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U.S. ARMY CORPS OF ENGINEERS

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Public Meeting Concerning the Proposed Cleanup of the
Former Lockbourne Air Force Base Landfill.

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PROCEEDINGS

at the Hamilton Township Community Center, 6400
Lockbourne Road, Lockbourne, Ohio, called at 7:35
p.m. on Thursday, April 28, 2011.

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- - -

1 PRESENT:

2 Presenters:

Cindy Ries, USACE

3 Carla Heck, USACE

Colleen Reilly, CH2M Hill

4 Tiffany Chapman, CH2M Hill

5 Public:

George Hammond

6 Ralph Coon

Diane Cad

7 Richard Easterday

Aristotle Matsa

8 Judy Campbell

Diana Bynum

9 Shannon Bush

Candy Walters

10 Paul Kennedy

Tiffany Chapman

11 Daniel Haake

Christie Ward

12 Joyce Ward

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1 Thursday Evening Session,
2 April 28, 2011.

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4 CARLA HECK: My name is Carla Heck. I'm
5 the project manager for the U.S. Army Corps of
6 Engineers responsible for the Lockbourne Landfill and
7 the remedial activities that are going to take place
8 there. We have other folks here with us tonight.

9 We're going to go through and present a
10 little bit of history about the landfill, the history
11 of the regulatory process and how that works, and how
12 we got to where we are today, what the proposed
13 remedial actions are for the landfill, and then the
14 process by which, you know, you guys can make
15 comments.

16 We don't necessarily have to stick to
17 this format. If anybody wants to -- and then,
18 obviously, we would open it up for questions
19 afterwards. And we do have some fact sheets. And I
20 think everybody signed in.

21 And if you have comments that you don't
22 feel comfortable making tonight, if you want to write
23 in, or, when you leave here, if you find out more
24 information, we've got ways for you to write in and

1 give us information.

2 But if anybody wants to make a statement
3 before we get started.

4 (No response.)

5 CARLA HECK: I take it that's a no, so
6 I'll go ahead and get started.

7 Why are we here? We want to talk to you
8 about and I'll start off by saying every single
9 person, in this room, knows more about this site than
10 I do, so I definitely want to hear what you have to
11 say.

12 I've got a lot of technical background.
13 I know a lot about landfills. I know a lot about
14 contamination. I know a little bit about Lockbourne.
15 I'm relatively new to the Army Corps of Engineers.
16 My one-year anniversary is this past year, so I've
17 only been a government employee for a year. So I
18 will be deferring to other folks in the room if I
19 don't know the specifics, and I'm more at the
20 50,000-foot level. So feel free to correct me if I'm
21 wrong.

22 I want to keep this informal. So if you
23 have any questions, raise your hand. If I don't see
24 your hand, just yell at me, there's no problem with

1 that whatsoever.

2 But the purpose of this meeting is, as I
3 said, is to present what the Corps' team has come up
4 with, with regard to the proposed remediation for the
5 landfill.

6 The regulations that I'll talk about in a
7 minute actually require that we have public -- that
8 we publish the proposed plan and seek stakeholder
9 input on the plan. And this is what the plan looks
10 like. And it's available, there will be contact
11 information at the back, and this is available
12 electronically in the library. And if anybody wants
13 us to provide anything to them, we can do that for
14 you.

15 The stakeholders are the Columbus
16 Regional Airport Authority. They're actually the
17 landowner. And Paul Kennedy is here representing
18 CRAA. A lot of you folks may already know Paul.

19 The community members, and if anybody
20 wants to identify themselves at this point, I met a
21 couple of you before the meeting. Just raise your
22 hand if you want us to know who you are.

23 As I said, the Army Corps of Engineers is
24 the lead agency for this type of project, which I'll

1 get into the regulatory framework for that in a
2 minute.

3 My name is Carla Heck. I'm the project
4 manager. This is Cindy Ries who's also with the
5 Corps in Louisville and she's the technical manager.

6 Supporting us is a consulting firm known
7 as CH2M Hill. And the project manager/program
8 manager for that organization is Colleen Reilly.
9 And, Tiffany, I'm embarrassed because I'm going to
10 get your last name wrong --

11 TIFFANY CHAPMAN: Chapman.

12 CARLA HECK: Chapman.

13 And the Ohio Environmental Protection
14 Agency, which is the lead regulatory agency that we
15 work hand-in-hand with throughout this entire
16 process, and that's Diana Bynum, who's sitting back
17 there next to Paul. And I think Paul, and I know
18 Diana, has been involved with this project for more
19 than a few years now --

20 DIANA BYNUM: Early '90s.

21 CARLA HECK: Early '90s. Okay.

22 This is a very brief summary of what is
23 the site, so other folks may -- this is just a
24 distillation of what we've learned over the last 15

1 or so years doing investigations at the site:

2 A 50-acre area that was used to dispose
3 of general trash from the Air Force Base housing and
4 administrative buildings. Based on the information
5 that we have, it's mostly that type of construction
6 and material debris. There is lime sludge from the
7 base water-treatment plant.

8 We have done a lot of trenching and this
9 is based on the historical documentation and the
10 trenching that we've done when we've actually, you
11 know, seen things and taken samples of things, this
12 is what we know about what's there. Obviously, there
13 could be some things we don't know. But based upon
14 the extensive information that we have, that's how we
15 know what's there.

16 The depth is reportedly up to 10 feet. I
17 think that's -- that is the max that it's been down
18 at was at 10 feet, so it's anywhere up to that. A
19 lot of places it's a lot shallower than that.

20 This next chunk of information makes it
21 sound more confusing than it is and it was more of a
22 regulatory thing that made us do this. But there's
23 actually two separate areas and the regulatory term
24 of art is "Area of Concern." And they broke it into

1 two areas of concern just to make it easier because
2 they were more alike. It was discernable two
3 separate areas.

4 So AOC 1 is 100 acres on the western half
5 of the site where the waste disposal occurred. AOC 2
6 is 40 acres where there was just debris on the ground
7 surface. So you'll hear us refer to those two
8 separate areas as we go through here, Area of Concern
9 1, Area of Concern 2, because they will have
10 different remedies at the end because they have
11 different histories.

12 You all know this more than I do. I
13 think everybody -- is there anybody in the room who
14 doesn't know where the landfill is?

15 (No response.)

16 CARLA HECK: Okay. So I won't talk about
17 that. From what somebody told me, we're, like, right
18 around in here somewhere, because I'm geographically
19 challenged.

20 This is what I meant by AOC 1 and AOC 2.
21 They're just discreet footprints that because of
22 their different histories, the investigations and the
23 summary of information that we have about those are
24 kept separate just because it would make more sense

1 to address them separately than together if they're
2 different.

3 Okay. The regulatory background. And I
4 apologize, a lot of you, because of the history of
5 this site, may already know all of this. So if I'm
6 speaking to you as though you're a second grader and
7 you're really a tenth grader, I apologize.

8 In the early '80s, the EPA came out with
9 a regulation. How many of you folks have heard of
10 Superfund?

11 (Hands raise.)

12 CARLA HECK: Some of you have.

13 In the early '80s, the EPA came out with
14 these regulations as a way to clean up old
15 contaminated sites; to force industry and to force,
16 actually, individual land owners to clean up
17 contaminated sites. At the same time they didn't
18 just deal with, you know, the commercial/civilian
19 population, they also wanted the federal government
20 to be responsible too.

21 So this particular program that we have
22 is called a "Formerly Used Defense Site." And what
23 that means is that any property that the Department
24 of Defense used and got rid of, either sold to

1 somebody or gave to somebody or transferred to
2 another agency, but if the Department of Defense
3 transferred that property before October 17, 1986,
4 that property, if contaminated, the Department of
5 Defense was responsible for cleaning it up.

6 The bright-line of that date, all that
7 really means is that if it was transferred before
8 that -- we call this "FUDS" -- FUDS money pays for
9 it. If it was owned by DoD after that, it's still
10 getting cleaned up, it's just a different bucket of
11 money. So it's not like EPA said we only care about
12 contamination before 1986. And this is the FUDS
13 number for Lockbourne.

14 So we actually have a parallel program
15 with, you might hear folks on TV talking about
16 Superfund sites because we've been hearing about that
17 for about 20, more than 20 years now, more than 25
18 years now. And this is the parallel program in the
19 Department of Defense.

20 Does that make sense? Anybody have any
21 questions about that?

22 (No response.)

23 CARLA HECK: And the one thing that -- so
24 at the same time the Army is cleaning up its own

1 stuff at active sites, we're helping to clean up what
2 the Army did in the past. And there are several of
3 these sites. I don't remember what the total number
4 is, but there are several of these sites in Ohio and
5 obviously they're scattered all across the country.
6 I don't know that there's a state that doesn't have
7 one.

8 Next slide. Okay.

9 CERCLA which -- go back one -- because we
10 use a lot of ridiculous acronyms. When I say
11 "CERCLA" because it's a lot easier than saying this:
12 it's the Comprehensive Environmental Response,
13 Compensation, and Liability Act. And it basically
14 means we're going to clean up old stuff.

15 So the process -- which, personally, I
16 think it's way more complicated than it has to be --
17 you start at the beginning. If you know a site is
18 potentially contaminated because the Army was there
19 and you want to look at it, then we go in and we do a
20 preliminary assessment which is, in the beginning,
21 you're just doing kind of a record search. You go
22 and you try to find out everything you can possibly
23 find out about it. And, more often than not, you do
24 a site visit.

1 That takes you to the next step where you
2 actually do a remedial investigation. So these steps
3 you're just collecting data, as much information. We
4 do interviews, you do record searches, and you do
5 sampling. That's pretty much the major three things.
6 You're getting information from people, you're
7 getting information from paper, and information from
8 taking all different kinds of environmental samples.

9 Once you got the data, then these two
10 pieces: the remedial and the feasibility study -- I
11 mean, you know, God forbid the USEPA would use
12 something that's a little bit less confusing than
13 something like "feasibility study" -- then you go in
14 and you evaluate.

15 Like, here, we have a landfill. Other
16 places you might have, oh, because we're talking
17 about the Army, I mean, there are some sites where
18 they were, you know, active firing ranges. So the
19 actual environmental concern is old rounds, whether
20 they might be live rounds and that's a risk, and you
21 might just have lead contamination from the old
22 munitions.

23 So you look at what's actually out there
24 physically and you evaluate the risk to people and to

1 the environment, to plants and animals, and the food
2 chain and that type of thing. And that's a real
3 scientific process that involves numbers and lots and
4 lots and lots and lots and lots of data that the
5 federal, excuse me, EPA has been working with a long
6 time to come up with numbers that we use as
7 above-bad/below-okay.

8 And this process and this feasibility
9 study, what that means is you take all of the
10 information that you have, you look at the risk to
11 the various receptors whether they're human or
12 they're animals, and then you look at, okay, based on
13 what we have out there and what are the risks, what
14 are some things that we can do.

