep. Bergman's office. Happy to be
14 here.

15 MS. JESSIE HOWARD: Thank you, Krystal. Did we
16 have anyone else with us virtually who'd like to
17 introduce themselves?

18 MR. ARNIE LERICHE: Could you repeat the name
19 --

20 MR. ROGER WALTON: Yeah. This is Roger Walton
21 at the BRAC office, Central Branch Chief. Been there
22 the last few times, but wasn't able to make this, this
23 meeting.

24 MS. JESSIE HOWARD: Anyone else? Okay. Then I
25 will hand it over to Amy with EGLE for her update.

1 MS. AMY HANDLEY: Good evening, everybody. I'm
2 just going to quickly run through some of the recent
3 updates and activities that we have been working on. We
4 can go to the next slide.

5 Okay. As Steve had mentioned, we participated
6 in the August and October which ended up being very end
7 of September BCT meetings. I was also in person for
8 that Alert Aircraft Area IRA meeting last week, and
9 there were other staff that participated virtually and
10 we've been able to kind of talk internally about
11 thoughts on that.

12 Also, thank you for Noblis for coming up and
13 doing that. I know it's a big lift to come up here for
14 one meeting, but I really appreciate you guys putting in
15 the effort to, to participate in that and put that on
16 for us. We received the fourth quarter vapor pin data
17 and indoor data for that immediate sampling work plan
18 related to vapor intrusion and we've been looking over
19 that with our fellows over here at MDHHS.

20 As Steve mentioned, we participated with that
21 data gap investigation meeting in August, and you all
22 have that list now. So if you have any thoughts, please
23 reach out to Steve or even if you want to ask me if we
24 had any involvement, we did. There were a few requests
25 that we had that the Air Force agreed to, to meet that

1 we had. So really good collaboration I think came out
2 of that meeting.

3 We met with NOW on November 8th, and then there
4 is a list of documents that we reviewed or provided back
5 check on over the last couple of months. And then
6 something I wanted to make all of you aware of that I am
7 rather excited about. We brought on a new contractor.
8 We switched from having AECOM as our support contractor
9 to GeoSyntec. And we have three of those staff members
10 here tonight. It's Sam, Rachel and Mike. They're in
11 the row back there. There they are. They're now
12 technical support for us, so helping review documents
13 and give their interpretation on technical aspects of
14 both the vapor intrusion and the PFAS work going
15 forward.

16 We can move to the next slide. Okay. Things
17 that we have coming up. We're going to be continuing to
18 work with the Air Force for the development of that data
19 gap investigation work plan. And then we do expect to
20 have some future discussions with the Air Force on the
21 dispute resolution that was submitted in October. It's
22 still in progress, so we'll have more updates on that in
23 the future. The BCT meetings will resume in 2025, with
24 a -- we're trying to refine the focus, that we can have
25 a little bit more productive meetings and make some

1 decisions within the meetings rather than having to come
2 back later and talk about topics following on. With the
3 new contractors coming on board, they're reviewing a lot
4 of historic evalua- -- or historic information to make
5 evaluations and help us with any future decisions and
6 the projects that are coming up. And then there is a
7 list of additional documents that we are expected to
8 review or have backchecks on between now and end of the
9 year, the early part of next year. And I believe that
10 is it.

11 MS. JESSIE HOWARD: All right. Thank you, Amy.
12 Before we get into the rest of the RAB member updates, I
13 would just like to give a reminder that this is a time
14 for updates only, and please keep your update to three
15 minutes or less. I will begin with the Government RAB
16 members. Tim Cummings, is there an update for Oscoda
17 Township?

18 MR. TIM CUMMINGS: Yes. Hi. So the Air Force
19 generally meets with the township on the Tuesday before
20 this meeting. I was not aware of a meeting taking
21 place, but I would like to turn to Steve Willis to
22 provide the update that took place from that meeting.

23 MR. STEVE WILLIS: Yes. One, one of the things
24 that we talked about was the potential for residents
25 that had paid, paid for the connection to the municipal

1 water system out of their poc-, their own pocket versus
2 the newest funding that the city has gotten paid for
3 that connection and so wasn't -- the, the fee wasn't
4 charged to the owner.

5 And so I'm going to go back and look and see if
6 there is a venue where the Air Force could reimburse
7 the, -burse the families for that. So something that is
8 TBD, but I will look into it and have an update for
9 everyone.

10 MS. JESSIE HOWARD: Thank you. Michael Munson,
11 do we have an update from OWAA?

12 MR. MICHAEL MUNSON: Yes. I'm going to be very
13 short. We received, the airport received this fine
14 document from our folks at EGLE and I'd just like to
15 comment on that for just a quick moment. First I'd like
16 to just put a couple bullet points.

17 Who caused this PFAS contamination? Air Force,
18 everyone agree? Okay.

19 UNIDENTIFIED SPEAKER: Yes.

20 MR. MICHAEL MUNSON: Who's responsible for
21 testing and determining this contamination? Air Force?
22 Okay. Who should pay for the cleanup? Probably Air
23 Force, eh? Who owns property here in Oscoda? Okay.
24 Who thinks that their property has PFAS contamination?
25 If there was contamination found on your property, who

1 should be responsible for identifying it and cleaning it
2 up?

3 ROOM: Air Force.

4 MR. MICHAEL MUNSON: Do I hear Air Force again?
5 What if EGLE demanded that you test for PFAS right now
6 on your property because of this Air Force contamination
7 and pay to have it tested? And when any PFAS is found,
8 you must pay for it to be cleaned up. And, oh, by the
9 way, EGLE is going to fine you unless you do it right
10 now. Does that sound fair? Hands if that sounds fair.
11 That's what this letter is forcing the airport to do.

12 Who knows what deep pockets are? If you can't
13 get the big guy, you go after the next one down the
14 line. Who has an income yearly of \$1.5 million? I only
15 see one hand up. It's the Air Force -- I mean, excuse
16 me, it's the airport. OWAA has a significant financial
17 operation. We operate a large, aviation related
18 business park, 240 acres. Onsite we have more than
19 3,000 workers that work in different companies. We have
20 20 leases to tenants. Some of them have multiple
21 leases. We have over 60 airplanes onsite. We have an
22 operating budget of \$1.5 million that we raise from
23 leases and airport rentals. From that \$1.5 million we
24 maintain a runway, we plow it, we repair it, we paint
25 it, put airport -- we operate airport lightings, we

1 maintain the airport to FAA standards because it's a
2 24/7/365 large GA airport. We maintain the roads that
3 are around it. We maintain 50, we main-, we, we main,
4 maintain 50-year-old rundown hangars with leaky roofs
5 and old heating systems that are on the verge of failing
6 and buildings that need multiple repairs. This costs us
7 \$1.4 million.

8 So you see even though we have a large pocket,
9 we don't have deep pockets. The EGLE letter says the
10 airport must pay for identifying PFAS contamination --
11 the Air Force did -- and clean up this contamination
12 from the storm sewers and do it right now or get fined.
13 Should this not be an, a action item not charged to the
14 airport, but charged to the Air Force?

15 In closing, I'll tell you right now that if
16 EGLE sets this unfair precedent, the airport will have
17 to spend monies that are now earmarked for maintenance
18 which may result in runway closures due to maybe it
19 being unsafe because we don't plow it or we can't repair
20 it, or closing buildings that employ a number of local
21 folks. And remember I just said that this could turn on
22 anybody and maybe more importantly, this precedent may
23 now be, allow them to put leverage against those
24 homeowners and those landowners. So I ask for your
25 help. Should this not be an action item charged to the

1 airport -- or, excuse me, charged to the Air Force?

2 Steve, what do you think?

3 MR. STEVE WILLIS: And so, yes, we are fully
4 aware of the, the not-, notice that you guys got. We've
5 ac- -- we actually had meetings with both the airport
6 staff and with EGLE WRD before the notice was issued.
7 We've had subsequent meetings. Yes, the Air Force fully
8 acknowledges that the PFAS at Wurtsmith is from legacy
9 Air Force operations. And so we're working with your
10 staff and EGLE to try and avoid any kind of fines or
11 fees or any of that type of stuff. The Air Force does
12 have plans to address the PFAS coming out of that ditch,
13 --

14 MR. MICHAEL MUNSON: Good. Thank you. I
15 appreciate that.

16 MR. STEVE WILLIS: -- which is a concern for
17 this notice of violation you received. So, yes, we are
18 fully aware of it. We have been engaged with your staff
19 as well as EGLE and we'll continue to be until we can
20 get a remedy in place and eliminate the problem, so --

21 MR. MICHAEL MUNSON: Thank you, Steve. I have
22 no further comment.

23 MS. JESSIE HOWARD: Thank you. Chelsea, do we
24 have an update from the Michigan Department of Public
25 Health?

1 MS. CHELSEA GARY: Yeah. I don't have too many
2 updates, but I just wanted to let everyone know for the
3 Oscoda Area Exposure Assessment, the last ca- -- the
4 last chance campaign has completed and enrollment for
5 OAEA closed at the end of October. As of November 12th,
6 933 participants had enrolled, 861 adults and 10
7 adolescents have completed appointments. And I also
8 wanted to include a reminder about the Balance Project.
9 It is really important to complete your second survey
10 when it is time. And if you have any questions about
11 the Balance Project, then please let us know.

12 And lastly, for the vapor intrusion
13 investigation, we do not really have any significant
14 updates for this. We recently received the quarter four
15 data and are working on reviewing it. But I did want to
16 include a reminder as I have previously that closure of
17 buildings 43 and 5067 does not appear to be necessary
18 based on the review of the data so far, however, a plume
19 is identified under the buildings.

20 So we do encourage steps to be taken to prevent
21 vapor intrusion into the buildings to reduce exposure
22 and we do encourage anyone with questions about their
23 individual exposure to reach out. And that is all I
24 have.

25 MS. JESSIE HOWARD: Thank you. Jessica

1 Stuntebeck with the U.S. Forest Service, do we have an
2 update from you?

3 MS. JESSICA STUNTEBECK: Hi, everybody. I
4 don't really have much to update on. Just appreciate
5 Steve keeping Ben and I in the loop as they need
6 anything from us on Forest Service property. Thank you.

7 MS. JESSIE HOWARD: Thank you. All right. Mr.
8 Henry, did you have an update for us?

9 MR. MARK HENRY: The Community RAB has had a
10 couple of internal meetings since our last RAB meeting,
11 and many of us attended the, the CPA presentation for
12 the Alert Aircraft Area. Beyond that, not too much.
13 But I would like to say one thing. I would like to say
14 thank you in the most sincere way possible to the Noblis
15 group and also to John Gillespie and the AFCEC folks who
16 were working in the, the CPA process to review and
17 presented last week their findings for the Alert
18 Aircraft Area IRA. I would also like to thank Tony
19 Spaniola for facilitating that, that review and getting
20 them involved in this. I think it was definitely value
21 added to the project. So thank you all.

22 MS. JESSIE HOWARD: Thank you. Dave Carmona,
23 did we have an update?

24 MR. DAVE CARMONA: Yeah. We lost a RAB member
25 since the last meeting, Dave Winn. He's lost faith in

1 the process. He no longer felt safe living in his house
2 on Van Etten Lake, so has sold it and moved elsewhere
3 and this is one of the big issues. This is the
4 insidious creep of perfluoral (sic) contaminants in our
5 community. This is how it starts, the economic damage
6 that will extend over decades until this is cleaned up.
7 The Air Force has been charged to protect us from
8 threats foreign and domestic, and make no mistake this
9 is a war unlike anything the DoD has ever fought before.
10 There are real casualties, people from cancer, metabolic
11 issues showing up where none existed before, forcing
12 communities take up huge debt, protect their citizens
13 and provide them safe water. Based on what the Air
14 Force said last night, that should be their
15 responsibility.

16 If they're willing to take it on, ante up.
17 Reimburse the township, pay for the extension of our
18 water lines where we need them to get people off of
19 their wells. It's pervasive throughout the area. These
20 threatened resources are valuable and beyond belief to
21 the people here. Brenda said it herself. She fell in
22 love with this area. She probably had no idea of the
23 environmental resources we had here, the water, the
24 forest, those types of things and they are under threat,
25 an existential threat. If the Air Force does not act to

1 correct this, this town will die on the vine slowly but
2 surely. As people move out of the area, property values
3 are going to go down, employers are going to move out of
4 the area, the airport will go bankrupt and be forced
5 into acting as a small GA airport. It wouldn't have
6 Kalitta and the supporting industries here. This is
7 important to us. I cannot state loud enough how
8 important this is to our community that the Air Force
9 step up to the plate and swing for the walls instead of
10 obfuscating and sloppy work as we've seen over the past
11 two years that I've been involved.

12 So, please, take your responsibility seriously.
13 We are a community in dire straits here. Thank you.

14 MS. JESSIE HOWARD: Thank you. Bill Gaines,
15 did you have an update for us?

16 MR. BILL GAINES: I just took the PFAS exposure
17 assessment survey today. And as I took it, I realized
18 that I no longer eat local fish, I no longer eat deer
19 from Clark's Marsh. Both of those I did before I knew
20 about PFAS. You know, that's a personal impact. And I
21 can easily economically afford to do something else.
22 Many other people in our community cannot.

23 MS. JESSIE HOWARD: Thank you. Arnie, did you
24 have an update?

25 MR. ARNIE LERICHE: Yes. I really appreciate

1 the, the reorganization and bringing the BRAC, Air Force
2 BRAC, into the same engineering directorate that handle
3 the active National Guard and Reserves. This is very
4 important. I think BRAC had to answer to too many
5 different people and priorities and it wasn't fair to
6 them, and it definitely was not fair to us. When I
7 handed the draft letter to Tim, our trustee and to Aaron
8 Weed (phonetic), also a trustee in 2016 in the summer to
9 request the township send a letter to the Air Force
10 establishing or reestablishing the RAB, the last one
11 ended in 2005, it was all legacy pollutants.

12 Now we have a different animal. So I briefed
13 them, they supported it, all the trustees signed it, and
14 it went into effect and then in July we had our first
15 orientation. I'm hoping, no, I'm, I'm pretty confident
16 working in the active Army and, and, and with the DoD
17 that this team is going to succeed and we're going to
18 have a much more direct answer and leadership chain of
19 command to deal with for budget purposes when we go to
20 our congressionals and so forth. I think that's going
21 to happen. And so this is a win for us. I want to make
22 sure that that team has an opportunity to hear. We've
23 heard some of the individual thoughts of what the effect
24 has been in the past, people moving away, people not
25 eating the fish or, and so forth.

1 There's, there's more. And this is a special
2 area that the investigations have not really captured
3 and some of that's been recognized by some of the, the
4 Noblis people on the technical side, but also I think on
5 the risk assessment side. We're not happy that they're
6 using so many statewide sampling and calculations for,
7 for risk rather than getting the proper samples here.

8 So I want to suggest as an action item that
9 your team, Mr. Johnson, think about the possibility
10 having an orientation of what the RAB is, what you're
11 handling and, and best practices maybe from some of your
12 sites over the years that have RABs. I think you've
13 told me you've got about 80 or so that --

14 MR. KENNY JOHNSON: 80 RABs, 190 PFAS sites.

15 MR. ARNIE LERICHE: Okay. So, so that's
16 significant. There are only nine BRAC Air Force RABs
17 right now. There were ten. So we want to understand
18 how you communicated with the community, how the RAB was
19 effective or mistakes they may have made. We don't have
20 the time or luxury to make any mistakes from now on.
21 That's the Air Force, EGGLE, any agency that's at this
22 table up front, nor the community. We've got to take
23 our great ideas, best practices and make sure that those
24 are used if at all possible in all of the decision
25 making, but also the communication is such that you feel

1 the same things that we're feeling because that's the
2 only way I think you're going to understand how special
3 this area is. Beyond the technical side, but it will
4 affect the technical decisions I'll guarantee you. The
5 -- that's why we've been 14 plus years doing, getting to
6 an RI and it's been delayed purposely. This is a
7 difficult site. It's the third on the DoD list for cost
8 from last year to finish that was reported to the
9 Congress last ye- -- last spring at \$267 million.

10 Okay. BRAC said we were number two on their
11 list, but I don't think we felt it in the end. So not a
12 gripe. We appreciate it. Some of the people, most of
13 the people that worked on, their contractors, but I
14 think we've got to start fresh bringing in your way of
15 managing the site with your experts and the RABs also.
16 So I want to put that down as a possibility of thinking
17 about some -- slipping in some kind of an orientation so
18 we're caught up on your policies and internal with your
19 bosses. Thank you.

20 MS. JESSIE HOWARD: Thank you, Arnie. Scott
21 Lingo, do we have an, an update from you? You can
22 unmute yourself and address the RAB whenever you're
23 ready. No update from Scott. Greg Schulz, an update
24 for us?

25 MR. GREG SCHULZ: I have nothing.

1 MS. JESSIE HOWARD: Josh Sutton?

2 MR. JOSH SUTTON: No update.

3 MS. JESSIE HOWARD: Rex Vaughn is not with us.
4 And, Cathy, do you have an update for us this evening?

5 MS. CATHY WUSTERBARTH: I do. Yes. I have a
6 few comments and questions. I'd also like to thank the
7 Noblis and CPA team for coming here. The, the technical
8 review that we had last week was awesome. They, they
9 spent as much time as we asked them to stay here, longer
10 than they had expected, and we had lots of questions and
11 were very satisfied with the answers and with the
12 presentation and their work. So we are very, very
13 grateful to have that, that look at our site and it's a,
14 it's a ray of hope really for us. And I'd like to also
15 thank Tony Spaniola for spearheading that effort to get
16 the independent review of that Alert Aircraft Area.

17 It was not something that was easily done. We
18 saw some concerns about our input not being considered
19 in the Alert Aircraft Area IRA, and so that, that was
20 the solution and it, it took some effort to do that and
21 I really appreciate Tony spearheading that, so thank
22 you.

23 I'd like to ask about some of that transparency
24 that you had talked about, Brenda, in terms of time
25 frames and expectations for this transition that you

1 talked about. I'd like to see some things in writing in
2 terms of maybe some e-mails to the RAB, just, just what,
3 what can we expect and who, who we can contact. Really
4 time frames are going to be really important for us
5 because like Arnie said, we're, you know, time is
6 running out for us.

7 And speaking of time, I'd like to -- maybe I'd
8 like to do this at every RAB actually. I found a little
9 time keeper online and I, our RAB started -- August 2nd
10 of 2017, was our first orientation. And that was seven
11 years ago, 87 months ago, 380 weeks ago, and 266 -- no,
12 2,666 days ago. So we've been at this for a very long
13 time. And I, I commend Arnie for starting the process
14 and for really sticking with it. And Mark has been a
15 very valuable co-chair and we're glad to have Steve
16 here, but we're also glad to have that, that Noblis team
17 helping him out because as you've heard me say, I really
18 think that you needed some help and you were looking for
19 it and I, I'm hoping this is the answer to that.

20 MR. STEVE WILLIS: Yep.

21 MS. CATHY WUSTERBARTH: So one thing I'd like,
22 Steve, for you to do is tell the audience about our tour
23 yesterday with the foam fractionation and the
24 annihilator technology. It was really fascinating and I
25 think -- it's not in our agenda, but if you could just

1 address that at some point and tell everyone what, what
2 we did?

3 MR. STEVE WILLIS: Yeah. When we get to the
4 RAB business, I'll say a few words about it.

5 MS. CATHY WUSTERBARTH: Okay. Great. Thank
6 you.

7 MR. STEVE WILLIS: Let's go ahead and finish.

8 MS. CATHY WUSTERBARTH: Thank you.

9 MS. JESSIE HOWARD: Okay. Perfect. Next up is
10 the RAB business update.

11 MS. WENDI MICHAEL: Jessica, we did have one
12 RAB member online --

13 MS. JESSIE HOWARD: Oh, okay. You can go ahead
14 and address the RAB whenever you're ready. Just
15 remember to say your name for us.

16 MS. WENDI MICHAEL: Go ahead.

17 MS. JESSIE HOWARD: Go ahead. Are you able to
18 unmute yourself and address the RAB or should we move
19 on?

20 MS. WENDI MICHAEL: Go ahead.

21 (RAB Business Update at 5:47 p.m.)

22 MR. STEVE WILLIS: Okay. So moving on to RAB
23 Business. Before I jump into the slide, I'll just give
24 you a quick summary of our, our tour yesterday. I've
25 been telling the RAB about this project for probably a

1 year now. It was not an Air Force sponsored project.
2 It's a DoD/EPA/Department of Energy program to take
3 technologies from the lab and actually demonstrate them
4 in the field as the next step to actually implementing
5 them full scale on sites for remediation. And so this
6 was a, a joint venture between Allonnia who has a foam
7 fractionation system, and Revive who has a PFAS
8 destruction system.

9 And so Allonnia has been out here for probably
10 about six weeks now. They were set up next to the well
11 control building which is a building along Perimeter
12 Road near the museum that we put in for the Van Etten
13 Lake and Ken Ratliff Memorial Park IRA.

14 And so they have been diverting water from our
15 treatment system into their system using their
16 technology to, to generate a foam with high
17 concentration of PFAS in it, and then they're putting
18 that in drums and they're taking it to the Revive unit
19 and that unit uses super critical water oxidation to
20 actually destroy the PFAS. Once they've run it through
21 that system, they're actually taking it back and running
22 it through the foam fractionation again just to make
23 sure that all the PFAS is removed.

24 Again, this was a demonstration project for the
25 technology, but I think it was valuable for all of us

1 here have firsthand experience with this technology at
2 Wurtsmith, know whether it works, whether there's any
3 kinks or special considerations that we need to look at,
4 to implement that full scale at Wurtsmith. So I thought
5 it was valuable. I figured the community would have
6 interest in it. Even though this is not a, an IRA as
7 such, it's more of a pilot study demonstration project,
8 but I thought it would be of interest to everyone and so
9 I was glad people could come out yesterday. Weather
10 wasn't great, but we still had a good turnout.

11 MR. MARK HENRY: A fun fact related to that.
12 The demonstration showed that their technology could
13 either remove 99 or 100 percent of the PFAS for the
14 compounds they were looking at. So it seems to be very
15 effective, at least on the small scale. We'll see how
16 it is when they upscale it.

17 MR. STEVE WILLIS: Yep. So we'll continue to
18 monitor that technology as well as others. If there's
19 any other opportunities to bring technology
20 demonstrations here to Wurt-, to Wurstmith, I'll look
21 for those and see what we can do.

22 (Off the record interruption)

23 MS. JESSIE HOWARD: I think, Wendi, somebody
24 virtually has unmuted themselves.

25 MR. STEVE WILLIS: All right. So back, back to

1 the slides for -- first slide for RAB business. It's
2 just a summary of the action items. We had our last
3 action item meeting on the 18th of September. I've
4 proposed the 11th of December, as we've previously
5 agreed to 30 days after a RAB meeting we'll have the
6 action item meeting. That does put us on 11 December.
7 So if, if the RAB members prefer to do it earlier, if
8 that's pushing the holidays too much, just let me know
9 as soon as possible and, and I'll get out the
10 invite for that meeting. Since that last meeting we
11 opened 11 action items, we closed five, and we've got 40
12 that are ongoing.

13 Next slide. I know there's been some
14 discussion of having a third party. The EPA is not
15 involved with Wurtsmith. But having a third party
16 independent team to help facilitate the RAB's
17 understanding of documents, provide a different or an
18 additional perspective on some of the actions the Air
19 Force is taking at sites.

20 And so there is a DoD program. It's the
21 Technical Assistance for Public Participation. And this
22 program allows RABs to submit an application, the Air
23 Force will hire a consultant to work with the RAB and as
24 part of the application process you actually identify
25 exactly the type of support you're looking for. Do you

1 want training. Do you want help with reviewing
2 documents? Let's see, what else. Help with
3 understanding risk assessments but you just outline what
4 your needs are. That is in turn taken with our Air
5 Force contracting and they'll competitively award a
6 contract to work with you guys.

7 Mark and I talked about this briefly and he
8 asked do you have the ability to provide input on who
9 the contractor is to make sure it's somebody that is
10 familiar with, with Michigan, the local area's even
11 better, but at least Michigan knowledge? And, yes, you
12 do have the ability to identify contractors. They will
13 be added to the bidder's list and that selection
14 process. So there's a -- at the end of the slide deck
15 in the back, there's about 19 slides. It's too much to
16 go through in the meeting. But if it is something
17 you're interested in, there is a link here on this slide
18 and then the backup there. And if you want to pursue
19 that, let me know and I'll work with you guys to help
20 fill out the application.

21 It, it's, it's not a simple process. Mark,
22 Mark said that I guess you guys have looked at it in the
23 past. But it is an avenue that's out there that's
24 available if you want to pursue that.

25 So next slide. So here we've got a couple of

1 presen- -- come on up, John. We've got a couple of
2 presentations on the Alert Aircraft Area IRA. The first
3 one is sort of a recap of the meeting last week, and
4 then the second set of slides would just be an update on
5 the construction. Go ahead, John.

6 (Alert Aircraft Area IRA at 5:53 p.m.)

7 MR. JOHN GILLESPIE: Thank you very much. My
8 name is John Gillespie and I'm a civil servant with the
9 Air Force, and with me is Dr. Mark Stapleton. He works
10 for Noblis. And we work together as a team with more
11 than just us two, of course, right. And so Mark's --
12 last, last week we had almost 40 slides and we went
13 through it with a lot of questions and it took about
14 three hours. So I just picked a few slides out tonight
15 just to try to give you a general idea of what, what we
16 tried to do. And so Mark's going to start. But I think
17 the key point here is, is if you have a question beyond
18 really what, what I show up here, I have all the slides
19 that we talked about and I will more than happy go to
20 the back with you if you have time or af-, after the
21 meeting tonight to go through any, the whole slide deck
22 if you want to. So thank you. Mark?

23 DR. MARK STAPLETON: Good evening. Next slide,
24 please. As John indicated, last week we went over quite
25 a number of technical issues with members of the RAB in

1 the community. And what we're going to do tonight is
2 just a, a high level takeaway. This is the 10,000 foot.
3 And the real gorilla in the room right now is the status
4 of the AAA site.

5 Based on our review, the multiple lines of
6 evidence, we're of the opinion that the construction and
7 operation of the IRA pump and treat system should
8 proceed forward as planned. Like I said, last week we
9 did go over quite a bit of information. We detailed,
10 went into detail about how we arrived at those multiple
11 lines of evidence.

12 Secondly, once the system is actually up and
13 operating, additional performance monitoring data will
14 be collected to determine the overall effectiveness of
15 that particular treatment system. The idea is to arrest
16 the contamination as it's crossing or before it crosses
17 County Road 41, and we'll do that by doing some
18 additional field studies and collecting the performance
19 data once the system is actually in operation.

20 And as John indicated, we, we presented this
21 last week to the members of the RAB. So the way we're
22 going to proceed now is we're going to do a bit of a tag
23 team here and I'm going to turn this, turn the
24 presentation back over to John for the Intermed-, for
25 some of the additional slides and then I'll be back

1 later.

2 MR. JOHN GILLESPIE: Thank you, Mark.

3 DR. MARK STAPLETON: Uh-huh.

4 MR. JOHN GILLESPIE: Next slide, please. So,
5 so when asked to review this, is the first thing we look
6 at is the dirty spot, right, because what my senior
7 leaders are going to ask me if I'm asking for funding
8 for one of these interim remedies is they're going to
9 say, "Well, John, what are you cleaning up, and show me
10 the dirty spot." So this, this is -- you're probably
11 familiar with this. We, we put a purple box around the
12 area that we wanted to do the review at. This is called
13 the Alert Aircraft Area. Right?

14 So we put a box around it and that's that
15 purple line. And so when we look at it, you, you notice
16 the, the dirty spots are in a, in, in yellows or greens,
17 but, but we really need to understand when we look at
18 this, we have to do three things. We have to throw our
19 potentiometric surface on it and that's our groundwater
20 flow. So we, we, we did that. And then we, we look at
21 all of the analytical data over time to find out where
22 the, where the, where the hits were of, of PFAS in the
23 subsurface, the different levels, and, and we had
24 slides, the 40 slideshow goes through this. And then we
25 look at where do I have geologic sections through this?

1 In other words, taking a slice through those dirty
2 areas.

3 And so I'm going to show you what we come up
4 with. And, and this is the, the, the takeaway thing is
5 I'm, what I'm trying to show you and, and my leadership
6 is where is the dirty spot in the subsurface and where
7 is it going? Next slide, please.

8 So this is throwing the water table on it. And
9 so one thing we always look at, you can see these dirty
10 spots like this right here, I call it the peanut dirty
11 spot, is going kind of oblique to groundwater so that
12 always throws up a red flag.

13 The next thing down here, as you see this
14 thing, looks like a salmon or salamander. So what,
15 what's going on there? That's a, that's a rhetorical
16 question right now. And then we've got a little bump in
17 the water table here. Right? So those are three
18 questions that we wanted to ask ourselves to get answers
19 to as we went through this and we did. So next slide,
20 please.

21 So we had geologic sections developed. We had
22 I think four or five geologic sections. We, we take
23 these slices through the subsurface and then we plot, we
24 plot the concentrations on here. So this slice that
25 you're looking at here is over here. We call it Y-Y'.

1 This is a brand new section that we did for this study
2 and we go right through the integrated maintenance
3 building there and we go right out to Lake Van Etten.
4 You're viewing -- the big slice over here is that purple
5 arrow. So you're looking at it and you're looking
6 north, kind of northwest there towards it. Right? So
7 now I want to take you through the slice.

8 Yes, sir?

9 MR. MARK HENRY: Just to explain to the
10 audience, this slice is a vertical slice of the
11 groundwater.

12 MR. JOHN GILLESPIE: Yes, sir. Absolutely,
13 Mark. And then our water table are these triangles
14 right here. So we see the water, we see that water
15 table surface sloping towards and moving which, which
16 indicates the groundwater is moving towards Van Etten
17 Lake, we all knew that, right? But where was the dirty
18 spot? Right? So we, we take the analytical information
19 we had and right there is the source.

20 That's where we had the, the big release at the
21 integrated maintenance area, and then through, through
22 other well borings -- and we, they call it VAS sampling
23 up here and also installing monitoring wells -- we, we,
24 we detect -- and, Mark, I think I just ran out of your
25 battery, buddy.

1 MR. MARK HENRY: I got another one.

2 MR. JOHN GILLESPIE: So if I can talk loud
3 enough, I'll point to it. But I'll use the human
4 pointer, right, Mark?

5 MR. MARK HENRY: Pardon me?

6 MR. JOHN GILLESPIE: I'll use the human
7 pointer.

8 MR. MARK HENRY: Oh, okay.

9 MR. JOHN GILLESPIE: So the important thing
10 here is, is --

11 MS. CATHY WUSTERBARTH: You have to speak into
12 the microphone.

13 MR. JOHN GILLESPIE: Oh, okay. I will, Cathy.
14 Oh, thank you. Thank you very much. So, so, so the
15 important, the important thing here is, is, is -- and I
16 use the analogy of when I was a kid, I didn't play video
17 games. I'm too old. Right? Is we had to build
18 puzzles. And so what I have to do is do I have enough
19 pieces of the puzzle where I can tell what's going on in
20 the subsurface? And did here along the southern --
21 thank you, sir. We, we, we did right here along the
22 southern part of the Alert Aircraft Area, and so that's
23 why Mark was telling you this thing is a go.

24 But let me explain this gap in here. So this
25 plume is a continuous plume. We, we don't have data

1 right here, but I would bet a paycheck that this thing's
2 continuous, all the way out to, to, to Van Etten Lake.
3 And what's interesting about this plume -- oh, and by
4 the way, here -- I'll show you the next slice where,
5 where they're putting a lot of wells in. But what's
6 interesting about this plume, if you look at, at the
7 PFAS, its relation to surface, it comes down and it
8 really seems to be moving along the 570, the 580
9 altitude above sea level contour.

10 And when we, we go back and we look at the
11 plume at the Ken Ratliff Park area, and that's a much
12 stronger plume, but it's also traveling towards Van
13 Etten Lake around that same, excuse me, that same
14 altitude. And so, so the idea here is it's moving
15 along, moving along this transect right here. And now
16 next slide, please.

17 Now as, as Mark Henry said, we do another slice
18 and we call this ZC prime, and that's right along where
19 the extraction wells are, they're already in the ground.
20 And these are the extraction wells right here. And you
21 can see we have, we've got the hotspot and this is over
22 a thou- -- it's really around 2,000, 2 to 3,000 in this
23 orange. Two to 3,000 parts per trillion. If I look at
24 this area that I'm capturing, though, here's the 70.
25 It's a smaller footprint right here. But this, this

1 whole shaded area is four and above. So this system
2 probably a little over designed for the goal which was
3 to capture a high concentration area. So what this
4 system is doing, it's capturing not only the high
5 concentration area, but it's capturing a lot of the four
6 and above. So, so that, so that was good.

7 Now that's just this part of the Alert Craft
8 Area. Right? So we went -- oh, and one thing that Mark
9 brings up, too, about these geologic sections. You'll
10 notice that I got 2,000 feet on the bottom and I don't
11 even have 200 feet in the vertical sense. The reason
12 for that is, is if I use the one-to-one ratio and showed
13 you this section, the section would be this big and
14 you'd never be able to see it. So we have to greatly
15 exaggerate these sections so you can see the dirty spots
16 and what we're cleaning up. And that's really important
17 when you go through, through, through this.

18 Next slide, please. This was the fun part to
19 work with, though, as far as hydrogeology goes. So we,
20 we -- these are not hits. These are, these are
21 potential well locations to try to figure this out. So
22 the purple, the purple spot here, let's call it the
23 purple plume, that's your integrated maintenance area
24 and that is the defined plume that we had enough pieces
25 of the puzzle for to put together to say, hey, we got

1 this, we're capturing that strong area right there,
2 right, going right, right through there right out to
3 Lake Van Etten. But how about the rest of the Aircraft
4 Alert Area?

5 So we looked at all the data out there. We got
6 a hit back here of a couple 1,000 or better, then we
7 had, we had, we had some hits along here, and then out
8 here we had a hit. And so we're saying to Steve -- we
9 worked with Steve and Paula and the Noblis team on this.
10 So I, I have another potential plume from the weapon
11 storage area in the Alert Craft Apron, and working with
12 Steve and team, how do we go around and investigate
13 that. Right? What are we going to do.

14 And so we, we had the team and we, we put areas
15 where we need information to put that puzzle together to
16 say, hey, I got another plume out here. It's not as
17 strong as the integrated maintenance area plume, but we
18 need to do additional work. So that, that, that plume I
19 called the peanut plume, is really two, potential two
20 plumes. There is another area that is of concern, right
21 here off, right off the Alert Aircraft Apron, and it
22 looks like it goes off this way and it makes a bend.
23 And you do have, when I put all the hits on a map, you
24 do have some hit. It's out there near Lake Van Etten
25 Lake.

1 And so when you add these pieces together, you
2 can go ahead and Sherlock Holmes really, the rest of
3 these plumes in this area, this area right here is from
4 water that was being inputted from the engineer's
5 wetland. It's all low level stuff, but it's like around
6 between four and maybe 40 parts per trillion. So
7 nothing like the, the high level hits here, nothing like
8 the, the, the hits here, or even, even the hits out
9 here.

10 So we recommend to Steve and team, hey, we need
11 to do a lot more -- we need to do, do a lot more work
12 there. Now, you, you might want to -- can you go back
13 one slide, please? And one more slide.

14 The thing about chasing these plumes out here,
15 and the reason I bring up the Ken Ratliff plume area and
16 this plume area is we have wells out here that they seem
17 to be a little too shallow or too deep and that's why
18 it's so important to know where these plume -- where
19 their strength area. Right? Because if I come out here
20 and I drill and I get a 115, I'm saying, well, you know,
21 there's not much there. I'm trying to find a 3,000, you
22 know, or a 1,000.

23 And so I'm just hitting the top of this thing.
24 Right? Or I'm getting down here and I have, you know,
25 like, 30 or something like that. I'm, I'm too, I'm too

1 deep. So in order to clean these plumes up, I kind of
2 really got to know what, what is that altitude I'm going
3 for? So, again, any questions or anything I'll show you
4 the whole slide show. You know, this was just the,
5 really, the brief version of.