15 Using munitions as an example. The most
16 obvious thing, depending on the circumstances, but
17 the most obvious thing is you go out there and you
18 pick them up.

19 And then a feasibility study, you come up
20 with proposed alternatives based on the data that you
21 have. And then you look at it. There's -- in the
22 CERCLA regulations it's very specific. There are
23 nine criteria. And you look through very specific
24 things on how to evaluate the best path forward.

1 And then you pick the most likely and you
2 compare those. And you compare those both from a
3 technical standpoint; you also compare those from a
4 cost standpoint; you also compare those from a pure
5 logic standpoint; I mean, some things just don't make
6 any sense to do.

7 So once this report -- this report will
8 come out with, okay, these are the things we can go
9 do, this is the one that makes the most sense and
10 it's the proposed remedy. That's where we end up
11 with where we are now. We have a proposed plan and
12 that's what this meeting is, to discuss the proposed
13 plan. And then, during this public comment period,
14 anybody and everybody, including our own agency, has
15 the opportunity to make comments on the plan.

16 And then from that, as many years as
17 we've been working on this, this is where we are.
18 And the process, once we get through this, is that we
19 will actually, there will be a decision document.
20 And, for a project of this magnitude, it will go all
21 the way up through the Department of Army in D.C. as
22 far as the approval to get the money for this.

23 And then once we're at that stage and
24 we're ready to move forward, then you actually have a

1 remedial action. We're in the process of doing a
2 design. You actually do the construction. And
3 then -- we'll go into more detail about this later --
4 but for something like a landfill cap, it's not like
5 we put a cover on there and then walk away. It is
6 continually monitored until it's decided by everyone,
7 including the stakeholders, that it doesn't need to
8 be monitored anymore. The grass will be mowed, the
9 slopes will be maintained, groundwater monitoring
10 will be conducted, and that will be routinely
11 reviewed until it's determined that we don't need to
12 do it anymore, if that ever happens.

13 Okay. I'm going to turn this over to
14 Colleen, who has far more of the technical specifics
15 of the history of the remedial investigations that we
16 have done. So this is the big picture. She's going
17 to start back in the beginning with what's been done
18 to evaluate the project since we got started.

19 Any questions on the general beginning?

20 (No response.)

21 CARLA HECK: Okay. This is Colleen
22 Reilly with CH2M Hill.

23 COLLEEN REILLY: Hello. Nice to be here
24 in rainy Columbus. I'm from Milwaukee, so I came

1 from snow in Milwaukee.

2 So, as Carla said, if you go back to that
3 slide, we're in the process. And, yes, it's taken a
4 while to get just to this phase, but that's very
5 normal. Typically, this whole investigation phase
6 takes the longest in the process. And once you do
7 all the investigations and you understand what you
8 have and you decide what kind of remedial action is
9 required, then everything moves very quickly from
10 there.

11 So even though this shows up as only
12 three blocks in this whole process, that happens to
13 be, if you put a time scale on it, the longest. And
14 this tends to be very -- well, except for the
15 long-term part because that might be indefinite --
16 but through here, any way, that tends to be very
17 quick.

18 As Carla said, I'm going to start us back
19 to where did we start with the landfill. So we go to
20 the next slide.

21 The first investigation -- which
22 really was more of a site walk; there wasn't any
23 samples taken at that point -- was done by USEPA back
24 in 1986. And at that time they obviously saw that it

1 was a landfill and knew that there was further
2 investigation that was needed.

3 At that point the Corps of Engineers took
4 over the investigation responsibility for the
5 landfill. And they started their in-depth sampling
6 at the sites, conducting more interviews, looking at
7 all of the historical information that they could,
8 back in 1995, with some groundwater samples.

9 So there's wells out there on the site
10 that are drilled down to collect groundwater; samples
11 of the soil, both at the surface, right, you know, as
12 you see on the ground, and then also we dig down or
13 drill down and collected from the underground; there
14 are ditches on either side of the site, so we collect
15 surface water and sediment that's in those ditches.

16 And so progressively you gather more and
17 more information, as you do some initial
18 investigations, to see what is out there, what types
19 of contamination, if any, are out there. And then
20 once you have a good sense that there is some
21 contamination, you want to understand how far does
22 that extend out.

23 Because this is a landfill, obviously one
24 of the most important things we needed to know was

1 where is the waste and where isn't the waste. So we
2 did some geophysical-survey measurements -- that's a
3 fancy word for kind of a metal detector, a very
4 powerful metal detector that looks underground and
5 sees what's natural soil versus what's not natural
6 soil and clearly buried material -- as well as, as
7 Carla had said, we dug test pits. We actually had a
8 backhoe out there, digging in the ground, and
9 physically seeing where's the edge of the waste and
10 what type of waste is there and how deep does it go.

11 So this is the first couple phases in
12 that process of this iterative sampling regime to
13 really understand what we call the "nature and extent
14 of the contamination." What's out there; the nature.
15 And how far, how big of an impact is it; that's the
16 extent.

17 CARLA HECK: Down and out.

18 COLLEEN REILLY: So this is a picture of
19 the site. And what you can see in the yellow-shaded
20 areas are where the geophysical-survey measurements
21 as well as basically the big metal detector as well
22 as the test-pitting activities that we did where
23 waste was found.

24 So you can see that -- if you saw the

1 site now, it's pretty level. So this is mostly
2 subsurface because they buried things in trenches.
3 But it wasn't one, nice consolidated area. So we
4 kind of had debris underneath the ground in several
5 different spots on the property.

6 And, as you can tell, all the waste
7 disposal occurred on AOC 1. There's a little
8 thumbnail into AOC 2, but we'll get to that a little
9 bit later. But, nonetheless, this was the waste
10 disposal area and this is where we're going to focus
11 on in terms of active remedies. We'll get to the
12 active remedy for AOC 2 a little bit later.

13 After we collected all of that data, the
14 groundwater, the soil sampling, the surface water and
15 sediment samples, the process to understand if you
16 have a problem at the site or not have a problem is
17 called "a risk assessment." Are there issues of
18 concern to either humans or to the environment, like
19 Carla indicated.

20 And this boils it down into four simple
21 steps, but this is a process that EPA uses -- Ohio
22 EPA also uses this same process -- that you take all
23 of your data, you figure out who's, you know, if
24 there's contamination here, who's exposed to the

1 contamination, how will the contamination affect
2 people or animals, and then you come up with is there
3 a risk there or is there no risk there.

4 So this becomes really the foundation for
5 if there's no risk there, you don't need to do any
6 clean up, right. So this is really central to
7 understanding do you need to take remedial action at
8 a site or not. So this is kind of where all that
9 data gets collected and decisions get made after the
10 risk assessment.

11 So the data-collection-evaluation piece.
12 What the groundwater, soil samples, surface water,
13 sediment samples showed was that there are
14 contaminants at the landfill. Probably not a
15 surprise. They did burning at the landfill as well
16 as they disposed of waste and burned it as well. So
17 you see contaminants that are very consistent with
18 burning of materials.

19 These very long word, "polynuclear
20 aromatic hydrocarbons," we just shorten it and say
21 "PAHs." That is -- those are fairly common
22 contaminants. You see it in car exhausts, you see it
23 if you burn wood in your fireplace at home, if you
24 burn leaves; those actually produce polynuclear

1 aromatic hydrocarbons. That they burned waste in the
2 landfill, it shouldn't be too much of a surprise;
3 but, nonetheless, they're there.

4 Polychlorinated biphenyls. You've
5 probably heard of PCBs in the news. They used to be
6 used back in the '70s, and prior to that, to
7 basically lubricate electrical equipment and for
8 cooling. We did find some levels of PCBs at the
9 landfill.

10 We categorize "other organic compounds."
11 It was really only one and it's kind of a plastic.
12 It's called "phthalate." We identified that.

13 Dioxins and furans, also the result of
14 burning waste. That's very ubiquitous as well as
15 PAHs. Very common in the environment. In any
16 industrialized setting you're going to have dioxins
17 and furans.

18 And then metals, which is commonly
19 associated with landfills because you're burying
20 waste.

21 We mentioned methane here because if
22 you've driven past a landfill, sometimes you see
23 these vents that stick out of the landfill. As waste
24 starts to decompose, it produces gas. If you leave

1 something in your refrigerator, you'll also notice
2 that there's gas that gets produced from that. But
3 it's a very important aspect of the investigation
4 because you want to understand if you've got gas, you
5 don't want gas building up in a landfill. And so we
6 needed to find out if, in fact, this waste is
7 continually degrading and producing gas.

8 And, in fact, we find this waste, if you
9 remember Carla said they stopped landfilling back in
10 1979, so that's been there a pretty long time now in
11 terms of landfills and waste degradation. So we
12 aren't seeing methane gas in high concentrations,
13 which we wouldn't expect to at this 30-plus-year-old
14 landfill.

15 So that's the data collection. We've got
16 all this data. We understand what's out there and
17 the concentrations that are out there.

18 So the second part of the risk assessment
19 process is who's going to be coming in contact with
20 any of that contamination. Who uses the site and how
21 will they be using the site.

22 And the site is owned by the CRAA. And
23 there's maintenance that's done at the site or will
24 be. Typical maintenance workers would be someone

1 mowing the grass, trimming something, trees or
2 otherwise.

3 You also have people who might visit the
4 site or maybe are really trespassing at the site. So
5 accidentally, you know, walking across the site, both
6 currently and potentially in the future.

7 Construction workers, anyone who needs to
8 get out there to do utility work. They might be
9 digging in the ground for whatever reason. That's a
10 jackhammer. There's nothing to jackhammer out there
11 right now. But in case they wanted to redo the road
12 that went through there, that would be an example of
13 a construction worker.

14 And since no one lives on the site right
15 now and they won't be, and there's no drinking of the
16 groundwater there, we did look at the potential for
17 any contaminants from the landfill to migrate in the
18 groundwater off-site, and people who might be
19 drinking the groundwater from a well in their yard;
20 what would happen to that.

21 So we look, those are the people we've
22 looked at that could come in contact with it and how
23 would they come in contact. The maintenance worker,
24 you know, might be touching the soil. Obviously the

1 trespasser because they might get it on their shoes
2 and then take their shoes off later and they have it
3 on their hands. The construction worker clearly more
4 involved because he's right there in the dirt. And
5 then a resident might be potentially drinking the
6 groundwater if they were using well water from their
7 yard.

8 CHRISTIE WARD: Excuse me. May I make
9 one comment?

10 COLLEEN REILLY: Uh-huh.

11 CHRISTIE WARD: The comment at the
12 bottom: "Most Village of Lockbourne residents drink
13 city water," that is true now, but prior to about 15
14 years ago, the residents were drinking well water.
15 And that's not part of the study at all.