6 Mark.

7 DR. MARK STAPLETON: Thank you, John. And the
8 next slide, please. Actually, it's the final Takeaways.
9 You're good. So the major takeaways from our study is
10 that the interim remedy at the AAA site will reduce PFAS
11 as it's migrating across Former 41. We will have a
12 reduction. The proposed extraction well layout will
13 capture PFAS mass emanating from the integrated
14 maintenance facility. To what degree of that, that
15 capture is going to be we won't know until we actually
16 physically turn the system on, collect those -- collect
17 that operational data, and then we'll have a much better
18 idea of the degree of capture for this particular site
19 and that's just, again, that's just a first step.

20 Once we get that operational data, we start
21 getting the performance monitoring data, capture zone
22 analysis and additional field efforts, we'll provide
23 that critical data for us to demonstrate the
24 effectiveness and operation and then operation of this
25 system and then ultimately optimize it, possibly

1 bringing in some of those other investigations.

2 But the, the very encouraging thing here is
3 that the treatment system as currently designed is only
4 operating about 20 percent of its total maximum capacity
5 for the treatment facility that's been designed. So we
6 have plenty of room to expand. That's why we're
7 supporting this. That it's time to get this in the
8 field, get it up and running, the environment and start
9 making a positive step. It's a good first step.

10 MR. JOHN GILLESPIE: Any, any questions,
11 please?

12 MR. BILL GAINES: Sure.

13 MR. JOHN GILLESPIE: Yes, sir, Bill. Mr.
14 Gaines?

15 MR. BILL GAINES: Would you say your analysis
16 really highlights some data gaps and places where
17 investigation in the proper place could shed a better on
18 where, where cleanup should really go ahead and, and --
19 I mean, this really would point me to where I ought to
20 be putting in wells pretty quick.

21 MR. JOHN GILLESPIE: Go ahead, Mark.

22 DR. MARK STAPLETON: Can you do that?

23 MR. JOHN GILLESPIE: Oh, yeah. Yes, sir. Mr.
24 Gaines, you're absolutely right. It's -- this is -- you
25 know, I, I, I hate to use the term "prospecting," right,

1 but this is like being a prospector. You know, where am
2 I going to chase that gold vein? Right? Where am I
3 going to chase those diamonds back to the source?
4 Unfortunately, this is chasing contamination where we
5 know it's going to be. And then once, once we know the,
6 the strong source area -- and I, I -- now usually source
7 area we talk about, like, the integrated maintenance
8 facility moving out. But I'm talking about, you know,
9 the whole plume in this case moving out towards Van
10 Etten Lake, right? Because in the future, right, so
11 right now we're stopping the contamination steam to
12 steam. They're stopping that contamination, this, this
13 high strength areas moving in to Van Etten Lake.

14 But what's the next step? It's probably going
15 after the source areas and maybe even mid-plume areas.
16 Like when you looked at the integrated maintenance area
17 plume, it starts out at 42,000 parts per trillion. That
18 mid-point -- and we had slides to show this, but we
19 didn't show it tonight -- I got about maybe 9,- to
20 10,000 part, parts per trillion. But by, by the time
21 I'm out there near F-41, I'm down between 2,- and 3,000
22 parts per trillion. Right? And this thing has been in
23 the -- this thing has been in the ground for 50 years,
24 you know, or maybe 40 years. So these things don't --
25 aren't dissipating very fast. And you see the same

1 thing at the Ken Ratliff plume. So, you know, this --
2 Bill, to your point, we need to prospect and then go
3 back then and start addressing some of these source
4 areas. Yes, sir? Arnie?

5 MR. ARNIE LERICHE: You been -- you can bring
6 back the slide that shows -- the last, the real colorful
7 one with the --

8 MR. JOHN GILLESPIE: All the plumes?

9 MR. ARNIE LERICHE: Yeah. There you go. Right
10 there. So you mentioned that blob on a previous
11 cross-section, I think it was Y-Y, that there is a blob.
12 The legend is greater than a thousand?

13 MR. JOHN GILLESPIE: Yes, sir.

14 MR. ARNIE LERICHE: Okay. We've been dealing
15 for years with 1 to 10,000 type colorations of the
16 plumes. Well, that doesn't cut it. But we finally, the
17 BRAC listened to us and heard us, so now there's, like,
18 maximum dots on those maps. So you've talked about some
19 hit areas into Van Etten Lake off that peanut plume that
20 goes north of Pierce Point. Can you put some of those
21 data in there and then that blob also that you said 2,-
22 to 3,000 is in there so that it, the sampling locations
23 for monitoring the effectiveness of the system once it's
24 put in are already identified? Because I'm not aware of
25 the Air Force ever taking any samples out there in the

1 lake or the sediment or a spring out there, and so
2 that's one thing. But you're going to have to come up
3 with a long-term monitoring plan eventually.

4 MR. JOHN GILLESPIE: Yes, sir.

5 MR. ARNIE LERICHE: So why wait? Let's do the
6 screening now so we can identify those locations and the
7 maximum.

8 MR. JOHN GILLESPIE: Yeah.

9 MR. ARNIE LERICHE: That's point one. And
10 point two, I'm just going to say, we've been asking --
11 Mark and I have been asking for almost three years now
12 for a max flux analysis of these plumes. It's what
13 Peterson based their RI on is max flux. Here all we've
14 seen is cross sections and so forth. So --

15 MR. JOHN GILLESPIE: Yeah. I'll, I'll let Mark
16 explain that because that's part of the -- that was the,
17 the recommendations -- I'm sorry, Mark. Go ahead,
18 buddy.

19 DR. MARK STAPLETON: No, you're doing fine.

20 MR. JOHN GILLESPIE: So that was the
21 recommendation really is, is once we get this system up
22 and running, how do, how do we optimize this system to
23 make it -- it, it's going to be effective, but how do we
24 make it more efficient? And then to your other point
25 which you started out with, Arnie, is how do we know

1 we're doing good downstream. Right? And, and, and we
2 did have all -- so this is what this beautiful picture
3 is right here. You know, that's all the data. It goes
4 out towards, out towards Van Etten Lake, right, and, and
5 we want to make sure, we want to make sure -- that's,
6 that's where the prospecting the plume, where is it
7 moving. So I can put, you know -- what do they call it?
8 -- points of --

9 MR. MARK HENRY: Interest?

10 MR. JOHN GILLESPIE: -- no, not points of
11 interest, but --

12 MR. MARK HENRY: Compliance.

13 MR. JOHN GILLESPIE: -- points of compliance,
14 right. So I know where my points of compliance are.
15 Right? Now, that might take me a couple few years to
16 see any kind of change. But we have to, we have to do
17 that, right, and eventually we will do that. I, I, I, I
18 believe that. We, we always do that. Right? But, but
19 it goes to the efficiency of the system, too. Right,
20 Mark? And that's what your job is as a remediation
21 engineer.

22 MR. ARNIE LERICHE: But it's got to start in
23 the spring. It's going to start operation in the
24 spring; right?

25 MR. JOHN GILLESPIE: Yes, sir.

1 MR. ARNIE LERICHE: So why not this spring and
2 summer go out there and do that now, not wait another
3 year?

4 MR. JOHN GILLESPIE: You mean to, to, to do the
5 analysis on the well at the end of these things?

6 UNIDENTIFIED SPEAKER: Yeah.

7 MR. ARNIE LERICHE: Yeah. Because then you'll
8 have a year and a half worth of data if you do some of
9 this, set up a few of those, sample, locate where you
10 want to sample in a bigger field.

11 MR. JOHN GILLESPIE: Correct.

12 DR. MARK STAPLETON: One of the, one of the
13 things that the work plan has already laid out is a much
14 more robust monitoring well network not only down
15 gradient, but up gradient as well. And the way we turn
16 these systems on is you do a baseline sampling event so
17 that you can start comparing with that baseline how this
18 system is operating.

19 Back to your other point about mass flux is a
20 transect that we can put there along those extraction
21 wells around the highest density of where the
22 contamination is which would be around those extraction
23 wells. We do a transect, we can calculate that which is
24 flowing in, and then down gradient calculate the flow
25 that's going out. The difference is the overall

1 efficiency. So, yes, that -- this is part of the
2 capture zone analysis we will be doing. Yes, sir?

3 MR. JOHN GILLESPIE: Sir?

4 MR. MICHAEL MUNSON: And I got, I got two
5 questions. Being a pilot I know that airport elevation
6 here is 634 feet.

7 MR. JOHN GILLESPIE: Yes, sir.

8 MR. MICHAEL MUNSON: Go back two screens real
9 quick for me. Go back two screens. That one right
10 there. That looks like that plume is this big. But if
11 I look at the MSL values you have there, 608, and at the
12 very bottom it's 602 so you're talking six feet. You're
13 talking six feet.

14 MR. JOHN GILLESPIE: Part of the strength of
15 that plume -- and, and, again, you know, we need some
16 wiggle room here, sir. Right? But this -- but when you
17 look into that plume, you're absolutely right. It's no
18 --

19 MR. MICHAEL MUNSON: It's very thin; very thin.

20 MR. JOHN GILLESPIE: -- it's, it's -- and
21 that's where, you know, that's where the optimization
22 down the road of systems come in. In other words, am I
23 pumping clean water?

24 MR. MICHAEL MUNSON: Okay. Let me ask one
25 question.

1 MR. JOHN GILLESPIE: Yes, sir.

2 MR. MICHAEL MUNSON: The wells, they go down,
3 and where do they take their, their pumping from? The
4 very bottom? Or are there holes all down the well?

5 MR. JOHN GILLESPIE: Their, their -- you mean
6 where the extraction well is screened?

7 DR. MARK STAPLETON: The extraction well
8 screens are fully penetrating all the way down to the
9 basal play.

10 MR. MICHAEL MUNSON: So, so if I have a well
11 that's this long, the whole well is sucking water?

12 DR. MARK STAPLETON: That's correct. It's
13 called a slot 20 well.

14 MR. MICHAEL MUNSON: So in that case, that
15 little six-foot window is, is going to get captured?

16 DR. MARK STAPLETON: Yes, sir.

17 MR. MICHAEL MUNSON: Okay.

18 MR. JOHN GILLESPIE: Yeah. But, but, but
19 again, what the team has done out here is very good.
20 Mid-plume here, the best thing that we have -- see, they
21 did, it's called vertical lot for sampling profile.
22 They were going every few feet and taking a sample. And
23 then working with, with our, with our able colleagues
24 they like monitoring well which is a good idea because
25 sometimes the VAS can throw you off. So, so then we put

1 a monitoring well in here. And so really -- see, the
2 monitoring well matches up the VAS, but we missed it, we
3 missed it in the deep and the shallow monitoring well.
4 Right? So that's what I'm saying, you've got to
5 prospect this thing and hit it just, you know, within
6 that six feet if you want -- if that's what it is. Yes,
7 sir. Any, any other ques- -- sir? Dave?

8 MR. DAVE CARMONA: Yeah. John, use your own
9 words here. It's been in the ground 50 years. It's
10 persistent and it's moving slowly or quickly depending
11 upon which geologic time frame you use. What happens
12 down gradient beyond the wells? For example, that
13 peanut is outside the fence. It's beyond the wells.
14 That is going to drain for decades into Van Etten. How
15 are you going to address that? And nobody has been able
16 to give us any kind of answer about that. There is a
17 whole lot of pollution outside the fence.

18 MR. JOHN GILLESPIE: So, so one, one of the
19 ways -- and this would be down the road, right, and I
20 -- and this is part of the technical working group that
21 Ms. Rush just talked about. Is one of the ways you
22 might want to do that to accelerate the flushing of that
23 area between where high strength plumes and where we're
24 going to put a system in, right, is to abso- -- is, is
25 to inject the clean water that we clean up in those

1 areas and that should, Mark Stapleton, right -- Mark's
2 our remediation engineer, right, and, and, and so I, I,
3 I defer to him on a lot of questions like that -- but
4 that should accelerate that cleanup on that, that down,
5 that, you know, the down side of --

6 MR. DAVE CARMONA: Okay. So, so follow-up
7 question to that.

8 MR. JOHN GILLESPIE: Yeah.

9 MR. DAVE CARMONA: The technology is available.
10 Why are you not using horizontal boring and screening
11 methods? You could drive right into that peanut from
12 the current system and draw that water down at different
13 levels.

14 MR. JOHN GILLESPIE: Yeah. I'd have to look at
15 that. And it goes to my analogy, Dave, that if I'm
16 putting a puzzle together, I don't have enough puzzle
17 pieces yet. So we are doing that with the horizontal
18 wells. That's what's proposed for the wastewater
19 treatment area on the Au Sable side. Right? So we have
20 thought of that. But, again, I need the pieces of the
21 puzzle so I can talk to my leadership and say sir or
22 ma'am, we have enough pieces here then to do that kind
23 of work. But I, but I need some more information on
24 there, Dave. You know, here was enough. On the
25 integrated maintenance plume I had enough. You can see

1 it's not a complete picture. Right? But, but I was --
2 we were able to put that together as a team: Steve,
3 Aerostar and us when we got together for three days
4 everything was great. It was a great experience to get
5 together and say, hey, you know, in a meeting of the
6 minds and then, and then finishing up with that, the
7 colored plume slide. Right? These are potential
8 plumes. Right? So I got to know those dirty areas and
9 I got to look better where those wells were screened at
10 where the samples were taken. Right? So that, that
11 work is yet to be done, Dave. Good question.

12 I got somebody in the audience there. Mr.
13 Spaniola.

14 MR. TONY SPANIOLA: Okay. Do you want to --
15 the mic?

16 MR. JOHN GILLESPIE: Yes, sir.

17 MS. JESSIE HOWARD: Yeah, he's bringing you
18 one.

19 UNIDENTIFIED SPEAKER: Coming up --

20 MR. JOHN GILLESPIE: Okay.

21 MR. TONY SPANIOLA: Thank you. And I just want
22 to reiterate the thanks --

23 MR. JOHN GILLESPIE: Oh, you're welcome.

24 MR. TONY SPANIOLA: -- to all of you for, for
25 doing the, the review and to -- I know Michelle Brown is

1 on the, on up in cyber world tonight. I want to thank
2 her as well and a number of others.

3 A couple of things. First, the, the plume that
4 we were presented last year when we received the public
5 comment document, it raised concerns because it kind of
6 went down to the lake, made a left-hand turn and then a
7 right-hand turn. And we looked at that and our, our
8 experts here said, "Wait a minute. That's not right."
9 And it was really their work, the work of the RAB here
10 that, that caused me to say, "Wait a minute. We need --
11 this isn't right. There's a problem."

12 And so I, I really have a couple of questions.
13 First, if I recall the other day there was a comment
14 made that if the system is going to work, but it's
15 really out of sort of sheer luck that it hit the right
16 spot. And what, so that's one, that's one issue. The
17 second issue deals with these other long plumes and the
18 little peanut plume that you talked about.

19 But the first question is -- and maybe it's for
20 the other folks here tonight -- what is being done to
21 assure the fact that we're not operating out of sheer
22 luck in the future? That's, that's number one. And,
23 number two, are these other plumes, the potential plumes
24 that are out there, going to be addressed? Because
25 that's really the bottom line.

1 MR. JOHN GILLESPIE: I, I can address part of
2 that, sir. I think, you know, I mean, my God. This is
3 a big problem up here. Right? I mean, this is a big,
4 big, big project up here. Right? And, and, and, you
5 know, we -- I think Ms. Rush said it and I think MR.
6 Johnson said it, "man, we need to, we need to back our
7 guy up." Right? We need to back our Air Force, becks
8 (phonetic) up you call -- I guess you're still called a
9 beck, Steve, you know. And we got to, we, we got to
10 work with our A&E contractors and our subcontractors.

11 So I think that's why the leadership is up
12 here today. I think Ms. Rush said it, I think Mr.
13 Johnson said it, is, is we're going to, we're going to
14 put the full technical backing of the AFCEC with where
15 we leverage ourselves out with the Noblis contractors
16 behind this project, sir.

17 MR. TONY SPANIOLA: Thank you. The second
18 question is about the (inaudible - audio garbled).

19 MR. JOHN GILLESPIE: Oh, well, yeah, Steve, do
20 you want to --

21 MR. STEVE WILLIS: Yeah. As, as John said and
22 as I indicated earlier, we've got data gaps. We've
23 still got work to do to finish the RI. We met with EGLE
24 and had some real good productive discussions on where
25 that sampling needs to occur. We also met with John and

1 with Mark, with Noblis, and went through specifically
2 for this site and the, the figure that John showed were
3 specific locations we know we need to put in monitoring
4 wells. We've got other locations across the base where
5 we need to do that same exercise.

6 So as part of that data gap investigation,
7 we'll write a QAPP addendum, we'll put those points on a
8 map, we'll go through them with EGLE. When we get that
9 QAPP addendum written when we share it with EGLE, we're
10 going to share it with the RAB as well and solicit your
11 input. So before we go out and finish that next phase
12 of field work, we'll get input from both the, the RAB,
13 the community and EGLE to address those concerns.

14 So, yes, we, we fully acknowledge and recognize
15 that there are gaps out there that need to be addressed.
16 And then long term, if there are additional plumes that
17 have not been identified that are, those will be
18 addressed either as an interim action if necessary or as
19 part of the final remedy.

20 MR. JOHN GILLESPIE: Sir? There was a question
21 in the back of the room there.

22 MR. DAN BANKS: My name is Dan Banks. I'm a
23 lifelong resident of Van Etten Lake. I have one of the
24 dubious honors of being above the 95 percent percentile
25 in PFAS in my body. It does not come from the water.

1 It comes from the fish. So now I switch to the Au Sable
2 River and as I come down the Au Sable River, here is Van
3 Etten Creek pouring all the PFAS into the Au Sable.
4 Here's the Three Pipes running PFAS into the Au Sable,
5 and all of that going into Lake Huron where we get our
6 drinking water, our municipal drinking water. What are
7 your plans to contain it to that base?

8 MR. JOHN GILLESPIE: Yes, sir. Steve, can I
9 answer that with the survey? So about a year ago, you
10 know, we were kicking around the idea of -- I mean, I
11 was up here, oh, many years ago when I was stationed at
12 this base for four years from '75 to '79 when the first
13 TCE plume was discovered, right, in the Air Force or in
14 the military and it was right here at this base. And
15 then I, then I went to book learning school down in
16 Lansing and I come back up here as a USGS guy -- U.S.
17 Geological Survey -- and, and we did a study up here.

18 So the USGS has one of the best surface water
19 surveillance and they know how to do surface water
20 surveillance. And so what we just started a year ago,
21 we, we're just getting the information up. We have --
22 we, we have six gauges around this area and hitting
23 those surface water bodies can -- I don't know if we
24 have a map of the base?

25 UNIDENTIFIED SPEAKER: We don't have one.

1 MR. JOHN GILLESPIE: Okay. So we have -- we,
2 we started, we were gauging Pine River where it's coming
3 in to Lake Van Etten, we put a gauge there. If you go
4 to the, to the -- right to the boat launch there on Van
5 Etten Lake, we got a gauge there. That's what that is
6 measuring, that level. We've got a, a measurement on
7 Van Etten Creek, and then we've got a measurement on the
8 Au Sable where Van Etten Creek ends there or enters
9 there.

10 And then we've got a many decades gauge right
11 below Foote Dam, and then we've got another sampling
12 point near Clark's Marsh where one of the rivulets go in
13 there which is, you know, has PFAS conc-, PFAS
14 concentrations entering the Au Sable. Right? So the
15 concept here is to use that independent government
16 agency, the US Geological Survey, then to start a record
17 with that network, right, measuring the amount of water,
18 right, discharge, and then also measure, measuring the,
19 the P-, P-, PFOA, PFOS, PFAS, the total organic
20 fluorine, the absorbable organic fluorine, just try to
21 get a good idea to make sure that this area is
22 protected.

23 And then, and then if we, we create a trend and
24 we see how good our remediation is, right, if we're
25 detecting stuff in any of these waterbodies, then we

1 should see a reduction as this program goes further,
2 sir. You know, I, I see what you're saying. So it's
3 throwing a -- I call it a net, you know. Throwing a net
4 out there with an independent U.S. Geological Survey.
5 And I think, I think those guys that come up here and
6 have done the work for us the last year are all out of
7 Lansing, or the office I worked in for many years. So
8 I'm real excited about that, but that's going to take a
9 few months to get up and running and start looking at
10 the data, sir. And it will be online.

11 MR. DAN BANKS: Good.

12 MR. JOHN GILLESPIE: Yeah. I think I'm hogging
13 the show here. Arnie?

14 MR. ARNIE LERICHE: Just a quick thing.

15 MR. JOHN GILLESPIE: Yeah.

16 MR. ARNIE LERICHE: You mentioned when the
17 question came from Dave about what happens from 41 to
18 Van Etten Lake, all the PFAS that's in that land area.

19 MR. JOHN GILLESPIE: Yes, sir.

20 MR. ARNIE LERICHE: And you mentioned what we
21 could do -- you could do, the Air Force could do -- is
22 flush with the clean water after it's been filtered up
23 gradient and then bring it into that area and flush it
24 out. Before you go very far on that, okay, if you've
25 ever looked -- I mean, it's already been said. The Au

1 Sable goes and feeds the Lake Huron and eight to nine
2 miles south of the mouth of the river --

3 MR. JOHN GILLESPIE: It's your intake.

4 MR. ARNIE LERICHE: -- is, a mile out is the
5 intake.

6 MR. JOHN GILLESPIE: Yes, sir.

7 MR. ARNIE LERICHE: Okay. Has that -- have any
8 of the Air Force or contractors when they go over the
9 bridge to come north, take a look to the right and look
10 at the river and look at the lake. And under most
11 conditions you can see what happens at the mouth. It
12 turns an immediate right turn to go south along the
13 shore.

14 MR. JOHN GILLESPIE: Yeah; yeah.

15 MR. ARNIE LERICHE: But then it diffuses out.
16 So it's diffused by the time it gets that intake. Okay?
17 Lake Huron is a big tub. You drain a big tub, it
18 circles counterclockwise and that's what it's doing.
19 And so --

20 MR. JOHN GILLESPIE: Yeah.

21 MR. ARNIE LERICHE: -- I doubt -- I know that
22 our water authority is not going to be happy if they
23 hear words about, "Well, we're going to flush PFAS out
24 into Van Etten Lake and the Au Sable River.

25 MR. JOHN GILLESPIE: Yeah. So, so, Arnie, I, I

1 think that's a, a discussion I'd like to really have as
2 Mark as a technical, you know, and talk about that. I
3 mean, let's, let's face it, you know. This stuff has
4 been going into the, to the lake, to the streams for
5 many, many years. Right? And so far, you know, the
6 samples -- we just did one round of sampling and it
7 showed a diluted number. Right?

8 But, but, again, that's just one sample. We
9 need to do many more samples to make a trend. Right?
10 And so I'd like to get back with you on that and talk to
11 you on the technical aspects of that, whether or not it
12 even could possibly even affect an intake out in Lake
13 Huron, you know. I mean, that's, that would be pretty
14 tough to do.

15 MR. ARNIE LERICHE: Yeah. A better plan is put
16 a better well field, a transect well field, just 50
17 yards or so away from the lake toward 41 and then pump
18 that over to your control equipment.

19 MR. JOHN GILLESPIE: Well, nothing is off the
20 table. Right? So --

21 MR. ARNIE LERICHE: Okay. Well, there's a pen.

22 MR. JOHN GILLESPIE: Yeah.

23 MR. ARNIE LERICHE: Put it up there.

24 MR. JOHN GILLESPIE: Yeah. Okay. Sir?

25 MR. DAVE CARMONA: I have one more question.

1 After listening to the teleconference last night there
2 are a lot of other locations in the nation that are in
3 the same boat that we are here. Are these -- are you
4 sharing amongst the organizations, the contractors here
5 and at other places, the lessons learned as you go along
6 so that we're not repeating this? It seems like that's,
7 that's missing because I don't see -- I hear things from
8 other places.

9 MR. JOHN GILLESPIE: Yeah; yeah.

10 MR. DAVE CARMONA: But I don't see them applied
11 here at our place --

12 MR. JOHN GILLESPIE: Well, and, again, I
13 haven't been intimately involved here, Dave, but we do.
14 I mean, we, we do this. This is what we do every day.
15 Right? That as Mr. Johnson was saying, at, at 80
16 installations, right, and sometimes overseas. So, so
17 we, we share these lessons learned every day and, and
18 it, and it is. We have a, an internal thing at the, at
19 the AFCEC, a PFAS meeting once a week, you know, among
20 the technical people trying to share lessons learned.
21 Right? And, you know, I mean, good point and that's
22 what we're trying to do. Right? So thanks for the
23 question. Sir?

24 MR. DAN BANKS: So if the filter station is
25 only being utilized in 20 percent, why can't you take

1 the sanitary lines that are affected and run them into
2 the filter station? Why do you run them all the way to
3 the Au Sable River?

4 MS. JESSIE HOWARD: Can I just have you repeat
5 that into the mic for us, please, for those of us
6 virtually? I'm sorry.

7 MR. DAN BANKS: The, the question is, is if the
8 filter stations are operating at 20 percent, we have 80
9 percent capacity left, why don't you take the sanitary
10 lines and pipe them right into the filter station?

11 MR. JOHN GILLESPIE: Steve, is that a question
12 for you or Mark? Mark?

13 MS. JESSIE HOWARD: Can you have him identify
14 himself as well? Can you have him identify himself?

15 MR. MARK HENRY: What a mess that would be. If
16 you take sewage and -- if you take sewage and plumb it
17 into a system, it'll suck it up.

18 MR. DAN BANKS: Dan Banks, Van Etten Lake.

19 MR. TIM CUMMINGS: Excuse me. She's trying to
20 get the name. Can we get the name of the speaker?

21 MR. DAN BANKS: Oh, Dan Banks, Van Etten Lake.

22 MS. JESSIE HOWARD: Thank you.

23 MR. MARK HENRY: Anyway, if you take sewage and
24 you put it into the type of treatment system that they
25 are building, it will plug it up very quickly. There's

1 just too much non-target material there.

2 MR. JOHN GILLESPIE: Organic matter.

3 DR. MARK STAPLETON: So you have to filter out
4 the particulates.

5 MR. MARK HENRY: More than that. More than
6 that.

7 DR. MARK STAPLETON: Okay.

8 MR. MARK HENRY: Even the dissolved stuff is
9 food for bacteria and bio fouling will shorten the life
10 of those carbon beds by probably 90 percent or more and
11 they're very expensive carbon beds.

12 MR. JOHN GILLESPIE: Thank, thank you for the
13 question, though, sir. I mean, it's, you know, we
14 encourage innovative thought. Right? And I, I really
15 appreciate the group here. I've been working with a lot
16 of people here over the last couple of years and, and we
17 do appreciate innovative thought. Right? I mean, --
18 any other questions? Or we'll be here until midnight.

19 MS. AMY HANDLEY: I just want to follow up with
20 something for what you asked Dave about sharing between
21 agencies. So I myself have been part of a co-chair
22 committee with the DERP forum and the name of that
23 abbreviation is now escaping me. But there is a, a
24 meeting happening next year in May, broad Air Force and
25 different states are involved and there's actually going

1 to be a presentation about best practices, lessons
2 learned on PFAS, RIs, and interim actions. And in the
3 first meeting we had, Wurtsmith came up more than once
4 about the stuff that's happening out here. So I expect
5 that it will be a, a topic we talk about a lot.

6 MR. STEVE WILLIS: And DERP is the Defense
7 Environmental Restoration Program, so it's not just Air
8 Force. It's all DoD.

9 MS. AMY HANDLEY: Thank you, Steve.

10 MS. JESSIE HOWARD: Thank you. I think we need
11 to move on for some questions this --

12 MR. JOHN GILLESPIE: Thank you. Thank you all
13 very much.

14 MS. JESSIE HOWARD: Thank you, gentlemen. At
15 this time I am going to call a 10-minute break and we'll
16 be back in 10 minutes and we'll hear from Paula. Thank
17 you.

18 (Off the record)

19 (AAA IRA Construction Update at 6:46 p.m.)

20 MS. PAULA BOND: All right. We'll go ahead and
21 get started if everybody's ready. I'm going to just
22 give a really quick update on the Alert Aircraft Area.
23 Steve has already talked about this a little bit and
24 then of course John gave a much more in-depth
25 presentation so I'm just going to be real quick on the

1 status. Next slide, please. Like we've already said,
2 the Alert Aircraft Area -- or AAA -- IRA is designed to
3 intercept the highest concentrations of PFAS that are in
4 that plume. Again, John already talked about that a
5 little bit. He showed the slides, the cross-section
6 where you can see the plume and then where the
7 extraction wells are going to go and capture that plume.
8 The construction and operation goals are, we are, like
9 Steve said earlier, we are slightly off target.

10 Construction began on the 29th of July, 2024.
11 We expected to be up and running by December, but we
12 have had some weather delays. The wind has really been
13 critical for us. Like yesterday was super windy and we,
14 we were kind of held up with that trying to work on some
15 of those larger panels for the building. Next slide,
16 please.

17 So we just have a couple of pictures and
18 there's also a poster in the back if you guys didn't get
19 a chance to take a look at that, that just has some,
20 some photographs of the, the progress of construction.
21 We do have the primary frame of the structure up. We do
22 have all the process tanks in. We do have -- the carbon
23 tanks are, the plumbing has all been put together on
24 those. And then we're just continuing to get the other
25 sides of the building and the roof if you guys have been

1 out there and then the rest of the plumbing and
2 mechanical work. The underground work has been done.
3 The extraction wells are already installed and the
4 underground piping from those extraction wells back to
5 the treatment system are in the ground, and the
6 infiltration galleries that are associated, those have
7 all been installed. So all of the outside work is done.
8 We're just now going to try to finish up on some of the
9 building stuff.

10 So these are just a few photographs. Again,
11 the poster is in the back if you have any questions.
12 Next slide? And that's it. Really quick. Any
13 questions on the construction? Yes, Mark?

14 MR. MARK HENRY: Two questions actually.

15 MS. PAULA BOND: Sure.

16 MR. MARK HENRY: One of them related to the
17 pictures that you have back in the poster area there.

18 MS. PAULA BOND: Uh-huh.

19 MR. MARK HENRY: It showed a crane moving the
20 carbon canister into the building.

21 MS. PAULA BOND: Uh-huh.

22 MR. MARK HENRY: Is that what is going to be
23 done for change out in the future or was that just
24 taking advantage of the roof not being on?

25 MS. PAULA BOND: Right. It was taking

1 advantage of the roof not being on it, yeah.

2 MR. MARK HENRY: Yeah.

3 MS. PAULA BOND: No. The carbon change outs
4 are all done inside the building. They come in, they
5 vacuum the carbon out into a separate truck and then
6 they take it away.

7 MR. MARK HENRY: Oh. Okay.

8 MS. PAULA BOND: Yeah.

9 MR. MARK HENRY: Second question --

10 MR. STEVE WILLIS: Let me just piggyback. For
11 the CTS, the central treatment system, the original
12 treatment train, those tanks were dropped in before the
13 roof was put on. But when we did the Van Etten Lake at
14 Ken Ratliff Memorial Park, the building existed, so we
15 actually had to bring those tanks in through the door
16 and then stand them up inside the building, --

17 MR. MARK HENRY: Ah. Okay.

18 MR. STEVE WILLIS: -- which is much more
19 challenging than that.

20 MS. PAULA BOND: Yeah. It is, yeah.

21 MR. MARK HENRY: The second question relates to
22 the extraction wells. Are the pumps set at the 575 foot
23 elevation or do they, are they at the bottom of the
24 well?

25 MS. PAULA BOND: I think I will have to defer

1 to Darlene or Jim. They are not installed yet, but I
2 think they're -- are just -- they're off just the bottom
3 just a little, like, five foot or something like that --
4 right, Jim? -- the pumps?

5 MR. JIM ROMER: They're not on the well.

6 MR. MARK HENRY: Are they at the zone where the
7 contamination is?

8 MS. JESSIE HOWARD: Can we hold for the mic,
9 please?

10 MS. PAULA BOND: I'm sorry. But the pumps
11 haven't been set yet.

12 MR. JIM ROMER: We can discuss that on a well
13 by well basis. We've got 45 to 47 feet of screened
14 interval on those wells, and so obviously we're wanting
15 to make sure we've got that set where we don't -- we get
16 very little drawdown as you are probably aware out
17 there. So we can check that. We've got it on the
18 design drawings. I don't have that at the top of my
19 head, but it's not on the bottom.

20 MR. MARK HENRY: Okay. Thank you.

21 MR. TIM CUMMINGS: Steve, can you indicate who
22 that was that spoke? Your reporter is having trouble
23 trying to keep track.

24 MR. STEVE WILLIS: Yeah. Jim, could you state
25 your name for the record, please?

1 MR. JIM ROMER: Jim Romer, Aerostar.

2 MS. PAULA BOND: Any other questions on the
3 construction? All right. Thank you.

4 MS. JESSIE HOWARD: All right. Next we have
5 Celeste Holtz with BB&E for vapor intrusion RI update.

6 (Vapor Intrusion RI Update 6:51 p.m.)

7 MS. CELESTE HOLTZ: Good evening, everyone. As
8 Jessie mentioned my name is Celeste Holtz and I am the
9 BB&E project manager for the vapor intrusion remedial
10 investigation. I also have on the phone tonight our
11 Human Health Risk Assessor Barrie Selcoe and then our
12 vapor intrusion subject matter expert Jeff Crum.

13 So we last presented at the RAB meeting in
14 February earlier this year to summarize the field
15 activities that had been completed through the second
16 quarter of the immediate sampling task. Since that time
17 we've completed the remaining four quarters of sampling
18 and have prepared the summary reports following each of
19 those sampling events.

20 So tonight I'm just going to do a quick recap
21 of what that immediate sampling task included. We'll
22 look at a summary of the four quarters of data that were
23 collected, the decisions or recommendations for each of
24 the four buildings that we looked at, and then just wrap
25 up with next steps after that immediate sampling task,

1 as well as just a brief update on where we're at with
2 the overall RI.

3 So just as a reminder, this vapor intrusion RI
4 is being conducted as a follow up to a previous vapor
5 intrusion RI to further define the extent, the nature
6 and extent of VOCs or volatile organic compounds, in
7 soil, groundwater, soil gas and vapor, and also to
8 complete a human health risk assessment.

9 That immediate sampling task was being
10 conducted in advance of the overall vapor intrusion RI
11 based on data that was previously collected in 2020 and
12 2021, to basically determine if there was a need for an
13 immediate response action at several of the buildings.

14 Next slide, please. So the immediate sampling
15 task included completion of interior building surveys at
16 the four buildings on the map there: Building 25 and
17 Building 43 at Site 21, and then Building 5067 and 5068
18 at Site 8. At those four buildings we installed and
19 sampled 57 sub-slab vapor pins over four quarterly
20 events. And then based on that data we also collected
21 indoor air quality and outdoor quality samples.

22 The data that was collected has been shared
23 with the Oscoda Wurtsmith Airport Authority, EGLE, as
24 well as the building tenants. Next slide, please. So
25 this slide just provides a summary of the sampling

1 activities that we completed as part of that approved
2 work plan for the immediate sampling task. So you can
3 see how many vapor pins were installed at each of the
4 buildings and sampled over those four quarters. And
5 then at the bottom there you can also see the number of
6 indoor air quality samples that were collected at each
7 of the structures.

8 Next slide, please. So the, just as kind of a
9 recap, the samples that are collected are analyzed for
10 VOCs using EPA method T015. The results from the
11 sub-slab data are compared to the EGLE site specific VI
12 criteria, which are used primarily for delineation
13 purposes as part of that RI, and then we also compare
14 that data to the U.S. EPA Vapor Intrusion Screening
15 Levels or VISLs. Those values are used primarily for
16 the long-term risk assessment.

17 For indoor air quality data, we also compare
18 that to U.S. EPA VISLs. They're using that for
19 long-term risk assessment and delineation purposes. And
20 then in addition to the EPA VISLs for indoor air we look
21 at the EPA removal management levels or RMLs, and those
22 are used to determine whether an interim or immediate
23 response action may be needed in a building such as
24 deploying air purifying units, fans, blowers, or other
25 measures.

1 Next slide. So this slide, I know it's kind of
2 a lot of text, but basically just provides a summary of
3 the sub-slab and indoor air data for all four of the
4 buildings at the two sites, and then basically at the
5 end is the outcome or decision for each of those
6 buildings.

7 So in general, the data that was collected for
8 that immediate sampling task indicated that the VI
9 pathway is potentially complete at all four buildings,
10 and that all four buildings and those sites will
11 continue through the rest of the remedial investigation
12 and also into the risk assessment.

13 So starting at the top there with Building 25,
14 this is a, a really small building that was not being
15 occupied by the tenant, but we did have sub-slab and
16 indoor air quality samples that exceeded the project
17 action levels. At the structure we also had indoor air
18 concentrations in the basement that exceeded that EPA
19 removal management level. And so, again, although
20 nobody was really occupying that building, the Air Force
21 went ahead and restricted access to that building.
22 There was a, a lock placed on the door and a, and a "do
23 not enter" sign.

24 At Building 43, the next one down, we had
25 sub-slab exceedances. We also had compounds that were

1 detected in the indoor air quality samples that exceeded
2 the, the VISLs, the long-term risk assessment values,
3 but the concentrations in that building were below the
4 EPA RMLs, so no interim actions were taken or are
5 necessary at that building.

6 The next building, Building 5067, we had
7 sub-slab exceedances of the project action levels at
8 that building, however, the concentrations detected on
9 indoor air were below all of the project action levels.
10 So similar to the other one, no interim actions were
11 necessary or were taken.

12 And then the last building, Building 5068, we
13 had no exceedances throughout all of the sampling event
14 until of course we got to the last and final quarter.
15 We had some kind of weird detections for TCE and then
16 1,1,2 trichloroethylene in three of the sub-slab vapor
17 pins. The detections just really didn't make sense.
18 They had been non-detect the previous three quarters,
19 and just their spatial distribution in the, in the
20 building didn't really add up.

21 So we worked with AFCEC and re-mobilized in
22 October to re-sample those vapor pins. We actually just
23 got the validated data back last night and those results
24 were all non-detect. So a little bit of a head
25 scratcher. We are working on preparing an addendum that

1 will summarize that re-sampling effort and then will be
2 included with the, the quarter four summary report.

3 So next slide, please. So just to wrap up on
4 next steps. So as I mentioned, all four quarters of
5 sampling as part of just that immediate sampling task
6 have been completed. The summary reports have also been
7 prepared and submitted to EGLE and the other
8 stakeholders. We are working on that addendum for the
9 re-sampling effort at Building 5068.

10 Overall, RI field activities will continue at
11 these two sites as part of the vapor intrusion RI, and
12 that will also include other sites as well. At the end
13 of the RI field work, we'll proceed to the risk
14 assessment where a long-term risk will be evaluated, and
15 then if unacceptable risk is identified, the sites will
16 continue to the feasibility study to determine a plan
17 for long-term remedial action.

18 Next slide, please. So on this slide, just a
19 kind of update on the overall vapor intrusion RI. So in
20 addition to the immediate sampling task, we've been
21 working with EGLE as Amy had mentioned earlier on
22 several QAPP addendums. We also completed some
23 preliminary phase one passive soil gas sampling and
24 actually we're in the field this week for some
25 additional passive soil gas sampling.

1 So for the QAPP addendums, we prepared QAPP
2 Addendum 1 which is proposing additional VI evaluation
3 activities at six more sites. So those are listed on
4 the slide there, but site 4, site 24, LF30/31, site 57,
5 69 and then 72 we are proposing additional RI activities
6 at and working with EGLE on that QAPP addendum.

7 And then QAPP Addendum 2 is also in progress
8 and that document is going to summarize the results of
9 the phase one passive soil gas sampling activities at
10 three of the sites: Site 5, 8 and 21, and areas of
11 interest, and then also outline the proposed phase two
12 soil and groundwater sampling.

13 The results of those field activities will be
14 presented at a future RAB meeting. I think that was all
15 we had for tonight. Yes?

16 MR. MARK HENRY: Around Building 43 which had a
17 TCE storage tank leak over many years, it undoubtedly
18 contaminated the vadose soils down to the water table
19 and it did contaminate the water table which led to the
20 first extraction system being put in on the base.

21 As part of your vapor intrusion work, do you
22 sample, or does anybody assist you in sampling the
23 vadose zone to find out if the soil beneath the zone
24 that you are, the unsaturated soil, beneath the zones
25 where you are collecting your passive sampling, samples,

1 if it is contaminated as a long term potential source of
2 vapors to those buildings? And has the top of the water
3 table been sampled at those locations to determine if
4 the groundwater is providing the VOCs that are migrating
5 up through the soil column and into those buildings?

6 MS. CELESTE HOLTZ: Yeah; absolutely. So
7 that's what phase two is going to be. We're going to do
8 additional soil and groundwater sampling at those sites.
9 You know, we have a lot of historical data from the
10 previous investigations out there, but a lot of that
11 data is outdated and, you know, didn't, in my mind,
12 really get collected with the focus on vapor intrusion.
13 So that is part of the scope for phase two activities.

14 MR. MARK HENRY: Okay.

15 MS. CELESTE HOLTZ: Thank you.

16 MS. JESSIE HOWARD: Thank you, Celeste. And I
17 believe that at this time Mr. Willis is going to go over
18 the project forecasts.

19 (Project Forecast at 7:03 p.m.)

20 MR. STEVE WILLIS: Next slide, please. So this
21 is short -- this is our short range forecast, 12 to 18
22 month time frame. I've got a number of different
23 activities/projects on here. The first grouping has to
24 do with the PFAS RI and data gap investigation. We are
25 continuing to monitor the transducers that have been put

1 in so far. As I mentioned earlier, we have a
2 preliminary site characterization summary report that
3 documents all the data that we've collected so far and
4 the Air Force is currently reviewing that.

5 As I mentioned, we've worked with EGLE on the
6 scoping for the data gap investigation. I did send that
7 table out to the RAB members and, and do solicit your
8 input. And then we'll get that contract awarded and the
9 plan is to do that field work next summer. So we'll
10 have a QAPP addendum out in the spring and the field
11 work as soon as we can get out there, and that will all
12 be used to feed into the final RI report.

13 Next we've got the Alert Aircraft Area and
14 we've already talked about the construction schedule and
15 the O&M will start as soon as the system is up and
16 running. The first phase of that O&M work is with the
17 current construction contractor, and then after the
18 first year of their shakedown and operation of the
19 system, then we'll transition it to WSP, our O&M
20 contractor that is running the rest of the systems on
21 the base.

22 Three Pipes Ditch monitoring. This was data
23 that we were collecting for that pilot study that we
24 were going to do with the matting and the ditch. After
25 we had started collecting that data, we had a

1 significant rain event. The, the flow in the ditch went
2 from about a six inch trickle to about six or eight feet
3 deep. That would have washed away all the matting
4 material we had put in the ditch. So we basically
5 scrapped that, scrapped that as a, as a potential pilot
6 study. But we did have monitoring equipment in place,
7 and so we've left that to continue to collect data which
8 we can use to feed into the IRA for the Three Pipes
9 Ditch. So it's still useful information from that
10 perspective.

11 And then the last thing on the, on here is the
12 update on the DRMO and LF30/31 project. We have awarded
13 that contract. We are working on the pre-design work
14 plan with the contractor and the plan is to do that
15 field work next summer. And as I said earlier, we have
16 been working with them on the schedule for this and so I
17 guess in a couple slides I've got a, a schedule, but it
18 does not reflect the places we've been able to work with
19 them and streamline that schedule. So I'll get that out
20 to you as soon as I can. Next?

21 MS. WENDI MICHAEL: Hey, Steve? Can you get
22 the right slides up there? I think they were kind of
23 getting off a little bit.

24 MR. STEVE WILLIS: Okay. So th-, this is the
25 right slide now then, yep.

1 MS. WENDI MICHAEL: Okay.

2 MR. STEVE WILLIS: So I've gone through
3 everything on this one. Sorry about that. And next
4 slide? So this gives the longer term look at finishing
5 the PFAS RI moving into the feasibility study, proposed
6 plan, ROD, and the final remedial actions. I know there
7 was some discussion at the last RAB meeting -- you want
8 to go to the next slide, please?

9 The schedules look like for both this, this IRA
10 as well as the next one, that they run pretty close to
11 final remedies, but I do want to push these through as
12 still as interim actions rather than marrying them up
13 with the final remedy. As I said, we've already awarded
14 the contract for DRMO and we found some opportunities
15 where we can streamline the schedule. So this system
16 will be in and up and running before we get final
17 remedies. So, so it will still truly be an IRA. And
18 next slide?

19 MS. CATHY WUSTERBARTH: I have a question.

20 MR. STEVE WILLIS: Go ahead.

21 MS. CATHY WUSTERBARTH: So can you tell us
22 what, what do you expect then in terms of moving up?
23 Right now we're looking at '29.

24 MR. STEVE WILLIS: I believe we will be ab le
25 to accelerate it as much as a year.

1 MS. CATHY WUSTERBARTH: So still '28?

2 MR. STEVE WILLIS: Yeah.

3 MR. MARK HENRY: Steve, while we're on this
4 slide, may I ask a question?

5 MR. STEVE WILLIS: Uh-huh.

6 MR. MARK HENRY: The pre-design investigation
7 goes from quarter four in '24 to quarter two in '26.

8 MR. STEVE WILLIS: 18 months.

9 MR. MARK HENRY: I'm very familiar with the
10 area that they're working at there. It seems like an
11 inordinate amount of time to characterize the extraction
12 area and the water injection area. I mean, a year and a
13 half to do an investigation?

14 MR. STEVE WILLIS: So the 18 months includes
15 writing a work plan, getting it through EGLE for review,
16 collecting the data, and then writing a report and
17 getting that through the review process. But as I've
18 said, we have identified some opportunities to
19 streamline that and so it's not going to take us 18
20 months. Next slide.

21 So this is and the next are, are the, the last
22 of the two IRAs that we've identified. The schedules
23 for both of these are identical at this point and this
24 one does include the 18-month pre-design investigation
25 as does the next one. These two sites are going to be

1 more complex than we've done the previous IRAs and is
2 definitely going to require more data before we can
3 design and implement the remedies. As soon as we get
4 contracts awarded, we will work with the contractor and
5 any place we can accelerate these schedules, we will.

6 As part of the schedule acceleration, we've
7 been working with EGLE as well as our internal team to
8 accelerate the review of documents. And so we've got
9 EGLE's commitment that they'll turn around documents
10 around faster. In the past when we've reviewed
11 documents, either the Air Force and their internal
12 review or EGLE and their review will review the
13 document, provide comments, we'll provide responses,
14 frequently there's additional questions or comments or
15 clarifications.

16 And so we, we ping them, ping pong back and
17 forth far too long. And so we're going to eliminate
18 that process. And after the first round of comments,
19 we'll provide responses, give EGLE an opportunity to
20 review them, and then we'll sit down and talk about it
21 rather than sending written stuff back and forth and
22 back and forth. We're just going to sit down and we'll
23 hash it out. In some cases it's probably not going to
24 be a short meeting, but we'll walk out of there with a
25 resolution.

1 So it will, it will save us quite a bit of time
2 on the process. It will save everybody's money and
3 we'll get these systems in sooner. So that's a change
4 that we've all agreed to implement and we're doing that
5 going forward.

6 We'll probably use that same streamline
7 approach for all the documents at Wurtsmith, but for
8 sure our emphasis is on all the IRA documentation.

9 MR. BILL GAINES: Steve, can I break in a
10 minute?

11 MR. STEVE WILLIS: Yeah. Go ahead.

12 MR. BILL GAINES: Bill Gaines, RAB. I saw
13 field work running through the fourth quarter and again
14 your pre-design investigation runs through a couple of
15 winters, and I can see that the second winter would be
16 for, for putting reports together. But I thought you
17 had trouble doing field work.

18 MR. STEVE WILLIS: So, so the, the middle
19 portion of that 18-month period would be the field work
20 which would coincide with the summer time frame. The
21 front end of it is all the work planning documents, and
22 then the back end is the reporting, both the data, data
23 analysis from the lab as well as data validation and
24 then a report.

25 MR. BILL GAINES: So that, that's going to

1 constrict your ability to compact that schedule, just --

2 MR. STEVE WILLIS: So we -- for the DRMO and
3 LF30/31 sites we found some opportunities to streamline
4 that 18-month period and I think we can compress it down
5 and get it done in about 12. And then we found some
6 other opportunities. So, yeah, any place we can find a
7 place to do it faster, we're looking for it and, and
8 working with the contractors to implement it.

9 MS. CATHY WUSTERBARTH: Steve, I have a
10 question.

11 MR. STEVE WILLIS: Uh-huh.

12 MS. CATHY WUSTERBARTH: So for the Three Pipes
13 IRA here, for people who have not maybe been out to
14 Three Pipes, it's literally three pipes -- one, two,
15 three -- right next to each other, water flowing out of
16 it. I don't understand how this site is so complex that
17 it will take four years and that a interim action can't
18 be put in to keep the water from flowing out of the
19 pipes directly into the Au Sable River.

20 Is there something that I'm missing that is
21 more complex than cleaning the water that's coming
22 through the pipe?

23 MR. STEVE WILLIS: So right now the evaluation
24 is based on the critical process analysis, or CPA team's
25 recommendations that were briefed in January. So that

1 does include some pre-design investigation. Again, I
2 think we can accelerate that. But for now until I have
3 a contractor and I can work with them to identify those
4 opportunities and get everyone to agree to it, I'm
5 showing the 18-month schedule.

6 MS. CATHY WUSTERBARTH: All right. Well, I
7 think Mark Henry has some ideas about that that he
8 shared, so I'd like for him to share those with you.

9 MR. MARK HENRY: As we discussed this afternoon
10 at lunch, the simplest and most straightforward way to
11 eliminate the contaminated groundwater from entering and
12 discharging in the storm sewer going into the head end
13 of the Three Pipes Ditch is to fix the pipe. If the
14 pipe were fixed, the contaminated groundwater would not
15 be emptying or venting into that and discharging to the
16 creek.

17 It seems like it would be a relatively
18 inexpensive operation in the light of maybe a \$10
19 million treatment plant. You could fix that pipe for a
20 quarter million dollars and it could be done in a short
21 period of time, and that would eliminate the immediate
22 risk to the environment.

23 MR. STEVE WILLIS: Yep. And you are absolutely
24 right and that's something we are looking at.

25 MR. MARK HENRY: Thank you.

1 MS. JESSIE HOWARD: Thank you.

2 MR. ARNIE LERICHE: Can I ask a question on
3 this?

4 MR. STEVE WILLIS: Uh-huh. Arnie.

5 MR. ARNIE LERICHE: We talked about public
6 participation in the CERCLA process and the DERP pro-,
7 process. And we used to have in these kind of timeline
8 Gantt charts an indication of when those times occur,
9 like a public comment period. And if you could identify
10 those with, like, a red star on the line where there is
11 one and then indicate, you know, the months, usually
12 it's 60-day period, I guess?

13 MR. MARK HENRY: 30.

14 MR. STEVE WILLIS: 30.

15 MR. ARNIE LERICHE: 30. Okay.

16 MR. STEVE WILLIS: But, yeah, yeah. I'll add
17 those to the schedule.

18 MR. ARNIE LERICHE: Okay.

19 MR. STEVE WILLIS: Yep; yeah.

20 MR. ARNIE LERICHE: And is that the only one is
21 the interim decision talk then?

22 MR. STEVE WILLIS: So in the CERCLA process,
23 that's a primary -- public input is on the proposed
24 plan, not the ROD, but the proposed plan. At the end --
25 excuse me. At the end of the proposed plan, the final

1 proposed plan is made available for minimum 30-day
2 public comment period. We'll have a public meeting,
3 we'll take all those comments, and then that gets
4 incorporated into a responsiveness summary that goes in
5 the, in the ROD.

6 MR. ARNIE LERICHE: Okay. But you're going to
7 be sharing with the RAB prior to that time; right? I
8 mean, the, the CPA is a big start towards that.

9 MR. STEVE WILLIS: Right; right. And so we're
10 looking for opportunities to, to engage and bring in the
11 Community RAB to provide input throughout the process as
12 Ms. Rush indicated earlier. So, yeah.

13 MR. ARNIE LERICHE: Because that will give you
14 input before you make a decision.

15 MR. STEVE WILLIS: Right. We already are
16 sharing the QAPP and QAPP addendums for the PFAS RI with
17 the community the same time we provide those to EGLE. I
18 think we're the only installation in the Air Force
19 that's doing that right now. But, yes, we are trying to
20 get your input more often in throughout the process.

21 MR. ARNIE LERICHE: But that's like information
22 overload and it's like drinking from a fire hose when
23 you talk about the QAPP. Q-A-P-P, Quality Assurance
24 Project Plan for the public. Okay. Thank you.

25 MR. STEVE WILLIS: And next slide. This one

1 mirrors the, the Three Pipes Ditch right now. Excuse
2 me. And that's it for the forecast. Next slide.

3 (RAB Member Questions at 7:16 p.m.)

4 MS. JESSIE HOWARD: Okay. We will now move on
5 to RAB member questions. We'll also take them virtually
6 from any RAB members joining us. Does anybody have any
7 questions? Mr. Carmona?

8 MR. DAVE CARMONA: Dave Carmona, Community RAB.
9 How is a pre-design investigation different from the
10 data gathering that you've already gathered at, like,
11 WWTP site? You have years of data already. What is the
12 point of a pre-design investigation?

13 MR. STEVE WILLIS: So I think the, the, the
14 prime example is the Alert Aircraft Area IRA where we
15 designed and we're ready to implement that and there was
16 some concerns from the community on whether it was
17 appropriately located and designed. This pre-design
18 investigation was a recommendation out of the CPA team
19 to ensure that we, when we put these interim systems in,
20 we're putting them in the right place, we're capturing
21 the right groundwater. We're not pumping clean water.
22 We're pumping the contamination and treating that. The
23 difference between these pre-design and the data gap is
24 that the pre-design is specifically targeted for an IRA.
25 That's all we're looking at is data to support the final

1 design and implementation of an IRA. The data gap
2 investigation is looking at the broader installation and
3 the gaps to implement final remedies, make sure that
4 we've delineated everything, we can complete the risk
5 assessments and then select final remedies.

6 MR. DAVE CARMONA: Since you're going to be
7 using the same sampling wells and locations, can't you
8 just continually gather information up to the point of
9 when you are ready to work on these projects? It seems
10 that the appearance, you're going to stop gathering data
11 and then start gathering data again when you have an
12 idea about your design or an area. This goes to the
13 question I asked the last RAB. It appears as though
14 you're going to stop sampling until the data gap
15 investigation goes or you reach a pre-design phase in
16 one of the IRAs and that seems to be, to me, to be lost
17 opportunity to make your model even more robust.

18 MR. STEVE WILLIS: So, again, the two sampling
19 activities are, are for completely different purposes.
20 Yes, we will use all the IRA data we've collected to
21 feed into the, the final RI. The more data we've got,
22 the better RI we've got. But --

23 MR. DAVE CARMONA: I'm, I'm still not quite
24 comprehending. Data is data no matter when you gather
25 it if it's from the same point and for the same purpose.

1 MR. STEVE WILLIS: So they're from different
2 point --

3 MR. DAVE CARMONA: But what you're saying, the
4 data is different now because it's being used for a
5 different purpose?

6 MR. STEVE WILLIS: So it -- yes. It is
7 different data in different locations. The data -- the
8 pre-design specifically at that location for the IRA,
9 the RI data gap is going to be a base-wide evaluation.
10 It's not specifically targeting a location. It's data
11 gaps throughout the base. The community in some of the
12 previous RAB meetings suggested we needed more soil data
13 north of the taxiway because of the sludge spreading.
14 We've added that as part of the data gap investigation.
15 There's areas that John showed on his chart where we
16 need additional wells to further refine our
17 understanding of the Alert Aircraft Area north of where
18 we've got the extraction system. We agree. We need to
19 collect more data there. And that will all feed into
20 the final remedy. But it's, it's two separate data
21 collections for two separate objectives. One is
22 specifically targeted at a location for the treatment
23 system we're going to put in as an interim action, and
24 then the rest of the data supports the bigger picture
25 completing the RI. Now, we will be able to use the data

1 for both. Go ahead, Mark.

2 DR. MARK STAPLETON: Yeah. Let me, let me see
3 if I can help provide some clarification. One of the
4 key components of a pre-design investigation is, and the
5 way we envision is from some of the CPAs, is to actually
6 conduct a treatability study where you actually take
7 the, the, the physical sample from the water, send it to
8 a lab, and then we put it through a battery of tests for
9 proof of concept to make sure that treatment system once
10 we build this thing, \$10 million, we put this thing in
11 the field, we -- by then we know exactly how this thing
12 is going to operate. Whereas as a data gap
13 investigation, as Steve indicated, you're, you're
14 looking at the periphery of that site, do you have it
15 delineated, do we know how big this system needs to be?
16 So there, there is some duplication, but for all
17 practical purposes, they are two separate entities.
18 Does that help?

19 MR. DAVE CARMONA: I understand, but I -- the
20 testing portion makes it different, but it's still the
21 same data and it's still the same water sample.

22 DR. MARK STAPLETON: And, and, and we, and we
23 use all of it. We use all of it.

24 MS. JESSIE HOWARD: Thank you. Thank you.
25 Okay. I think that we have a question from Jessica

1 Stuntebeck who is joining us virtually. Jessica, you
2 can unmute yourself and address the RAB whenever you are
3 ready.

4 MS. JESSICA STUNTEBECK: Hi. Thank you. This
5 is Jessie Stuntebeck from the U.S. Forest Service. I
6 have a more general question. I was listening into that
7 DoD public engagement section -- session last evening
8 on, like, the PFAS MCLs. And DoD talked about, you
9 know, they had hundreds of sites that, that they have to
10 address PFAS at, but they've narrowed it down to, like,
11 somewhere around 50, 50 plus priority sites. And I was
12 curious if you know if Wurtsmith is on that priority
13 list and if that is any -- if that's helping at all or
14 not helping if you're not on that list?

15 MR. STEVE WILLIS: So, yes, Wurtsmith is on the
16 list. We have identified a couple of potential wells
17 that could be impacted. We've already sent out one
18 survey to the community. Not only those, but a, a
19 broader survey of who has wells, whether they're
20 drinking water from them. The wells in particular that
21 we're interested in, those folks did not respond to the
22 survey so we're planning to send targeted letters to
23 those individual residents to see if we can come in and
24 sample their drinking water wells and if so, we'll
25 connect them to city water. So, yeah, we've, we still

1 not more work. Wurtsmith is on that list as a priority
2 site.

3 MS. JESSICA STUNTEBECK: Okay. Thank you.

4 MS. JESSIE HOWARD: Thank you. Do we have --
5 yes, Dave?

6 MR. DAVE CARMONA: I have another question.
7 Dave Carmona again. As you indicated that in the data
8 gap investigation soil source would be one of the areas
9 that you would be looking at and if we do identify those
10 soil sources and you can pin them down, is it possible
11 to begin removing those sources as an IRA?

12 MR. STEVE WILLIS: Yes, it's absolutely
13 possible. That's something we'll have to look at on
14 whether it's warranted to spend the money for an IRA.
15 It's going to depend on the size of it, the
16 concentrations, considering all the remedial actions we
17 could take as an interim or final remedy to -- you can
18 haul off soil. That's probably going to be the
19 preferred alternative. There are new technologies out
20 there for thermal treatment of PFAS. I was at a
21 conference recently. One of them was an in situ where
22 you actually put the, the thermal probes in the ground
23 and treat it. They ran into some, some challenges on
24 that one. The ones that were most effective and they
25 actually -- the Air Force has done a side by side

1 demonstration project up in Alaska with three different
2 technologies. And the ones that have proven most
3 effective require to excavate the soil, place it in
4 basically lifts with the thermal heaters in it, run that
5 operation and then you can take the soil and put it back
6 in the ground. Those systems are all at this point very
7 expensive. They're very high in terms of energy
8 requirements. It's -- depending on the size of your
9 site and the levels of contamination, digging hole is
10 probably going to be the most effective alternative.
11 But I'm still working with our technology experts to
12 figure out if, if an IRA for soil would be appropriate
13 or not.

14 MR. DAVE CARMONA: Thanks.

15 MR. STEVE WILLIS: So --

16 MS. JESSIE HOWARD: Thank you. Yes, Mr.
17 Gaines?

18 MR. BILL GAINES: Bill Gaines. Same question I
19 keep asking and asking and asking and it kind of goes
20 back to talking about injecting downstream of the
21 extraction wells to flush stuff into the lake. All the
22 remedial actions seem to happen within the boundaries of
23 the former base, but there's a lot of stuff outside
24 those boundaries that needs to be addressed. If the Air
25 Force ever owns up to the east side of Van Etten Lake,

1 that's another area that's absolutely outside the
2 boundaries. Is there any hope of anybody talking about
3 remedial action actually outside the base boundaries?

4 MR. STEVE WILLIS: So the, the, the interim
5 systems that we've put in, we have focused on
6 positioning that on former Air Force property because we
7 know we have access so we can design an extraction system
8 that's optimum to capture what we need to and we can put
9 it in. Once we move off base, we're on private property
10 and so we're at the mercy of the individual property
11 owners. And all it takes is one property owner to say
12 "no," and your design goes out the window. You've got a
13 big gap and so contamination continues to flow through
14 the one property owner that said no and you can't put a
15 extraction well on their property.

16 Long term as part of the long-term final
17 remedies, we can go back and revisit that. There was
18 some discussion of horizontal wells as a technology.
19 But for the interim systems, we've been focusing on what
20 we know we can go in and implement now and doesn't have
21 impacts on the community.

22 MR. BILL GAINES: So if I could rephrase what
23 you're saying. There's at least some hope of when we
24 come to final action rather than remedial action, that
25 you'll pay attention to things beyond the base boundary?

1 MR. STEVE WILLIS: We, we will reevaluate that
2 and in response to your comment on the other side of the
3 lake, that is an area that's part of the data gap
4 investigations, to do more work over there.

5 MS. JESSIE HOWARD: Yes, sir?

6 MR. TIM CUMMINGS: Yeah. Tim Cummings, Oscoda
7 Township. Two I think quick questions. To go to page
8 19 of the pack, we were talking around the presentations
9 about the AAA site focus area. I just wanted to ask
10 since there is a, a six-sided figure delineating the
11 perimeter of an area for that was going to be used for
12 the PFAS impacted area.

13 There's a number of plumes that are shown below
14 this -- and this is a zoomed-in picture of the map.
15 There's a number of plumes outside of that purple
16 figure. Is this something that we will be hearing about
17 once this particular action is completed?

18 MR. STEVE WILLIS: So the -- John, this is your
19 figure, but I'll speak to it. So the, at the very
20 bottom right corner of that figure, that plume is
21 already being treated by the Ken Ratliff -- the Van
22 Etten Lake at Ken Ratliff Memorial Park IRA. The, the
23 small sort of kidney shaped area above that is something
24 that was recently identified in the RI, and so we are
25 looking at that and potentially piping water from there

1 down to the central treatment system or up to the
2 additional capacity of the Alert Aircraft Area.

3 MR. TIM CUMMINGS: Okay. I understand. Thank
4 you. Second question had to do with the point you made
5 earlier when you said that there were 19 pages at the
6 back of the pack on, on TAPP program. You, you
7 presented that it was there, too much to discuss. What
8 are you looking for this RAB or the township to tell you
9 in response to this?

10 MR. STEVE WILLIS: It's really, it's an
11 opportunity for you to get some technical support. And
12 I realize you've got Bob and Mark and you probably don't
13 need it like most RABs do. Most RABs don't have people
14 with the experience and expertise that Mark and Bob do.

15 MR. TIM CUMMINGS: Right.

16 MR. STEVE WILLIS: But it is another
17 opportunity for you to get an independent consultant in
18 to work with you guys and review documents and provide
19 comments and input, so --

20 MR. TIM CUMMINGS: Are you looking for the next
21 RAB to give you feedback on this?

22 MR. STEVE WILLIS: It, it's, it's really, if
23 you guys are interested in pursuing it, let me know,
24 yeah.

25 MR. TIM CUMMINGS: All right.

1 MR. STEVE WILLIS: You know, to do it at a RAB
2 meeting, whenever.

3 MR. TIM CUMMINGS: Okay.

4 MR. STEVE WILLIS: But if you're -- yeah. If
5 the RAB as a whole is interested in pursuing that, then
6 I'll work with you to get your application in.

7 MR. TIM CUMMINGS: Thank you.

8 MR. ARNIE LERICHE: We haven't talked about the
9 -- Arnie Leriche. We haven't talked about the TAPP
10 since the orientation, but other people around here and
11 the public and the community group has talked to people
12 in DoD about TAPP. That's how this came back on the
13 subject. And, but not many people know -- correct me if
14 I'm wrong -- the TAPP money is basically a grant that
15 has to be the RAB management; right?

16 MR. STEVE WILLIS: So, no, you don't manage the
17 money. You don't get the money.

18 MR. ARNIE LERICHE: No, we don't manage it. We
19 don't have hands on it. We have to submit what we want
20 to do. After it's approved and the contractor is
21 approved and all that, a project that we want them to
22 work on. We have to write it up, submit it to AFCEC,
23 you approve it, review it; right?

24 MR. STEVE WILLIS: That, that part is actually
25 in your application.

1 MR. ARNIE LERICHE: Right.

2 MR. STEVE WILLIS: Yep. And so we --

3 MR. ARNIE LERICHE: But, well, this is -- we
4 were told \$25,000 four years in a row is one option by
5 someone who was here yesterday.

6 MR. STEVE WILLIS: So the limits are \$25,000 a
7 year for four years; \$100,000 max, but that can be
8 waived.

9 MR. ARNIE LERICHE: Right. But what I mean is
10 that list, it's, it's the RAB, the Community RAB that
11 submits it, that list. Now there are other stakeholders
12 that give input to Community RAB. This is a public
13 participation oriented grant; right?

14 MR. STEVE WILLIS: Correct.

15 MR. ARNIE LERICHE: Okay. I mean, so that
16 management task is in the Community RAB with the co-,
17 two co-chairs, so; right? It isn't money, or the list
18 can't be submitted by a township or OWAA directly to the
19 Air Force will it?

20 MR. STEVE WILLIS: That's correct. It has to
21 be the, the, the RAB. The full RAB.

22 MR. ARNIE LERICHE: Right. And we could attach
23 it, if it's a good project and the Community RAB says
24 it's needed for public participation and understanding,
25 --

1 MR. STEVE WILLIS: Right.

2 MR. ARNIE LERICHE: -- but also for our
3 community members understanding. That's what it's for.
4 Okay. Just so we're clear on that so there's no
5 unexpected surprises or, or assumptions being made.

6 MR. STEVE WILLIS: Okay.

7 MR. ARNIE LERICHE: Okay.

8 MS. JESSIE HOWARD: At this time we do have
9 Michelle Brown with us virtually who would like to
10 address Jessica's question in response to the drinking
11 water. Can unmute -- or, I'm sorry. Wendi will read
12 her response for us.

13 MS. WENDI MICHAEL: She was unable to come off
14 of mute, so she -- her, her response was the 55 DoD
15 installations included in those locations where DoD has
16 taken action to address PFAS impacts -- impacts to the
17 private drinking water wells included in a DoD
18 congressional report. And, yes, Wurtsmith is on that
19 list and is part of the Department of Air Force priority
20 to conduct additional private drinking water well
21 sampling. The 55 DoD installations includes those
22 locations.

23 MS. JESSIE HOWARD: Thank you, Wendi. Did
24 anybody else on the RAB have a question? Yes.

25 MR. MARK HENRY: I have a question. Well,

1 maybe it's a statement. It's somewhere in there. Mark
2 Henry. As Mr. Munson described earlier, the Airport
3 Authority has been given a notice of violation by the
4 state and they need to deal with the contamination
5 coming from the storm sewer that is actually groundwater
6 upwelling inside a hole at apparently a joint at the
7 storm water conveyance and there's no one here who would
8 -- probably no one here who would disagree that the PFAS
9 that is in that flow of water is a legacy from the Air
10 Force operations. I also feel that that is an undue
11 burden for the Airport Authority which is not, does not
12 have deep pockets. But there's a parallel situation
13 where the sanitary sewer on the base has PFAS in it,
14 some of which is from the community, but the majority of
15 it I think will prove out to have originated on the base
16 as legacy Air Force PFAS.

17 The township is taking on a loan, about a \$5
18 million loan, to fix the Air Force's problem here. It
19 was -- I was told that during the RI that the source of
20 this PFAS into the sanitary sewer which is a, in essence
21 a sealed system, would be investigated and the source of
22 that PFAS would be identified. And as far as I know, no
23 one has determined the mass flux of PFAS coming onto the
24 base from the community in the storm or, excuse me, in
25 the sanitary sewer versus the, the concentration and,

1 and volume of PFAS that is entering the wastewater
2 treatment plant and moving through that plant unaffected
3 and discharging to groundwater which has caused another
4 violation. And I personally do not feel that the
5 township should have to take out a loan to fix the Air
6 Force's problem.

7 MR. TIM CUMMINGS: I agree.

8 MR. MARK HENRY: It would be very simple from a
9 practical point of view to measure the concentration
10 coming onto the base. There's a lift station there. It
11 all goes there. And same down at the wastewater
12 treatment plant. Figure out the mass flux coming in
13 there, subtract one from the other, and that's the
14 contribution from the base. And if there is the
15 majority of that contamination originates on the base,
16 the Air Force should take the bull by the horns and deal
17 with this. They shouldn't have -- the township should
18 not have to take out loans to take care of a problem
19 that is not theirs. So I ask the Air Force to expedite
20 the investigation of this, find out where this stuff is
21 entering into the sanitary sewer with all haste and get
22 this done because the township is moving forward to try
23 to remedy their noncompliance with the state of Michigan
24 by taking out this loan. It shouldn't have to be this
25 way. So I ask that the Air Force take this on

1 independent of the RI and get it done. Please. Thank
2 you.

3 MS. JESSIE HOWARD: Thank you, Mark. Arnie?

4 MR. ARNIE LERICHE: Okay. A similar vein, same
5 topic, but a different angle. And that is it, it
6 affects communication or lack of communication from
7 between all stakeholders, including most of the
8 stakeholders in the, in the RAB, that have been
9 involved, and some of them have been involved directly
10 with this storm sewer and the operate, the order,
11 consent order and the notice violations have been talked
12 about against OWAA, the airport. Two years ago almost
13 to the day I asked the state, EGLE, and also the Air
14 Force to let us know what sampling has been and is
15 continuing to be done at all the outlets of the storm
16 sewers. Beth was here then, it was just about Amy's
17 first meeting I think it was. And it -- I'm talking
18 about action item number 105. "Determine when and where
19 the storm sewer outfalls were last sampled and whether
20 they will be routinely sampled in the future." So Beth
21 provided a response in May of '23, that was about six
22 months later, and Beth advised that the, that OWAA has
23 completed first round of sampling and are awaiting
24 second round of results and the final report.

25 Okay. So that was over a year ago, year and a

1 half ago. We have no update since then. The status is
2 ongoing. The last update in our action item is May of
3 '23. I'm going to come right out and say, and we all
4 have a piece of this, we're not doing our jobs well
5 enough to meet the needs of the public if we're not
6 managing these action items so that they follow progress
7 and are specific with the date that an update is added,
8 a comment, whatever, and refer back to what the action
9 was and where they can find it like the administrative
10 record number or a report specific so it's on I'll say
11 it's EGLE's web site. It's the only way they're going
12 to understand and get engaged is when they run into a
13 problem and they want to talk about it in the future,
14 we've got to do something more than what we thought back
15 in 2024. Okay?

16 This is a long-term project. So this is not
17 the only action item that has been basically forgot.
18 Okay? So that's, that's an action item in itself right
19 now tonight. We've got to figure out how to manage
20 this. And I'm hoping that the new management team
21 that's helping us all with this might give us some best
22 practices on how other RABs and sites do it so that it's
23 not cumbersome, it's efficient, but it's specific enough
24 so that it, it gives meaning to why we even asked the
25 question in the first place.