16 COLLEEN REILLY: Yes. But the data
17 probably now is indicative of also what might have
18 been. But you're right.

19 CHRISTIE WARD: Even so, now there are
20 many residents that use well water to water their
21 plants and their gardens and things.

22 COLLEEN REILLY: Right.

23 CHRISTIE WARD: Has that been considered
24 at all?

1 COLLEEN REILLY: The risk assessment
2 looks at the most conservative route, right. So the
3 most conservative route would be drinking. And if
4 it's safe for drinking, then presumably it would be
5 safe for other activities.

6 CHRISTIE WARD: So you're saying that in
7 the well water, the water in the wells are safe to
8 drink?

9 COLLEEN REILLY: Well, I'll get to the
10 risk characterization right now.

11 There was a study done, back in 1998 and
12 1999, generally about groundwater in the area. And
13 this often happens in industrialized settings
14 where, you know, the well water, particularly shallow
15 wells, aren't -- because of industrial, because of
16 human use, et cetera -- aren't the best source of
17 drinking water anymore. And that's why people start
18 to convert over to city water. It's better
19 monitored; they get the water from known, clean
20 sources.

21 So the study back then, back in '98 or
22 '99, looked at groundwater kind of across the whole
23 area and did, you know, see that there's kind of
24 ubiquitous contamination in this groundwater. And

1 there was a recommendation made that people go on
2 city water which is probably partly why, you know, I
3 think they converted to city water even before that.
4 I think back when the Air Force was still here, there
5 was a recommendation that everyone go on to city
6 water. And that was a general issue with the whole
7 area, not necessarily specific to the landfill.

8 So basically if you go kind of on one
9 side, you know, groundwater moves in one direction
10 naturally. In this case it does go west-southwest
11 towards Lockbourne and then southwest. But if you
12 take samples of groundwater before you get to the
13 landfill and samples of groundwater when you are
14 downgradient of the landfill, you see the
15 concentrations are the same, roughly the same. So
16 what that says is the problem is bigger than just the
17 landfill.

18 So this risk assessment takes a very
19 conservative approach and looks at all the
20 contamination and comes up with a characterization of
21 risk.

22 TIFFANY CHAPMAN: Actually, if you don't
23 mind, for the record we would like to get names. Can
24 you state your name for the --

1 CHRISTIE WARD: Christie Ward.

2 TIFFANY CHAPMAN: Thank you.

3 And then any further comments, if you
4 don't mind, say your name that way we can get it
5 recorded and then ask your question. That would be
6 great.

7 COLLEEN REILLY: Yeah. We should say
8 there is a court reporter here to document all of the
9 -- yes.

10 ARISTOTLE MATSA: My name is Rick Matsa.
11 I, as is Ms. Ward, and many of the other people here,
12 are here on behalf of the Village of Lockbourne. I
13 think there are a number of things that I'd like to
14 comment on.

15 First of all, you're indicating that the
16 groundwater is the same in different parts and that's
17 equally bad. And that may be indicative of the fact
18 that it's been polluted by the dump for so many
19 years, that there's been a lot of seepage and
20 migration of those toxins and all of those things
21 that you've identified in your report as being
22 harmful to the people that live in Lockbourne and to
23 the environment.

24 The fact that the problem is spreading or

1 widespread, even beyond the area of the dump, I think
2 commonsense would suggest that it's because it's been
3 a dump spewing toxins into the groundwater for so
4 many years and that may be indeed why it's so
5 widespread.

6 The second comment I'd like to make at
7 this point is that your board says most Village
8 residents drink city water. The assumption there is
9 that it gives -- I think it gives an incorrect
10 impression. It ought to be clear to you that there
11 are Village residents that are still drinking well
12 water and are still being affected by the toxins from
13 the dump in that well water.

14 I think more importantly there are
15 residents who are using well water to water their
16 gardens, to water their lawns, which is bringing all
17 of those things back to the surface and making them
18 part of the surface in the Village of Lockbourne, in
19 addition to what's below the surface.

20 So even if many of the residents are not
21 drinking the water, are not affected by, you know,
22 directly by drinking it, they're still being, they
23 and their property and their health is still being
24 affected by all of those toxins being brought up from

1 belowground and essentially being placed on the
2 surface.

3 And if you eat fruits and vegetables that
4 are watered with, what appears to be from your
5 report, toxic materials, certainly the health risks
6 that you would get from eating those fruits and
7 vegetables would be affected by what's being brought
8 up from below the surface.

9 Would this be a good time, I had some
10 other comments? I mean, would you like me to make
11 them now or would you like me to wait?

12 COLLEEN REILLY: Sure. I think -- yeah,
13 I mean, right?

14 CARLA HECK: Yeah.

15 COLLEEN REILLY: I think this should be
16 an open forum and comments get on the record.

17 ARISTOTLE MATSA: Okay. For decades the
18 residents of the Village of Lockbourne have
19 complained to the federal government and the state
20 authorities about what we've called the "dump" and
21 the "ditch."

22 And I think your report correctly pointed
23 out that there had been some public input, years ago,
24 back in the '90s. But then, from all of that time

1 forward, there really wasn't any opportunity for
2 public input. So I commend you on, you know, this
3 opportunity for us to actually, you know, communicate
4 to you.

5 And for all of those years, the residents
6 of the Village of Lockbourne have been trying to
7 convey clearly and with enthusiasm the message that
8 they were being poisoned and that their families were
9 being killed by the toxins that were in the dump,
10 that were being transferred from the dump and the
11 ditch into the Village.

12 For decades the government and its
13 representatives assured the residents of the Village
14 of Lockbourne that there was no danger, that there
15 were no health concerns, and that their friends and
16 relatives were not suffering or slowly dying because
17 of what had been buried at the dump at the base.

18 The government's latest revelations,
19 which I think is through your good efforts and your
20 report, have proven that those complaints of the dead
21 and dying of the Village were accurate and were, in
22 fact, well founded.

23 And I'm really humbled at the task of
24 attempting to be one of the voices of those who

1 passed and those who continue to be harmed by the
2 government's actions and inactions.

3 I have basically four points in terms of
4 a summary of the facts. The first is, for decades,
5 the government buried substances, that are deadly to
6 humans, next to and upstream from the Village. Those
7 buried poisons have been and continue to harm and
8 kill the men, women, and children of the Village.

9 The second thing is the Village cancer
10 rates have been staggeringly higher than they would
11 have been but for the dump and the ditch. Switching
12 to municipal water obviously has helped that, but the
13 fact that those toxins are still in the ground and
14 are still leaching through the ground throughout the
15 Village, I think is of great concern to the residents
16 of the Village of Lockbourne and all their friends
17 and family.

18 The Village residents have a right to use
19 and drink the water beneath their homes. It's
20 essential to their survival that they use it to water
21 and grow food in their gardens. The government
22 acknowledges that Village residents still use the
23 water from their wells, thus has to know that Village
24 residents are continuously being exposed to harmful

1 toxins in their food and their water.

2 The government must now acknowledge that
3 there is an ongoing continuous taking of the Village
4 residents' property rights, their health and their
5 lives without compensation, due process, or equal
6 protection.

7 I think the proof -- and, again, I
8 understand you're a private contractor that did the
9 report for the government -- the proof, I think, is
10 in your own report and there's just a few things that
11 screamed out.

12 Your report says that as a result of
13 these investigations, contaminants including, but not
14 limited to, and you've defined them, polynuclear
15 aromatic hydrocarbons, polychlorinated biphenyls,
16 dioxins/furans, and metals, were detected in soil,
17 surface water, sediment, and groundwater at or near
18 the landfill.

19 Well, Lockbourne is right next to the
20 dump. So when we say "near," what we're really
21 talking about, I think, is, at least in part, the
22 Village of Lockbourne.

23 You mentioned about the shallowness of
24 wells. Shallow zones generally do not produce much

1 water. Therefore, it is the deep aquifer that is the
2 zone typically used as a groundwater source in the
3 county. That's where Columbus and most of Franklin
4 County get its water. I think in your report you
5 indicated that City of Columbus uses surface water
6 from the Big Walnut Creek along with groundwater from
7 the south wellfield area and southeast Franklin
8 County.

9 The south wellfield area is approximately
10 4 miles from the site. Several residents in
11 Lockbourne obtain drinking water from their private
12 wells even to this day. You indicated that seeps
13 have been inconsistently observed along the western
14 boundary of the site during your investigations.

15 At Area of Concern 1, you noted there
16 were PAHs and PCBs, dioxins/furans, and metals
17 including lead, silver and thallium, which were
18 detected in surface soil samples above human health
19 screening levels established by the USEPA.

20 You indicated in your report that PAHs,
21 PCBs, dioxins/furans, and metals including aluminum,
22 mercury and thallium, were detected in subsurface
23 soil samples, again above human health screening
24 levels. And I assume that means at dangerous levels;

1 levels that need to be of concern.

2 PAHs and PCBs, dioxins, and metals
3 including aluminum, mercury and thallium, were
4 detected in subsurface soil samples, again above
5 human health screening levels.

6 Surface soil samples were collected from
7 0 to 1 foot below ground surface, and subsurface
8 soils were collected from 1 to 10 feet below ground
9 surface. PAHs, dioxins/furans, metals including
10 aluminum, arsenic, cadmium, chromium, cobalt, copper,
11 iron, lead, manganese, mercury, nickel, thallium and
12 vanadium, were detected above their respective
13 screening levels in the groundwater.

14 Dioxins/furans, arsenic, all of those
15 were also detected above their respective screening
16 levels in surface water collected from the East and
17 West Ditches, along with phthalate.

18 In sediment, PAHs, and metals including
19 aluminum, arsenic, cobalt, iron, manganese and
20 thallium, were again detected above their respective
21 screening levels.

22 You mentioned that there was no dumping
23 at AOC 2, which the report does point out that there
24 were dioxins/furans, and metals including cobalt,

1 magnesium and thallium, again above their respective
2 screening levels in surface soil. PAHs,
3 dioxins/furans, and metals including aluminum,
4 arsenic, cobalt, iron, magnesium, were detected above
5 their respective screening levels in the groundwater
6 there as well.

7 There were two volatile organic
8 compounds, methylene chlorine and
9 trans-1,3-dichloropropene and naphthalene that were
10 detected in soil above their respective screening
11 levels, and also in the indoor air.

12 Your report says that at Area of Concern
13 1, the HHRA determined that, under current land use
14 conditions, surface soil may pose an unacceptable
15 cancer risk from PAHs and PCBs. You indicated the
16 total soil, that is both surface and subsurface soil,
17 also poses an unacceptable cancer risk; a risk
18 greater than 10 I think you get to the minus four,
19 from PAHs and PCBs. Exposure to lead in the site
20 soil may result in unacceptable risks to children.
21 Future use of groundwater may also pose an
22 unacceptable cancer risk to off-site residents.