1 MS. AMY HANDLEY: I'll actually follow up with
2 that, Arnie. I've been kind of talking with some of our
3 folks in WRD who kind of oversee some of, like, the
4 outfall sampling stuff and I'm asking them if we can get
5 a, an update together by the time we have the next RAB
6 meeting so we can go through that more in depth.

7 MR. ARNIE LERICHE: Okay. And I understand the
8 Air Force did some of the sampling, too, so be prior to
9 that because that's a management, you know, the status
10 of what's going on and what's planned in the future, I
11 guess. But can the data just be a data dump of that
12 sampling and then on whatever the sampling, you know,
13 before the RAB, let's say about a month before, that
14 gives two, two months from now so that --

15 MR. STEVE WILLIS: Amy, if we could have an
16 update for the next action item meeting which is the
17 11th of December, I believe?

18 MS. AMY HANDLEY: Okay. Yeah, I'll, I'll work
19 with the WRD staff and see what we can get together.

20 MR. STEVE WILLIS: Yeah, okay. May, may not be
21 resolution, but at least an update for that meeting.

22 MS. AMY HANDLEY: Okay. Yep. Thank you.

23 MR. STEVE WILLIS: Okay.

24 MR. DAVE CARMONA: So this question is for
25 Kenny and Brenda. I don't expect an answer. It's, it's

1 more rhetorical. Is what in the process is preventing
2 you from dealing with the low hanging fruit when it's
3 identified by the RAB? And are our action items that
4 are low hanging fruit making it to your level for
5 consideration to be pushed up in priority at this point
6 in time? There seems to be a disconnect between here
7 and there when things like this are identified. A
8 simple quarter million dollar fix, that's chump change
9 for the DoD. Something you could do and could possibly
10 eliminate and further identify a source within our
11 community. So I don't -- like I said, I don't expect an
12 answer. It's something for you to take back and think
13 about what we can do to improve that process.

14 MS. JESSIE HOWARD: Okay. Josh, you have a
15 question, and then I'm going to move on to the public
16 comment.

17 MR. JOSH SUTTON: Josh Sutton. Just have a
18 quick question. So when we're dealing with Three Pipes,
19 is the PFAS contamination believed to be coming in from
20 groundwater intrusion? And if it is, would we just look
21 at repairing or possibly slip lining those damaged
22 sections like we've done with other ones in that system?

23 MR. STEVE WILLIS: So, yes, we do believe that
24 all, that all the PFAS coming out of the, the Three
25 Pipes' outfall is coming from groundwater.

1 Theoretically a storm water system should only have
2 water flowing when it rains. This one flows year round
3 24/7, so it's got groundwater coming into it. We did a
4 video survey of -- what? -- 1500 feet or so, Paula?

5 MS. PAULA BONDS: Yep.

6 MR. STEVE WILLIS: We've got some additional
7 video work we need to do upstream of that because
8 there's still water in the system, but we've identified
9 several places where groundwater, you can see it
10 actually squirting up into the, into the pipes. So
11 fixing or fixing the places where it's getting into the
12 pipe is something we're looking at.

13 MR. MICHAEL MUNSON: In fact that line, one of
14 my older hats that I wore, I was the village manager for
15 the Village of Oscoda board member and we have a RV lot
16 that's, that's adjacent to where that pipe runs. And we
17 had to close off a third of it because what was
18 happening is evidently in the Air Force days that was a
19 antenna base. They had huge concrete blocks and they,
20 they had antennas.

21 Well, they took the steel down, but all they
22 did with the block is they just pushed them in the holes
23 and filled them with dirt. Well, the blocks sat kind of
24 like this and this and this so you had huge holes in
25 here that the water could run in and those blocks

1 weren't, weren't secure and they kind of slid around.
2 We lost a number of vehicles in those holes and we would
3 have a contractor come fill them up. Sure enough, the
4 next year when we, when the snow melted, there was,
5 there would be more holes. So my point being I don't
6 know how far back down that line you went, but I would
7 think when you get over by the RV lot there's going to
8 be a substantial amount of work I'm guessing that has to
9 be done to address just the ground and those concrete
10 blocks, whether we take them out, stack them in a corner
11 someplace and fill that with dirt so the, the, the line
12 stays integral and doesn't get damaged.

13 MR. STEVE WILLIS: And we have in the past
14 worked with the township for the Mission Street system.
15 The storm water line runs through housing had root
16 intrusion into it and so the line got plugged up, part
17 of it collapsed. So every time it would rain hard that
18 street would flood. The winter it turns into an ice
19 rink. And so we worked with the township, set up an
20 agreement and they fixed the line and then we reimbursed
21 them for the cost of that. So there is mechanisms for
22 that, for that type of activity.

23 MR. TIM CUMMINGS: 7th Street.

24 MR. MICHAEL MUNSON: What's that?

25 MR. TIM CUMMINGS: That was 7th Street that

1 Mission Drive.

2 MR. MICHAEL MUNSON: Yeah.

3 MR. STEVE WILLIS: That's right.

4 MR. MICHAEL MUNSON: Yeah, that was the little
5 toy -- there was at one point dinosaurs floating in that
6 pond, that water that, that built up. I think it even
7 got in the paper.

8 (Public Comment at 7:47 p.m.)

9 MS. JESSIE HOWARD: Okay. So at this time
10 we're going to move on to the public comment section.
11 I'm just going to quickly review the guidelines. Please
12 raise your hand to indicate that you would like to make
13 a comment. Someone from my team will bring a microphone
14 over to you. Please remember to say and maybe spell
15 your last name if it's a difficult one. Please keep
16 your comment to three minutes or less. And remember
17 that your comment will be addressed at a later time if
18 the RAB members do determine that a follow up is needed.
19 I think Tony was first.

20 TONY SPANIOLA

21 MR. TONY SPANIOLA: Thank you. Tony Spaniola,
22 S-p-a-n-i-o-l-a. Van Etten Lake homeowner. I would
23 like to ask a question and then make a comment. And my
24 question is that it's my understanding the, the
25 management change that's been announced here tonight is

1 a really big deal and we thank you for doing that. And
2 my understanding is that on the site going forward that
3 technical decisions will now be made or finally signed
4 off on by a team that, like, maybe John is on it, John
5 Gillespie. Is that something you could, you can kind of
6 explain for us how that's going to work going forward?
7 Because I think it's -- understanding it's going to be
8 different and that's really important, I think, for us
9 to understand.

10 MR. STEVE WILLIS: Typically for the public
11 comment period, Bren, they, they make their comment. If
12 they've got questions, and then we respond to it at a
13 subsequent time. Otherwise we'll never get through all
14 the public comments.

15 MR. TONY SPANIOLA: Wait a minute. Wait a
16 minute. This is a, this is a major, major thing here.
17 And, and to, to put this off to the next RAB meeting is
18 -- come on. Is that what we're going to do?

19 MR. STEVE WILLIS: So let's give everyone else
20 an opportunity to, to make their public comments and
21 then we'll come back to you, Tony.

22 MR. TONY SPANIOLA: Okay. Then I'll --

23 MR. STEVE WILLIS: Because I just -- I want --

24 MS. CATHY WUSTERBARTH: I object, Steve. He
25 should be able to finish his comments. Everyone on the,

1 on the RAB agree with that?

2 MR. STEVE WILLIS: I agree he should finish his
3 comment.

4 MS. CATHY WUSTERBARTH: Yes.

5 MR. STEVE WILLIS: But an Air Force response to
6 that should come after everyone else has had an
7 opportunity.

8 MS. CATHY WUSTERBARTH: I disagree. Brenda is
9 right here. She is ready to answer the question.

10 MR. TONY SPANIOLA: Okay. However you want to
11 do it, if we can get an answer tonight I would really
12 appreciate it. My, my comment then is this: I think,

13 Brenda, when you were talking at the beginning
14 you noted three things that, that stand out. I think
15 there's a fourth and that's that the work needs to be
16 done right. It needs to be done technically correct.
17 And that's the whole nub of the, the reason for the AAA
18 independent review request that was made and which I
19 initially made over a year ago. And I think that -- I
20 think as we discussed earlier, if we could engage a
21 technical review committee here, I think that's
22 something that's in your process so that on an ongoing
23 basis our community experts can be involved, I think
24 that would be fantastic. And so I also just want to say
25 that it can't be business as usual going forward. I

1 just -- it's, it's just not, not going to work. I don't
2 think anybody, certainly the Community RAB folks I don't
3 -- I think nobody would disagree with me in that regard.

4 And along those lines, I really want to give a
5 big shout out to the people who helped to bring this all
6 about. And first of all, it, it starts with the RAB.

7 Without the active engagement of the RAB and the
8 incredible comments that were made at the start of this
9 Alert Aircraft Area review, this would never have
10 happened. And so thank you. I also want to thank Under
11 Secretary William LaPlante in the Office of the
12 Secretary of Defense; Assistant Secretary Brendan Owens;
13 Deputy Assistant Secretary of the Air Force Michelle
14 Balkus (sic); Michelle Brown. I, I think there's more
15 people, but I -- those folks come to mind immediately
16 and this took a lot of work over a long, long period of
17 time. And, again, to John Gillespie and to, to Mark
18 Stapleton and the rest, thank you, thank you, thank you.

19 You're welcome here all the time. We need your
20 help. And as well to Mr. Johnson and Brenda for being
21 here tonight. It speaks volumes. Your presence here
22 speaks volumes to us. And lastly, I want to thank --
23 and we, we receive tremendous congressional support here
24 and I want to say Kelly Lively from Senator Peters'
25 office is, is here tonight. Senator Peters, the HSGAC

1 oversight committee team has put in tremendous work to
2 help us out. Senator Elect Elissa Slotkin, a little bit
3 more behind the scenes has been incredibly engaged to
4 help us with the Department of Defense. Congressman
5 Jack Bergman with the Air Force as well. I could go on
6 because there are others in the congressional delegation
7 who've done that. And so it starts with the RAB and it,
8 it's made its way to the right place. And so I think we
9 have something here to be thankful for and to look
10 forward to. Lots of work ahead, but thank you all.

11 MS. JESSIE HOWARD: Thank you, Tony. I think
12 at this time we have two people joining us virtually who
13 would like to make a public comment and we'll start with
14 Marjorie. If you could please unmute yourself, say and
15 spell your name, and address the RAB? Thank you.
16 Marjorie, did we have a comment for the RAB? Okay. I
17 think we also have Dave Winn on with us virtually as
18 well. Dave, if you can unmute yourself and address the
19 RAB whenever you are ready?

20 MR. DAVE WINN: Can you hear me now?

21 MS. JESSIE HOWARD: Yes, we can.

22 MR. DAVE WINN: Can you hear me okay now?

23 MS. JESSIE HOWARD: Yes, we can.

24 DAVE WINN

25 MR. DAVE WINN: Okay. Dave Winn, W-i-n-n,

1 previous RAB member. I've got a couple of comments I'd
2 like to make. I noticed on slide 6 the RI data gap
3 investigation, there's been no talk about foam
4 transport.

5 And I want to remind everyone that the, I think
6 either the last RAB or the RAB before, Dave Carmona
7 spent almost a year putting together a slide
8 presentation and data on foam transport around Van Etten
9 Lake. I'm assuming that ended up in a circular file
10 somewhere because I haven't seen anything. I don't
11 think anybody. So my question is what is going to be
12 done about foam transport?

13 Second comment I want to make is relative to
14 the data gap investigation. Based on the short range
15 time -- the, the short range schedule you have, it shows
16 a year to complete. And I want to remind everybody
17 again the RI, the original RI, started in July of 2021.
18 So that's three and a half years so far, and now it's
19 going to be another year.

20 And so as Tony just mentioned, doing things
21 right the first time would have probably saved a lot of
22 time. Okay? So my third comment I want to bring up is
23 the long range forecast. Every schedule that I've been,
24 that I've seen in the last two years shows at every RAB
25 the schedule moves out, moves, keeps moving further out.

1 Based on the long-range forecast, the final remediation
2 design and build moved out six to nine months. I want
3 everybody to understand, 2030, so another five, six
4 years from now, you aren't going to see a final remedial
5 build and, and integration. So I think somebody, again,
6 through Air Force management or something needs to look
7 at these schedules because every RAB for the last two
8 and a half years, the schedule moves out, out, out. So
9 when everybody's developing the CERCLA process, they
10 need to put a timeline to it because I've been working
11 on this program since 2015, and we're still another five
12 years off. So that, that's my comment. Thank you.

13 MS. JESSIE HOWARD: Thank you. Do we have any
14 additional public comments from those of us in the room?
15 He's going to bring you a mic.

16 BILL PALMER

17 MR. BILL PALMER: Yeah. Hi. My name is Bill
18 Palmer. I'm the former supervisor here of Oscoda
19 Township. We had our meeting yesterday with Mr. Willis
20 and the members from the Air Force and those meetings
21 typically we've talked about issues with the township,
22 not necessarily RAB measures. But I want to thank Steve
23 and the members for considering a problem that we're
24 having at the township and that is coming up with money
25 to reimburse people who paid out of pocket to connect to

1 the water main that we extended primarily along Loud
2 Drive. Tony Spaniola can testify to that. The problem
3 we're having is that the original grant we received was
4 a USDA grant, a million dollars, which didn't allow for
5 paying for hookups to residents, only for extending the
6 main. Subsequent to that, we received what's called a
7 C2R2 grant through EGLE which then allowed us to extend
8 more water mains and they also agreed to pay for people
9 to hook up to that original water main. So now what you
10 have is you have one neighbor who has paid out of pocket
11 to hook up to it, the neighbor next to him is getting it
12 put in for free. And the township has been struggling
13 to find resources through grants or whatever, money to
14 reimburse those folks that paid out of pocket. And at
15 our meeting Thurs-, or yesterday, Mr. Willis and Brenda
16 agreed to look into some sort of a formula where the Air
17 Force would actually pay to hook up those people.

18 Because if you remember originally back in
19 2015, '16 was originally started, the Air Force agreed
20 that any wells that were found that had over 70 parts
21 per trillion, they would pay to hook those residents up
22 to municipal water. Well, now those, those MCLs have,
23 have lowered greatly from 70, so I believe a lot of
24 those people that were on that phase two of the water
25 main project on Loud Drive would have had MCL levels in

1 their drinking water above the current 12 limits, 12
2 part limit that is in existence now. So I was, I was
3 appreciative that they will look into some sort of a
4 program where the people can, can apply directly with
5 the Air Force to get reimbursed for that.

6 The other topic that was brought up, like Mr.
7 Munson brought up, the letter that they received from
8 EGLE, we did. The township did receive a similar letter
9 from EGLE having to do with our wastewater treatment
10 plant which we operate under a permit through EGLE. And
11 in past years we have always complied on that permit.
12 They test the effluent on a periodic basis. We've
13 always been good, below all the levels that are required
14 until they started testing for PFAS. Once they started
15 testing for PFAS, now we're in violation. We did, our
16 engineers did locate one source at hangar seven.

17 There's some pipes in the ground that had
18 large amounts of AFFF and PFAS there. They capped off
19 those pipes and so that reduced the amount of PFAS
20 coming into our system greatly, but it's, it's still
21 there. And so our, the township's theory was that over
22 time -- and we did. We applied for a CWSRF grant. Part
23 of that grant will be used to put in a system to treat
24 the effluent coming out of the system. The problem that
25 the engineers are facing with that is it's much

1 different trying to filter effluent coming from a
2 wastewater treatment plant. That water has all sorts of
3 biological things in it that you wouldn't necessarily
4 have in groundwater that you're trying to run through a
5 GAC filter. So they're trying to design some sort of
6 system that will pre-treat that, but take it out so the
7 GAC will be effective. That's -- that has turned out to
8 be quite a problem the engineers are dealing with. But
9 we're looking at that and the Air Force has agreed that
10 they will be investigating and working with us to try
11 and cut down on that PFAS that's coming into our system
12 that may be on the base because from the township's
13 perspective, we know there's PFAS in virtually
14 everything that there is.

15 And so over the years, in order to be
16 compliance on our permit with EGLE, we've, we felt that
17 it was going to be necessary to put some sort of a
18 system in to treat that effluent over the years because
19 PFAS is so prevalent and ends up in your wastewater
20 treatment plants even separate from the Air Force
21 problem. But I was encouraged that Steve has assured us
22 that the Air Force will be looking into that, any, any
23 wat-, PFAS that's coming in from the base and/or our
24 wastewater treatment plant to mitigate those flows.
25 Thank you.

1 MS. JESSIE HOWARD: Thank you. Do we have any
2 other public comments?

3 MS. WENDI MICHAEL: Marjorie would like to try
4 again.

5 MS. JESSIE HOWARD: Okay. Marjorie, whenever
6 you're ready, you can unmute yourself and address the
7 RAB. Do we have --

8 MS. WENDI MICHAEL: She put her comment in the
9 chat, I believe.

10 MS. JESSIE HOWARD: Okay. Do we have anybody
11 else with a public comment in the room? She's typing,
12 Wendi? No? Okay. If there's no other public comments,
13 we can go ahead and go to the closing remarks.

14 MR. STEVE WILLIS: Before, before we do that,
15 it is 8:00, but it seems like there was an overwhelming
16 interest in addressing Tony's comment and Bren may or
17 may not be at the next RAB. So if you want to address
18 his comment regarding the reorganization, we can go
19 ahead and do that now.

20 MS. BRENDA RUSH: Thank you, Steve. Okay. So,
21 Tony, that was a great question. And I wanted to first
22 off address that we are looking at a reorganization that
23 we're -- the BRAC team, since we're finishing up the
24 real property actions now, we're going to be moving it
25 over to Kenny Johnson's team. That's good because we

1 can leverage lessons learned and he'll be having John
2 Gillespie and others and Noblis who were involved in the
3 reviews. But my third point was design and I meant that
4 to cover. Our designs will be more collaborative. I've
5 heard that loud and clear from the community and you.
6 That was my third point: Timelines, transparency and
7 designs. So by that I mean we will be having a, a more
8 broad team leaning forward before the RABs to make sure
9 we're all looking with all of our technical experts
10 including those at the table here well in advance of the
11 RAB, making sure we're all in lock step and our arms are
12 locked on, we have an optimum design before we move
13 forward.

14 MR. TONY SPANIOLA: My question is who, who,
15 who will be the ultimate decision maker within the
16 (inaudible), the management on technical matters?

17 MS. BRENDA RUSH: Well, I guess if we need a
18 referee, it goes to the director. Right? But typically
19 I think we have enough good experts that we're going to
20 come to a consensus like we did last week on the
21 Aircraft Alert apron. I think we'll come to consensus
22 with the right folks on the table well before the RAB.
23 Usually they're -- you know, we don't like to have a
24 referee on the technical issues. So I'm confident with
25 the right folks at the table and we get all the data

1 together, we're going to be having, you know, good
2 decisions that we all agree upon. Absolutely and
3 Noblis, yes, absolutely.

4 MR. TONY SPANIOLA: Will John and company be
5 involved in --

6 MS. BRENDA RUSH: Absolutely, Noblis;
7 absolutely. John? John, did you want to say something?
8 Yeah, I'll bring -- thank you.

9 MR. JOHN GILLESPIE: So one, one thing, just a
10 class at the military -- a class the military made us
11 take and guys like myself who just do this for a living,
12 so why are they -- I'm taking this class. And it was
13 called Acquisition Management 3. Right? And, and the
14 class is about men and women sitting around a table who
15 are building, you know, advanced fighters. I'm saying
16 why, why am I doing that? But I learned a lot from that
17 class because that's exactly how we work, you know, in
18 Mr. Johnson's group. Most of my days are spent sitting
19 around a table with a screen, other people online,
20 talking how to get through this, this, this challenge of
21 addressing PFAS on from the technical nature. Right?
22 And so what I envision from Mr. Johnson and Ms. Rush is
23 I'm going to embed one of my guys in with Steve and
24 Steve's going to use him -- gentleman works in my unit,
25 and I'll be there, too. Dr. Glover, Kent Glover, will

1 be there. The Noblis people as needed. The, the expert
2 -- type of expertise needed at the time. And so it will
3 be an integrated project team just like how we build,
4 you know, F-35 fighters, you know, but we'll be digging
5 dirt and stuff instead. Right? So that's, that's our
6 vision of how, how we're going to work with our team,
7 Steve, the A&E firms we work with, the subcontractors
8 and, and it, it will work.

9 It's worked for us for many years or worked for
10 me for many years, so, sir. Ma'am?

11 MS. BRENDA RUSH: I have one more thing I
12 wanted to say. Just I want to reiterate our commitment.
13 It will not be business as usual. We are going to have
14 a fresh start and we're going to be much more
15 collaborative and transparent.

16 MR. TONY SPANIOLA: Thank you.

17 MS. JESSIE HOWARD: Wendi's messaging that
18 there's a request to restate Tony's original question.
19 Sorry.

20 MR. TONY SPANIOLA: This is what happens when
21 you wait. Yeah. My question was with the new
22 management structure who would be the decision makers on
23 technical matters going forward.

24 MS. JESSIE HOWARD: Thank you. And thank you
25 for the response. There is no other questions from the

1 public here. I will turn it over to the co-chairs.

2 Arnie? Yeah. Sure.

3 MR. ARNIE LERICHE: One minute before --

4 MS. JESSIE HOWARD: I'm timing you.

5 MR. ARNIE LERICHE: Has the sampling on the
6 private properties for foam that may have blown up onto
7 their properties, has that been completed or is that a
8 data gap and it's in the investigation to do?

9 MR. STEVE WILLIS: It's in the data gap
10 investigation.

11 MR. ARNIE LERICHE: Okay.

12 MR. STEVE WILLIS: The table, the table that I
13 sent you guys includes that.

14 MR. ARNIE LERICHE: Okay. Then I would suggest
15 that we will use the action, two action items that we
16 asked, the two of us, the different people asked for you
17 to contact people, researchers who have been here,
18 sampled and wrote reports and everything from Oregon
19 State University and then EPA, and we ask for a
20 presentation to be conducted, that was mine. There's
21 been no update in over a year to include what
22 conversations or if you've been able to have that kind
23 of conversation with those, the, those researchers or
24 EPA or the sampling and stuff like that. We have to
25 work these, you know, as information or as we accomplish

1 tracking the -- in getting the final answer basically.

2 MR. STEVE WILLIS: Right. Okay. Yep.

3 MR. ARNIE LERICHE: So we need those kind of
4 details --

5 MR. STEVE WILLIS: I'll have an update for the,
6 the meeting the 11th of December.

7 MR. ARNIE LERICHE: Okay. Thank you.

8 MS. JESSIE HOWARD: Thank you.

9 MR. STEVE WILLIS: Okay. So this used to be
10 earlier in the, in the slide deck. I moved it to the
11 end kind of as a wrap-up. So this is our schedule for
12 RAB meetings for the next year just for planning
13 purposes, so mark your calendars. Next slide.

14 (Conclusion at 8:08 p.m.)

15 MR. STEVE WILLIS: And that's it for tonight's
16 meeting. Again, as Mark indicated early on, it's good
17 to see some new faces here. We've always got a crowd,
18 but by and large it usually ends up being the Air Force
19 and our contractors and EGLE and their contractors. But
20 it's good to see some new faces from the community here
21 that have got some interest in what's going on. So I
22 look forward to continued public participation in the
23 future.

24 MR. MARK HENRY: I'd like to thank all the
25 members of the public and government that are here and

1 consultants, et cetera. I look forward to changes
2 coming to this process and that those changes will make
3 the process not only more streamlined, but better.

4 MS. JESSIE HOWARD: Thank you both. Everyone
5 have a lovely evening.

6 (Proceeding concluded at 8:09 p.m.)
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CERTIFICATE

I, Marcy A. Klingshirn, a Certified Electronic Recorder and Notary Public within and for the State of Michigan, do hereby certify:

That this transcript, consisting of 136 pages, is a complete, true, and correct record given in this meeting on November 20, 2024.

I further certify that I am not related to any of the parties to this action by blood or marriage; and that I am not interested in the outcome of this matter, financial or otherwise.

IN WITNESS THEREOF, I have hereunto set my hand this 3rd day of December, 2024.

Marcy A. Klingshirn

Marcy A. Klingshirn, CER 6924

Notary Public, State of Michigan

County of Eaton

My commission expires: March 30, 2029

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024

Index: \$1.4..40

| | | | | |
|------------------|------------------|--------------|-----------------|---------------|
| | 55:20 | 107:8 | 125:17 | 2nd |
| \$ | 56:15 | 108:5 | 2024 | 37:9 |
| | 10-minute | 190 | 5:2,5 | |
| \$1.4 | 76:15 | 10:2 13:1 | 77:10 | 3 |
| 27:7 | 100 | 34:14 | 115:15 | |
| \$1.5 | 40:13 | | 2025 | 3 |
| 26:14,22,23 | 105 | 2 | 23:23 | 132:13 |
| | 114:18 | | 2030 | 3,000 |
| \$10 | 11 | 2 | 126:3 | 26:19 |
| 96:18 | 41:6,11 | 49:22 | 20th | 49:22,23 |
| 102:10 | | 87:7 | 5:5 | 52:21 |
| \$100,000 | 115 | 2,- | 21 | 55:21 |
| 110:7 | 52:20 | 55:21 | 82:17 | 56:22 |
| \$25,000 | 11th | 56:21 | 87:10 | 30 |
| 110:4,6 | 41:4 | 2,000 | 23 | 9:25 12:2 |
| \$267 | 116:17 | 49:22 | 114:21 | 41:5 |
| 35:9 | 135:6 | 50:10 | 115:3 | 52:25 |
| \$5 | 12 | 2,666 | 24 | 97:13,14,15 |
| 112:17 | 88:21 | 37:12 | 87:4 92:7 | 30-day |
| | 95:5 | 20 | 24/7 | 98:1 |
| | 128:1 | 5:2 26:20 | 118:3 | 30/31 |
| - | 12th | 54:4 | 24/7/365 | 16:18 |
| | 29:5 | 61:13 | 27:2 | 17:6 |
| -burse | 14 | 73:25 | 240 | 31 |
| 25:7 | 35:5 | 74:8 | 26:18 | 20:19 |
| | 1500 | 200 | 25 | 380 |
| 1 | 118:4 | 50:11 | 10:1 | 37:11 |
| | 16 | 2005 | 82:16 | |
| 1 | 127:19 | 33:11 | 84:13 | 4 |
| 56:15 | 18 | 2015 | 26 | |
| 87:2 | 88:21 | 126:11 | 92:7 | 4 |
| 1,000 | 92:8,14,19 | 127:19 | 266 | 87:4 |
| 51:6 | 18-month | 2016 | 37:11 | 40 |
| 52:22 | 92:24 | 33:8 | 28 | 9:25 |
| 1,1,2 | 94:19 | 2017 | 92:1 | 13:13 |
| 85:16 | 95:4 96:5 | 37:10 | 29 | 16:13 |
| 10 | 18th | 2020 | 91:23 | 41:11 |
| 29:6 | 41:3 | 82:11 | 29th | 43:12 |
| 76:16 | 19 | 2021 | 77:10 | 45:24 |
| 10,000 | 42:15 | 82:12 | | 52:6 |
| 44:2 | | | | 55:24 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: 41..aces

| | | | | |
|--------------------|----------------|--------------|----------------|--------------------|
| 41 | 55 | 6:46 | 8:00 | 91:24 |
| 44:17 | 111:14,21 | 76:19 | 130:15 | abbreviatio |
| 53:11 | | | | n |
| 70:17 | 57 | 6:51 | 8:08 | 75:23 |
| 72:17 | 82:19 | 81:6 | 135:14 | |
| | 87:4 | | 8:09 | ability |
| 42,000 | 570 | 7 | 136:6 | 42:8,12 |
| 55:17 | 49:8 | | 8th | 95:1 |
| | | | 23:3 | abso- |
| 43 | 575 | 70 | | 62:24 |
| 29:17 | 79:22 | 49:24 | | |
| 82:17 | | 127:20,23 | 9 | absolutely |
| 84:24 | 580 | | | 47:12 |
| 87:16 | 49:8 | 72 | | 54:24 |
| | | 87:5 | 9,- | 60:17 |
| 45 | 5:00 | 75 | 55:19 | 88:6 |
| 80:13 | 5:3 | 68:12 | 90 | 96:23 |
| 458 | 5:00:48 | 79 | 75:10 | 104:12 |
| 13:5 | 5:2 | 68:12 | 933 | 106:1 |
| 47 | 5:12 | 7:03 | 29:6 | 132:2,3, |
| 80:13 | 15:7 | 88:19 | 95 | 6,7 |
| | 5:47 | 7:16 | 67:24 | absorbable |
| 5 | 38:21 | 99:3 | 98 | 69:20 |
| | 5:53 | 7:47 | 8:24 | ac- |
| 5 | 43:6 | 120:8 | 99 | 28:5 |
| 87:10 | | 7th | 40:13 | accelerate |
| 50 | 6 | 119:23,25 | | 11:10,19 |
| 27:3 | | | A | 15:24 |
| 55:23 | 6 | | | 16:22 |
| 62:9 | 125:2 | 8 | | 17:1 |
| 72:16 | | | A&e | 62:22 |
| 103:11 | 60 | 8 | 66:10 | 63:4 |
| | 26:21 | 82:18 | 133:7 | 91:25 |
| 50-year-old | 60-day | 87:10 | AAA | 93:5,8 |
| 27:4 | 97:12 | | 8:6 13:25 | 96:2 |
| 5067 | 602 | 8,000 | 44:4 | acceleratin |
| 29:17 | 60:12 | 13:2 | 53:10 | g |
| 82:17 | | 80 | 76:19 | 11:8 |
| 85:6 | 608 | 34:13,14 | 77:2 | acceleratio |
| | 60:11 | 73:15 | 107:9 | n |
| 5068 | 634 | 74:8 | 122:17 | 93:6 |
| 82:17 | 60:6 | 861 | Aaron | aces |
| 85:12 | 69 | 29:6 | 33:7 | 106:7 |
| 86:9 | 87:5 | 87 | ab | |
| 5300 | | 37:11 | | |
| 13:14 | | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: access..agreed

| | | | | |
|--------------------|--------------------|-------------------|--------------------|--------------------|
| access | 41:18 | addendums | addressing | AFCEC |
| 84:21 | 76:2 | 86:22 | 56:3 | 30:15 |
| | 85:4,10 | 87:1 | 130:16 | 66:14 |
| accomplish | 91:6,12 | 98:16 | 132:21 | 73:19 |
| 134:25 | 104:16 | | | 85:21 |
| acknowledge | 105:22 | addition | adjacent | 109:22 |
| 10:8 | 130:24 | 83:20 | 118:16 | |
| 67:14 | | 86:20 | adjournment | affect |
| | active | | 8:9 | 35:4 |
| acknowledge | 9:3 12:25 | additional | | 72:12 |
| s | 33:3,16 | 15:20 | administrat | affected |
| 28:8 | 123:7 | 17:24 | ive | 74:1 |
| | | 18:4,8 | 115:9 | |
| Acquisition | actively | 24:7 | adolescents | affects |
| 132:13 | 11:22 | 41:18 | 29:7 | 114:6 |
| | | 44:13,18, | | |
| acres | activities | 25 51:18 | adults | AFFF |
| 26:18 | 22:3 | 53:22 | 29:6 | 128:18 |
| act | 81:15 | 67:16 | | affiliation |
| 31:25 | 83:1 | 86:25 | advance | 5:12 |
| | 86:10 | 87:2,5 | 82:10 | |
| acting | 87:3,5,9, | 88:8 | 131:10 | afford |
| 32:5 | 13 88:13 | 93:14 | | 32:21 |
| | 100:19 | 101:16 | advanced | |
| action | | 108:2 | 132:15 | afternoon |
| 12:16 | activities/ | 111:20 | | 96:9 |
| 27:13,25 | projects | 118:6 | advantage | |
| 34:8 | 88:23 | 126:14 | 78:24 | agencies |
| 41:2,3,6, | | | 79:1 | 75:21 |
| 11 67:18 | activity | | | |
| 82:13 | 119:22 | address | advised | agency |
| 83:23 | | 8:7 28:12 | 114:22 | 34:21 |
| 84:17 | add | 35:22 | Advisory | 69:16 |
| 85:7,9 | 52:1 | 38:1,14, | 5:5 | |
| 86:17 | 85:20 | 18 62:15 | | agenda |
| 95:17 | 97:16 | 66:1 | advocate | 8:2 37:25 |
| 101:23 | | 67:13 | 12:4 | agree |
| 106:3,24 | added | 103:2,10 | | 21:2 |
| 107:17 | 20:17 | 111:10,16 | AECOM | 25:18 |
| 111:16 | 30:21 | 119:9 | 23:8 | 96:4 |
| 114:18 | 42:13 | 124:15,18 | Aerostar | 101:18 |
| 115:2,6, | 101:14 | 130:6,17, | 64:3 81:1 | 113:7 |
| 8,17,18 | 115:7 | 22 | | 122:1,2 |
| 116:16 | addendum | | aesthetic | 132:2 |
| 117:3 | 67:7,9 | addressed | 19:19 | |
| 134:15 | 85:25 | 18:16 | aesthetics | agreed |
| | 86:8 | 65:24 | 19:15 | 22:25 |
| | 87:2,6,7 | 67:15,18 | | 41:5 94:4 |
| actions | 89:10 | 105:24 | af- | 127:8,16, |
| 10:11 | | 120:17 | 43:20 | 19 129:9 |
| 14:1 | | | | |

| | | | | |
|------------------|-----------------|--------------------|-------------------|--------------------|
| agreement | 76:7 | airplanes | 53:2 | annihilator |
| 119:20 | 82:21 | 26:21 | amount | 37:24 |
| ahead | 83:6,17, | airport | 69:17 | announced |
| 13:24 | 20,24 | 20:1 | 92:11 | 120:25 |
| 21:11 | 84:3,16, | 25:13 | 119:8 | answers |
| 38:7,13, | 17,20 | 26:11,16, | 128:19 | 36:11 |
| 16,17,20 | 85:1,9 | 23,25 | amounts | 46:18 |
| 43:5 52:2 | 89:4 | 27:1,2, | 128:18 | ante |
| 54:18,21 | 93:11 | 10,14,16 | Amy | 31:16 |
| 57:17 | 98:18 | 28:1,5 | 6:16,17 | antenna |
| 76:20 | 104:25 | 32:4,5 | 21:4,25 | 118:19 |
| 84:21 | 105:24 | 60:5 | 22:1 | antennas |
| 91:20 | 106:6 | 82:23 | 24:11 | 118:20 |
| 94:11 | 110:19 | 112:2,11 | 75:19 | Antonio |
| 102:1 | 111:19 | 114:12 | 76:9 | 8:16 |
| 124:10 | 112:9,16, | Alaska | 86:21 | apparently |
| 130:13,19 | 18 113:5, | 105:1 | 116:1,15, | 112:6 |
| air | 16,19,25 | alert | 18,22 | appearance |
| 6:10 8:3, | 114:13 | 15:10 | Amy's | 100:10 |
| 11,16 | 116:8 | 16:8 22:8 | 114:16 | appears |
| 12:25 | 118:18 | 30:12,17 | analogy | 100:13 |
| 13:12,13 | 122:5 | 36:16,19 | 48:16 | application |
| 14:4,8,21 | 123:13 | 43:2,6 | 63:15 | 41:22,24 |
| 15:5 16:8 | 124:5 | 45:13 | analysis | 42:20 |
| 22:25 | 126:6,20 | 48:22 | 17:3 | 109:6,25 |
| 23:18,20 | 127:16,19 | 50:7 | 53:22 | applied |
| 24:18 | 128:5 | 51:4,11, | 54:15 | 73:10 |
| 25:6,17, | 129:9,20, | 21 76:22 | 57:12 | 128:22 |
| 21,22 | 22 135:18 | 77:2 | 59:5 60:2 | apply |
| 26:3,4,6, | Aircraft | 89:13 | 94:23 | 128:4 |
| 15 27:11, | 15:10 | 99:14 | 95:24 | appointment |
| 14 28:1, | 16:8 22:8 | 101:17 | analytical | s |
| 7,9,11 | 30:12,18 | 108:2 | 45:21 | 29:7 |
| 31:7,13, | 36:16,19 | 123:9 | 47:18 | appreciativ |
| 25 32:8 | 43:2,6 | 131:21 | analyzed | e |
| 33:1,9 | 45:13 | Allonnia | 83:9 | 128:3 |
| 34:16,21 | 48:22 | 39:6,9 | and/or | approach |
| 39:1 | 51:3,21 | allowed | 129:23 | 94:7 |
| 41:18,22 | 76:22 | 127:7 | angle | |
| 42:4 43:9 | 77:2 | alternative | 114:5 | |
| 56:25 | 89:13 | 104:19 | animal | |
| 66:7 | 99:14 | 105:10 | 33:12 | |
| 68:13 | 101:17 | altitude | | |
| 70:21 | 108:2 | 49:9,14 | | |
| 71:8 | 123:9 | | | |
| 75:24 | 131:21 | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: appropriately..back

| | | | | |
|--------------------|---------------|--------------------|--------------------|------------------|
| appropriate | 99:14 | 21 109:8, | assumptions | Austin |
| ly | 100:12 | 9,18 | 111:5 | 9:21 |
| 99:17 | 101:17 | 110:1,3, | Assurance | authority |
| approve | 106:1 | 9,15,22 | 98:23 | 71:22 |
| 109:23 | 107:3,9, | 111:2,7 | assure | 82:23 |
| approved | 11,12,23 | 114:3,4 | 65:21 | 112:3,11 |
| 83:1 | 108:2 | 116:2,7 | assured | avenue |
| 109:20,21 | 123:9 | 134:2,3, | 129:21 | 42:23 |
| apron | area's | 5,11,14 | attach | aviation |
| 51:11,21 | 42:10 | 135:3,7 | 110:22 | 26:17 |
| 131:21 | areas | arrest | attendance | avoid |
| AR | 18:9 46:2 | 44:15 | 6:9 14:6 | 28:10 |
| 20:12,17 | 51:14 | arrived | attended | awaiting |
| area | 55:13,15 | 44:10 | 30:11 | 114:23 |
| 15:10 | 56:4,19 | arrow | attending | award |
| 16:8 22:8 | 63:1 64:8 | 47:5 | 5:19 | 16:18 |
| 29:3 | 87:10 | aspects | attention | 17:19,25 |
| 30:12,18 | 101:15 | 23:13 | 106:25 | 42:5 |
| 31:19,22 | 104:8 | 72:11 | attorneys | awarded |
| 32:2,4 | arms | assessment | 20:9 | 17:13 |
| 34:2 35:3 | 131:11 | 18:19 | Au | 18:12 |
| 36:16,19 | Army | 19:4 29:3 | 6:15 | 89:8 |
| 43:2,6 | 33:16 | 32:17 | 63:19 | 90:12 |
| 45:12,13 | Arnie | 34:5 82:8 | 68:1,2,3, | 91:13 |
| 47:21 | 7:10,11 | 83:16,19 | 4 69:8,14 | 93:4 |
| 48:22 | 21:18 | 84:12 | 70:25 | aware |
| 49:11,24 | 32:23,25 | 85:2 | 71:24 | 23:6 |
| 50:1,3,5, | 34:15 | 86:14 | 74:3 | 24:20 |
| 8,23 | 35:20 | assessments | 95:19 | 28:4,18 |
| 51:1,4, | 37:5,13 | 42:3 | audience | 56:24 |
| 11,17,20 | 56:4,5,9, | 100:5 | 19:23 | 80:16 |
| 52:3,15, | 14 57:5, | Assessor | 37:22 | awesome |
| 16,19 | 9,25 | 81:11 | 47:10 | 36:8 |
| 55:6,7,16 | 58:22 | assist | 64:12 | awhile |
| 62:23 | 59:1,7 | 87:22 | audio | 13:3 |
| 63:19 | 70:13,14, | Assistance | 66:18 | |
| 68:22 | 16,20 | 41:21 | August | B |
| 69:21 | 71:4,7, | assistant | 19:11 | |
| 70:18,23 | 15,21,25 | 14:21 | 22:6,21 | back |
| 76:22 | 72:15,21, | 123:12,13 | 37:9 | 12:16 |
| 77:2 | 23 97:2, | assuming | | 23:4,11 |
| 78:17 | 4,5,15, | 125:9 | | |
| 89:13 | 18,20 | | | |
| 92:10,12 | 98:6,13, | | | |

| | | | | |
|-------------------|------------------|------------------|------------------|-------------------|
| 24:2 25:5 | bankrupt | basement | 122:13 | 101:24 |
| 39:21 | 32:4 | 84:18 | belief | Bill |
| 40:25 | Banks | basically | 31:20 | 7:7,8 |
| 42:15 | 67:22 | 19:1 | believed | 32:14,16 |
| 43:20 | 70:11 | 82:12 | 117:19 | 54:12,13, |
| 44:24,25 | 73:24 | 84:2,4 | belt | 15 56:2 |
| 49:10 | 74:7,18, | 90:4 | 10:4 | 94:9,12, |
| 51:6 | 21 | 105:4 | 13:14 | 25 105:18 |
| 52:12 | Barrie | 109:14 | Ben | 106:22 |
| 55:3 | 81:11 | 115:17 | 30:5 | 126:16,17 |
| 56:3,6 | basal | 135:1 | bend | bio |
| 59:19 | 61:9 | basis | 51:22 | 75:9 |
| 60:8,9 | base | 80:13 | beneath | biological |
| 66:6,7 | 13:15 | 122:23 | 87:23,24 | 129:3 |
| 67:21 | 20:3,5 | 128:12 | bit | 5:13,25 |
| 68:16 | 67:4 | battery | Bergman | 6:21 9:5, |
| 72:10 | 68:7,12, | 47:25 | 124:5 | 11 11:13 |
| 76:16 | 14,24 | 102:8 | Bergman's | 23:25 |
| 77:18 | 87:20 | BB&E | 21:13 | 44:9,22 |
| 78:4,11, | 89:21 | 81:5,9 | bet | 76:23 |
| 17 85:23 | 101:11 | BCT | 49:1 | 77:5 |
| 93:16,21, | 105:23 | 19:10,11 | Beth | 85:24 |
| 22 94:22 | 106:3,9, | 20:12,14 | 114:16, | 90:23 |
| 105:5,20 | 25 | 22:7 | 20,22 | 94:1 |
| 106:17 | 112:13, | 23:23 | bidder's | 124:2 |
| 108:6 | 15,24 | bear | 42:13 | blob |
| 109:12 | 113:10, | 10:6 | big | 56:10,11, |
| 115:8,14 | 14,15 | beautiful | 22:13 | 21 |
| 117:12 | 118:19 | 58:2 | 26:13 | block |
| 119:6 | 129:12,23 | beck | 31:3 | 118:22 |
| 121:21 | base-wide | 66:9 | 47:4,20 | blocks |
| 127:18 | 101:9 | becks | 50:13 | 118:19, |
| backchecks | based | 66:7 | 60:10 | 23,25 |
| 24:8 | 16:21 | beds | 66:3,4 | 119:10 |
| backing | 29:18 | 75:10,11 | 71:17 | blowers |
| 66:14 | 31:13 | began | 98:8 | 83:24 |
| backup | 44:5 | 77:10 | 102:15 | blown |
| 42:18 | 57:13 | begin | 106:13 | 134:6 |
| bacteria | 82:11,20 | 24:15 | 121:1 | board |
| 75:9 | 95:24 | 104:11 | 123:5 | 5:5 11:3 |
| Balance | 125:14 | beginning | bigger | 24:3 |
| 29:8,11 | 126:1 | | 59:10 | |
| Balkus | baseline | | | |
| 123:14 | 59:16,17 | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024

Index: boat..call

| | | | | |
|----------------|-------------------|-----------------|------------------|--------------------|
| 118:15 | boundaries | Brendan | brought | 82:13,16, |
| boat | 11:19 | 123:12 | 23:7 | 18 83:4 |
| 69:4 73:3 | 105:22,24 | Brian | 128:6,7 | 84:4,6,9, |
| Bob | 106:2,3 | 12:21 | Brown | 10 88:2,5 |
| 108:12,14 | boundary | bridge | 14:19,20 | built |
| bodies | 106:25 | 71:9 | 64:25 | 120:6 |
| 68:23 | box | briefed | 111:9 | bull |
| body | 45:11,14 | 33:12 | 123:14 | 113:16 |
| 67:25 | BRAC | 95:25 | Bryan | bullet |
| BOND | 8:19,21, | briefly | 6:20 | 25:16 |
| 76:20 | 25 12:23 | 42:7 | buddy | bump |
| 78:15,18, | 13:13 | bring | 47:25 | 46:16 |
| 21,25 | 16:10 | 8:13 | 57:18 | burden |
| 79:3,8, | 21:21 | 12:14 | budget | 112:11 |
| 20,25 | 33:1,2,4 | 14:3,10 | 26:22 | business |
| 80:10 | 34:16 | 40:19 | 33:19 | 8:5 12:3 |
| 81:2 | 35:10 | 52:15 | build | 26:18 |
| BONDS | 56:17 | 56:5 | 17:15 | 38:4,10, |
| 118:5 | 130:23 | 70:23 | 48:17 | 21,23 |
| book | Branch | 79:15 | 102:10 | 41:1 |
| 68:15 | 21:21 | 98:10 | 126:2,5 | 122:25 |
| boring | brand | 120:13 | 133:3 | 133:13 |
| 63:10 | 47:1 | 123:5 | building | |
| borings | break | 125:22 | 15:18,21 | C |
| 47:22 | 12:13 | 126:15 | 39:11 | |
| boss | 76:15 | 132:8 | 47:3 | C2r2 |
| 13:17 | 94:9 | bringing | 74:25 | 127:7 |
| bosses | Bren | 10:5 | 77:15,25 | ca- |
| 35:19 | 121:11 | 11:12 | 78:9,20 | 29:3 |
| bottom | 130:16 | 15:20 | 79:4,14, | calculate |
| 50:10 | Brenda | 33:1 | 16 82:15, | 59:23,24 |
| 60:12 | 8:14,16 | 35:14 | 16,17,24 | calculation |
| 61:4 | 12:17 | 54:1 | 83:23 | s |
| 65:25 | 31:21 | 64:17 | 84:13,14, | 34:6 |
| 79:23 | 36:24 | brings | 20,21,24 | calendars |
| 80:2,19 | 116:25 | 50:9 | 85:3,5,6, | 135:13 |
| 83:5 | 122:8,13 | broad | 8,12,20 | call |
| 107:20 | 123:20 | 75:24 | 86:9 | 46:10,25 |
| bought | 127:15 | 131:8 | 87:16 | 47:22 |
| 9:12 | 130:20 | broader | 132:15 | 49:18 |
| | 131:17 | 19:13 | buildings | 50:22 |
| | 132:6 | 100:2 | 27:6,20 | |
| | 133:11 | 103:19 | 29:17,19, | |
| | | | 21 81:24 | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: called..cleanup

| | | | | |
|------------------|-------------------|--------------------|--------------------|--------------------|
| 58:7 66:8 | care | 113:3 | 18:23 | citizens |
| 70:3 | 113:18 | Celeste | 89:2 | 31:12 |
| 76:15 | Carmona | 81:5,7,8 | characteriz | city |
| called | 7:5,6 | 88:6,15, | e | 25:2 |
| 45:12 | 30:22,24 | 16 | 92:11 | 103:25 |
| 51:19 | 62:8 | Center | charged | civil |
| 61:13,21 | 63:6,9 | 8:17 | 25:4 | 8:16 12:2 |
| 66:8 | 72:25 | 13:12 | 27:13,14, | 13:12 |
| 127:6 | 73:10 | central | 25 28:1 | 43:8 |
| 132:13 | 99:7,8 | 15:2 | 31:7 | clarificati |
| campaign | 100:6,23 | 20:2,4 | chart | on |
| 29:4 | 101:3 | 21:21 | 101:15 | 102:3 |
| cancer | 102:19 | 79:11 | charts | clarificati |
| 31:10 | 104:6,7 | 108:1 | 97:8 | ons |
| canister | 105:14 | CERCLA | chase | 93:15 |
| 78:20 | 116:24 | 19:17 | 55:2,3 | Clark's |
| capacity | 125:6 | 97:6,22 | chasing | 32:19 |
| 54:4 74:9 | case | 126:9 | 52:14 | 69:12 |
| 108:2 | 55:9 | cetera | 55:4 | class |
| capped | 61:14 | 136:1 | chat | 132:10, |
| 128:18 | cases | chain | 130:9 | 12,14,17 |
| capture | 93:23 | 33:18 | check | clean |
| 18:22 | casualties | challenge | 23:5 | 9:23 10:6 |
| 19:1 50:3 | 31:10 | 132:20 | 80:17 | 20:23 |
| 53:13,15, | category | challenges | Chelsea | 27:11 |
| 18,21 | 19:14 | 104:23 | 6:22,24 | 53:1 |
| 60:2 77:7 | Cathy | challenging | 28:23 | 60:23 |
| 106:8 | 7:17,19 | 79:19 | 29:1 | 62:25 |
| captured | 36:4,5 | chance | chief | 70:22 |
| 34:2 | 37:21 | 29:4 | 13:13 | 99:21 |
| 61:15 | 38:5,8 | 77:19 | 15:2 | cleaned |
| capturing | 48:11,13 | change | 21:21 | 26:8 31:6 |
| 49:24 | 91:19,21 | 58:16 | children | cleaning |
| 50:4,5 | 92:1 | 78:23 | 9:12 | 9:10 |
| 51:1 | 95:9,12 | 79:3 94:3 | chump | 10:13 |
| 99:20 | 96:6 | 117:8 | 117:8 | 26:1 45:9 |
| carbon | 121:24 | 120:25 | circles | 50:16 |
| 75:10,11 | 122:4,8 | chapters | 71:18 | 95:21 |
| 77:22 | caught | 19:2 | circular | cleanup |
| 78:20 | 35:18 | characteriz | 125:9 | 9:2,3 |
| 79:3,5 | caused | ation | | 10:1 |
| | 25:17 | | | 19:18 |
| | 65:10 | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: cleanups..compounds

| | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|
| 25:22 | collapsed | 8:8 25:15 | communicati | compared |
| 54:18 | 119:17 | 28:22 | ng | 83:11 |
| 63:4 | colleagues | 65:5,13 | 12:6 | comparing |
| cleanups | 61:23 | 97:9 98:2 | communicati | 59:17 |
| 13:24 | collect | 107:2 | on | competitive |
| clear | 19:5 | 115:8 | 34:25 | ly |
| 111:4 | 53:16 | 117:16 | 114:6 | 42:5 |
| 131:5 | 90:7 | 120:8,10, | communities | compile |
| close | 101:19 | 13,16,17, | 8:23 | 18:6 |
| 91:10 | collected | 23 121:11 | 31:12 | complete |
| 118:17 | 18:20 | 122:3,12 | community | 29:9 64:1 |
| closed | 44:14 | 124:13,16 | 7:2 10:6 | 82:8 84:9 |
| 29:5 | 81:23 | 125:13,22 | 12:18 | 100:4 |
| 41:11 | 82:11,20, | 126:12 | 13:22 | 125:16 |
| closing | 22 83:6,9 | 130:8,11, | 17:4 30:9 | completed |
| 27:15,20 | 84:7 | 16,18 | 31:5 | 29:4,7 |
| 130:13 | 88:12 | comments | 32:8,13, | 81:15,17 |
| closure | 89:3 | 36:6 | 22 34:18, | 83:1 |
| 29:16 | 100:20 | 93:13,14, | 22 40:5 | 86:6,22 |
| closures | collecting | 18 98:3 | 44:1 | 107:17 |
| 27:18 | 17:22 | 108:19 | 67:13 | 114:23 |
| co- | 44:18 | 121:14, | 98:11,17 | 134:7 |
| 110:16 | 87:25 | 20,25 | 99:8,16 | completely |
| co-chair | 89:23,25 | 123:8 | 101:11 | 100:19 |
| 37:15 | 92:16 | 125:1 | 103:18 | completing |
| 75:21 | collections | 126:14 | 106:21 | 101:25 |
| co-chairs | 101:21 | 130:2,12 | 109:11 | completion |
| 5:20 | colorations | commit | 110:10, | 82:15 |
| 110:17 | 56:15 | 11:6 | 12,16,23 | complex |
| 134:1 | colored | commitment | 111:3 | 17:12 |
| coincide | 64:7 | 11:5 93:9 | 112:14,24 | 93:1 |
| 94:20 | colorful | 133:12 | 117:11 | 95:16,21 |
| collaborati | 56:6 | committed | 122:23 | compliance |
| on | column | 9:10 | 123:2 | 58:12,13, |
| 10:15 | 88:5 | committee | 131:5 | 14 129:16 |
| 23:1 | command | 75:22 | 135:20 | complied |
| collaborati | 13:1 | 122:21 | compact | 128:11 |
| ve | 33:19 | 124:1 | 95:1 | components |
| 131:4 | commend | committing | companies | 102:4 |
| 133:15 | 37:13 | 11:15 | 26:19 | compounds |
| comment | comment | communicate | company | 40:14 |
| | | d | 132:4 | |
| | | 34:18 | compare | |
| | | | 83:13,17 | |

| | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|
| 82:6 | 135:14 | 114:11 | contaminati | contract |
| 84:25 | concrete | considerati | on | 11:17,20 |
| comprehendi | 118:19 | on | 9:20 | 16:18 |
| ng | 119:9 | 117:5 | 25:17,21, | 17:13,20, |
| 100:24 | conditions | considerati | 24,25 | 25 18:12, |
| compress | 71:11 | ons | 26:6 | 14,17,21 |
| 95:4 | conduct | 40:3 | 27:10,11 | 42:6 89:8 |
| conc- | 102:6 | considered | 44:16 | 90:13 |
| 69:13 | 111:20 | 36:18 | 55:4,11, | 91:14 |
| concentrati | conducted | constrict | 12 59:22 | contracting |
| on | 82:4,10 | 95:1 | 80:7 | 42:5 |
| 39:17 | 134:20 | constructio | 99:22 | contractor |
| 50:3,5 | conference | n | 105:9 | 16:19,22 |
| 112:25 | 104:21 | 15:11,13 | 106:13 | 23:7,8 |
| 113:9 | confidence | 43:5 44:6 | 112:4 | 42:9 |
| concentrati | 11:1 | 76:19 | 113:15 | 89:17,20 |
| ons | confident | 77:8,10, | 117:19 | 90:14 |
| 46:24 | 33:15 | 20 78:13 | continental | 93:4 96:3 |
| 69:14 | 131:24 | 81:3 | 9:16 | 109:20 |
| 77:3 | Congress | 89:14,17 | continually | 119:3 |
| 84:18 | 35:9 | consultant | 100:8 | contractors |
| 85:3,8 | congression | 41:23 | continue | 10:23 |
| 104:16 | al | 108:17 | 21:2 | 14:4 24:3 |
| concept | 111:18 | consultants | 28:19 | 35:13 |
| 69:15 | 123:23 | 136:1 | 40:17 | 42:12 |
| 102:9 | 124:6 | contact | 84:11 | 66:10,15 |
| concern | congression | 37:3 | 86:10,16 | 71:8 73:4 |
| 28:16 | als | 134:17 | 90:7 | 95:8 |
| 51:20 | 33:20 | contaminant | continued | 135:19 |
| concerned | Congressman | 20:20 | 135:22 | contracts |
| 9:19 | 124:4 | contaminant | continues | 93:4 |
| concerns | connect | s | 106:13 | contributio |
| 10:8,9 | 103:25 | 31:4 | continuing | n |
| 12:15 | 126:25 | contaminate | 23:17 | 113:14 |
| 36:18 | connection | 87:19 | 77:24 | control |
| 65:5 | 24:25 | contaminate | 88:25 | 39:11 |
| 67:13 | 25:3 | d | 114:15 | 72:18 |
| 99:16 | consensus | 87:18 | continuous | conversatio |
| concluded | 131:20,21 | 88:1 | 48:25 | n |
| 136:6 | consent | 96:11,14 | 49:2 | 134:23 |
| conclusion | | | contour | conversatio |
| 8:9 | | | 49:9 | ns |
| | | | | 20:25 |

| | | | | |
|--------------------|-----------------|-------------------|----------------|-----------------|
| 134:22 | 103:16 | cross- | | 88:9,11, |
| conveyance | 125:1 | section | D | 24 89:3, |
| 112:7 | court | 56:11 | | 6,22,25 |
| cooperates | 5:8 | 77:5 | Dam | 90:7 |
| 16:2 | cover | crosses | 69:11 | 92:16 |
| corner | 131:4 | 44:16 | damage | 93:2 |
| 107:20 | CPA | crossing | 31:5 | 94:22,23 |
| 119:10 | 30:11,16 | 44:16 | damaged | 99:10,11, |
| correct | 36:7 | crowd | 117:21 | 23,25 |
| 32:1 | 95:24 | 135:17 | 119:12 | 100:1,10, |
| 59:11 | 98:8 | Crum | Dan | 11,14,20, |
| 61:12 | 99:18 | 81:12 | 67:22 | 21,24 |
| 109:13 | CPAS | CTS | 70:11 | 101:4,7, |
| 110:14,20 | 102:5 | 79:11 | 73:24 | 9,10,12, |
| 122:16 | Craft | cumbersome | 74:7,18, | 14,19,20, |
| cost | 50:7 | 115:23 | 21 | 24,25 |
| 35:7 | 51:11 | Cummings | Darlene | 102:12,21 |
| 119:21 | crane | 6:12,14 | 80:1 | 104:7 |
| costs | 78:19 | 24:16,18 | data | 107:3 |
| 27:6 | create | 74:19 | 10:12,21 | 116:11 |
| counsel's | 69:23 | 80:21 | 17:22,24 | 125:2,8, |
| 12:22 | creating | 107:6 | 18:3,9,21 | 14 131:25 |
| countercloc | 10:22 | 108:3,15, | 19:5 | 134:8,9 |
| kwise | creek | 20,25 | 22:16,17, | date |
| 71:18 | 68:3 | 109:3,7 | 21 23:18 | 115:7 |
| County | 69:7,8 | 113:7 | 29:15,18 | daughter |
| 44:17 | 96:16 | 119:23,25 | 44:13,19 | 9:21 |
| couple | creep | curious | 45:21 | Dave |
| 11:17 | 31:4 | 103:12 | 48:25 | 7:5,6 |
| 15:9,17 | criteria | current | 51:5 | 30:22,24, |
| 19:9 21:7 | 19:15,16, | 11:9 | 53:17,20, | 25 62:7,8 |
| 23:5 | 19 83:12 | 63:12 | 21,23 | 63:6,9, |
| 25:16 | critical | 89:17 | 54:16 | 15,24 |
| 30:10 | 17:3 | 128:1 | 56:21 | 64:11 |
| 42:25 | 39:19 | cut | 58:3 59:8 | 70:17 |
| 43:1 51:6 | 53:23 | 56:16 | 66:22 | 72:25 |
| 58:15 | 77:13 | 129:11 | 67:6 | 73:10,13 |
| 65:3,12 | 95:24 | CWSRF | 70:10 | 75:20 |
| 75:16 | cross | 128:22 | 81:22 | 99:8 |
| 77:17 | 57:14 | cyber | 82:11,20, | 100:6,23 |
| 90:17 | | 65:1 | 22 83:11, | 101:3 |
| 94:14 | | | 14,17 | 102:19 |
| | | | 84:3,7 | 104:5,6,7 |
| | | | 85:23 | 105:14 |
| | | | | 116:24 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: day..difficult

| | | | | |
|---|---|---|--|---|
| 124:17, 18,20,22, 24,25 125:6 | decision 15:14 34:24 84:5 97:21 98:14 131:15 133:22 | delayed 35:6 delays 77:12 delegation 124:6 delineated 100:4 102:15 delineating 107:10 delineation 83:12,19 | depending 62:10 105:8 deploying 83:24 depth 116:6 deputy 14:21 123:13 DERP 75:22 76:6 97:6 | detailed 44:9 details 135:4 detect 47:24 detected 85:1,8 detecting 69:25 detections 85:15,17 determine 44:14 82:12 83:22 86:16 88:3 114:18 120:18 determined 112:23 determining 25:21 developed 46:21 developing 126:9 development 23:18 diamonds 55:3 die 32:1 difference 59:25 99:23 difficult 35:7 120:15 |
| day 65:13 73:14,17 114:13 | decisions 24:1,5 35:4 81:23 121:3 132:2 | | | |
| days 8:21 37:12 41:5 64:3 118:18 132:18 | | | | |
| deal 33:19 112:4 113:16 121:1 | deck 42:14 43:21 135:10 deep 26:12 27:9 52:17 53:1 62:3 90:3 112:12 | deliverable 18:25 demanded 26:5 demonstrate 39:3 53:23 demonstrati on 39:24 40:7,12 105:1 demonstrati ons 40:20 Denise 6:20 density 59:21 department 6:22 12:23 28:24 111:19 124:4 depend 104:15 | design 10:14 16:9 17:14 80:18 93:3 100:1,12 106:7,12 126:2 129:5 131:3,12 designed 50:2 54:3,5 77:2 99:15,17 designing 10:16 designs 10:21,23, 25 11:2, 14,22 131:4,7 destroy 39:20 destruction 39:8 detail 44:10 | |
| dealing 56:14 117:2,18 129:8 | | | | |
| deals 65:17 | | | | |
| debt 31:12 | deer 32:18 Defense 76:6 123:12 124:4 defer 12:9 63:3 79:25 define 82:5 defined 50:24 degree 53:14,18 delay 15:18 | | | |
| decade 20:23 | | | | |
| decades 31:6 62:14 69:10 | | | | |
| December 15:16,20 41:4,6 77:11 116:17 135:6 | | | | |
| decided 9:8 | | | | |

| | | | | |
|--------------------|--------------------|--------------------|-------------------|--------------------|
| diffused | 112:8 | 28:12 | Dod/epa/ | 111:10 , |
| 71:16 | 122:8 | 89:22,24 | department | 17,20 |
| | 123:3 | 90:1,4,9 | 39:2 | 128:1 |
| diffuses | | 96:13 | dollar | drive |
| 71:15 | disappeared | 99:1 | 117:8 | 63:11 |
| | 11:21 | | | 120:1 |
| digging | discharge | diverting | dollars | 127:2,25 |
| 105:9 | 69:18 | 39:14 | 96:20 | |
| 133:4 | | | 127:4 | DRMO |
| diluted | discharging | divide | | 16:17 |
| 72:7 | 96:12,15 | 9:17 | domestic | 17:5 |
| | 113:3 | DNA | 31:8 | 90:12 |
| dinosaurs | disconnect | 9:23 | door | 91:14 |
| 120:5 | 117:6 | document | 79:15 | 95:2 |
| dire | discovered | 18:24 | 84:22 | dropped |
| 32:13 | 68:13 | 25:14 | doors | 79:12 |
| direct | discuss | 65:5 87:8 | 11:13 | drums |
| 33:18 | 80:12 | 93:13 | dots | 39:18 |
| directly | 108:7 | documentati | 56:18 | dubious |
| 10:5 | discussed | on | doubt | 67:24 |
| 95:19 | 19:11 | 20:9 94:8 | 71:21 | due |
| 110:18 | 20:24 | documenting | downstream | 27:18 |
| 114:9 | 96:9 | 5:9 | 58:1 | dump |
| 128:4 | 122:20 | documents | 105:20 | 116:11 |
| director | discussion | 17:19 | draft | duplication |
| 8:17 | 41:14 | 23:4,12 | 17:16 | 102:16 |
| 14:14,22 | 72:1 91:7 | 24:7 | 33:7 | dynamic |
| 131:18 | 106:18 | 41:17 | drain | 19:19 |
| directorate | discussions | 42:2 89:3 | 62:14 | |
| 8:18,20 | 23:20 | 93:8,9,11 | 71:17 | |
| 9:4 14:23 | 66:24 | 94:7,21 | | |
| 33:2 | | 108:18 | draw | E |
| dirt | dispute | Dod | 63:12 | |
| 118:23 | 23:21 | 31:9 | drawdown | e-mails |
| 119:11 | dissipating | 33:16 | 80:16 | 37:2 |
| 133:5 | 55:25 | 35:7 | drawings | earlier |
| dirty | dissolved | 41:20 | 80:18 | 41:7 |
| 45:6,10, | 75:8 | 76:8 | | 66:22 |
| 16 46:1, | distributio | 103:7,8 | drill | 77:9 |
| 6,9,10 | n | 109:12 | 52:20 | 81:14 |
| 47:17 | 85:19 | 111:14, | drinking | 86:21 |
| 50:15 | ditch | 15,17,21 | 68:6 | 89:1 |
| 64:8 | 17:7 | 117:9 | 98:22 | 90:15 |
| disagree | | | 103:20,24 | 98:12 |

| | | | | |
|--------------------|-------------------|--------------------|--------------------|--------------------|
| 108:5 | 56:23 | Elect | 59:5 84:5 | enrolled |
| 112:2 | | 124:2 | 86:12 | 29:6 |
| 122:20 | efficiency | elevation | 94:21,22 | enrollment |
| 135:10 | 58:19 | 60:5 | 96:12 | 29:4 |
| | 60:1 | 79:23 | 97:24,25 | |
| early | efficient | | 135:11 | ensure |
| 10:15,20 | 57:24 | eliminate | | 10:15 |
| 18:1 | 115:23 | 28:20 | ended | 99:19 |
| 19:18 | | 93:17 | 22:6 | |
| 24:9 | effluent | 96:11,21 | 33:11 | enter |
| 135:16 | 128:12,24 | 117:10 | 125:9 | 84:23 |
| | 129:1,18 | | | |
| earmarked | effort | Elissa | ends | entering |
| 27:17 | 22:15 | 124:2 | 69:8 | 69:14 |
| easily | 36:15,20 | emanating | 129:19 | 96:11 |
| 32:21 | 86:1,9 | 53:13 | 135:18 | 113:1,21 |
| 36:17 | | | | |
| east | efforts | embed | energy | enters |
| 105:25 | 53:22 | 132:23 | 39:2 | 69:8 |
| | | | 105:7 | Entertainme |
| eat | EGLE | emphasis | engage | nt |
| 32:18 | 6:16 18:1 | 94:8 | 98:10 | 5:7 |
| eating | 19:7 | employ | 122:20 | entities |
| 33:25 | 20:10,24 | 27:20 | | 102:17 |
| ecological | 21:1,6,25 | employers | engaged | environment |
| 18:19 | 25:14 | 32:3 | 28:18 | 9:10,24 |
| economic | 26:5,9 | emptying | 115:12 | 13:7 54:8 |
| 31:5 | 27:9,16 | 96:15 | 124:3 | 96:22 |
| economical | 28:6,10, | encourage | engagement | environment |
| ly | 19 34:21 | 29:20,22 | 103:7 | al |
| 32:21 | 66:23 | 75:14 | 123:7 | 9:1,3,21 |
| effect | 67:8,9,13 | encouraged | engineer | 10:1 12:1 |
| 33:14,23 | 82:23 | 129:21 | 8:17 | 14:22 |
| | 83:11 | | 13:12 | 31:23 |
| effective | 86:7,21 | encouraging | 58:21 | 76:7 |
| 34:19 | 87:6 89:5 | 54:2 | 63:2 | |
| 40:15 | 92:15 | end | engineer's | envision |
| 57:23 | 93:7,12, | 5:17 | 52:4 | 102:5 |
| 104:24 | 19 98:17 | 15:12,13, | engineered | 132:22 |
| 105:3,10 | 114:13 | 16,19 | 20:19 | EPA |
| 129:7 | 127:7 | 16:19 | engineering | 18:24 |
| | 128:8,9, | 20:22 | 9:22 33:2 | 41:14 |
| effectivene | 10 129:16 | 22:6 24:8 | engineers | 83:10,14, |
| ss | 135:19 | 29:5 | | 18,20,21 |
| 44:14 | EGLE's | 35:11 | 13:6 | 84:18 |
| 53:24 | 21:4 93:9 | 42:14 | 128:16,25 | 85:4 |
| | 115:11 | | 129:8 | 134:19,24 |

| | | | | |
|--------------------|--------------------|--------------------|-------------------|--------------------|
| equipment | evaluated | 105:3 | 24:7 | 127:1 |
| 72:18 | 17:9 | | 36:10 | |
| 90:6 | 86:14 | exceedances | 77:11 | extending |
| | | 84:25 | | 127:5 |
| Eric | evaluation | 85:7,13 | expedite | extension |
| 6:15,16 | 16:9 87:2 | exceeded | 113:19 | 31:17 |
| escaping | 95:23 | 84:16,18 | expensive | extent |
| 75:23 | 101:9 | 85:1 | 75:11 | 19:3 |
| essence | evaluations | excellent | 105:7 | 82:5,6 |
| 112:20 | 24:5 | 10:19 | experience | extraction |
| essentially | evening | excited | 9:25 12:2 | 20:22 |
| 9:5 | 5:22 6:4 | 13:9 23:7 | 40:1 64:4 | 49:19,20 |
| | 8:11 | 70:8 | 108:14 | 53:12 |
| establishin | 14:19 | | expert | 59:20,22 |
| g | 22:1 36:4 | excuse | 12:1 | 61:6,7 |
| 33:10 | 43:23 | 26:15 | 81:12 | 77:7 |
| Etten | 81:7 | 28:1 | 133:1 | 78:3,4 |
| 15:12 | 103:7 | 49:13 | | 79:22 |
| 31:2 | 136:5 | 74:19 | expertise | 87:20 |
| 39:12 | | 97:25 | 10:20 | 92:11 |
| 47:3,16 | event | 99:1 | 108:14 | 101:18 |
| 49:2,13 | 59:16 | 112:24 | 133:2 | 105:21 |
| 51:3,24 | 85:13 | | | 106:7,15 |
| 55:10,13 | 90:1 | exercise | experts | |
| 56:19 | | 67:5 | 10:6,19, | |
| 58:4 | events | existed | 22,24 | F |
| 62:14 | 81:19 | 31:11 | 11:3,13, | |
| 67:23 | 82:20 | 79:14 | 23 12:10 | |
| 68:3 | eventually | existence | 35:15 | F-35 |
| 69:3,5,7, | 57:3 | 128:2 | 65:8 | 133:4 |
| 8 70:18 | 58:17 | | 105:11 | F-41 |
| 71:24 | everybody's | existential | 122:23 | 55:21 |
| 74:18,21 | 76:21 | 31:25 | 131:9,19 | FAA |
| 79:13 | 94:2 | expand | explain | 27:1 |
| 105:25 | 126:9 | 54:6 | 47:9 | face |
| 107:22 | everyone's | expect | 48:24 | 72:3 |
| 120:22 | 14:6 | 23:19 | 57:16 | faces |
| 125:8 | evidence | 37:3 76:4 | 121:6 | 135:17,20 |
| Europe | 44:6,11 | 91:22 | exposure | facilitate |
| 10:1 | evidently | 116:25 | 29:3,21, | 41:16 |
| evalua- | 118:18 | 117:11 | 23 32:16 | facilitatin |
| 24:4 | exaggerate | expectation | extend | g |
| evaluate | 50:15 | s | 31:6 | 30:19 |
| 20:9 | excavate | 36:25 | 127:7 | |
| | | expected | extended | |