23 And, again, I think it's the Village
24 residents, the people in the Village of Lockbourne,

1 their friends, their visitors, everyone that goes
2 there, that is exposed to what you're describing as
3 an unacceptable cancer risk. They're the off-site
4 residents.

5 But I think the problem potentially is
6 much more widespread because that same, all of those
7 things that you listed in your report, are also only
8 4 miles away from where you indicated that Columbus
9 is getting its water. So Columbus is getting its
10 water and Franklin County is getting its groundwater,
11 Arlington, Bexley, Worthington, then that arguably is
12 water that everyone that uses Columbus municipal
13 water is getting, in which case it's all being
14 affected.

15 Primarily because of PAHs, dioxins/furans
16 and, to a lesser extent the metals and polyethyl
17 polyphosphate, you indicated that future exposure to
18 groundwater may pose an unacceptable noncancer risk
19 in some areas and that the groundwater may pose an
20 unacceptable risk to off-site residents from all
21 those things that you listed.

22 I'd like to congratulate the government
23 for finally disclosing the risks to the public,
24 albeit, about 60 years after the Village started

1 voicing its concerns and complaints that the dump and
2 the ditch was and is continuously killing them.

3 Unfortunately, the government solution --
4 which is covering the problem area with soil at a
5 cost of about \$13 million, or with clay at a cost of
6 approximately \$50 million -- we don't believe will
7 solve the problem of the poisoning of the Village and
8 its residents.

9 Logic dictates that pollution of
10 groundwater next to the Village and only 4 miles from
11 where it's used by the City of Columbus and all of
12 Franklin County residents, including the Village's
13 municipal water, is continuously affecting and
14 polluting all the drinking water as well.

15 The Village is better poised, with a
16 transfer of economic support from the federal
17 government, the polluter of this dump site, to fully
18 solve the problem. The Village estimates that it
19 can, over time, fully implement its proposed solution
20 as to items 1 and 2 -- and I'll provide those to you
21 in writing in letter form -- as well or better with
22 the same amount of money that the government proposes
23 to spend on a solution which we believe will not
24 solve the problem.

1 The difference being the Village, at the
2 local level, can avoid those things associated with
3 big government contractual spending. The government
4 is urged to consider economically addressing two
5 other items; the ones that I've listed in my letter
6 as items 3 and 4.

7 The Village has a vested goal in
8 effectuating a real and complete solution, and a
9 proven track record of efficiently administering its
10 projects properly and within budget.

11 It is of some concern to the Village that
12 we only received notice of this just recently. It's
13 been an ongoing problem. The Village has expressed
14 its concerns and believes it should be an active
15 participant in this process from beginning to end,
16 not just at one public-input hearing.

17 The Mayor of the Village of Lockbourne is
18 here, council members of the Village of Lockbourne
19 are here. And I'd like, as soon as I'm done, which
20 will be very soon, for them to introduce themselves
21 as well because these are the real stakeholders;
22 these are the people whose lives are being affected;
23 these are the people who've lost family members due
24 to the toxins from the dump; these are the people who

1 are very concerned that there be a real solution, so
2 that in 60 years, after more monitoring, it's not the
3 same situation that it is now in terms of what's
4 being affected by the things that were placed in the
5 ground, by the government, at the dump site.

6 As for the solution, Lockbourne proposed
7 four simple, straightforward things:

8 Number one, it should be obvious, that
9 the toxic dump materials which are in the trenches,
10 and they're only 10 feet deep below the surface,
11 should be removed and relocated to a location where
12 they will no longer pollute the Village's ground and
13 subsurface water; and, thus, cease the slow death to
14 the Village residents;

15 (2) The Village residents should receive
16 free water and sewer service for as long as they are
17 precluded from safely using their ground and
18 subsurface water;

19 (3) The Village residents should be
20 compensated for their costs, to date, including, but
21 not limited to, the costs associated with the
22 installation and maintenance of their water and sewer
23 systems, and their purchases from this system; and,
24 finally,

1 (4) The Village residents should be
2 compensated for the effect on their health, the
3 deaths of their loved ones, and their lost quality of
4 life.

5 I would like to personally thank you for,
6 Ms. Reilly, for being so patient and giving me this
7 opportunity to share these things with you.

8 If you don't mind, I think it would be
9 really great if we could just kind of go around the
10 room and give everybody else a chance -- besides me,
11 since I feel as though I kind of monopolized -- at
12 least a few moments here to introduce themselves and
13 perhaps put their comments in as well.

14 COLLEEN REILLY: Yes. Thank you.

15 Before we do that, if you don't mind, I
16 know Diana Bynum has been raising her hand, back
17 there, patiently. So if we could give Diana a chance
18 to also speak.

19 DIANA BYNUM: Diana Bynum, Ohio EPA.

20 Okay. In the mid '80s a couple of things
21 happened. One was that the Village water wells were
22 sampled by Ohio EPA and I think also the Ohio
23 Department of Health also conducted sampling of many
24 of the wells in the Village, and discovered that the

1 contamination was actually from the septic systems.
2 A lot of the homeowners' septic systems were in poor
3 condition and the contamination from those septic
4 systems were getting into the drinking water wells.

5 Another thing that occurred in the mid
6 '80s was that the Ohio Department of Health or the
7 Franklin County Health Department, I don't remember
8 which, a study was headed up by Dr. Robert Indian,
9 regarding the cancer occurrence in the Village of
10 Lockbourne, and he determined that they weren't
11 unusual. They might have been a bit high, but they
12 weren't unusual.

13 CHRISTIE WARD: Can we have copies of
14 those studies?

15 DIANA BYNUM: Yes. You can call Lisa
16 Oltman in my office, it's O-l-t-m-a-n, in the central
17 district office, and make a request to have those
18 copied.

19 CHRISTIE WARD: Okay.

20 DIANA BYNUM: And also in the mid '90s, I
21 went out to some of the shallow wells that were still
22 being used by the residents in Lockbourne, with
23 someone from groundwater. We collected samples and
24 analyzed them and found that there were no chemicals

1 of concern.

2 And then also you mentioned that the
3 residents in Lockbourne never had an opportunity to
4 make their concerns known. But during the RAD
5 meetings that the Air Force had, many residents came
6 to the meetings -- even though they were for the Air
7 Force projects and not the landfill -- they were
8 frequently expressing their opinions about the
9 landfill and letting us all know about their
10 concerns.

11 And also you mentioned the trash at the
12 landfill, the 10-foot trenches that had trash in
13 them. I was out there when the Army Corps was
14 conducting their survey of the trash with the
15 backhoe, digging it up. All I saw was municipal
16 waste, computer printouts, that kind of thing, jars
17 of Dippity-Do, other things that you would normally
18 find as just trash. It doesn't mean that there
19 aren't other things there that -- we didn't go
20 through and uncover every single foot of the
21 landfill, but we did find the extent of the trash and
22 that's what we saw.

23 And also many of the contaminants that we
24 have found are slow-moving. They tend to adhere to

1 soil particles. And also the Army Corps plans to put
2 in more monitoring wells and I suspect they're
3 probably going to be downgradient of the landfill, so
4 it would be between the landfill and the Village of
5 Lockbourne, and we would get a better understanding
6 of the contamination.

7 COLLEEN REILLY: Thank you, Diana.

8 I mean, I think the important thing here
9 is that, yes, this has been studied for a long time
10 and it's time for the site to be cleaned up. The
11 Corps is taking action now to clean up the site. The
12 issues around the groundwater, that has to be
13 monitored because this is a landfill; that will
14 continued to be monitored long-term.

15 And if action needs to be taken because
16 of groundwater, if eventually some risk gets shown
17 from the landfill to groundwater, then action would
18 be taken then as well.

19 So the government isn't trying to skirt
20 its responsibility. They're actually taking
21 responsibility for cleaning up the landfill right
22 now.

23 CARLA HECK: Before we move on with the
24 actual discussion of the risk assessments, I'd be

1 happy to hear what the other folks have to say.

2 RALPH COON: My name is Ralph Coon. I'm
3 the Mayor of the Village of Lockbourne. I'm glad
4 that you guys are here. I do have one question.

5 You talk about cleaning it up. What I
6 understand is you're just going to put dirt over the
7 top of it, or are you going to take everything out?

8 CARLA HECK: We won't be excavating
9 everything. That's not usually -- let me think of
10 the best way to say this.

11 In the country we're always going to have
12 landfills that are, you know, that are there,
13 commercially available, whether it's for hazardous
14 materials or just our garbage. And so the way those
15 are designed, obviously we wouldn't be digging those
16 up because you would just be starting the problem
17 some place else.

18 So they're designed and closed in such a
19 way and then monitored so that the waste stays in
20 place. There are lots and lots of contaminated areas
21 where the waste, the most logical thing is for the
22 waste to remain in place and to monitor it, which is
23 what we're doing.

24 So no, all of the waste materials won't

1 be dug up. What will happen -- and Colleen will get
2 to this in a little bit -- is that in order to have a
3 little bit more control and to get the waste out of
4 areas that it shouldn't be, we'll be pulling it back
5 and reducing the footprint of the waste.

6 And then once you do that, then we will
7 be putting a cover on it and at a specific grade so
8 that, because one of the biggest issues when you have
9 a landfill or when you have any waste in place is
10 water getting in, so you don't want water to get in,
11 you want water to run off, and that's what hadn't
12 been happening in the last many years. It's a
13 long-winded answer to your question.

14 RALPH COON: I keep hearing "the
15 cleanup," but --

16 CARLA HECK: I agree with you. That's
17 not -- I actually said this before we --

18 COLLEEN REILLY: It's a misnomer in the
19 term.

20 RALPH COON: Covering dirt over top of
21 it, to me, is not cleaning it up.

22 CARLA HECK: I agree with you,
23 100 percent. I don't like the use of that phrase
24 because it's misleading; it assumes you are picking

1 up and taking away.

2 And the whole -- in environmental -- in
3 the environmental arena, whether you're talking
4 industry or in your garage or, you know, what the
5 Army has done, you look at what you have and that's
6 why we focus so much on risk because it is -- it ends
7 up being a statistically -- I mean, if you look at --
8 I'm losing my train of thought.

9 You are evaluating the impact of what's
10 there on the people and your surroundings. And with
11 that you also have to take into account some of the
12 things Diana mentioned. You can't look at, in this
13 particular example, you can't look at the landfill in
14 isolation because there are other external factors.

15 I've worked on some projects where there
16 are naturally-occurring things that are in the soil
17 that, by definition, by some EPA standard, might be
18 considered dangerous, but they're naturally
19 occurring. So you're not going to dig a core, you
20 know, all the way through the earth to clean
21 something up.

22 Well, I think I've completely lost my
23 train of thought, so I'm going to stop there before I
24 confuse myself, because I think I'm definitely

1 confusing you if I'm confusing myself.