| | | | | |
|--------------------|--------------------|-----------------|------------------|------------------|
| facilitator | faster | fell | fill | 95:6 |
| 5:6 | 93:10 | 31:21 | 5:14 | 113:20 |
| facility | 95:7 | fellows | 42:20 | 115:9 |
| 53:14 | feasibility | 22:19 | 119:3,11 | 127:13 |
| 54:5 55:8 | 18:4 | felt | filled | findings |
| facing | 86:16 | 31:1 | 118:23 | 30:17 |
| 128:25 | 91:5 | 35:11 | filter | fine |
| fact | February | 129:16 | 73:24 | 25:13 |
| 40:11 | 81:14 | fence | 74:2,8,10 | 26:9 |
| 65:21 | federal | 62:13,17 | 75:3 | 57:19 |
| 118:13 | 8:22 14:8 | field | 129:1,5 | fined |
| factor | 21:9 | 17:23 | filtered | 27:12 |
| 16:4 | fee | 18:20 | 70:22 | fines |
| failing | 25:3 | 39:4 | final | 28:10 |
| 27:5 | feed | 44:18 | 18:5 21:1 | finish |
| fair | 17:19 | 53:22 | 53:8 | 17:25 |
| 26:10 | 18:10 | 54:8 | 67:19 | 19:6 35:8 |
| 33:5,6 | 89:12 | 59:10 | 85:14 | 38:7 |
| faith | 90:8 | 67:12 | 89:12 | 66:23 |
| 30:25 | 100:21 | 72:16 | 91:6,11, | 67:11 |
| fall | 101:19 | 81:14 | 13,16 | 78:8 |
| 19:14 | feedback | 86:10,13, | 97:25 | 121:25 |
| fallen | 21:1 | 24 87:13 | 99:25 | 122:2 |
| 12:19 | 108:21 | 89:9,10 | 100:3,5, | finished |
| familiar | feeds | 90:15 | 21 101:20 | 15:21 |
| 19:25 | 71:1 | 94:13,17, | 104:17 | finishing |
| 42:10 | feel | 19 102:11 | 106:16,24 | 64:6 91:4 |
| 45:11 | 34:25 | fighters | 114:24 | 130:23 |
| 92:9 | 112:10 | 132:15 | 126:1,4 | fire |
| families | 113:4 | figure | finalize | 98:22 |
| 25:7 | feeling | 50:21 | 20:11,16 | firms |
| fans | 35:1 | 67:2 | finalized | 133:7 |
| 83:24 | fees | 105:12 | 20:15 | firsthand |
| fantastic | 28:11 | 107:10, | finally | 40:1 |
| 122:24 | feet | 16,19,20 | 56:16 | fish |
| fascinating | 50:10,11 | 113:12 | 121:3 | 32:18 |
| 37:24 | 60:6,12, | 115:19 | financial | 33:25 |
| fast | 13 61:22 | figured | 26:16 | 68:1 |
| 55:25 | 62:6 | 40:5 | find | fix |
| | 80:13 | file | 45:21 | 96:13,19 |
| | 90:2 | 125:9 | 52:21 | 112:18 |
| | 118:4 | | 87:23 | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: fixed..frequently

| | | | | |
|-----------------|------------------|------------------|------------------|--------------------|
| 113:5 | 39:6,16, | Foote | 114:14 | 13:8 17:9 |
| 117:8 | 22 125:3, | 69:11 | 116:8 | 21:3 |
| fixed | 8,12 | footprint | 118:18 | 23:15 |
| 96:14 | 134:6 | 49:25 | 122:5 | 44:8 94:5 |
| 119:20 | focus | Force | 123:13 | 113:22 |
| fixing | 19:12 | 6:10 8:3, | 124:5 | 121:2,6 |
| 118:11 | 23:24 | 11,16 | 126:6,20 | 122:25 |
| flag | 88:12 | 12:25 | 127:17,19 | 124:10 |
| 46:12 | 107:9 | 13:12,13 | 128:5 | 131:8,13 |
| floating | focused | 14:4,8,21 | 129:9,20, | 133:23 |
| 120:5 | 106:5 | 15:5 16:8 | 22 135:18 | 135:22 |
| flood | focusing | 22:25 | Force's | 136:1 |
| 119:18 | 9:7,22 | 23:18,20 | 112:18 | fought |
| flow | 19:17 | 24:18 | 113:6 | 31:9 |
| 45:20 | 106:19 | 25:6,17, | forced | fouling |
| 59:24 | folks | 21,23 | 32:4 | 75:9 |
| 90:1 | 13:19 | 26:3,4,6, | forcing | found |
| 106:13 | 14:3 | 15 27:11, | 26:11 | 25:25 |
| 112:9 | 25:14 | 14 28:1, | 31:11 | 26:7 37:8 |
| flowing | 27:21 | 7,9,11 | forecast | 91:14 |
| 59:24 | 30:15 | 31:7,14, | 8:7 16:21 | 95:3,5 |
| 95:15,18 | 65:20 | 25 32:8 | 88:19,21 | 127:20 |
| 118:2 | 103:21 | 33:1,9 | 99:2 | fourth |
| flows | 116:3 | 34:16,21 | 125:23 | 22:16 |
| 118:2 | 123:2,15 | 39:1 | 126:1 | 94:13 |
| 129:24 | 127:14 | 41:19,23 | forecasts | 122:15 |
| fluorine | 131:22,25 | 42:5 43:9 | 88:18 | fractionati |
| 69:20 | follow | 56:25 | foreign | on |
| flush | 19:1 | 66:7 | 31:8 | 37:23 |
| 70:22,23 | 75:19 | 68:13 | forest | 39:7,22 |
| 71:23 | 82:4 | 70:21 | 7:1,24 | frame |
| 105:21 | 115:6 | 71:8 | 30:1,6 | 62:11 |
| flushing | 116:1 | 75:24 | 31:24 | 77:21 |
| 62:22 | 120:18 | 76:8 | 103:5 | 88:22 |
| flux | follow-up | 84:20 | forgot | 94:20 |
| 57:12,13 | 63:6 | 89:4 | 115:17 | frames |
| 59:19 | food | 93:11 | formula | 36:25 |
| 112:23 | 75:9 | 98:18 | 127:16 | 37:4 |
| 113:12 | foot | 104:25 | forum | free |
| foam | 44:2 | 105:25 | 75:22 | 127:12 |
| 37:23 | 79:22 | 106:6 | forward | frequently |
| | 80:3 | 110:19 | 5:25 6:1 | 93:14 |
| | | 111:19 | | |
| | | 112:10,16 | | |
| | | 113:16, | | |
| | | 19,25 | | |

| | | | | |
|----------------|------------------|------------------|-------------------|---------------|
| fresh | Gaines | Gary | 62:11 | give |
| 35:14 | 7:7,8 | 6:22,24 | Geological | 5:10,15 |
| 133:14 | 32:14,16 | 14:13 | 68:17 | 16:14 |
| front | 54:12,14, | 29:1 | 69:16 | 23:13 |
| 34:22 | 15,24 | gas | 70:4 | 24:13 |
| 94:21 | 94:9,12, | 82:7 | Geosyntec | 38:23 |
| fruit | 25 | 86:23,25 | 23:9 | 43:15 |
| 117:2,4 | 105:17,18 | 87:9 | get all | 62:16 |
| full | 106:22 | gather | 131:25 | 76:22 |
| 10:25 | galleries | 100:8,24 | Gillespie | 93:19 |
| 18:18 | 78:6 | gathered | 13:4 16:6 | 98:13 |
| 39:5 40:4 | games | 99:10 | 30:15 | 108:21 |
| 66:14 | 48:17 | gathering | 43:7,8 | 110:12 |
| 110:21 | Gangnuss | 99:10 | 45:2,4 | 115:21 |
| fully | 8:19 9:1 | 100:10,11 | 47:12 | 121:19 |
| 28:3,7,18 | 13:10,12 | gauge | 48:2,6,9, | 123:4 |
| 61:8 | Gantt | 69:3,5,10 | 13 54:10, | glad |
| 67:14 | 97:8 | gauges | 13,21,23 | 37:15,16 |
| fun | gap | 68:22 | 56:8,13 | 40:9 |
| 40:11 | 22:21 | gauging | 57:4,8, | Glover |
| 50:18 | 23:19 | 69:2 | 15,20 | 132:25 |
| funding | 48:24 | gave | 58:10,13, | goal |
| 25:2 45:7 | 67:6 | 76:24 | 25 59:4, | 50:2 |
| future | 88:24 | general | 11 60:3, | goals |
| 23:20,23 | 89:6 | 12:21 | 7,14,20 | 77:8 |
| 24:5 | 99:23 | 43:15 | 61:1,5,18 | God |
| 55:10 | 100:1,14 | 84:7 | 62:18 | 66:2 |
| 65:22 | 101:9,14 | 103:6 | 63:8,14 | gold |
| 78:23 | 102:12 | generally | 64:16,20, | 55:2 |
| 87:14 | 104:8 | 24:19 | 23 66:1, | good |
| 114:20 | 106:13 | generate | 19 67:20 | 5:22,25 |
| 115:13 | 107:3 | 39:16 | 68:8 69:1 | 13:10,11, |
| 116:10 | 125:2,14 | gentleman | 19 71:3, | 20,21,24 |
| 135:23 | 134:8,9 | 132:24 | 6,14,20, | 14:19 |
| G | gaps | gentlemen | 25 72:19, | 22:1 23:1 |
| | 18:3 | 76:14 | 22,24 | 28:14 |
| | 54:16 | geologic | 73:9,12 | 40:10 |
| GA | 66:22 | 45:25 | 74:11 | 43:23 |
| 27:2 32:5 | 67:15 | 46:21,22 | 75:2,12 | 50:6 53:9 |
| GAC | 100:3 | 50:9 | 76:12 | 54:9 58:1 |
| 129:5,7 | 101:11 | garbled | 121:5 | 61:19,24 |
| | garbled | 66:18 | 123:17 | 64:11 |
| | | | 131:2 | 66:24 |
| | | | 132:9 | 69:21,24 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: gorilla..heard

| | | | | |
|-------------------|--------------------|-------------------|------------------|-------------------|
| 70:11 | greens | Guard | 21:25 | 71:22 |
| 73:21 | 45:16 | 33:3 | 26:15 | hard |
| 81:7 | | | 120:12 | 11:7,11 |
| 110:23 | Greg | guess | handed | 119:17 |
| 128:13 | 7:13,14 | 42:22 | 33:7 | hash |
| 130:25 | 8:19,25 | 66:8 | handful | 93:23 |
| 131:19 | 13:10,11 | 90:17 | 16:7 | haste |
| 132:1 | 35:23,25 | 97:12 | handle | 113:21 |
| 135:16,20 | gripe | 116:11 | 12:22 | hate |
| gorilla | 35:12 | 131:17 | 33:2 | 54:25 |
| 44:3 | ground | guessing | Handley | hats |
| government | 49:19 | 119:8 | 6:16,17 | 118:14 |
| 14:9 21:9 | 55:23 | guidance | 22:1 | haul |
| 24:15 | 62:9 78:5 | 18:24 | 75:19 | 104:18 |
| 69:15 | 104:22 | guidelines | 76:9 | he'll |
| 135:25 | 105:6 | 120:11 | 116:1,18, | 9:4 131:1 |
| gradient | 119:9 | Gurnell | 22 | head |
| 59:15,24 | 128:17 | 21:12,13 | handling | 80:19 |
| 62:12 | groundwater | guy | 34:11 | 85:24 |
| 70:23 | 45:19 | 26:13 | hands | 96:12 |
| grant | 46:11 | 66:7 | 26:10 | headwaters |
| 109:14 | 47:11,16 | 68:16 | 109:19 | 9:13,15 |
| 110:13 | 82:7 | guys | hangar | health |
| 127:3,4,7 | 87:12 | 18:8 | 128:16 | 6:23 |
| 128:22,23 | 88:4,8 | 22:14 | hangars | 18:19 |
| grants | 96:11,14 | 28:4 | 27:4 | 28:25 |
| 127:13 | 99:21 | 42:6,19, | hanging | 81:11 |
| grateful | 112:5 | 22 70:5 | 117:2,4 | 82:8 |
| 36:13 | 113:3 | 77:18,25 | happen | health- |
| great | 117:20,25 | 108:18,23 | 33:21 | based |
| 11:25 | 118:3,9 | 132:11,23 | 105:22 | 19:15,18 |
| 34:23 | 129:4 | 134:13 | happened | hear |
| 38:5 | group | | 123:10 | 5:17 |
| 40:10 | 30:15 | H | happening | 13:23,25 |
| 64:4 | 62:20 | | 75:24 | 14:1 26:4 |
| 130:21 | 75:15 | half | 76:4 | 33:22 |
| greater | 109:11 | 59:8 | 118:18 | 71:23 |
| 56:12 | 132:18 | 92:13 | happy | 73:7 |
| greatly | grouping | 115:1 | 21:13 | 76:16 |
| 50:14 | 88:23 | 125:18 | 34:5 | 124:20,22 |
| 127:23 | grown | 126:8 | 43:19 | heard |
| 128:20 | 9:18 | hand | | |
| | guarantee | 5:20 8:10 | | |
| | 35:4 | | | |

| | | | | |
|----------------|-------------------|-------------------|----------------|--------------------|
| 10:9,10, | 113:8 | hogging | 106:18 | 107:5 |
| 13 33:23 | 135:24 | 70:12 | horns | 111:8,23 |
| 37:17 | hey | hold | 113:16 | 114:3 |
| 56:17 | 13:10 | 80:8 | hose | 117:14 |
| 131:5 | 50:25 | hole | 98:22 | 120:9 |
| hearing | 51:16 | 105:9 | hotspot | 124:11, |
| 107:16 | 52:10 | 112:6 | 49:21 | 21,23 |
| heaters | 64:5 | holes | hours | 126:13 |
| 105:4 | 90:21 | 61:4 | 43:14 | 130:1,5, |
| heating | high | 118:22,24 | house | 10 |
| 27:5 | 39:16 | 119:2,5 | 9:12 31:1 | 133:17,24 |
| held | 44:2 | holidays | housing | 134:4 |
| 77:14 | 50:3,4 | 41:8 | 119:15 | 135:8 |
| helped | 52:7 | Holmes | Howard | 136:4 |
| 123:5 | 55:13 | 52:2 | 5:4,6 | HSGAC |
| helping | 62:23 | Holtz | 6:8,12, | 123:25 |
| 23:12 | 105:7 | 81:5,7,8 | 15,18,20, | huge |
| 37:17 | highest | 88:6,15 | 25 7:5,7, | 31:12 |
| 103:13,14 | 59:21 | homeowner | 9,12,15, | 118:19,24 |
| 115:21 | 77:3 | 120:22 | 17,20,25 | human |
| Henry | highlights | homeowners | 12:20 | 18:19 |
| 6:2 7:3,4 | 54:16 | 27:24 | 14:7,16, | 48:3,6 |
| 19:23 | hire | homework | 24 15:3 | 81:11 |
| 20:2,6 | 41:23 | 20:8 | 21:5,15, | 82:8 |
| 30:8,9 | historic | honors | 24 24:11 | hundreds |
| 40:11 | 24:4 | 67:24 | 25:10 | 103:9 |
| 47:9 | historical | hook | 28:23 | Huron |
| 48:1,5,8 | 88:9 | 127:9,11, | 29:25 | 68:5 |
| 49:17 | hit | 17,21 | 30:7,22 | 71:1,17 |
| 58:9,12 | 12:8 | hookups | 32:14,23 | 72:13 |
| 74:15,23 | 51:6,8,24 | 127:5 | 35:20 | hydrogeolog |
| 75:5,8 | 56:19 | hope | 36:1,3 | y |
| 78:14,16, | 62:5 | 36:14 | 38:9,13, | 50:19 |
| 19,22 | 65:15 | 106:2,23 | 17 40:23 | |
| 79:2,7,9, | hits | hoping | 64:17 | I |
| 17,21 | 45:22 | 33:15 | 74:4,13, | |
| 80:6,20 | 50:20 | 37:19 | 22 76:10, | ice |
| 87:16 | 51:7,23 | 115:20 | 14 80:8 | 119:18 |
| 88:14 | 52:7,8 | horizontal | 81:4 | idea |
| 92:3,6,9 | hitting | 63:10,17 | 88:16 | 31:22 |
| 96:7,9,25 | 52:23 | | 97:1 99:4 | 43:15 |
| 97:13 | 68:22 | | 102:24 | 44:15 |
| 111:25 | | | 104:4 | 49:14 |
| 112:2 | | | 105:16 | |

| | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|
| 53:18 | 111:16 | 18:18 | indication | innovative |
| 61:24 | implement | 19:3 | 97:8 | 75:14,17 |
| 68:10 | 17:15 | 29:8,16 | individual | inordinate |
| 69:21 | 40:4 93:3 | 86:12 | 29:23 | 92:11 |
| 100:12 | 94:4 95:8 | 92:24 | 33:23 | input |
| ideas | 99:15 | 96:1 | 103:23 | 18:11 |
| 34:23 | 100:3 | 134:21 | 106:10 | 36:18 |
| 96:7 | 106:20 | included | indoor | 42:8 |
| identical | implementat | 81:21 | 22:17 | 67:11,12 |
| 92:23 | ion | 82:15 | 82:21 | 89:8 |
| identified | 100:1 | 86:2 | 83:6,17, | 97:23 |
| 13:19 | implementin | 111:15,17 | 20 84:3, | 98:11,14, |
| 29:19 | g | includes | 16,17 | 20 108:19 |
| 56:24 | 39:4 | 92:14 | 85:1,9 | 110:12 |
| 67:17 | implication | 111:21 | industries | inputted |
| 86:15 | s | 134:13 | 32:6 | 52:4 |
| 92:18,22 | 19:13 | including | inexpensive | inside |
| 103:16 | important | 114:7 | 96:18 | 79:4,16 |
| 107:24 | 29:9 | 131:10 | infiltratio | 112:6 |
| 112:22 | 32:7,8 | income | n | insidious |
| 117:3,7 | 33:4 37:4 | 26:14 | 78:6 | 31:4 |
| 118:8 | 48:9,15 | incorporate | inform | installatio |
| identify | 50:16 | 18:12 | 19:23 | n |
| 18:3 | 52:18 | incorporate | information | 98:18 |
| 41:24 | 121:8 | d | 18:22 | 100:2 |
| 42:12 | importantly | 98:4 | 24:4 44:9 | installatio |
| 57:6 | 27:22 | increase | 47:18 | ns |
| 74:13,14 | improve | 11:6 | 51:15 | 8:17 |
| 96:3 97:9 | 117:13 | incredible | 63:23 | 13:13 |
| 104:9 | improvement | 123:8 | 68:21 | 73:16 |
| 117:10 | s | incredibly | 90:9 | 111:15,21 |
| identifying | 11:25 | 124:3 | 98:21 | installed |
| 26:1 | in-depth | independent | 100:8 | 78:3,7 |
| 27:10 | 76:24 | 16:9 | 134:25 | 80:1 |
| immediately | inaudible | 36:16 | initially | 82:18 |
| 123:15 | 66:18 | 41:16 | 122:19 | 83:3 |
| impact | 131:16 | 69:15 | inject | installing |
| 32:20 | inch | 70:4 | 62:25 | 47:23 |
| impacted | 90:2 | 108:17 | injecting | intake |
| 103:17 | include | 114:1 | 105:20 | 71:3,5,16 |
| 107:12 | 17:2 | 122:18 | injection | 72:12 |
| impacts | | | 92:12 | |
| 106:21 | | | | |

| | | | | |
|--------------------|--------------------|--------------------|--------------------|----------------|
| integral | 106:4,19 | 8:6 22:18 | investigati | 17:12,15, |
| 119:12 | interior | 23:14 | ons | 20 92:22 |
| integrated | 82:15 | 29:12,21 | 34:2 54:1 | 93:1 |
| 47:2,21 | Intermed- | 81:5,6,9, | 88:10 | 100:16 |
| 50:23 | 44:24 | 12 82:3, | 107:4 | iron |
| 51:17 | internal | 5,10 | invite | 20:21 |
| 53:13 | 30:10 | 83:14 | 41:10 | Irving |
| 55:7,16 | 35:18 | 86:11,19 | inviting | 5:6 |
| 63:25 | 73:18 | 87:21 | 13:9 | issue |
| 133:3 | 93:7,11 | 88:12 | involved | 65:16,17 |
| integration | internally | 117:20 | 30:20 | issued |
| 126:5 | 22:10 | 119:16 | 32:11 | 28:6 |
| intercept | internation | invasive | 41:15 | issues |
| 77:3 | al | 9:19 | 73:13 | 31:3,11 |
| interest | 9:16 | investigate | 75:25 | 43:25 |
| 13:22 | interpretat | 51:12 | 114:9 | 126:21 |
| 40:6,8 | ion | investigate | 122:23 | 131:24 |
| 58:9,11 | 23:13 | d | 131:2 | Itasca |
| 87:11 | interruptio | 112:21 | 132:5 | 9:14 |
| 130:16 | n | investigati | involvement | item |
| 135:21 | 40:22 | ng | 22:24 | 27:13,25 |
| interested | interval | 129:10 | IRA | 34:8 |
| 42:17 | 80:14 | investigati | 8:6 15:10 | 41:3,6 |
| 103:21 | intimately | on | 16:8,17 | 114:18 |
| 108:23 | 73:13 | 22:21 | 17:2 22:8 | 115:2,17, |
| 109:5 | introduce | 23:19 | 30:18 | 18 116:16 |
| interesting | 5:24 8:12 | 29:13 | 36:19 | items |
| 49:3,6 | 9:9 14:9, | 54:17 | 39:13 | 41:2,11 |
| interim | 18 15:4 | 67:6 | 40:6 | 115:6 |
| 10:11 | 21:8,10, | 81:10 | 43:2,6 | 117:3 |
| 13:25 | 17 | 84:11 | 44:7 | 134:15 |
| 18:25 | introducing | 88:24 | 76:19 | |
| 45:8 | 9:4 | 89:6 | 77:2 90:8 | J |
| 53:10 | introductio | 92:6,13, | 91:9,17 | |
| 67:18 | n | 24 94:14 | 94:8 | Jack |
| 76:2 | 8:4 13:18 | 96:1 | 95:13 | 124:5 |
| 83:22 | introductio | 99:9,12, | 99:14,24 | January |
| 85:4,10 | ns | 18 100:2, | 100:1,20 | 17:5 |
| 91:12 | 5:3 8:2 | 15 101:14 | 101:8 | 95:25 |
| 95:17 | intrusion | 102:4,13 | 104:11,14 | Jeff |
| 97:21 | | 104:8 | 105:12 | 81:12 |
| 99:19 | | 113:20 | 107:22 | |
| 101:23 | | 125:3,14 | IRAS | |
| 104:17 | | 134:8,10 | 15:9 | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: Jessica..Krystal

| | | | | |
|------------------|-------------|------------------|----------------|------------------|
| Jessica | 117:14 | 68:8 69:1 | 36:1,2 | kicking |
| 6:25 7:1, | 120:9 | 70:12,15, | 117:14,17 | 68:10 |
| 21 29:25 | 124:11, | 19 71:3, | July | kid |
| 30:3 | 21,23 | 6,14,20, | 15:13 | 48:16 |
| 38:11 | 126:13 | 25 72:19, | 33:14 | kidney |
| 102:25 | 130:1,5, | 22,24 | 77:10 | 107:23 |
| 103:1,4 | 10 | 73:9,12 | 125:17 | kids |
| 104:3 | 133:17,24 | 74:11 | jump | 9:18 |
| Jessica's | 134:4 | 75:2,12 | 38:23 | kind |
| 111:10 | 135:8 | 76:12,24 | | 9:23 11:4 |
| | 136:4 | 77:4 | K | 13:18 |
| Jessie | | 101:15 | | 16:3 |
| 5:4,6 | Jim | 107:18 | | 22:10 |
| 6:8,12, | 80:1,4,5, | 121:4 | Kalitta | 28:10 |
| 15,18,20, | 12,24 | 123:17 | 32:6 | 35:17 |
| 25 7:5,7, | 81:1 | 131:1 | keeper | 46:11 |
| 9,12,15, | job | 132:4,7,9 | 37:9 | 47:6 53:1 |
| 17,20,22, | 58:20 | Johnson | keeping | 58:16 |
| 23,25 | jobs | 9:2,25 | 30:5 | 62:16 |
| 12:20 | 115:4 | 10:5 | | 63:22 |
| 14:7,16, | John | 12:24 | Kelly | 65:5 |
| 24 15:3 | 16:6,11 | 34:9,14 | 14:12,13 | 77:14 |
| 21:5,15, | 30:15 | 66:6,13 | 123:24 | 83:8 84:1 |
| 24 24:11 | 43:1,5,7, | 73:15 | Ken | 85:15 |
| 25:10 | 8,24 | 123:20 | 39:13 | 86:19 |
| 28:23 | 44:20,24 | 132:22 | 49:11 | 90:22 |
| 29:25 | 45:2,4,9 | Johnson's | 52:15 | 97:7 |
| 30:7,22 | 47:12 | 130:25 | 56:1 | 105:19 |
| 32:14,23 | 48:2,6,9, | 132:18 | 79:14 | 116:2,3 |
| 35:20 | 13 53:7 | joined | 107:21,22 | 118:23 |
| 36:1,3 | 54:10,13, | 5:8 | Kenny | 119:1 |
| 38:9,13, | 21,23 | joining | 9:2,8,25 | 121:5 |
| 17 40:23 | 56:8,13 | 6:21 | 10:2 11:5 | 134:22 |
| 64:17 | 57:4,8, | 14:17,25 | 12:10,12, | 135:3,11 |
| 74:4,13, | 15,20 | 99:6 | 24 13:17 | kinks |
| 22 76:10, | 58:10,13, | 103:1 | 34:14 | 40:3 |
| 14 80:8 | 25 59:4, | 124:12 | 116:25 | knew |
| 81:4,8 | 11 60:3, | joint | 130:25 | 32:19 |
| 88:16 | 7,14,20 | 39:6 | Kent | 47:17 |
| 97:1 99:4 | 61:1,5,18 | 112:6 | 132:25 | knowledge |
| 102:24 | 62:8,18 | Jones | key | 42:11 |
| 103:5 | 63:8,14 | 7:9 | 43:17 | Krystal |
| 104:4 | 64:16,20, | Josh | 102:4 | 21:12,13, |
| 105:16 | 23 66:1, | 7:15,16 | | |
| 107:5 | 19,21,25 | | | |
| 111:8,23 | 67:2,20 | | | |
| 114:3 | | | | |

| | | | | |
|--------------|-------------------|------------------|-----------------|------------------|
| 15 | landowners | 131:8 | 109:8,9, | LF30 |
| Kyle | 27:24 | learned | 18 110:1, | 20:19 |
| 7:9 | Lansing | 10:4 | 3,9,15,22 | LF30/31 |
| | 18:1 | 73:5,17, | 111:2,7 | 87:4 |
| | 68:16 | 20 76:2 | 114:4 | 90:12 |
| L | 70:7 | 131:1 | 116:7 | 95:3 |
| | | 132:16 | 134:3,5, | |
| lab | Laplante | | 11,14 | life |
| 39:3 | 123:11 | learning | 135:3,7 | 75:9 |
| 94:23 | large | 68:15 | | |
| 102:8 | 26:17 | leases | lessons | lifelong |
| | 27:2,8 | 26:20,21, | 10:3 | 67:23 |
| lack | 128:18 | 23 | 73:5,17, | lift |
| 114:6 | 135:18 | | 20 76:1 | 22:13 |
| | | led | 131:1 | 113:10 |
| laid | larger | 87:19 | letter | lifts |
| 59:13 | 77:15 | | 26:11 | 105:4 |
| lake | lastly | left | 27:9 | |
| 9:12,13 | 29:12 | 74:9 90:7 | 33:7,9 | light |
| 15:12 | 123:22 | left-hand | 128:7,8 | 96:18 |
| 31:2 | | 65:6 | | |
| 39:13 | late | legacy | letters | lightings |
| 47:3,17 | 6:21 | 19:22 | 103:22 | 26:25 |
| 49:2,13 | launch | 20:20 | | |
| 51:3,24, | 69:4 | 28:8 | level | limit |
| 25 55:10, | | 33:11 | 44:2 49:9 | 128:2 |
| 13 56:19 | layout | 112:9,16 | 52:5,7 | limiting |
| 57:1 58:4 | 53:12 | | 69:6 | 16:4 |
| 65:6 | le | legend | 84:19 | limits |
| 67:23 | 91:24 | 56:12 | 117:4 | 110:6 |
| 68:5 | | Leriche | levels | 128:1 |
| 69:3,5 | leaders | 7:10,11 | 45:23 | |
| 70:18 | 45:7 | 21:18 | 63:13 | lines |
| 71:1,10, | leadership | 32:25 | 83:15,21 | 31:18 |
| 17,24 | 5:23 8:3 | 34:15 | 84:17 | 44:5,11 |
| 72:4,12, | 13:16 | 56:5,9,14 | 85:7,9 | 74:1,10 |
| 17 74:18, | 33:18 | 57:5,9 | 105:9 | 123:4 |
| 21 79:13 | 46:5 | 58:22 | 127:25 | Lingo |
| 105:21,25 | 63:21 | 59:1,7 | 128:13 | 7:12 |
| 107:3,22 | 66:11 | 70:14,16, | | 35:21 |
| 120:22 | leak | 20 71:4, | leverage | |
| 125:9 | 87:17 | 7,15,21 | 27:23 | lining |
| | | 72:15,21, | 66:15 | 117:21 |
| lakes | leaky | 23 97:2, | 131:1 | |
| 9:18 | 27:4 | 5,15,18, | LF | link |
| land | leaning | 20 98:6, | 16:18 | 42:17 |
| 70:18 | | 13,21 | 17:6 | list |
| | | | | 22:22 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024

Index: listed..make

| | | | | |
|--------------------|-------------------|---------------|----------------|--------------------|
| 23:4 24:7 | locate | longer | 124:10 | 27:3 |
| 35:7,11 | 59:9 | 31:1 | loud | mains |
| 42:13 | 128:16 | 32:18 | 32:7 48:2 | 127:8 |
| 103:13, | located | 36:9 91:4 | 127:1,25 | maintain |
| 14,16 | 99:17 | looked | 131:5 | 26:24 |
| 104:1 | location | 11:3 | love | 27:1,2,3, |
| 110:10, | 101:8,10, | 42:22 | 12:19 | 4 |
| 11,17 | 22 | 51:5 | 31:22 | maintenance |
| 111:19 | locations | 55:16 | lovely | 27:17 |
| listed | 50:21 | 65:7 | 12:18 | 47:2,21 |
| 87:3 | 56:22 | 70:25 | 136:5 | 50:23 |
| listen | 57:6 | 81:24 | low | 51:17 |
| 12:8,15 | 67:3,4 | loop | 52:5 | 53:14 |
| listened | 73:2 88:3 | 30:5 | 117:2,4 | 55:7,16 |
| 56:17 | 100:7 | lost | lowered | 63:25 |
| listening | 101:7 | 15:25 | 127:23 | major |
| 73:1 | 111:15,22 | 30:24,25 | luck | 53:9 |
| 103:6 | lock | 100:16 | 65:15,22 | 121:16 |
| literally | 11:23 | 119:2 | lunch | majority |
| 95:14 | 84:22 | lot | 96:10 | 112:14 |
| Lively | 131:11 | 10:3,18 | luxury | 113:15 |
| 14:12,13 | locked | 13:19,21, | 34:20 | make |
| 123:24 | 11:4 | 23 14:3 | <hr/> | 10:5,21 |
| livestreami | 131:12 | 17:12 | M | 11:23 |
| ng | long | 19:21 | <hr/> | 12:11 |
| 5:7 | 37:12 | 24:3 | | 15:25 |
| living | 61:11 | 43:13 | made | 20:11 |
| 31:1 | 65:17 | 49:5 50:5 | 6:3 34:19 | 21:22 |
| 132:11 | 67:16 | 52:11 | 65:6,14 | 23:6,25 |
| loan | 88:1 | 61:21 | 98:1 | 24:4 31:8 |
| 112:17,18 | 93:17 | 62:17 | 108:4 | 33:21 |
| 113:5,24 | 106:16 | 63:3 73:2 | 111:5 | 34:20,23 |
| loans | 123:16 | 75:15 | 121:3 | 39:22 |
| 113:18 | 125:23 | 76:5 84:2 | 122:18,19 | 42:9 |
| local | long-range | 88:9,10 | 123:8 | 57:23,24 |
| 10:24 | 126:1 | 105:23 | 124:8 | 58:5 |
| 27:20 | long-term | 118:15 | 132:10 | 69:21 |
| 32:18 | 57:3 | 119:7 | main | 72:9 |
| 42:10 | 83:16,19 | 123:16 | 27:3 | 80:15 |
| locally | 85:2 | 125:21 | 127:1,6, | 85:17 |
| 10:19 | 86:14,17 | 127:23 | 9,25 | 98:14 |
| | 106:16 | 132:16 | main- | 100:3,17 |
| | 115:16 | lots | | 102:9 |
| | | 6:1 36:10 | | 120:12,23 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: maker..meetings

| | | | | |
|-------------------|-----------------|-----------------|--------------------|-----------------|
| 121:11,20 | 20:21 | 23 75:3, | matters | 12:17 |
| 124:13 | | 5,7,8 | 131:16 | 13:10 |
| 125:2,13 | map | 78:13,14, | 133:23 | 18:1 |
| 131:8 | 51:23 | 16,19,22 | | 22:25 |
| 136:2 | 67:8 | 79:2,7,9, | matting | 115:5 |
| | 68:24 | 17,21 | 89:24 | |
| maker | 82:16 | 80:6,20 | 90:3 | meeting |
| 131:15 | 107:14 | 87:16 | max | 5:6,8,25 |
| makers | maps | 88:14 | 57:12,13 | 8:9 10:20 |
| 133:22 | 18:3 | 92:3,6,9 | 110:7 | 16:12,23, |
| | 56:18 | 96:7,9,25 | maximum | 25 18:2 |
| makes | | 97:13 | | 19:11 |
| 51:22 | Marcy | 102:1,2, | 54:4 | 20:8,14, |
| 102:20 | 5:9 | 22 | 56:18 | 18 21:23 |
| | | 108:12,14 | 57:7 | 22:8,14, |
| making | Marjorie | 111:25 | MCL | 21 23:2 |
| 12:5 | 124:14,16 | 112:1 | 127:25 | 24:20,22 |
| 34:25 | 130:3,5 | 113:8 | MCLS | 30:10,25 |
| 54:9 | | 114:3 | 103:8 | 41:3,5,6, |
| 117:4 | mark | 123:17 | 127:22 | 10 42:16 |
| 131:11 | 6:1,2 | 135:13, | | 43:3,21 |
| | 7:2,4 | 16,24 | MDHHS | 64:5 |
| man | 13:19 | | 22:19 | 73:19 |
| 66:6 | 16:7,11 | Mark's | | 75:24 |
| | 19:23 | 43:11,16 | meaning | 76:3 |
| manage | 20:2,6 | 63:1 | 115:24 | 81:13 |
| 109:16,18 | 30:9 | | | 87:14 |
| 115:19 | 37:14 | marrying | meant | 91:7 |
| | 40:11 | 91:12 | 131:3 | 93:24 |
| management | 42:7,21, | | measure | 98:2 |
| 83:21 | 22 43:9, | Marsh | 69:18 | 109:2 |
| 84:19 | 22,23 | 32:19 | 113:9 | 114:17 |
| 109:15 | 45:2,3 | 69:12 | measurement | 116:6,16, |
| 110:16 | 47:9,13, | | 69:6,7 | 21 121:17 |
| 115:20 | 24 48:1, | mass | | 126:19 |
| 116:9 | 4,5,8,23 | 53:13 | measures | 127:15 |
| 120:25 | 49:17 | 59:19 | 83:25 | 135:6,16 |
| 126:6 | 50:8 | 112:23 | 126:22 | |
| 131:16 | 53:6,7 | 113:12 | | |
| 132:13 | 54:21,22 | matches | measuring | meetings |
| 133:22 | 57:11,15, | 62:2 | 69:6,17, | 19:10 |
| | 17,19 | | 18 | 22:7 |
| manager | 58:9,12, | material | | 23:23,25 |
| 81:9 | 20 59:12 | 75:1 90:4 | mechanical | 24:1 |
| 118:14 | 61:7,12, | matter | 78:2 | 28:5,7 |
| | 16 63:1 | 75:2 | mechanisms | 30:10 |
| managing | 67:1 72:2 | 81:12 | 119:21 | 101:12 |
| 35:15 | 74:12,15, | 100:24 | meet | 126:20 |
| 115:6 | | | | 135:12 |
| manganese | | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: meets..months

| | | | | |
|---|---|--|---|--|
| meets 24:19 | messaging 133:17 | 14:15 28:24 42:10,11 113:23 | 88:11 123:15 | model 100:17 |
| melted 119:4 | met 23:3 66:23,25 | microphone 5:17 48:12 120:13 | minds 64:6 | mods 18:14 |
| member 8:4,8 24:12 30:24 38:12 99:3,5 118:15 125:1 | metabolic 31:10 | mid-january 16:2 | mine 134:20 | moment 25:15 |
| members 5:16 6:9 7:2 14:5, 8,9 23:9 24:16 41:7 43:25 44:21 89:7 99:6 111:3 120:18 126:20,23 135:25 | metals 20:21 | mid-plume 55:15 61:20 | minimum 98:1 | money 11:20 12:4 94:2 104:14 109:14,17 110:17 126:24 127:13 |
| | method 83:10 | mid-point 55:18 | Minnesota 9:12 | monies 27:17 |
| | methods 63:11 | middle 94:18 | minute 65:8,10 94:10 121:15,16 134:3 | monitor 40:18 88:25 |
| | mic 8:10,13 14:11 64:15 74:5 80:8 126:15 | midnight 75:18 | minutes 20:12,15 24:15 76:16 120:16 | monitoring 44:13 47:23 53:21 56:23 57:3 59:14 61:24 62:1,2,3 67:3 89:22 90:6 |
| | Michael 6:18,19 25:10,12, 20 26:4 28:14,21 38:11,16, 20 60:4, 8,19,24 61:2,10, 14,17 90:21 91:1 111:13 118:13 119:24 120:2,4 130:3,8 | migrating 53:11 88:4 | mirrors 99:1 | |
| | | Mike 23:10 | missed 16:15 21:6 62:2,3 | |
| | | mile 71:4 | missing 73:7 95:20 | |
| | | miles 71:2 | Mission 119:14 120:1 | month 88:22 116:13 |
| | | military 68:14 132:10 | Mississippi 9:14 | months 23:5 37:11 70:9 92:8,14, 20 97:11 114:22 116:14 126:2 |
| | | million 26:14,22, 23 27:7 35:9 96:19,20 102:10 112:18 117:8 127:4 | mistake 31:8 | |
| | | | mistakes 34:19,20 | |
| | | | mitigate 129:24 | |
| | | mind | | |
| | Michelle 14:19,20 64:25 111:9 123:13,14 | | | |
| | Michigan 5:1 6:22 | | | |
| Memorial 39:13 79:14 107:22 | | | | |
| men 132:14 | | | | |
| mentioned 22:5,20 56:10 70:16,20 81:8 86:4,21 89:1,5 125:20 | | | | |
| mercy 106:10 | | | | |
| mess 74:15 | | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: mouth..one-to-one

| | | | | |
|-----------------|--------------------|--------------------|------------------|--------------------|
| mouth | municipal | 101:12 | 56:20 | 89:15,16, |
| 71:2,11 | 24:25 | 110:24 | 71:9 | 19 |
| move | 68:6 | 120:18 | 101:13,17 | OAEA |
| 11:1 13:8 | 127:22 | 133:1,2 | northern | 29:5 |
| 15:5 | Munson | neighbor | 14:14 | obfuscating |
| 23:16 | 6:18,19 | 127:10,11 | northwest | 32:10 |
| 32:2,3 | 25:10,12, | net | 47:6 | object |
| 38:18 | 20 26:4 | 70:3 | not- | 121:24 |
| 76:11 | 28:14,21 | network | 28:4 | objectives |
| 99:4 | 60:4,8, | 59:14 | noted | 101:21 |
| 106:9 | 19,24 | 69:17 | 122:14 | oblique |
| 117:15 | 61:2,10, | newest | notice | 46:11 |
| 120:10 | 14,17 | 25:2 | 28:4,6,17 | occupied |
| 131:12 | 112:2 | nice | 45:15 | 84:15 |
| moved | 118:13 | 15:22 | 50:10 | occupying |
| 31:2 | 119:24 | night | 112:3 | 84:20 |
| 126:2 | 120:2,4 | 31:14 | 114:11 | occur |
| 135:10 | 128:7 | 73:1 | noticed | 66:25 |
| moves | museum | 85:23 | 15:11 | 97:8 |
| 125:25 | 39:12 | Noblis | 125:2 | October |
| 126:8 | mute | 16:9 | November | 22:6 |
| moving | 111:14 | 17:13 | 5:2,5 | 23:21 |
| 6:1 12:5 | <hr/> | 22:12 | 23:3 29:5 | 29:5 |
| 17:9 | N | 30:14 | nub | 85:22 |
| 18:21 | <hr/> | 34:4 36:7 | 122:17 | office |
| 21:2 | narrowed | 37:16 | number | 12:22 |
| 33:24 | 103:10 | 43:10 | 13:15 | 14:14,20 |
| 38:22 | nation | 51:9 | 27:20 | 18:2 20:1 |
| 47:15,16 | 73:2 | 66:15 | 35:10 | 21:13,21 |
| 49:8,14, | National | 67:1 | 43:25 | 70:7 |
| 15 55:8, | 33:3 | 131:2 | 65:2,22, | 123:11,25 |
| 9,13 58:7 | nature | 132:3,6 | 23 72:7 | officials |
| 62:10 | 19:3 82:5 | 133:1 | 83:5 | 8:11 |
| 78:19 | 132:21 | non-detect | 88:22 | older |
| 91:5,22 | ne- | 85:18,24 | 107:13,15 | 118:14 |
| 113:2,22 | 17:20 | non-target | 114:18 | oldest |
| 125:25 | necessarily | 75:1 | 115:10 | 9:20 |
| 130:24 | 126:22 | noncomplian | 119:2 | onboard |
| MSL | 129:3 | ce | <hr/> | 10:16 |
| 60:11 | needed | 113:23 | O | one-to-one |
| multiple | 37:18 | north | <hr/> | |
| 26:20 | 83:23 | 9:14 47:6 | O&m | |
| 27:6 | | | | |
| 44:5,10 | | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: ongoing..Pardon

| | | | | |
|--------------------|--------------------|--------------------|--------------------|-----------------|
| 50:12 | 53:17,20 | 69:19,20 | 117:25 | |
| ongoing | operations | 75:2 82:6 | outfalls | P |
| 17:22 | 28:9 | organizatio | 114:19 | |
| 41:12 | 112:10 | ns | outlets | P- |
| 115:2 | opinion | 73:4 | 114:15 | 69:19 |
| 122:22 | 44:6 | orientation | outline | p.m. |
| online | opportuniti | 33:15 | 42:3 | 5:2,3 |
| 7:22 37:9 | es | 34:10 | 87:11 | 15:7 |
| 38:12 | 40:19 | 35:17 | | 38:21 |
| 70:10 | 91:14 | 37:10 | outs | 43:6 |
| 132:19 | 92:18 | 109:10 | 79:3 | 76:19 |
| onsite | 95:3,6 | oriented | overload | 81:6 |
| 26:18,21 | 96:4 | 110:13 | 98:22 | 88:19 |
| | 98:10 | original | overseas | 99:3 |
| open | opportunity | 79:11 | 73:16 | 120:8 |
| 10:21 | 33:22 | 125:17 | oversee | 135:14 |
| 11:13 | 93:19 | 127:3,9 | 116:3 | 136:6 |
| opened | 100:17 | 133:18 | oversight | pack |
| 41:11 | 108:11,17 | originally | 124:1 | 107:8 |
| opening | 121:20 | 127:18,19 | overwhelmin | 108:6 |
| 5:21 | 122:7 | originated | g | pages |
| operate | optimizatio | 112:15 | 130:15 | 108:5 |
| 26:17,25 | n | originates | OWAA | paid |
| 102:12 | 60:21 | 113:15 | 6:18 | 24:25 |
| 114:10 | optimize | Oscoda | 25:11 | 25:2 |
| 128:10 | 53:25 | 5:1 6:12 | 26:16 | 126:25 |
| operating | 57:22 | 24:16 | 110:18 | 127:10,14 |
| 26:22 | optimum | 25:23 | 114:12,22 | paint |
| 44:13 | 106:8 | 29:3 | Owens | 26:24 |
| 54:4 | 131:12 | 82:23 | 123:12 | Palmer |
| 59:18 | option | 107:6 | owner | 12:21 |
| 65:21 | 110:4 | 118:15 | 25:4 | 126:16, |
| 74:8 | orange | 126:18 | 106:11,14 | 17,18 |
| operation | 49:23 | outcome | owners | panels |
| 26:17 | order | 84:5 | 106:11 | 77:15 |
| 44:7,19 | 53:1 | outdated | owns | paper |
| 53:24 | 114:10,11 | 88:11 | 25:23 | 120:7 |
| 58:23 | 129:15 | outdoor | 105:25 | parallel |
| 77:8 | Oregon | 82:21 | oxidation | 112:12 |
| 89:18 | 134:18 | outfall | 39:19 | Pardon |
| 96:18 | organic | 116:4 | | 48:5 |
| 105:5 | | | | |
| operational | | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: park..PFAS

| | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|
| park | 110:13,24 | 27:10 | percent | personally |
| 9:14 | 135:22 | 31:17 | 8:24 | 113:4 |
| 26:18 | particulate | 106:25 | 40:13 | perspective |
| 39:13 | s | 127:8,17, | 54:4 | 41:18 |
| 49:11 | 75:4 | 21 | 67:24 | 90:10 |
| 79:14 | parts | paycheck | 73:25 | 129:13 |
| 107:22 | 49:23 | 49:1 | 74:8,9 | pervasive |
| part | 52:6 | paying | 75:10 | 31:19 |
| 20:2,4 | 55:17,20, | 127:5 | percentile | Peters |
| 24:9 | 22 127:20 | peanut | 67:24 | 123:25 |
| 41:24 | party | 46:10 | Perfect | Peters' |
| 48:22 | 41:14,15 | 51:19 | 7:20 38:9 | 14:13 |
| 50:7,18 | pass | 56:19 | perfluoral | 123:24 |
| 55:20 | 5:13 | 62:13 | 31:4 | Peterson |
| 57:16 | passion | 63:11 | performance | 57:13 |
| 60:1,14 | 9:23 | 65:18 | 44:13,18 | PFAS |
| 62:20 | passive | pen | 53:21 | 8:6 10:2 |
| 66:1 | 86:23,25 | 72:21 | perimeter | 13:1 |
| 67:6,19 | 87:9,25 | penetrating | 39:11 | 17:21 |
| 75:21 | past | 61:8 | 107:11 | 19:22 |
| 83:1,13 | 6:6 17:23 | people | period | 23:14 |
| 86:5,11 | 32:10 | 6:6 13:6 | 94:19 | 25:17,24 |
| 87:21 | 33:24 | 15:21 | 95:4 | 26:5,7 |
| 88:13 | 42:23 | 21:7 | 96:21 | 27:10 |
| 93:6 | 93:10 | 31:10,18, | 97:9,12 | 28:8,12 |
| 101:14 | 119:13 | 21 32:2, | 98:2 | 32:16,20 |
| 106:16 | 128:11 | 22 33:5, | 121:11 | 34:14 |
| 107:3 | pathway | 24 34:4 | 123:16 | 39:7,17, |
| 109:24 | 84:9 | 35:12,13 | periodic | 20,23 |
| 111:19 | Paula | 40:9 | 128:12 | 40:13 |
| 119:16 | 51:9 | 73:20 | periphery | 45:22 |
| 128:2,22 | 76:16,20 | 75:16 | 102:14 | 49:7 |
| participant | 78:15,18, | 95:13 | permit | 53:10,13 |
| s | 21,25 | 108:13 | 128:10,11 | 67:25 |
| 29:6 | 79:3,8, | 109:10, | 129:16 | 68:3,4 |
| participate | 20,25 | 11,13 | persistent | 69:13,19 |
| 22:15 | 80:10 | 123:5,15 | 62:10 | 70:18 |
| participate | 81:2 | 124:12 | person | 71:23 |
| d | 118:4,5 | 126:25 | 16:6 22:7 | 73:19 |
| 22:5,9,20 | pay | 127:8,17, | personal | 76:2 77:3 |
| participati | 25:22 | 24 128:4 | 32:20 | 88:24 |
| on | 26:7,8 | 132:19 | | 91:5 |
| 6:4 41:21 | | 133:1 | | 98:16 |
| 97:6 | | 134:16,17 | | 103:8,10 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: PFOA..pockets

| | | | | |
|--------------------|------------------|---------------|-----------------|-----------------|
| 104:20 | picture | 17:7,10 | 97:24,25 | plumbing |
| 107:12 | 58:2 64:1 | 68:4 | 98:1,24 | 77:23 |
| 111:16 | 101:24 | 89:22 | | 78:1 |
| 112:8,13, | 107:14 | 90:8 | planned | |
| 16,20,22, | | 95:12,14, | 14:1 44:8 | plume |
| 23 113:1 | pictures | 19 96:13 | 116:10 | 19:20 |
| 117:19,24 | 77:17 | 99:1 | | 29:18 |
| 128:14, | 78:17 | 117:18 | planning | 48:25 |
| 15,18,19 | piece | 118:10 | 94:21 | 49:3,6, |
| 129:11, | 115:4 | 128:17,19 | 103:22 | 11,12 |
| 13,19,23 | | | 135:12 | 50:23,24 |
| 132:21 | pieces | Pipes' | plans | 51:10,16, |
| PFOA | 48:19 | 117:25 | 28:12 | 17,18,19 |
| 69:19 | 50:24 | | 68:7 | 52:15,16, |
| PFOS | 52:1 | pipng | | 18 55:9, |
| 69:19 | 63:17,20, | 78:4 | plant | 17 56:1, |
| | 22 | 107:25 | 17:6,10, | 19 58:6 |
| Ph.d.s. | Pierce | place | 11 96:19 | 60:10,15, |
| 13:4 | 56:20 | 24:21,22 | 113:2,12 | 17 63:25 |
| | | 28:20 | 128:10 | 64:7 |
| phase | piggyback | 54:17 | 129:2,24 | 65:3,18 |
| 67:11 | 79:10 | 73:11 | | 68:13 |
| 86:23 | pilot | 90:6 93:5 | plants | 77:4,6,7 |
| 87:9,11 | 40:7 60:5 | 95:6,7 | 129:20 | 107:20 |
| 88:7,13 | 89:23 | 99:20 | plate | |
| 89:16 | 90:5 | 105:3 | 32:9 | plumes |
| 100:15 | pin | 115:25 | play | 51:20 |
| 127:24 | 22:16 | 124:8 | 48:16 | 52:3,14 |
| phenomenal | 104:10 | places | 61:9 | 53:1 |
| 13:17 | Pine | 54:16 | pleasure | 56:8,16 |
| phone | 69:2 | 73:5,8 | 12:17 | 57:12 |
| 81:10 | ping | 90:18 | plenty | 62:23 |
| | 93:16 | 118:9,11 | 54:6 | 64:8 |
| phonetic | | plan | plot | 65:17,23 |
| 33:8 66:8 | pins | 15:15 | 46:23,24 | 67:16 |
| photographs | 82:19 | 22:17 | | 107:13,15 |
| 77:20 | 83:3 | 23:19 | plow | poc- |
| 78:10 | 85:17,22 | 57:3 | 26:24 | 25:1 |
| | | 59:13 | 27:19 | pocket |
| physical | pipe | 72:15 | | 25:1 27:8 |
| 102:7 | 74:10 | 83:2 | plug | 126:25 |
| | 95:22 | 86:16 | 74:25 | 127:10,14 |
| physically | 96:13,14, | 89:9 | plugged | |
| 53:16 | 19 | 90:14 | 119:16 | pockets |
| picked | 118:12,16 | 91:6 | plumb | 26:12 |
| 43:14 | | 92:15 | 74:16 | 27:9 |
| | pipes | | | 112:12 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: point..proceed

| | | | | |
|-------------------|--------------------|--------------------|--------------------|-------------------|
| point | positioning | 99:9,12, | 125:8 | 83:12,15 |
| 38:1 | 106:6 | 17,23,24 | 134:20 | 127:1 |
| 43:17 | | 100:15 | | |
| 48:3 | positive | 101:8 | presentatio | primary |
| 54:19 | 54:9 | 102:4 | ns | 10:9 |
| 56:2,20 | possibility | | 43:2 | 77:21 |
| 57:9,10, | 34:9 | pre-treat | 107:8 | 97:23 |
| 24 59:19 | 35:16 | 129:6 | presented | prime |
| 69:12 | | precedent | 17:4 | 49:18 |
| 73:21 | possibly | 27:16,22 | 30:17 | 99:14 |
| 92:23 | 53:25 | | 44:20 | |
| 99:12 | 72:12 | precursor | 65:4 | prior |
| 100:8,25 | 117:9,21 | 13:20 | 81:13 | 11:15 |
| 101:2 | poster | prefer | 87:14 | 98:7 |
| 105:6 | 77:18 | 41:7 | 108:7 | 116:8 |
| 108:4 | 78:11,17 | | | |
| 113:9 | potential | preferred | presenting | priorities |
| 117:5 | 24:24 | 104:19 | 11:2 | 33:5 |
| 119:5 | 50:21 | preliminary | pretty | priority |
| 120:5 | 51:10,19 | 18:23 | 33:15 | 103:11,12 |
| 131:3,6 | 64:7 | 86:23 | 54:20 | 104:1 |
| | 65:23 | 89:2 | 72:13 | 111:19 |
| pointer | | | 91:10 | 117:5 |
| 48:4,7 | 88:1 90:5 | prepared | | |
| | 103:16 | 81:18 | prevalent | private |
| points | | 86:7 87:1 | 129:19 | 106:9 |
| 25:16 | potentially | | | 111:17,20 |
| 58:8,10, | 84:9 | preparing | prevent | 134:6 |
| 13,14 | 107:25 | 85:25 | 29:20 | |
| 67:7 | | | | pro- |
| | potentiomet | presen- | preventing | 97:6 |
| policies | ric | 43:1 | 117:1 | |
| 35:18 | 45:19 | presence | previous | probes |
| | | 123:21 | 56:10 | 104:22 |
| Policy | pouring | | 82:4 | |
| 14:23 | 68:3 | Present | 85:18 | problem |
| | | 6:11,14, | 88:10 | 28:20 |
| pollutants | practical | 17,19,24 | 93:1 | 65:11 |
| 33:11 | 102:17 | 7:4,6,11, | 101:12 | 66:3 |
| | 113:9 | 14,16,19 | 125:1 | 112:18 |
| pollution | practices | | | 113:6,18 |
| 62:17 | 34:11,23 | presentatio | | 115:13 |
| pond | 76:1 | n | previously | 126:23 |
| 120:6 | 115:22 | 11:9 | 29:16 | 127:2 |
| | | 16:11,15, | 41:4 | 128:24 |
| pong | pre-design | 20 30:11 | 82:11 | 129:8,21 |
| 93:16 | 90:13 | 36:12 | | |
| | 92:6,24 | 44:24 | primarily | proceed |
| portion | 94:14 | 76:1,25 | 8:18,21 | 44:8,22 |
| 94:19 | 96:1 | | 12:3 | 86:13 |
| 102:20 | | | | |

| | | | | |
|-------------------|-------------------|--------------------|------------------|-----------------|
| proceeding | 30:21 | 25 98:1 | 97:5,9,23 | purposes |
| 11:24 | 38:25 | | 98:2,24 | 33:19 |
| 136:6 | 39:1,24 | proposing | 103:7 | 83:13,19 |
| | 40:7 | 87:2,5 | 109:11 | 100:19 |
| process | 66:4,16 | prospect | 110:12,24 | 102:17 |
| 17:3 | 81:9 | 56:2 62:5 | 115:5 | 135:13 |
| 18:25 | 84:16 | | 117:15 | |
| 30:16 | 85:7,9 | prospecting | 120:8,10 | pursue |
| 31:1 | 88:18,19 | 54:25 | 121:10, | 42:18,24 |
| 37:13 | 90:12 | 58:6 | 14,20 | pursuing |
| 41:24 | 98:24 | prospector | 124:13 | 108:23 |
| 42:14,21 | 105:1 | 55:1 | 126:14 | 109:5 |
| 77:22 | 109:21 | | 130:2,11, | push |
| 92:17 | 110:23 | protect | 12 134:1 | 91:11 |
| 93:18 | 115:16 | 31:7,12 | 135:22,25 | |
| 94:2 | 127:25 | protected | | pushed |
| 95:24 | 133:3 | 69:22 | pull | 11:18,19 |
| 97:6,7,22 | | | 10:19 | 117:5 |
| 98:11,20 | projects | prove | pulling | 118:22 |
| 117:1,13 | 24:6 | 112:15 | 10:24 | |
| 122:22 | 100:9 | proven | pump | pushing |
| 126:9 | proof | 105:2 | 44:7 | 41:8 |
| 136:2,3 | 102:9 | provide | 72:17 | put |
| productive | proper | 16:12 | | 5:12 |
| 23:25 | 34:7 | 20:8 | pumping | 11:17 |
| 66:24 | 54:17 | 24:22 | 20:23 | 16:10 |
| | | 31:13 | 60:23 | 17:14 |
| profile | properties | 41:17 | 61:3 | 19:6 |
| 61:21 | 134:6,7 | 42:8 | 99:21,22 | 22:15 |
| program | property | 53:22 | pumps | 25:16 |
| 13:8 39:2 | 8:18,21, | 93:13,19 | 79:22 | 26:25 |
| 41:20,22 | 22,24 9:6 | 98:11,17 | 80:4,10 | 27:23 |
| 70:1 76:7 | 12:22 | 102:3 | | 35:16 |
| 108:6 | 25:23,24, | 108:18 | purifying | 39:12 |
| 126:11 | 25 26:6 | | 83:24 | 41:6 |
| 128:4 | 30:6 32:2 | provided | | 45:11,14 |
| | 106:6,9, | 23:4 | purple | 50:25 |
| Programs | 10,11,14, | 114:21 | 45:11,15 | 51:14,15, |
| 14:23 | 15 130:24 | | 47:4 | 23 56:20, |
| progress | | providing | 50:22,23 | 24 58:7 |
| 6:7 23:22 | proposed | 88:4 | 107:15 | 59:20 |
| 77:20 | 41:4 | public | purpose | 61:25 |
| 87:7 | 53:12 | 5:5 6:4, | 100:25 | 62:24 |
| 115:6 | 63:18 | 22 8:8 | 101:5 | 64:2 |
| | 87:11 | 28:24 | | 66:14 |
| project | 91:5 | 41:21 | purposely | 67:3,7 |
| 8:7 17:22 | 97:23,24, | 65:4 | 35:6 | 69:3 |
| 29:8,11 | | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: putting..Rachel

| | | | | |
|----------------|------------------|------------------|----------------|---------------|
| 72:15,23 | 98:23 | 73:23 | quick | 44:21 |
| 74:24 | QAPP | 74:7,11 | 5:15 8:13 | 65:9 |
| 77:23 | 67:7,9 | 75:13 | 16:15 | 67:10,12 |
| 79:13 | 86:22 | 79:9,21 | 25:15 | 81:13 |
| 87:20 | 87:1,6,7 | 91:19 | 38:24 | 87:14 |
| 88:25 | 89:10 | 92:4 | 54:20 | 89:7 91:7 |
| 90:4 | 98:16,23 | 95:10 | 60:9 | 94:12 |
| 95:18 | | 97:2 | 70:14 | 98:7,11 |
| 99:19 | quality | 100:13 | 76:22,25 | 99:3,5,6, |
| 101:23 | 9:22 | 102:25 | 78:12 | 8 100:13 |
| 102:8,10 | 82:21 | 103:6 | 81:20 | 101:12 |
| 104:22 | 83:6,17 | 104:6 | 107:7 | 103:2 |
| 105:5 | 84:16 | 105:18 | 117:18 | 108:8,21 |
| 106:5,8, | 85:1 | 108:4 | quickly | 109:1,5, |
| 14 121:17 | 98:23 | 111:10, | 6:9 8:1 | 15 |
| 124:1 | quarter | 24,25 | 16:1 22:2 | 110:10, |
| 126:10 | 22:16 | 115:25 | 62:10 | 12,16,21, |
| 127:12 | 29:14 | 116:24 | 74:25 | 23 111:24 |
| 128:23 | 81:16 | 117:15,18 | 120:11 | 114:8 |
| 129:17 | 85:14 | 120:23,24 | | 116:5,13 |
| 130:8 | 86:2 92:7 | 122:9 | R | 117:3 |
| putting | 94:13 | 125:11 | | 120:18 |
| 18:23 | 96:20 | 130:21 | | 121:17 |
| 22:14 | 117:8 | 131:14 | RAB | 122:1 |
| 39:17 | quarterly | 133:18,21 | 5:16 6:2, | 123:2,6,7 |
| 49:5 | 82:19 | questions | 9 7:2 | 124:7,15, |
| 54:20 | | 8:8 12:13 | 8:4,5,7 | 16,19 |
| 63:16 | quarters | 14:2 | 10:20 | 125:1,6, |
| 94:16 | 81:17,22 | 17:18 | 11:2,14 | 24 126:7, |
| 99:20 | 83:4 | 29:10,22 | 14:10,18 | 22 130:7, |
| 125:7 | 85:18 | 36:6,10 | 16:24 | 17 |
| | 86:4 | 43:13 | 17:4 | 131:11,22 |
| puzzle | | 46:18 | 18:2,7 | 135:12 |
| 48:19 | ques- | 53:3 | 19:8,10 | RAB's |
| 50:25 | 62:7 | 54:10 | 21:8,10 | 41:16 |
| 51:15 | question | 60:5 63:3 | 24:12,15 | RABS |
| 63:16,21 | 12:9 | 65:12 | 30:9,10, | 34:12,14, |
| puzzles | 43:17 | 75:18 | 24 33:10 | 16 35:15 |
| 48:18 | 46:16 | 76:11 | 34:10,18 | 41:22 |
| | 60:25 | 78:11,13, | 35:22 | 108:13 |
| | 63:7 | 14 81:2 | 37:2,8,9 | 115:22 |
| | 64:11 | 93:14 | 38:4,10, | 131:8 |
| | 65:19 | 99:3,5,7 | 12,14,18, | |
| Q&e | 66:18 | 107:7 | 21,22,25 | Rachel |
| 14:4 | 67:20 | 121:12 | 41:1,5,7, | 23:10 |
| Q-A-P-P | 70:17 | 133:25 | 23 43:25 | |
| | 72:25 | | | |

| | | | | |
|--------------------|-----------------|--------------------|--------------------|--------------------|
| rain | 17:13 | received | 46:12 | 64:22 |
| 90:1 | | 22:16 | 97:10 | 133:12 |
| 119:17 | read | 25:13 | | |
| | 111:11 | 28:17 | reduce | related |
| rains | | 29:14 | 29:21 | 22:18 |
| 118:2 | ready | 65:4 | 53:10 | 26:17 |
| | 21:11 | 127:3,6 | | 40:11 |
| raise | 35:23 | 128:7 | reduced | 78:16 |
| 26:22 | 38:14 | | 128:19 | |
| 120:12 | 76:21 | recent | reduction | relates |
| | 99:15 | 22:2 | 53:12 | 79:21 |
| raised | 100:9 | | 70:1 | relation |
| 65:5 | 103:3 | recently | | 49:7 |
| ran | 122:9 | 29:14 | reestablish | |
| 47:24 | 124:19 | 104:21 | ing | relative |
| 104:23 | 130:6 | 107:24 | 33:10 | 125:13 |
| range | real | recognize | reevaluate | release |
| 13:5 | 8:13,18, | 67:14 | 107:1 | 47:20 |
| 88:21 | 21,24 9:6 | | | |
| 125:14, | 12:22 | recognized | reevaluatin | remaining |
| 15,23 | 16:12 | 34:3 | g | 81:17 |
| | 31:10 | | 19:21 | |
| ratio | 44:3 56:6 | recommend | refer | remarks |
| 50:12 | 60:8 | 52:10 | 115:8 | 5:21 |
| | 66:24 | recommendat | | 130:13 |
| Ratliff | 70:8 | ion | referee | remedial |
| 39:13 | 76:25 | 57:21 | 131:18,24 | 14:1 81:9 |
| 49:11 | 130:24 | 99:18 | | 84:11 |
| 52:15 | | | refine | 86:17 |
| 56:1 | | recommendat | 23:24 | 91:6 |
| 79:14 | realize | ions | 101:16 | 104:16 |
| 107:21,22 | 108:12 | 17:3,5 | | 105:22 |
| | | 19:5 | reflect | 106:3,24 |
| ray | realized | 57:17 | 90:18 | 126:4 |
| 36:14 | 32:17 | 81:23 | regard | |
| | | 95:25 | 123:3 | remediation |
| re- | reason | | | 39:5 |
| mobilized | 50:11 | record | regional | 58:20 |
| 85:21 | 52:15 | 5:18 | 14:14 | 63:2 |
| | 122:17 | 15:14 | | |
| re-sample | | 40:22 | reimburse | 69:24 |
| 85:22 | recall | 69:16 | 25:6 | 126:1 |
| | 65:13 | 76:18 | 31:17 | |
| re-sampling | recap | 80:25 | 126:25 | remedies |
| 86:1,9 | 43:3 | 115:10 | 127:14 | 18:5 45:8 |
| reach | 81:20 | | | 91:11,17 |
| 22:23 | 83:9 | recording | reimbursed | 93:3 |
| 29:23 | | 5:7 | 119:20 | 100:3,5 |
| 100:15 | receive | | 128:5 | 106:17 |
| | 123:23 | red | | |
| reached | 128:8 | | reiterate | |

| | | | | |
|--------------------|--------------------|--------------------|--------------------|-------------------|
| remedy | repairing | 22:24 | 114:21 | review |
| 19:20 | 117:21 | require | 122:5 | 8:2 19:7 |
| 28:20 | repairs | 93:2 | 133:25 | 23:12 |
| 53:10 | 27:6 | 105:3 | responses | 24:8 |
| 67:19 | repeat | required | 93:13,19 | 29:18 |
| 91:13 | 21:18 | 128:13 | responsibil | 30:16,19 |
| 101:20 | 74:4 | requirement | ity | 36:8,16 |
| 104:17 | repeating | s | 31:15 | 44:5 |
| 113:23 | 73:6 | 105:8 | 32:12 | 45:5,12 |
| remember | rephrase | researchers | responsible | 64:25 |
| 5:16 | 106:22 | 134:17,23 | 12:25 | 92:15,17 |
| 27:21 | report | reserve | 25:20 | 93:8,12, |
| 38:15 | 18:18,24 | 13:1 | 26:1 | 20 108:18 |
| 120:14,16 | 19:2,6 | Reserves | responsiven | 109:23 |
| 127:18 | 86:2 | 33:3 | ess | 120:11 |
| remind | 89:2,12 | resident | 98:4 | 122:18,21 |
| 125:5,16 | 92:16 | 67:23 | rest | 123:9 |
| reminder | 94:24 | residents | 21:3 | reviewed |
| 5:10,16 | 111:18 | 24:24 | 24:12 | 23:4 |
| 24:13 | 114:24 | 103:23 | 51:3 52:2 | 93:10 |
| 29:8,16 | 115:10 | 127:5,21 | 78:1 | reviewing |
| 82:3 | reported | resolution | 84:11 | 17:17 |
| removal | 35:8 | 23:21 | 89:20 | 24:3 |
| 83:21 | reporter | 93:25 | 101:24 | 29:15 |
| 84:19 | 5:9 80:22 | 116:21 | 123:18 | 42:1 89:4 |
| remove | reporting | resolve | restate | reviews |
| 40:13 | 94:22 | 17:18 | 133:18 | 131:3 |
| removed | reports | resources | restoration | revisit |
| 39:23 | 17:16 | 13:5 | 5:5 9:2 | 106:17 |
| removing | 81:18 | 31:20,23 | 76:7 | Revive |
| 104:11 | 86:6 | 127:13 | restricted | 39:7,18 |
| rentals | 94:16 | respond | 84:21 | Rex |
| 26:23 | 134:18 | 103:21 | result | 7:17 36:3 |
| reorganizat | representin | 121:12 | 27:18 | rhetorical |
| ion | g | response | results | 46:15 |
| 33:1 | 14:20 | 82:13 | 83:10 | 117:1 |
| 130:18,22 | request | 83:23 | 85:23 | RI |
| Rep | 33:9 | 107:2 | 87:8,13 | 8:6 |
| 21:13 | 122:18 | 108:9 | 114:24 | 17:21,25 |
| repair | 133:18 | 111:10, | resume | 18:9,17, |
| 26:24 | requests | 12,14 | 23:23 | 18,25 |
| 27:19 | | | | 19:2 35:6 |
| | | | | 57:13 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: right-hand..San

| | | | | |
|-------------------|---------------|------------------|-------------------|----------------|
| 66:23 | RMLS | root | Rush | sampled |
| 81:5,6 | 83:21 | 119:15 | 8:14,16 | 82:19 |
| 82:2,3,5, | 85:4 | round | 12:17 | 83:4 88:3 |
| 10 83:13 | road | 72:6 | 62:21 | 114:19,20 |
| 86:10,11, | 39:12 | 93:18 | 66:5,12 | 134:18 |
| 13,19 | 44:17 | 114:23,24 | 98:12 | samples |
| 87:5 | 60:22 | 118:2 | 130:20 | 34:7 |
| 88:24 | 62:19 | routinely | 131:17 | 56:25 |
| 89:12 | roads | 114:20 | 132:6,22 | 64:10 |
| 91:5 | 27:2 | row | 133:11 | 72:6,9 |
| 98:16 | robust | 23:11 | RV | 82:21 |
| 100:21,22 | 59:14 | 110:4 | 118:15 | 83:6,9 |
| 101:9,25 | 100:17 | run | 119:7 | 84:16 |
| 107:24 | ROD | 22:2 | S | 85:1 |
| 112:19 | 19:15 | 39:20 | sampling | 87:25 |
| 114:1 | 91:6 | 74:1,2 | S-P-A-N-I- | 22:17 |
| 125:2,17 | 97:24 | 91:10 | O-L-A | 34:6 |
| right-hand | 98:5 | 105:4 | 120:22 | 47:22 |
| 65:7 | RODS | 115:12 | Sable | 56:22 |
| rink | 19:18 | 118:25 | 6:15 | 59:16 |
| 119:19 | RIS | 129:4 | 63:19 | 61:21 |
| RIS | Roger | runaway | 68:1,2,3, | 66:25 |
| 76:2 | 15:1 | 15:12 | 4 69:8,14 | 69:11 |
| risk | 21:20 | rundown | 71:1,24 | 72:6 |
| 18:18,19 | Romer | 27:4 | 74:3 | 81:16,17, |
| 19:4 | 80:5,12 | running | 95:19 | 19,21,25 |
| 34:5,7 | 81:1 | 15:15 | safe | 82:9,14, |
| 42:3 | roof | 16:1 37:6 | 31:1,13 | 25 83:2 |
| 81:11 | 15:18 | 39:21 | salamander | 84:8 |
| 82:8 | 16:3 | 54:8 | 46:14 | 85:13 |
| 83:16,19 | 77:25 | 57:22 | salmon | 86:5,20, |
| 84:12 | 78:24 | 68:4 70:9 | 46:14 | 23,25 |
| 85:2 | 79:1,13 | 77:11 | Sam | 87:9,12, |
| 86:13,14, | roofs | 89:16,20 | 23:10 | 22,25 |
| 15 96:22 | 27:4 | 91:16 | sample | 88:8 |
| 100:4 | room | 94:13 | 59:9,10 | 100:7,14, |
| river | 26:3 44:3 | runs | 61:22 | 18 111:21 |
| 68:2 69:2 | 54:6 | 94:14 | 72:8 | 114:14,23 |
| 71:2,10, | 60:16 | 118:16 | 87:22 | 116:4,8, |
| 24 74:3 | 67:21 | 119:15 | 102:7,21 | 12 134:5, |
| 95:19 | 126:14 | runway | 103:24 | 24 |
| rivulets | 130:11 | 26:24 | San | 8:16 |
| 69:12 | | 27:18 | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: sanitary..showed