2 TIFFANY CHAPMAN: Well, I think it's
3 important you're saying that, like, once you have
4 chemicals detected and then a risk assessment, so you
5 really need to focus on, you know, after we've done
6 the study, which you'll present more on the risk, and
7 then address the risk. So I think there seems to be
8 some confusion on the location of the contamination
9 and what risk it could be causing.

10 CARLA HECK: And risk assessments are --
11 it's a very unique, very detailed science that's
12 actually completely over my head when it starts
13 talking about how you evaluate cancer risk for
14 people, or certain, you know, hazard indices that
15 affect plants and animals.

16 There's a tremendous amount, we know a
17 whole lot more now than we did ten years ago, and a
18 whole lot more now than ten years before that, just
19 with regard to the data that the states and EPA and
20 companies have put together with regard to what are
21 negative impacts to people.

22 SHANNON BUSH: Shannon Bush, Hamilton
23 Township. On today's landfills they've got liners
24 and clay. That landfill was built over top --

1 everything around here is gravel -- it's over a
2 gravel base. So your drainage is going to be a lot
3 worse than the landfills. Is this the same thing you
4 would do in a commercial landfill if you found
5 contamination there?

6 CARLA HECK: You mean like an old
7 commercial landfill?

8 SHANNON BUSH: Yeah. You found somebody
9 that had a landfill, commercial, that they picked up
10 trash and dumped it. What would you do to them? The
11 same thing you're doing here?

12 CARLA HECK: Yeah.

13 COLLEEN REILLY: Yes. You know, the EPA
14 did a big study about what to do with all these old
15 dumps, essentially, because they're all over the
16 country, and communities can't afford to dig up all
17 these old dumps and consolidate them in one spot.

18 So what they determined, after a lot of
19 studies on this, was the best way to manage these
20 dumps is to put a cover over them and, you know,
21 promote surface drainage so the water flows off of
22 the landfill rather than going down into the
23 landfill; and to make sure that no one comes in
24 contact with the trash that's in there because we

1 don't, you know, we know something of what we
2 observed, but, you know, a lot of people don't know
3 what people throw in their trash and ends up in the
4 dump, so you generally don't want people coming in
5 contact with trash.

6 So you put covers over them to prevent
7 that and you allow a mounding of that soil so it
8 promotes water to run off rather than sinking down
9 there. And that's a very standard method of
10 remediating, rather than cleaning up, remediating a
11 landfill, closing a landfill out.

12 CARLA HECK: Long-term monitoring, in a
13 situation like this, is one of the things that's the
14 most key. You're not walking away. Whether it's an
15 industrial landfill, like, you know, your stuff's
16 going to Waste Management or BFI, once the cap goes
17 on, the regulations for those types of facilities say
18 that you'll monitor it for 30 years. But it also
19 means that if you're monitoring it for 30 years, in
20 Year 15, if you find out things that didn't happen in
21 Year 3, all bets are off.

22 The same thing is true here. Like Diana
23 said, we would be putting in more wells downgradient,
24 which we call that "a point of compliance." We're

1 trying to monitor to make sure that this doesn't get
2 to here if there is anything in here. If something
3 does cross that line, again all bets are off; you
4 relook at everything; it's not a static solution.

5 SHANNON BUSH: Well, I'm sure the City
6 has monitoring wells in the area because they've got
7 them everywhere. They should be monitoring it
8 already.

9 CARLA HECK: Oh, they are, yeah.

10 COLLEEN REILLY: Is there anyone else
11 that wants -- before I continue.

12 CHRISTIE WARD: I just want to make a
13 statement for the Village of Lockbourne. And we'll
14 probably put together a position statement to send to
15 you.

16 My name is Christie Ward. I'm on the
17 Village Council for Lockbourne. We want to share our
18 disappointment in the lack of collaboration with the
19 Village. It is unacceptable that we were not
20 consulted or informed of the activities of the
21 landfill assessment.

22 Section 2, Site Background, on page 2 of
23 your final report, indicates that, from 1951 to 1971,
24 the Air Force Base landfill was used to dispose of

1 waste from the former Lockbourne Air Force Base. The
2 types of waste include: general trash from base
3 housing and administrative buildings, construction
4 and demolition debris, and lime sludge from the base
5 water-treatment plant.

6 Historical documents suggest the landfill
7 may also have received pesticides and herbicides,
8 ammunition, airplane parts, and hazardous materials.
9 Wastes reportedly were buried in trenches up to 10
10 feet deep and dispersed on the ground surface.

11 As a result of these investigations,
12 contaminants including, but not limited to,
13 polynuclear aromatic hydrocarbons, polychlorinated
14 biphenyls, dioxins/furans, and metals, were detected
15 in soil, surface water, sediment, and groundwater, on
16 or near the landfill. Your own assessments give us
17 reasons to be concerned.

18 The proposed solution of covering the
19 landfill with soil or clay are not only inadequate,
20 but irresponsible, and do not address the long-term
21 effects on the environment, wildlife, or human health
22 of the residents of Lockbourne as well as Franklin
23 and Pickaway counties.

24 Your recommendations still leave us with

1 a hazardous dump site, and the contaminants will
2 continue to seep into the soil and groundwater,
3 ultimately ending up in the drinking water of
4 Franklin and Pickaway County households, and remain a
5 substantial threat to our lives.

6 The residents of Lockbourne have felt the
7 effects of the contaminants in the landfill for the
8 past 60 years. We continue to have a high stake in
9 the decisions others will make in the future of the
10 landfill. We formally request to be included in the
11 decision process as well as the implementation of a
12 viable solution.

13 All your studies document the hazardous
14 waste dumped in our community and the continued
15 negative impact on human, aquatic, wild, and plant
16 life.

17 The bottom line is that today, 60 years
18 later, Lockbourne, Franklin County, and Pickaway
19 County residents are in danger and there is not a
20 viable solution.

21 CARLA HECK: Before we go on, I just want
22 to, because obviously you all have -- we can't speak
23 to all the points that you brought up; this isn't the
24 venue for that; I don't have people here to do that.

1 And you mentioned that you will be responding
2 formally through the public-comment period, so we'll
3 get what you just said in writing.

4 ARISTOTLE MATSA: Actually, I'd like for
5 everything that I've said, I'll actually give it to
6 your court reporter, now, to be included as part of
7 your record.

8 CARLA HECK: Yeah. Absolutely.

9 ARISTOTLE MATSA: And I've also given a
10 copy to your colleague as well.

11 CARLA HECK: Okay.

12 ARISTOTLE MATSA: So it's not something
13 that, at least I'm not intending to mail it, since
14 I'm providing it to you, already today.

15 CARLA HECK: Okay.

16 In the beginning -- and I realize this
17 isn't what you all want to hear; I just have to say
18 it to make sure we're all on the same page.

19 In the beginning of the presentation, we
20 talked about the program, the federal program that
21 brought us here as far as the bucket of money that
22 will pay to have this done. I can't even imagine the
23 frustration of being in the community, the perception
24 of what the federal government may or may not have

1 done, because this has gone on for decades.

2 The law that actually allows us to have
3 this meeting and do this work, did not happen until
4 the late '80s. And in the process after that, it
5 was, you know, it's a slow process getting things
6 started. I'm not saying it's right; I'm just saying
7 it is what it is. It took what it took to get us
8 here today.

9 So we have to, I mean "we" being the
10 Corps, are doing everything we can to be
11 forward-thinking. I can't make any statements about
12 what happened before the CERCLA laws came into effect
13 during that time period or while the Air Force was
14 here or after the Air Force sold it to the airport.
15 All I can do is work within the confines of the
16 federal program that brought us here.

17 So I think everybody is aware of that. I
18 just wanted to make sure that we were clear. We will
19 have to -- there are legal constraints as to what we
20 can and can't do. And, in a lot of ways, the
21 regulations that we're operating in are very
22 proscriptive.

23 That being said, we still want to hear
24 everything you want to say. We just want to make

1 sure that you do understand that we may not be the
2 audience that you need to tell it to for some of the
3 things. But we certainly want you to be involved as
4 much as you wish to participate and be involved
5 through this process.

6 I mean, as far as where we are, and
7 Colleen will speak to that a little later, the CERCLA
8 regulations, I mean, it sets up a clock. We're going
9 to do this, we're going to do this, and then we're
10 going to do this. And we'll make sure we know who we
11 need to stay in contact with, so you guys can keep
12 your constituents in the community involved with
13 where we are. But we don't have a whole lot of
14 flexibility in how we go forward.

15 ARISTOTLE MATSA: You mentioned other
16 forms that you think we might also benefit from
17 addressing. I think you're extremely experienced in
18 these areas; could you make any suggestion of other,
19 when you said there are others --

20 CARLA HECK: As soon as that came out of
21 my mouth, I started thinking the way that this
22 process works with where we are now, there is a very
23 specific comment period which we will take what you
24 all have said and anything else that we may get from

1 people who aren't here, phone calls, letters, you
2 know, anybody that responds to what's in the paper,
3 and that information will be evaluated.

4 I'm actually not a CERCLA expert. I'm an
5 environmental expert. This particular law, I'm
6 getting to be an expert, but I'm more of a novice. I
7 don't know if there's a place in any of the next
8 steps that allow for another iteration of discussion.

9 COLLEEN REILLY: In terms of the
10 decision-making process, you know, how will the
11 landfill be remediated, this is the time to be
12 engaged and voice opinions, concerns, et cetera, with
13 the government about their proposed clean-up action.

14 And then the Army Corps of Engineers will
15 work in coordination with Ohio EPA to look at those
16 comments, and evaluate do those comments, do they in
17 any way question what we're proposing to do, and how
18 can we address their concerns by the remedy that
19 we're proposing to put on.

20 So essentially there is a formal response
21 that goes back to anyone who provides comments,
22 including those tonight, that explains if the
23 government still moves forward with a cap, why
24 they're moving forward with a cap on the landfill and

1 how that will address your concerns.

2 In the CERCLA process, this is the public
3 forum prior to the decision-making. After the
4 decision-making, you know, there's flexibility
5 around, you know, do you want to be involved in the
6 remedial design so people understand the design a
7 little bit better; how are you making sure that this
8 is being designed to protect the residents of the
9 Village of Lockbourne.

10 During construction, sometimes there's a
11 public-invite during construction to see the process
12 of how it occurs. There's safety issues with that,
13 as you can imagine, but you can structure it so
14 people can see the construction going on. So there
15 are other processes that they can, that the Corps of
16 Engineers could implement to engage the public as
17 part of the remedial design and implementation of the
18 remedy.

19 Also the process, because, as a landfill,
20 assuming it would be left in place, again every five
21 years the government has to come back and do a very
22 comprehensive review of the remedy. And there is a
23 public involvement component to that; notifying the
24 public that that's happening; inviting input during

1 that process. That probably doesn't make you feel
2 better because that's five years down the road, but
3 it doesn't end, I guess, my point is. The
4 opportunities for public input does not end. But in
5 terms of making the decision, this is the time and
6 the opportunity for input.

7 Yes, ma'am.

8 JUDY CAMPBELL: Do they have a history or
9 a report of how these caps have worked in the past
10 and how safe they've been for groundwater in the
11 past? Is there some place that they can get a report
12 or we can get a report?

13 COLLEEN REILLY: Yes. In fact, at the
14 end of this, and actually it might be in the fact
15 sheet, too, where you can find documents at the,
16 there's a website, and then the library, the local
17 library has it on compact disk, and it has some of
18 those studies that talk about why do we cap landfills
19 and how that is protective of communities that live
20 adjacent to landfills, et cetera.

21 As Carla indicated, long-term monitoring
22 for a landfill is a critical part of that remedy.
23 You know, you cap a landfill, you got to make sure
24 that you are actually containing the contamination

1 when you do that. And part of that is putting
2 groundwater-monitoring wells downgradient to make
3 sure that any contaminants from the landfill are not
4 migrating to somewhere they shouldn't be.

5 JUDY CAMPBELL: But I still have a well,
6 so I'm still dealing with drinking groundwater. That
7 was my concern. If you have proof of the effects
8 that it's done in the past, then we have got
9 something to look at to see if it's something that
10 will help us in the future.

11 CHRISTIE WARD: Because you're not that
12 far from the landfill, yourself.

13 JUDY CAMPBELL: No, I'm not.

14 TIFFANY CHAPMAN: Can we get your name
15 for the record?

16 JUDY CAMPBELL: Yeah. I'm sorry. It's
17 Judy Campbell.

18 TIFFANY CHAPMAN: Thank you.

19 JUDY CAMPBELL: I'm a resident.

20 RICHARD EASTERDAY: Basically, you people
21 have no idea what was put in there.

22 COLLEEN REILLY: Well, we wouldn't know
23 unless we dug everything up. But we've got, through
24 interviews and --

1 RICHARD EASTERDAY: I've lived here for
2 65 years. I know what was put in there. You're not
3 finding anything. I know there's diesel fuel,
4 there's been paint, there's been paint thinner, all
5 kinds of stuff put in there.

6 CARLA HECK: One thing, because we've had
7 this discussion also with the State, we base the
8 remedial design based on the information that we
9 have. I mean, I realize we don't have everything,
10 but we do have substantial information.

11 Once we get out there and start moving
12 things, and we've taken a lot of data and a lot of
13 analysis, and those types of things haven't shown up.
14 And that doesn't mean that they're not there, it just
15 means that the sampling that we've done are not
16 indicative of those types of things being there.

17 But if we ran into something that was
18 completely unexpected -- the whole -- anything, when
19 you're in the environmental arena, it's all kind of
20 iterative. You get more information, you have to
21 change your decision-making; you get more
22 information, you have to change your decision-making.

23 The fact that we may come up with a
24 decision document and a remedial design, doesn't at

1 all mean it's ironed in stone. All it takes is new
2 information and we course-correct based on that
3 information.

4 RICHARD EASTERDAY: Why do you think it's
5 only 10-foot deep?

6 CARLA HECK: Why do I think it's only
7 10-foot deep?

8 RICHARD EASTERDAY: Right.

9 CARLA HECK: Actually, I don't remember
10 where that information came from.

11 COLLEEN REILLY: When we dug into the
12 waste in test pits.

13 RICHARD EASTERDAY: You only went 10
14 feet. How do you know it don't go deeper?

15 COLLEEN REILLY: Well, we did find
16 natural, the clay soils that are there below that.

17 But to your point, that's part of why you
18 do all this sampling, you know, to get a better
19 understanding of whatever might be in that landfill;
20 you want to make sure that it's contained within that
21 landfill. That's why you do all the sampling and you
22 put the groundwater wells in.

23 You know, there were some reports,
24 anecdotal information about, you know, as you read,

1 about hazardous materials being disposed of there,
2 which is part of what, you know, stimulates this
3 whole process to begin with. That's why we analyze
4 for all these different compounds to see what are we
5 seeing coming out of this landfill, if anything.

6 And so if there were those components or
7 those types of things disposed of in that landfill --
8 right now, all the data collected, over ten years,
9 doesn't show that; diesel fuels, that kind of thing.
10 It's not to say it's not there; it's just not coming
11 out of the landfill. We want to make sure it
12 doesn't, which is why we're proposing to cap it and
13 be able to then monitor it after that.

14 RICHARD EASTERDAY: It's too late. It's
15 already spread all over the town. I was in Vietnam,
16 so I know how it works.

17 TIFFANY CHAPMAN: Can I get your name,
18 also, for the record?

19 RICHARD EASTERDAY: Richard Easterday,
20 councilman, Village of Lockbourne.

21 JUDY CAMPBELL: How are we to know that
22 they didn't have a dump, cover it over with what you
23 found was the clay and stuff, and then start another
24 dump on top of that? How are we not to know that

1 this might not be something that's tunneled on down?

2 COLLEEN REILLY: Well, some of the -- we
3 don't just use test pits. We actually drill. So you
4 can -- you can see if there's anything different in,
5 if there's waste here, if they covered it with soil
6 and if there's more waste.

7 And then if you think back on how they
8 actually, you know, that was not a big hole back
9 then; that, historically, was pretty flat land. So
10 what did they use to dispose of the dirt, and they
11 would use things like backhoes which don't dig that
12 deep. So they trench. It's a fairly common thing,
13 "trench and fill." It was not unique to the Air
14 Force. It's a common way that people disposed of
15 waste all over the world actually. It's called
16 "trench and fill."

17 You can actually see some of the trenches
18 still today. In the aerial photo, you can see
19 evidence of the trenches. So just the limitation of
20 the equipment would suggest that you can't go much
21 deeper than -- they probably didn't go much deeper
22 than 10 feet.

23 So it's a bit of anecdotal information, a
24 bit of how do they really typically dispose of waste.

1 When you had a flat land, you didn't have a ravine or
2 a ditch or anything, the natural low area to dispose
3 of waste, and they would dig trenches and put waste
4 in and cover it up.

5 JUDY CAMPBELL: Well, I know for a fact
6 that there's a home down here, just across the
7 bridge, the railroad bridge, that they hauled septic
8 system stuff away and took it into their field and
9 put lime on it and it sat there and that's how they
10 disposed of it. That went on for years and years and
11 years. So the Air Force could have used something
12 like that too. I mean, it's just -- there's no
13 guarantees.

14 COLLEEN REILLY: Well, the sludge from
15 the treatment plant did go there. There's visual
16 evidence of that on the surface there. And that's,
17 you know, partly why it needed to be covered, you
18 know, so it's not exposed to the air.

19 You're right. Back before there were
20 environmental laws in the '80s, people disposed of
21 their trash in many different ways. They burned it
22 in their backyards, et cetera, or they had village
23 dumps where everyone took their trash.

24 So, in any case, the way they, the common

1 remedy for a dump is to cap it, and that is largely
2 why those are the alternatives we looked at for this
3 particular landfill.

4 CARLA HECK: I mean, I can't think of
5 anything, in my experience, where a landfill was
6 completely excavated and removed. Especially if
7 you're looking at any type of groundwater
8 contamination; that's not really going to do anything
9 anyway because you're still going to be dealing with
10 that.

11 If you're looking for some place where
12 there's waste in place -- not waste in place --
13 contamination in place, whether or not it's waste or
14 you have contaminated soil, then what you're looking
15 at protecting for the future is preventing
16 infiltration of water, and then evaluating -- I'm
17 usually somebody that likes to, I draw really, really
18 poorly, but I'll usually draw this kind of stuff --
19 but you try to, with your monitoring, understand, you
20 know, what you have, so that you can know whether or
21 not, again if the stuff is in the groundwater, you
22 want to know that it's not getting past a certain
23 controlled line for lack of a better word. So you're
24 trying to control the surface and you're trying to

1 control under the surface.

2 For me, anyway, my background is in
3 chemical engineering, but I'm not much of an
4 engineer, but one of the things that's the hardest in
5 any environmental work, like I think Colleen
6 mentioned, it's amazing how late the country was at
7 even addressing any of this. I mean, we didn't have
8 an Environmental Protection Agency until 1970. So
9 these rules didn't start coming out until the '80s.
10 So we're making up for a whole, whole, whole lot of
11 lost time for stuff that was going on.

12 And it's not -- it would be a lot easier
13 if it was just real black and white, you know, this
14 is bad and this is good. But it doesn't work out
15 that way. And for, you know, not just as taxpayers
16 but as consumers, you wouldn't want it to be like
17 that because it just would not be cost-effective,
18 which is how -- why so much of this type of work is
19 based on risk.

20 And that, for me, personally, sometimes
21 that's a really hard concept for me to understand
22 when I'm talking to risk assessors. But it's the
23 same thing we do in our personal lives when we go buy
24 a car, or go get a loan and buy a house, or anything.

1 You evaluate, you know, your own personal risk.

2 I'm hoping and I'm confident that, as we
3 go through the -- you're not going to get a warm
4 fuzzy. I mean, by the time we finish with this
5 presentation, I don't think anybody, you aren't going
6 to feel real confident. I hope you feel more
7 confident in our decision-making process on how the
8 data which gets fed into a risk assessment and then
9 looks at real numbers and then helps us determine the
10 path forward.

11 Because I can't imagine a scenario,
12 actually at all, for this landfill, where the
13 recommendation would have been to dig it up. I mean,
14 I can't -- I can't think of any -- if there was
15 anything that we don't know now, you know, some
16 possibility of something that could be in here where
17 our decision-making would be any different; I don't
18 know, but I can't think of anything.

19 Paul.

20 PAUL KENNEDY: Paul Kennedy with the
21 Airport Authority.

22 It might help, as you restart the Power
23 Point, to maybe distinguish -- the definition in the
24 report and proposed plans are a description of the

1 landfill itself. And maybe distinguish or contrast
2 that with what is outside of the landfill or at the
3 perimeter of the landfill, to kind of define movement
4 and non-movement of the landfill, and then maybe how
5 that cap is appropriate, so that there is the
6 distinction between where the landfill stops and
7 where the groundwater discussion stops.

8 Because some of the things I hear in the
9 room are some concerns that the conditions that are
10 defined in the report also exist in the Village or in
11 the County or in the City's wellfields.

12 So, again, I don't know what's further
13 into the Power Point, but that might be a good
14 distinction.

15 Having been at the Airport since 1993 and
16 really just sort of an interested party reading the
17 reports, I probably have more familiarity with the
18 nature and extent of the landfill and what it means
19 outside, you know, the boundaries of the landfill.

20 So maybe for some of the people in the
21 room and maybe that level of comfort you're talking
22 about might come through in saying this is the
23 landfill, this is not the landfill, this is why your
24 remedy is appropriate in the way you designed it.