| | | | | |
|-------------------|------------------|------------------|------------------|-----------------|
| sanitary | scope | 19:6 | 22:7 41:3 | 18:6 19:7 |
| 74:1,9 | 17:14,16, | 45:25 | servant | 67:9,10 |
| 112:13, | 19 88:13 | 46:21,22 | 43:8 | 73:17,20 |
| 20,25 | scoping | 50:9,15 | Service | 96:8 |
| 113:21 | 89:6 | 57:14 | 7:1,24 | shared |
| sat | Scott | 117:22 | 12:3 | 82:22 |
| 118:23 | 7:12 | secure | 30:1,6 | 96:8 |
| satisfied | 35:20,23 | 119:1 | 103:5 | sharing |
| 36:11 | scrapped | sediment | session | 73:4 |
| save | 90:5 | 57:1 | 16:6 | 75:20 |
| 94:1,2 | scratcher | Selcoe | 103:7 | 98:7,16 |
| saved | 85:25 | 81:11 | set | shed |
| 125:21 | screen | select | 39:10 | 54:17 |
| scale | 132:19 | 18:5 | 43:4 59:9 | sheer |
| 39:5 | screened | 100:5 | 79:22 | 65:15,21 |
| 40:4,15 | 61:6 64:9 | selection | 80:11,15 | sheet |
| scenes | 80:13 | 42:13 | 119:19 | 5:11 |
| 124:3 | screening | Senator | sets | Sherlock |
| schedule | 57:6 | 14:13 | 27:16 | 52:2 |
| 16:20,24, | 63:10 | 123:24,25 | sewage | shore |
| 25 89:14 | 83:14 | 124:2 | 74:16,23 | 71:13 |
| 90:16,17, | screens | send | sewer | short |
| 19 91:15 | 60:8,9 | 33:9 89:6 | 96:12 | 16:12 |
| 93:6 95:1 | 61:8 | 102:7 | 112:5,13, | 25:13 |
| 96:5 | sea | 103:22 | 20,25 | 88:21 |
| 97:17 | 49:9 | sending | 113:21 | 93:24 |
| 125:15, | sealed | 93:21 | 114:10,19 | 96:20 |
| 23,25 | 112:21 | senior | sewers | 125:14,15 |
| 126:8 | seasons | 5:23 8:3 | 27:12 | shorten |
| 135:11 | 18:20 | 45:6 | 114:16 | 75:9 |
| schedules | secretary | sense | shaded | shout |
| 91:9 | 14:21 | 50:11 | 50:1 | 123:5 |
| 92:22 | 123:11, | 85:17 | shakedown | show |
| 93:5 | 12,13 | separate | 89:18 | 43:18 |
| 126:7 | section | 79:5 | shallow | 45:9 |
| school | 47:1 | 101:20,21 | 52:17 | 46:3,5 |
| 68:15 | 50:13 | 102:17 | 62:3 | 49:4 |
| Schulz | 103:7 | 129:20 | shaped | 53:3,4 |
| 7:13,14 | 120:10 | September | 107:23 | 55:18,19 |
| 35:23,25 | sections | 16:19 | share | 70:13 |
| scientists | | 20:14 | 16:25 | showed |
| 13:6 | | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: showing..sludge

| | | | | |
|-----------------|--------------------|------------------|------------------|------------------|
| 40:12 | significant | 19:12 | 112:12 | 87:4 |
| 50:12 | 26:16 | 35:7,15 | six-foot | 88:20 |
| 67:2 72:7 | 29:13 | 36:13 | 61:15 | 90:25 |
| 77:5 | 34:16 | 44:4 | six-sided | 91:4,8,18 |
| 78:19 | 90:1 | 53:10,18 | 107:10 | 92:4,20 |
| 101:15 | similar | 67:2 | size | 98:25 |
| showing | 85:10 | 82:17,18 | 19:20 | 99:2 |
| 31:11 | 114:4 | 83:11 | 104:15 | 125:2,7 |
| 96:5 | 128:8 | 87:4,10 | 105:8 | 135:10,13 |
| shown | simple | 89:2 | slides | |
| 107:13 | 42:21 | 95:16 | 16:13 | |
| shows | 113:8 | 99:11 | skin | 19:9 41:1 |
| 56:6 | 117:8 | 102:14 | 12:14 | 42:15 |
| 125:15,24 | simplest | 104:2 | slice | 43:4,12, |
| shut | 96:10 | 105:9 | 46:1,24 | 14,18 |
| 21:2 | sincere | 107:9 | 47:4,7,10 | 44:25 |
| shutting | 30:14 | 115:11 | 49:4,17 | 45:24 |
| 20:24 | sir | 121:2 | slices | 55:18 |
| shy | 47:8,12 | site's | 46:23 | 77:5 |
| 14:5 | 48:21 | 17:11 | slid | 90:17,22 |
| sic | 54:13,23 | sites | 119:1 | slideshow |
| 31:4 | 56:4,13 | 10:2,7,13 | slide | 45:24 |
| 123:14 | 57:4 | 11:17 | 15:6 | slightly |
| side | 58:25 | 13:1,2,14 | 17:21 | 77:9 |
| 34:4,5 | 60:2,3,7, | 16:18 | 19:9 | slip |
| 35:3 | 16 61:1, | 17:8,12 | 20:14 | 117:21 |
| 63:5,19 | 16 62:7 | 18:5 | 21:4 22:4 | slipping |
| 104:25 | 63:21 | 19:13,21, | 23:16 | 35:17 |
| 105:25 | 64:16 | 22 34:12, | 38:23 | sloping |
| 107:2 | 66:2,16 | 14 39:5 | 41:1,13 | 47:15 |
| sides | 67:20 | 41:19 | 42:14,17, | sloppy |
| 77:25 | 68:8 | 84:4,10 | 25 43:21, | 32:10 |
| sign | 70:2,10, | 86:11,12, | 23 45:4 | slot |
| 5:11 | 19 71:6 | 15 87:3, | 46:7,19 | 61:13 |
| 84:23 | 72:24 | 10 88:8 | 49:16 | Slotkin |
| sign-in | 73:23 | 92:25 | 50:18 | 124:2 |
| 5:11 | 75:13 | 95:3 | 52:13 | slowly |
| signed | 107:5 | 103:9,11 | 53:4,8 | 32:1 |
| 15:14 | 133:10 | 115:22 | 56:6 64:7 | 62:10 |
| 33:13 | sit | sitting | 77:1,15 | sludge |
| 121:3 | 20:10 | 132:14,18 | 78:12 | 101:13 |
| site | 93:20,22 | situ | 82:14,24, | |
| site | site | 104:21 | 25 83:8 | |
| 17:5,6,7 | 17:5,6,7 | situation | 84:1 | |
| | | | 86:3,18 | |

| | | | | |
|------------------|-----------------|--------------------|--------------------|------------------|
| small | sound | 64:19 | spot | Stapleton |
| 32:5 | 26:10 | 68:25 | 45:6,10 | 16:7 |
| 40:15 | | 74:20 | 46:6,11 | 43:9,23 |
| 84:14 | sounds | | 47:18 | 45:3 53:7 |
| 107:23 | 26:10 | speaking | 50:22 | 54:22 |
| | | 37:7 | 65:16 | 57:19 |
| smaller | source | speaks | | 59:12 |
| 49:25 | 47:19 | 123:21,22 | spots | 61:7,12, |
| | 55:3,6,15 | | 45:16 | 16 63:1 |
| snow | 56:3 88:1 | spearheadin | 46:10 | 75:3,7 |
| 119:4 | 104:8 | g | 50:15 | 102:2,22 |
| soil | 112:19,21 | 36:15,21 | spreading | 123:18 |
| 82:7 | 117:10 | special | 101:13 | star |
| 86:23,25 | 128:16 | 34:1 35:2 | spring | 97:10 |
| 87:9,12, | sources | 40:3 | 35:9 57:1 | start |
| 23,24 | 104:10,11 | species | 58:23,24 | 15:19 |
| 88:5,8 | south | 9:19 | 59:1 | 35:14 |
| 101:12 | 71:2,12 | specific | 89:10 | 43:16 |
| 104:8,10, | southern | 67:3 | squirting | 53:20 |
| 18 105:3, | 48:20,22 | 83:11 | 118:10 | 54:8 56:3 |
| 5,12 | | 115:7,10, | SS057 | 58:22,23 |
| soils | Space | 23 | 19:12,24 | 59:17 |
| 87:18 | 12:25 | specificall | | 69:16 |
| sold | Spaniola | y | stack | 70:9 |
| 31:2 | 30:19 | 19:12 | 119:10 | 89:15 |
| solicit | 36:15 | 67:1 | staff | 98:8 |
| 67:10 | 64:13,14, | 99:24 | 15:20 | 100:11 |
| 89:7 | 21,24 | 101:8,10, | 22:9 23:9 | 123:8 |
| solution | 66:17 | 22 | 28:6,10, | 124:13 |
| 36:20 | 120:20,21 | spell | 18 116:19 | 133:14 |
| someplace | 121:15,22 | 120:14 | stakeholder | started |
| 119:11 | 122:10 | 124:15 | 15:7 | 15:13 |
| sooner | 127:2 | spend | stakeholder | 37:9 |
| 18:14 | 131:14 | 27:17 | s | 57:25 |
| 94:3 | 132:4 | 104:14 | 86:8 | 68:20 |
| sort | spatial | spent | 110:11 | 69:2 |
| 43:3 | 85:19 | 36:9 | 114:7,8 | 76:21 |
| 65:15 | speak | 125:7 | stand | 89:25 |
| 107:23 | 5:16 | 132:18 | 12:11 | 125:17 |
| 127:16 | 48:11 | spoke | 79:16 | 127:19 |
| 128:3 | 107:19 | 80:22 | 122:14 | 128:14 |
| 129:5,17 | speaker | sponsored | standards | starting |
| sorts | 25:19 | 39:1 | 27:1 | 37:13 |
| 129:2 | 59:6 | | | 84:13 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: starts..sub-slab

| | | | | |
|------------------|--------------|-----------------|--------------------|-------------------|
| starts | 11:1,23 | 16,19,22 | 51:11 | 77:21 |
| 31:5 | 32:9 39:4 | 98:9,15, | 87:17 | 84:17 |
| 55:17 | 53:19 | 25 99:13 | | 133:22 |
| 123:6 | 54:9 | 100:18 | storm | |
| 124:7 | 55:14 | 101:1,6 | 27:12 | structures |
| | 131:11 | 102:13 | 96:12 | 83:7 |
| state | | 103:15 | 112:5,7, | struggling |
| 5:18 9:14 | steps | 104:12 | 24 | 127:12 |
| 14:8 21:9 | 29:20 | 105:15 | 114:10, | studies |
| 32:7 | 81:25 | 106:4 | 15,19 | 44:18 |
| 80:24 | 86:4 | 107:1,18 | 118:1 | studios |
| 112:4 | Steve | 108:10, | 119:15 | 5:7 |
| 113:23 | 5:22 | 16,22 | straightfor | |
| 114:13 | 6:10,11 | 109:1,4, | ward | study |
| 134:19 | 7:23 8:19 | 16,24 | 96:10 | 18:4 40:7 |
| statement | 11:8 15:8 | 110:2,6, | straits | 47:1 53:9 |
| 112:1 | 19:25 | 14,20 | 32:13 | 68:17 |
| states | 20:4,7 | 111:1,6 | Strayer | 86:16 |
| 75:25 | 22:5,20, | 116:15, | 6:15 | 89:23 |
| statewide | 23 24:21, | 20,23 | streamline | 90:6 91:5 |
| 34:6 | 23 28:2, | 117:23 | 90:19 | 102:6 |
| station | 3,16,21 | 118:6 | 91:15 | studying |
| 73:24 | 30:5 | 119:13 | 92:19 | 9:21 |
| 74:2,10 | 37:15,20, | 120:3 | 94:6 95:3 | stuff |
| 113:10 | 22 38:3, | 121:10, | streamlined | 13:24 |
| stationed | 7,22 | 19,23,24 | 136:3 | 28:11 |
| 68:11 | 40:17,25 | 122:2,5 | streams | 52:5 |
| stations | 51:8,9,12 | 126:22 | 72:4 | 69:25 |
| 74:8 | 52:10 | 129:21 | street | 72:3 75:8 |
| status | 64:2 | 130:14,20 | 119:14, | 76:4 78:9 |
| 44:3 77:1 | 66:9,19, | 132:23 | 18,23,25 | 93:21 |
| 115:1 | 21 68:8 | 133:7 | strength | 105:21,23 |
| 116:9 | 74:11 | 134:9,12 | 52:19 | 113:20 |
| stay | 76:6,9,23 | 135:2,5, | 55:13 | 116:4 |
| 36:9 | 77:9 | 9,15 | 60:14 | 133:5 |
| stays | 79:10,18 | Steve's | 62:23 | 134:24 |
| 119:12 | 80:21,24 | 132:24 | strong | Stuntebeck |
| steam | 88:20 | sticking | 51:1,17 | 6:25 |
| 55:11,12 | 90:21,24 | 37:14 | 55:6 | 7:21,22, |
| steel | 91:2,20, | stop | stronger | 23 30:1,3 |
| 118:21 | 24 92:2, | 100:10,14 | 49:12 | 103:1,4,5 |
| step | 3,5,8,14 | stopping | structure | 104:3 |
| | 94:9,11, | 55:11,12 | | sub-slab |
| | 18 95:2, | storage | | 82:19 |
| | 9,11,23 | | | 83:11 |
| | 96:23 | | | |
| | 97:4,14, | | | |

| | | | | |
|--|---|--|---|--|
| 84:3,15, 25 85:7, 16 | 34:8 134:14 | surely 32:2 | 20:19,20 21:3 25:1 39:7,8, 15,21 | <hr/> T <hr/> |
| subcontract ors 66:10 133:7 | suggested 101:12 summarize 81:14 86:1 87:8 | surface 45:19 47:15 49:7 68:18,19, 23 | 44:7,12, 15,19 50:1,4 53:16,25 54:3 56:23 57:21,22 58:19 59:18 62:24 63:12 65:14 74:17,24 78:5 79:11 87:20 89:15,19 91:15 101:18,23 102:9,15 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | table 18:6 34:22 46:8,17 47:13,15 72:20 87:18,19 88:3 89:7 131:10, 22,25 132:14,19 134:12 |
| subject 81:12 109:13 | summary 16:12,15 18:23 38:24 41:2 81:18,22 82:25 84:2 86:2,6 89:2 98:4 | surprises 111:5 surveillanc e 68:19,20 survey 29:9 32:17 68:9,17 69:16 70:4 103:18, 19,22 118:4 | 62:24 63:12 65:14 74:17,24 78:5 79:11 87:20 89:15,19 91:15 101:18,23 102:9,15 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | tackling 16:17 tag 44:22 takeaway 44:2 46:4 takeaways 53:8,9 |
| submit 41:22 109:19,22 | summer 33:8 59:2 89:9 90:15 94:20 | surveys 82:15 suspect 16:1 Sutton 7:15,16 36:1,2 117:17 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takes 19:2 106:11 taking 10:11 24:20 39:18,21 41:19 46:1 56:25 61:22 78:24,25 112:17 113:24 132:12 |
| submits 110:11 | summers 17:23 super 39:19 77:13 supervisor 126:18 support 18:4 23:8,12 41:25 99:25 108:11 123:23 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | systems 27:5 59:16 60:22 89:20 94:3 99:19 105:6 106:5,19 | talk 6:1 11:8, 14 15:9 16:7 22:10 |
| submitted 23:21 86:7 110:18 | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| subsequent 28:7 121:13 127:6 | summers 17:23 super 39:19 77:13 supervisor 126:18 support 18:4 23:8,12 41:25 99:25 108:11 123:23 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| substantial 119:8 | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| subsurface 45:23 46:6,23 48:20 | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| subtract 113:13 | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| succeed 33:17 | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| successes 11:16 | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| suck 74:17 | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| sucking 61:11 | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |
| suggest | summer 33:8 59:2 89:9 90:15 94:20 | swimming 9:18 swing 32:9 switch 68:1 switched 23:8 system 10:17 15:15,25 | 106:7 108:1 112:21 117:22 118:1,8 119:14 128:20, 23,24 129:6,11, 18 | takeaway 44:2 46:4 takeaways 53:8,9 |

| | | | | |
|-----------------|------------------|--------------------|--------------------|--------------------|
| 24:2 48:2 | 79:12,15 | 64:2 93:7 | 105:11 | th- |
| 55:7 | TAPP | 99:18 | 106:18 | 90:24 |
| 63:21 | 108:6 | 115:20 | teleconfere | thankful |
| 72:2,10 | 109:9,12, | 120:13 | nce | 124:9 |
| 76:5 | 14 | 121:4 | 73:1 | Theoretical |
| 93:20 | target | 124:1 | telling | ly |
| 97:21 | 77:9 | 130:23,25 | 38:25 | 118:1 |
| 98:23 | targeted | 131:8 | 48:23 | theory |
| 115:13 | 99:24 | team's | ten | 128:21 |
| 125:3 | 101:22 | 95:24 | 34:17 | thermal |
| talked | 103:22 | technical | tenant | 104:20,22 |
| 20:18 | targeting | 11:13 | 84:15 | 105:4 |
| 24:24 | 101:10 | 12:9 13:3 | tenants | thick |
| 36:24 | task | 16:5 | 26:20 | 12:14 |
| 37:1 42:7 | 81:16,21, | 23:12,13 | 82:24 | thin |
| 43:19 | 25 82:9, | 34:4 | term | 60:19 |
| 56:18 | 15 83:2 | 35:3,4 | 54:25 | thing |
| 62:21 | 84:8 | 36:7 | 67:16 | 30:13 |
| 65:18 | 86:5,20 | 41:21 | 88:1 91:4 | 37:21 |
| 76:23 | 110:16 | 43:25 | 106:16 | 45:5 |
| 77:4 | taxiway | 62:20 | terms | 46:4,9, |
| 89:14 | 101:13 | 66:14 | 36:24 | 13,14 |
| 97:5 | TBD | 72:2,11 | 37:2 | 48:9,15, |
| 103:8 | 25:8 | 73:20 | 91:22 | 23 50:8 |
| 109:8,9, | TCE | 108:11 | 105:7 | 52:14,23 |
| 11 114:11 | 68:13 | 121:3 | test | 54:2 |
| 126:21 | 85:15 | 122:21 | 26:5 | 55:22,23 |
| talking | 87:17 | 131:9,16, | 128:12 | 56:1 57:2 |
| 15:17 | team | 24 132:21 | tested | 61:20 |
| 55:8 | 9:1 11:18 | 133:23 | 26:7 | 62:5 |
| 60:12,13 | 13:3,4 | technically | testify | 70:14 |
| 105:20 | 15:17 | 122:16 | 127:2 | 73:18 |
| 106:2 | 16:10 | technologie | testing | 90:11 |
| 107:8 | 17:3,4 | s | 8:14 | 102:10,11 |
| 114:17 | 33:17,22 | 39:3 | 25:21 | 121:16 |
| 116:2 | 34:9 36:7 | 104:19 | 102:20 | 132:9 |
| 122:13 | 37:16 | 105:2 | 128:14,15 | 133:11 |
| 132:20 | 41:16 | technology | tests | thing's |
| tangible | 43:10 | 37:24 | 102:8 | 49:1 |
| 11:16 | 44:23 | 39:16,25 | text | things |
| tank | 51:9,12, | 40:1,12, | 84:2 | 11:11 |
| 87:17 | 14 52:10 | 18,19 | | 12:5 |
| tanks | 61:19 | 63:9 | | 13:21 |
| 77:22,23 | | | | |

| | | | | |
|-------------------|---------------|-------------------|------------------|--------------------|
| 23:16 | throws | 124:12 | 122:11 | tour |
| 24:23 | 46:12 | 125:15, | 123:21,25 | 37:22 |
| 31:24 | | 21,22 | | 38:24 |
| 35:1 37:1 | Thurs- | 128:22 | tonight's | |
| 45:18 | 127:15 | 133:2 | 5:8 8:9 | town |
| 55:24 | Tim | | 135:15 | 32:1 |
| 59:5,13 | 6:12,14 | timeline | Tony | township |
| 65:3 73:7 | 24:16,18 | 17:2 97:7 | 30:18 | 6:13,16 |
| 106:25 | 33:7 | 126:10 | 36:15,21 | 24:17,19 |
| 117:7 | 74:19 | timelines | 64:14,21, | 31:17 |
| 122:14 | 80:21 | 11:8,9 | 24 66:17 | 33:9 |
| 125:20 | 107:6 | 12:5 | 120:19, | 107:7 |
| 129:3 | 108:3,15, | 131:6 | 20,21 | 108:8 |
| | 20,25 | timeliness | 121:15, | 110:18 |
| thinking | 109:3,7 | 10:10 | 21,22 | 112:17 |
| 35:16 | 113:7 | times | 122:10 | 113:5,17, |
| thinks | 119:23,25 | 21:22 | 124:11 | 22 |
| 25:24 | time | 97:8 | 125:20 | 119:14,19 |
| thou- | 13:20 | timing | 127:2 | 126:19, |
| 49:22 | 15:25 | 134:4 | 130:21 | 21,24 |
| thought | 24:13 | TO15 | 131:14 | 127:12 |
| 40:4,8 | 29:10 | 83:10 | 132:4 | 128:8 |
| 63:20 | 34:20 | today | 133:16,20 | township's |
| 75:14,17 | 36:9,24 | 9:9 32:17 | Tony's | 128:21 |
| 94:16 | 37:4,5,7, | 66:12 | 130:16 | 129:12 |
| 115:14 | 9,13 | | 133:18 | toy |
| | 43:20 | told | top | 120:5 |
| thoughts | 45:21 | 34:13 | 52:23 | track |
| 18:8 | 54:7 | 110:4 | 80:18 | 12:5 |
| 22:11,22 | 55:20 | 112:19 | 84:13 | 80:23 |
| 33:23 | 62:11 | tonight | 88:2 | tracking |
| thousand | 71:16 | 5:24 6:16 | topic | 135:1 |
| 56:12 | 76:15 | 7:1,13 | 76:5 | traditional |
| threat | 81:16 | 13:14,23 | 114:5 | 19:2 |
| 31:24,25 | 88:17,22 | 14:2 | 128:6 | train |
| | 92:11 | 16:14 | topics | 79:12 |
| threatened | 94:1,20 | 23:10 | 24:2 | training |
| 31:20 | 96:21 | 43:14,21 | total | 42:1 |
| | 98:7,17 | 44:1 | 54:4 | transaction |
| threats | 111:8 | 55:19 | 69:19 | s |
| 31:8 | 116:5 | 65:1,20 | tough | 8:18,21, |
| throw | 117:6 | 81:10,20 | 12:9 | 25 9:6 |
| 45:18 | 119:17 | 87:15 | 72:14 | 12:22 |
| 61:25 | 120:9,17 | 115:19 | | |
| throwing | 121:13 | 120:25 | | |
| 46:8 70:3 | 123:17,19 | | | |

| | | | | |
|--------------------|--------------------|------------------|--------------------|--------------------|
| transducers | 39:15 | 10:25 | 121:10 | 115:12 |
| 88:25 | 44:15 | trustee | 126:21 | 116:7 |
| transect | 54:3,5 | 33:7,8 | 131:18 | 121:9 |
| 49:15 | 63:19 | trustees | typing | 126:3 |
| 59:20,23 | 74:24 | 33:13 | 130:11 | understandi |
| 72:16 | 78:5 | tub | | ng |
| transferrin | 79:11,12 | 71:17 | U | 41:17 |
| g | 96:19 | Tuesday | | 42:3 |
| 8:22 | 101:22 | 24:19 | U.S. | 101:17 |
| transition | 102:9 | turn | 6:10 7:1, | 110:24 |
| 36:25 | 104:20 | 24:21 | 24 14:13 | 111:3 |
| 89:19 | 108:1 | 27:21 | 30:1 | 120:24 |
| transparenc | 113:2,12 | 42:4 | 68:16 | 121:2,7 |
| y | 128:9 | 44:23 | 70:4 | understands |
| 10:12 | 129:2,20, | 53:16 | 83:14,18 | 12:12 |
| 11:7 | 24 | 59:15 | 103:5 | undoubtedly |
| 36:23 | tremendous | 65:6,7 | Uh-huh | 87:17 |
| 131:6 | 123:23 | 71:12 | 45:3 | undue |
| transparent | 124:1 | 93:9 | 78:18,21 | 112:10 |
| 133:15 | trend | 134:1 | 92:5 | unexpected |
| transport | 69:23 | turned | 95:11 | 111:5 |
| 125:4,8, | 72:9 | 129:7 | 97:4 | unfair |
| 12 | triangles | turnout | ultimate | 27:16 |
| traveling | 47:13 | 40:10 | 131:15 | UNIDENTIFIE |
| 49:12 | trichloroet | turns | ultimately | D |
| treat | hylene | 71:12 | 53:25 | 25:19 |
| 44:7 | 85:16 | 119:18 | unable | 59:6 |
| 104:23 | trickle | Turtle | 111:13 | 64:19 |
| 128:23 | 90:2 | 9:13 | unacceptabl | 68:25 |
| 129:18 | trillion | tweaking | e | unit |
| treatabilit | 49:23 | 10:25 | 86:15 | 39:18,19 |
| y | 52:6 | type | unaffected | 132:24 |
| 102:6 | 55:17,20, | 28:11 | 113:2 | units |
| treated | 22 127:21 | 41:25 | underground | 83:24 |
| 107:21 | trouble | 56:15 | 78:2,4 | University |
| treating | 80:22 | 74:24 | understand | 134:19 |
| 20:20 | 94:17 | 119:22 | 34:17 | unlike |
| 99:22 | truck | 133:2 | 35:2 | 31:9 |
| treatment | 79:5 | types | 45:17 | unmute |
| 17:6,10, | true | 31:24 | 95:16 | 21:10 |
| 11 20:19 | 9:15 | typically | 102:19 | 35:22 |
| trust | trust | | 108:3 | |

| | | | | |
|--------------------|-------------------|-----------------|-------------------|------------------|
| 38:18 | upstream | 47:3,16 | venting | 114:11 |
| 103:2 | 118:7 | 49:2,12 | 96:15 | virtually |
| 111:11 | upwelling | 51:3,24 | venture | 5:19 6:21 |
| 124:14,18 | 112:6 | 55:9,13 | 39:6 | 14:17,25 |
| 130:6 | USDA | 56:19 | venue | 15:5 |
| unmuted | 127:4 | 58:4 | 25:6 | 21:7,16 |
| 40:24 | USGS | 62:14 | verge | 22:9 |
| unsafe | 68:16,18 | 67:23 | 27:5 | 40:24 |
| 27:19 | usual | 68:2 | version | 74:6 99:5 |
| unsaturated | 122:25 | 69:3,4,7, | 53:5 | 103:1 |
| 87:24 | 133:13 | 8 70:18 | versus | 111:9 |
| update | UT | 71:24 | 19:15 | 124:12,17 |
| 8:5,6 | 9:21 | 74:18,21 | 25:1 | 129:13 |
| 15:6 | utilized | 79:13 | 112:25 | vision |
| 21:4,6,25 | 73:25 | 105:25 | vertical | 133:6 |
| 24:14,16, | | 107:21 | 47:10 | VISLS |
| 22 25:8, | v | 120:22 | 50:11 | 83:15,18, |
| 11 28:24 | | 125:8 | 61:21 | 20 85:2 |
| 30:2,4,8, | vacuum | vapor | VI | VOCS |
| 23 32:15, | 79:5 | 8:6 | 83:11 | 19:22 |
| 24 35:21, | vadose | 22:16,18 | 84:8 87:2 | 20:20 |
| 23 36:2,4 | 87:18,23 | 23:14 | vicinity | 82:6 |
| 38:10,21 | validated | 29:12,21 | 20:1 | 83:10 |
| 43:4 | 85:23 | 81:5,6,9, | video | 88:4 |
| 76:19,22 | validation | 12 82:3, | 48:16 | volatile |
| 81:5,6 | 94:23 | 4,7,10,19 | 118:4,7 | 82:6 |
| 82:1 | valuable | 83:3,14 | view | volume |
| 86:19 | 31:20 | 85:16,22 | 113:9 | 113:1 |
| 90:12 | 37:15 | 86:11,19 | viewing | volumes |
| 115:1,2,7 | 39:25 | 87:21 | 47:4 | 123:21,22 |
| 116:5,16, | 40:5 | 88:12 | village | |
| 21 134:21 | values | vapors | 118:14,15 | W |
| 135:5 | 32:2 | 88:2 | vine | |
| updated | 60:11 | VAS | 32:1 | W-I-N-N |
| 16:23,25 | 83:15 | 47:22 | violation | 124:25 |
| updates | 85:2 | 61:25 | 28:17 | wait |
| 8:4 15:7 | Van | 62:2 | 112:3 | 16:24 |
| 19:9 22:3 | 15:12 | Vaughn | 113:4 | 18:13 |
| 23:22 | 31:2 | 7:17 36:3 | 128:15 | 57:5 59:2 |
| 24:12,14 | 39:12 | vehicles | violations | 65:8,10 |
| 29:2,14 | | 119:2 | | 121:15 |
| upscale | | vein | | 133:21 |
| 40:16 | | 55:2 | | |
| | | 114:4 | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: waiting..Willis

| | | | | |
|-------------------|--------------------|------------------|----------------|-----------|
| waiting | 25:1 | weather | 63:18 | 11:8 15:8 |
| 21:1 | 31:13,18, | 15:18,22 | 64:9 67:4 | 19:25 |
| waivered | 23 39:14, | 16:2 40:9 | 77:7 | 20:4,7 |
| 110:8 | 19 46:8, | 77:12 | 78:3,4 | 24:21,23 |
| walk | 17 47:13, | web | 79:22 | 28:3,16 |
| 93:24 | 14 52:4 | 115:11 | 80:14 | 37:20 |
| walls | 60:23 | Wednesday | 100:7 | 38:3,7,22 |
| 32:9 | 61:11 | 5:2 | 101:16 | 40:17,25 |
| Walton | 62:25 | Weed | 103:16, | 66:21 |
| 15:1 | 63:12 | 33:8 | 19,20,24 | 76:6 |
| 21:20 | 67:25 | week | 105:21 | 79:10,18 |
| waning | 68:6,18, | 11:12,15 | 106:18 | 80:24 |
| 6:5 | 19,23 | 12:18 | 111:17 | 88:17,20 |
| wanted | 69:17 | 15:16 | 127:20 | 90:24 |
| 21:7 23:6 | 70:22 | 16:6,12, | Wendi | 91:2,20, |
| 29:2,8 | 71:22 | 13,16 | 14:25 | 24 92:2, |
| 45:12 | 87:18,19 | 17:16 | 38:11,16, | 5,8,14 |
| 46:18 | 88:2 | 22:8 | 20 40:23 | 94:11,18 |
| 107:9 | 92:12 | 30:17 | 90:21 | 95:2,11, |
| 130:21 | 95:15,18, | 36:8 | 91:1 | 23 96:23 |
| 133:12 | 21 99:21 | 43:3,12, | 111:11, | 97:4,14, |
| wanting | 102:7,21 | 24 44:8, | 13,23 | 16,19,22 |
| 80:14 | 103:20, | 21 73:19 | 130:3,8, | 98:9,15, |
| war | 24,25 | 86:24 | 12 | 25 99:13 |
| 31:9 | 107:25 | 131:20 | Wendi's | 100:18 |
| warranted | 111:11, | weekends | 133:17 | 101:1,6 |
| 104:14 | 17,20 | 15:23 | wetland | 103:15 |
| washed | 112:7,9 | weeks | 20:19 | 104:12 |
| 90:3 | 118:1,2, | 15:17 | 52:5 | 105:15 |
| wastewater | 8,25 | 37:11 | who'd | 106:4 |
| 17:6,10, | 119:15 | 39:10 | 21:16 | 107:1,18 |
| 11 63:18 | 120:6 | weird | who've | 108:10, |
| 113:1,11 | 127:1,8, | 85:15 | 124:7 | 16,22 |
| 128:9 | 9,22,24 | wells | wide | 109:1,4, |
| 129:2,19, | 128:1 | 20:22 | 13:5 | 16,24 |
| 24 | 129:2 | 31:19 | wiggle | 110:2,6, |
| wat- | waterbodies | 47:23 | 60:16 | 14,20 |
| 129:23 | 69:25 | 49:5,19, | William | 111:1,6 |
| water | wave | 20 52:16 | 123:11 | 116:15, |
| 9:22 | 12:11 | 54:20 | Willis | 20,23 |
| 20:23 | ways | 59:21,23 | 5:22 | 117:23 |
| | weapon | 61:2 | 6:10,11 | 118:6 |
| | | 62:12,13 | 7:23 8:19 | 119:13 |
| | | | | 120:3 |
| | | | | 121:10, |
| | | | | 19,23 |
| | | | | 122:2,5 |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: win..year

| | | | | |
|------------------|-----------|----------------|--------------------|--------------|
| 126:19 | 16:21 | 134:25 | 86:3 | 38:5,8 |
| 127:15 | 17:16,17 | | | 48:11 |
| 130:14 | 22:17 | worked | wrap-up | 91:19,21 |
| 134:9,12 | 23:14,18, | 35:13 | 135:11 | 92:1 |
| 135:2,5, | 19 26:19 | 51:9 70:7 | WRD | 95:9,12 |
| 9,15 | 32:10 | 85:21 | 28:6 | 96:6 |
| win | 36:12 | 89:5 | 116:3,19 | 121:24 |
| 33:21 | 41:23 | 119:14,19 | write | 122:4,8 |
| wind | 42:6,19 | 133:9 | 67:7 | WWTP |
| 77:12 | 43:10 | workers | 109:22 | 99:11 |
| window | 50:19 | 26:19 | writing | |
| 61:15 | 51:18 | working | 37:1 | y |
| 106:12 | 52:11 | 8:15 9:5 | 92:15,16 | |
| windy | 59:13 | 10:3,4 | written | Y-Y |
| 77:13 | 63:23 | 11:11 | 67:9 | 56:11 |
| Winn | 64:11 | 16:19 | 93:21 | Y-Y' |
| 30:25 | 65:9,14 | 22:3 28:9 | wrong | 46:25 |
| 124:17, | 66:10,23 | 29:15 | 109:14 | yards |
| 20,22,24, | 67:12 | 30:16 | wrote | 72:17 |
| 25 | 70:6 | 33:16 | 134:18 | ye- |
| winter | 77:14 | 51:11 | WSP | 35:9 |
| 94:15 | 78:2,7 | 61:23 | 89:19 | year |
| 119:18 | 83:2 | 62:20 | Wurstmith | 11:17,18 |
| winters | 86:13 | 75:15 | 40:20 | 17:5 18:1 |
| 94:15 | 87:21 | 85:25 | Wurt- | 24:9 35:8 |
| woman | 89:9,11, | 86:8,21 | 40:20 | 39:1 |
| 12:3 | 16 90:13, | 87:6 | Wurtsmith | 59:3,8 |
| women | 15,18 | 90:13,16 | 13:15 | 65:4 |
| 132:14 | 92:15 | 92:10 | 19:14 | 68:9,20 |
| wonderful | 93:4 | 93:7 95:8 | 28:8 | 70:6 |
| 10:18 | 94:13,17, | 105:11 | 40:2,4 | 75:24 |
| words | 19,21 | 126:10 | 41:15 | 81:14 |
| 38:4 46:1 | 96:3 | 129:10 | 76:3 | 89:18 |
| 60:22 | 100:9 | works | 82:23 | 91:25 |
| 62:9 | 104:1 | 9:1 40:2 | 94:7 | 92:12 |
| 71:23 | 107:4 | 43:9 | 103:12,15 | 110:7 |
| wore | 108:18 | 132:24 | 104:1 | 114:25 |
| 118:14 | 109:6,22 | world | 111:18 | 118:2 |
| work | 116:18 | 13:2 65:1 | Wusterbarth | 119:4 |
| 11:7,20 | 118:7 | worth | 7:18,19 | 122:19 |
| 15:22 | 119:8 | 59:8 | 36:5 | 125:7,16, |
| | 121:6 | wrap | 37:21 | 19 134:21 |
| | 122:15 | 17:24 | | 135:12 |
| | 123:1,16 | 18:9,17 | | |
| | 124:1,10 | 81:24 | | |
| | 132:17 | | | |
| | 133:6,7,8 | | | |

MEETING
WURTSMITH RESTORATION, ADVISORY BOARD

November 20, 2024
Index: yearly..zoomed-in

yearly 60:2 80:6
26:14 87:23

years **zones**
9:25 10:1 87:24
12:2
32:11 **zoomed-in**
34:12 107:14
35:5
37:11
55:23,24
56:15
57:11
58:15
62:9
68:11,12
70:7 72:5
75:16
87:17
95:17
99:11
110:4,7
114:12
125:18,24
126:4,8,
12 128:11
129:15,18
133:9,10

yellow
45:16

yesterday
37:23
38:24
40:9
77:13
110:5
126:19
127:15

Z

ZC
49:18

zone
53:21