1 CARLA HECK: Well, I'm going to turn it
2 back over to Colleen. But I do, I mean, just anybody
3 that wants to jump in, just jump in. I mean, I don't
4 want this to -- I want it to be as interactive as you
5 guys want it to be. It might help a little bit to
6 get through a little bit more of the risk process.

7 I'll sit down and shut up.

8 COLLEEN REILLY: Particularly in light of
9 some of the comments that were read and to Paul's
10 point that, you know, this is really important, I
11 guess, to take this opportunity to understand it
12 because it does focus on where is there contamination
13 and where isn't there contamination. And I think
14 that what was read will, you'll see how that all gets
15 played out into where is there risk and how did we
16 determine where there was risk.

17 I guess what I'm trying to say is please
18 stop me if you don't understand what's being said
19 here or want to dig into it deeper, so that we can
20 flush this out a little bit more, and maybe not get
21 to a warm-and-fuzzy, but at least an understanding of
22 why we've come to the point where we're at today and
23 what the data show.

24 Just to kind of recap that these were the

1 people that we looked at that might come in contact
2 with any contamination at the landfill and how they
3 would. There's groundwater, surface soil, subsurface
4 soil, et cetera.

5 So in the third process, third step of
6 the risk assessment is you look at these contaminants
7 and you find out, well, at what levels do they cause
8 health effects. So you want to understand, you know,
9 in some cases, you know, a level of a contaminant
10 doesn't have any effect; but if it gets to a higher
11 concentration, then it does.

12 So when you're doing a risk
13 characterization, you need to understand if what
14 you're finding at the site is at high enough
15 concentrations to cause some kind of health effect.

16 EPA develops those concentrations. They
17 develop a number, essentially, that says this is the
18 concentration at which there's adverse health
19 effects. And those tend to be very, very
20 conservative, so they tend to be a lot lower, and
21 that's -- you want that to be. You want to
22 overestimate your risk; you don't want to
23 underestimate your risk, so you make sure you're
24 being protected. But they have built-in kind of

1 safety margins in those estimates.

2 So once you figured out who might be
3 coming in contact with anything at the site or your
4 contamination at the site, and you figured out at
5 what concentrations those constituents need to be at
6 in order to cause an adverse health effect, you
7 combine those two pieces of information, the exposure
8 assessment and the toxicity assessment, and you
9 calculate your risk.

10 So we did divide this up into AOC 1 and
11 AOC 2, because there's waste buried in AOC 1, and in
12 AOC 2 there was generally just surface debris. And
13 what you find is, in the surface soil, that the
14 maintenance workers, and anyone visiting the site or
15 trespassing across the site, there would be risk, if
16 they came in contact with that surface soil, from
17 PAHs and PCBs.

18 In the subsurface soil -- and, again,
19 that was the construction worker, right. He might be
20 digging down into the dirt. If they came in contact
21 with that subsurface soil, might be at risk with
22 exposure to PAHs, PCBs, and lead.

23 In the groundwater, we have potential
24 future risk. And the reason that's future risk is

1 because we did a very conservative evaluation of
2 groundwater. And in that groundwater we had PAHs,
3 metals, dioxins/furans, and then this phthalate. I
4 told you that was kind of a plastic.

5 And then construction workers, not that
6 they're drinking the water; they would come in
7 contact with it if they were digging. You know,
8 groundwater is fairly shallow, you know, sometimes at
9 4 feet. If they were doing some digging, they'd come
10 in contact with it.

11 But what we did with the groundwater
12 here, we automatically assumed everything that was in
13 the groundwater is from the landfill, which isn't
14 actually correct, particularly with PAHs,
15 dioxins/furans and phthalates.

16 There are wells that are groundwater
17 wells that are located before the landfill so to
18 speak, and groundwater does move in one direction.
19 It's kind of a law of physics. Groundwater moves in
20 one direction. Usually it goes toward some discharge
21 location, either a big body of water or maybe a small
22 body of water, a river, a creek. And, in this case,
23 that's where this heads. It heads to the discharge
24 location in the creeks and the rivers, west and

1 southwest.

2 So you've got, if you put wells before
3 the landfill, whatever's in that groundwater is not
4 coming from the landfill. Just physically it is not
5 possible because the law of physics has groundwater
6 moving in one direction.

7 So what we did with the groundwater is we
8 just assumed, no matter what we found when we drilled
9 in the landfill proper and tested the groundwater,
10 that that was coming from the landfill, which isn't
11 necessarily true.

12 We also assumed that, as Diana mentioned,
13 that these contaminants, particularly dioxins/furans,
14 PAHs, they bind very tightly to soil. Again, it's a
15 chemical and physical process that those tend to
16 really like soils and they bind tightly to them.

17 Well, when you drink from wells, even
18 private wells, you're filtering out all that soil
19 mostly because no one likes to look at dirty water
20 and they wouldn't want to drink it. But they filter
21 that out, the well process does that. So we assume
22 that you're automatically drinking all that soil
23 along with the groundwater. And, again, this is on
24 the landfill, right now, itself.

1 So, again, it's a conservative estimate
2 of what might be at risk if people drink this
3 groundwater. In actuality, those things don't occur;
4 you don't drink dirty water; you have clean water
5 that you're drinking; it's not filled with soil
6 particles.

7 So that's why you've got this future risk
8 to off-site residents, that risk in groundwater,
9 because of very conservative assumptions that
10 essentially what's under the landfill, now, is what
11 people off-site might be drinking.

12 For AOC 2 which is, again that's
13 upgradient of the landfill. If you remember that
14 picture, AOC 2 is on the east side and AOC 1 is on
15 the west side. You still have this contamination in
16 groundwater from dioxins and furans in particular.
17 That's what's driving the risk here for a
18 construction worker.

19 But this points to a very interesting
20 component of, well, what's happening; where are the
21 dioxins and furans coming from? If they're not
22 coming from the landfill, which they likely aren't
23 because AOC 2 is upgradient from the landfill,
24 they're coming from some other place.

1 And, again, these types of contaminants,
2 whether you're talking about PAHs, dioxins/furans,
3 are very ubiquitous in the environment. It's just an
4 unfortunate consequence of human activities that we
5 have caused these contaminants to migrate into our
6 groundwater and they're widespread problems. They're
7 why cities have drinking water sources and don't
8 drill into the ground anymore, largely why; also
9 because they need a lot of water.

10 But, in any case, we didn't distinguish,
11 again, whether this was from the landfill or not. We
12 just automatically assumed it was here. Here it's
13 not from the landfill. But, nonetheless, if the CRAA
14 wanted to do anything on that property in the future,
15 we would recommend, and you'll see in the remedy
16 here, that you don't let anyone drill and drink from
17 that groundwater because we don't know where the
18 contamination is coming from. It's coming from
19 somewhere upstream, so to speak, so we don't want
20 anyone drilling and drinking that groundwater at AOC
21 2.

22 Yes. Do you have a question?

23 GEORGE HAMMOND: George Hammond. I've
24 lived in Lockbourne since 1962. In 1947 I lived on

1 Shook Road where the dump is now. So I've been
2 around a while.

3 There's a ditch that comes up along the
4 west side of the dump and goes under Commerce Street
5 and empties in the Big Walnut through a ditch that
6 goes through the Village of Lockbourne. Is anything
7 going to be done to that?

8 COLLEEN REILLY: There wasn't any human
9 health risk associated with surface water and
10 sediment. And so from a human health perspective,
11 no, there's no plans to do anything with the ditch.

12 That ditch, that was created by the Air
13 Force, I think, to manage all the surface water
14 runoff from the base. Maybe it existed before the
15 Air Force Base.

16 GEORGE HAMMOND: Also my wife died in
17 2005 from cancer, pancreas.

18 COLLEEN REILLY: I'm sorry to hear that.
19 Any other questions before I move on?

20 What I just went through with you was the
21 human health risk assessment. We also look at plants
22 and animals, the wildlife, to see if any of the
23 contaminants at the site would be impacting
24 negatively any of the wildlife.

1 So the way the ecological risk assessment
2 is done is a very similar, multi-step process just
3 like the human health risk assessment. A little bit
4 different tweaks to it. You actually have to look at
5 is there actually each ecological habitat there, and
6 are there food sources there for critters that they
7 might be eating at that site, like plants.

8 GEORGE HAMMOND: I did count 14 deer out
9 there along --

10 COLLEEN REILLY: Yes, there are deer out
11 there. And we've seen hunters out there after those
12 deer.

13 Yes, we know there's wildlife out there.
14 We tend to focus on the wildlife that lives there
15 almost permanently, because the deer have a very big
16 roaming range.

17 GEORGE HAMMOND: They were more or less
18 in a herd, right together.

19 COLLEEN REILLY: Right. Right.

20 So as a conservative thing, we look at
21 animals that are there all the time.

22 So, again, we look at, once we understand
23 that there is a habitat there for plants and animals
24 or there's a food source there, then we look at how

1 they would be exposed to the contamination.

2 Typically it's through ingestion. And then, again,
3 at what levels do the contaminants have to be present
4 before they cause some negative effect. All of that
5 information comes together and you come up with your
6 ecological risk characterization.

7 So the ecological risks at this site, at
8 AOC 1, again the surface soils and this is where the
9 waste is. The surface soils do pose a risk, right
10 now, to mammals. And we looked, again, at these
11 animals that have very small ranges that are living
12 there almost full-time, like a shrew or a fox or a
13 muskrat. And similar types of contaminants affecting
14 these wildlife as with the humans.

15 Birds, that's mostly from feeding on
16 shrews or mice that are there; from lead and PCBs.

17 And then "lower-trophic receptors" is a
18 fancy way of calling plants and earthworms. And
19 clearly those are -- they live in the dirt, including
20 plants -- from pesticides. That is the first time
21 that pops up in terms of causing risk because these
22 are very sensitive receptors, as you can imagine an
23 earthworm.

24 The water and the sediment in the storm

1 water ditches. To your point, yes, we did find some
2 potential risks to these plants and earthworms; very,
3 very, sensitive receptors. However, that habitat
4 there is not a high-quality habitat. What you look
5 at earthworms for is actually as a food source to
6 birds particularly. And it's not a high-quality
7 habitat that many birds go and feed in those ditches.
8 So that weighs into your decision-making about, well,
9 is there a risk or isn't there a risk. If there's
10 not really a habitat there for animals to use it as a
11 food source, then there isn't a risk.

12 So here, while we do have these
13 contaminants that might affect plants and earthworms,
14 it doesn't go beyond plants and earthworms, so to
15 speak, and get higher up into the food chain, which
16 is what we get concerned about with ecological
17 receptors.

18 At AOC 2 there were no unacceptable risks
19 to the ecological receptors there.

20 So as I started talking about the risk
21 assessment, the estimation of risk and whether you
22 have risk at a site or not, if you don't have risk at
23 a site, that's what I guess causes you to determine
24 if you need to look at remedial actions; do you need

1 to do something at the site. If you have
2 unacceptable risk at a site, you need to do
3 something. So, clearly, I just went through, we have
4 unacceptable risk at the site; we have to do
5 something about it.

6 The remedial alternatives, what
7 alternatives you're going to look at, how you compare
8 them, that's all done in a report called the
9 "feasibility study." In that feasibility study we
10 actually set forth objectives; what are our goals of
11 remediating the site.

12 And here we came up with five. And you
13 can see these are driven by the risks that we found
14 at the site:

15 One is to eliminate the risk to human
16 health and the environment that is posed by the soil,
17 surface soil, and subsurface soil;

18 The other is to eliminate the
19 unacceptable risk from the groundwater;

20 The third. We don't want to transfer.
21 So you can imagine what happens currently on that
22 landfill. You have surface soils that are
23 contaminated right now that are being exposed to
24 rainwater, and that runs off into the ditches. So we

1 want to cut that pathway off. Not that we actually
2 found risk to human health in the ditches; we didn't.
3 But to allow it to continue and potentially impact
4 more ecological receptors, we want to cut that off.
5 So that's one of our primary objectives.

6 We have two secondary objectives here
7 that have more to do with sustainability and with
8 being greener, I guess, in how we implement this
9 remedy. So in the era now of sustainability and
10 green building, et cetera, we wanted to look at were
11 there opportunities for us, in remediating this site,
12 to do so in a greener fashion; and then also to
13 maximize the reuse of the property long-term. And
14 we'll get into how we're going to meet all of these
15 objectives with the proposed remedy in one of the
16 later slides.

17 So in the feasibility study, again we
18 evaluated the cleanup alternatives and then there's a
19 process by which you compare those. It's a very
20 formal process that's dictated by the EPA on how you
21 compare the cleanup alternatives to one another.

22 So for AOC 1, we're required, under
23 CERCLA, the whole process we're following here, to
24 look at no action. What would happen if we didn't do

1 anything at the site. And as you can imagine, that's
2 not an acceptable alternative. Some remedy has to be
3 taken at that site because we've identified some
4 unacceptable risks.

5 So the second alternative was capping and
6 covering the landfill. We have a clay-cap and
7 soil-cover options for basically covering the
8 landfill. And the institutional controls that go
9 along with that basically restrict the use of the
10 site and would prevent anyone from using groundwater.
11 So those are more administrative actions that get
12 done to make sure that the site's being used
13 appropriately, because it's going to be a -- it would
14 be a covered landfill.

15 At AOC 2 we had risks in the groundwater.
16 And so, again, we had to look at the no-action
17 alternative. The way to remedy the issues with the
18 groundwater would be to prevent anyone, using
19 institutional controls, prevent anyone from drilling
20 a well and using that groundwater.

21 So the feasibility study looks at all
22 these cleanup alternatives and compares them against
23 each other. And through that comparison, typically a
24 remedy pops out as the best remedy based on the

1 comparison. And that best remedy is what is proposed
2 in the proposed plan.

3 So the proposed plan that's put out right
4 now proposes remedies for both AOC 1 and AOC 2 that,
5 after all this evaluation, we believe are the most
6 appropriate remedies for these two sites.

7 At AOC 1 is to cover the landfill and
8 implement institutional controls. Part of that
9 covering of the landfill, if you remember that
10 objective we had of maximizing the beneficial reuse
11 of the site, you know, or the availability of land on
12 the site. Part of that is to, if you also remember
13 that picture where there was waste kind of scattered
14 underneath, buried, but scattered in different spots.
15 So we are going to consolidate those wastes into a
16 smaller area that is covered right now.

17 ARISTOTLE MATSA: In order to
18 consolidate, do you have to dig up the waste?

19 COLLEEN REILLY: Yes.

20 ARISTOTLE MATSA: Why not truck it off
21 the site instead of moving it around and putting it
22 back in a place where it can still continue leaching
23 into the groundwater?

24 COLLEEN REILLY: Well, we would be

1 consolidating it over other waste that's already
2 there, rather than trucking it off-site. So you
3 would still be -- you'd still have a landfill there
4 essentially. You know, even if you removed some of
5 it, you would still have the main portion of the
6 waste still remaining on site.

7 So after we consolidate the waste, and
8 again that's to meet the objective of maximizing the
9 reuse of the site, is to construct a soil cover over
10 the waste, which, in effect, prevents anyone from
11 coming into contact. If you put 2 feet of soil over
12 it, plus 6 inches of topsoil, and you put vegetation,
13 grass, over that, then it's very difficult for anyone
14 to come in contact with that surface and subsurface
15 soil that was causing risk.

16 And then the long-term management piece
17 which is where the groundwater -- well, in both these
18 cases addresses the risk to the groundwater. The
19 long-term management includes groundwater monitoring.
20 It also includes things like checking the cap over
21 time. You don't want the cap to start eroding. You
22 don't want the cap to start to settle and then
23 suddenly there's a little low spot where water can
24 settle on there. You want to have a nice grade on

1 the landfill that keeps water from running off of it.

2 You want to keep it mowed. And the
3 reason you want to keep it mowed is because you don't
4 want trees growing on a landfill. You put trees on a
5 landfill, they grow roots in the landfill, they pop
6 out the side of the landfill. So you want to be able
7 to have your cap remain as a viable cap long-term.
8 So you keep mowing it to keep the bigger plants from
9 growing there and having deeper root structures.

10 So the groundwater-monitoring piece of
11 the long-term management, again we'll be monitoring
12 the groundwater both upgradient or upstream of the
13 landfill, as well as downstream of the landfill to
14 make sure that we understand what's happening, what's
15 come into the landfill from other sources and what's
16 coming out of the landfill from the landfill, and
17 making sure that any contaminants from the landfill
18 are not migrating where they shouldn't be going.

19 And that's why there's, you know, very --
20 this is being developed, we have to develop this
21 long-term management plan, but to basically have a
22 nice network of monitoring wells in both directions
23 to make sure that we don't have migration of
24 contaminants from the landfill going off-site.

1 And then in terms of on-site groundwater,
2 imposing the institutional control, or environmental
3 covenant is another term for it, that would prevent
4 people from putting wells in the landfill area,
5 itself, of AOC 1.

6 And then AOC 2, since the risk there was
7 exposure to groundwater, that we would impose the
8 that same environmental covenant of restricting the
9 use of the groundwater.

10 So this is just a conceptual drawing of
11 what this might look like. And the yellow dashed
12 lines there are where we believe there to be buried
13 waste now. Again, this is a conceptual idea of what
14 the footprint of the landfill will look like, but
15 essentially pulling these areas into a more
16 centralized area and then capping that there.

17 So you see my point here, if you dug
18 those up, you still have the landfill itself. The
19 reason we kind of choose this thing even conceptually
20 is because historically there was discussion around
21 where did they use -- where were the areas of AOC 1
22 that were used most heavily to dispose of waste, and
23 it was generally this area. So those are the pieces
24 that we want to cover. And then these more scattered

1 areas, just roll them into -- over the predominant
2 waste disposal area and then put a cover there.

3 So where does that lead us. We kind of
4 discussed this point in the decision-making process
5 is a very critical part of understanding community
6 input and community concerns. So your comments on
7 the proposed plan are very much considered by the
8 Army, as well as Ohio EPA, before making the final
9 decision about what remedy they would like to
10 implement at AOC 1 and AOC 2.

11 So following this proposed plan and the
12 public-comment period associated with it, they will
13 be reviewing the responses -- reviewing the comments
14 and developing responses, and putting that into the
15 decision document, which is the ultimate document
16 that commits the government to spending these funds
17 to meeting those remedial objectives, those clean-up
18 objectives that we talked about, and basically says
19 to the government, it's a legally-binding document
20 that says the government said they were going to
21 clean this up, they have to clean it up.

22 Now, it's always subject to the
23 availability of funds, so there's --

24 CARLA HECK: It's not an if, it could be

1 a when.

2 COLLEEN REILLY: When. Right.

3 It's a legally-binding thing that the
4 government has to do this once this is signed.

5 And as Carla mentioned, because of this
6 proposed dollar value, 12 to 15 million dollars, it
7 goes all the way up to the Pentagon, right, for
8 signature.

9 Once that decision document is signed,
10 the government's on the hook for remediating the
11 landfill. Then, you know, all the rest of those
12 boxes, on that flowchart that we showed first, kick
13 in. So then you got to design and implement the
14 remedial action. And then once the remedial action,
15 if we're covering the landfill, then once the
16 landfill cover is in place, then you begin your
17 long-term management activities.

18 And then the five-year review is
19 something that's required. Not that things aren't
20 going to be done less frequently than five years.
21 You know, the long-term management activities, this
22 is typically, at a minimum, on an annual basis, you
23 know, where you're going, well, certainly having to
24 mow the lawn, usually that's three times a year;

1 you're doing inspections of the landfill cover to
2 make sure you don't have any erosion; you're doing
3 your groundwater monitoring. Those are done on a far
4 more frequent basis than five years.

5 The five-year reviews are required, by
6 the CERCLA process, to provide a very formal way of
7 reevaluating the whole remedy; is it protective; is
8 it still working the way it was designed. And as
9 part of that process is also community input. So
10 there's notification to the community that this
11 five-year review is up and we're going to do the
12 five-year review. Inviting input to that process.

13 Once it's completed, there's another
14 notification saying we completed it; here's what we
15 found. So there's another -- there's recurring
16 opportunities for the community to know what's
17 happening with this remedy long-term.

18 So I know we kind of discussed a lot of
19 studies and people have cited them here, so I'm glad
20 to hear that at least you know where to find them.
21 In case people haven't yet found or read up on either
22 the proposed plan or the supporting documents, and I
23 really do encourage you, especially in light of some
24 of the comments here tonight, encourage you to read

1 through some of that and then provide comments.

2 Those documents can be found, again, on
3 compact disk. You won't find hard copies there, but
4 the librarian will have a compact disk at the
5 Southeast branch here, and then also at the website.
6 And that can be found, that link can be found --

7 CARLA HECK: Do we have wireless in here?
8 I just thought we could pull up the website.

9 COLLEEN REILLY: So you could find the
10 website on here. In case you don't want to make it
11 to the library, you can read it at home.

12 Okay. I think, is that it? Are there
13 any other questions?

14 CHRISTIE WARD: You had mentioned that
15 you did site inspections and interviews. Where were
16 those site inspections and who did you interview?

17 COLLEEN REILLY: You know, we have a
18 public-involvement plan that I don't -- I don't know
19 if they were allowed to use names in the
20 public-involvement plan.

21 CHRISTIE WARD: Did you talk with
22 residents of Lockbourne? Did you talk with, you
23 know, residents around the area? Did you --

24 COLLEEN REILLY: Yes, we did. In fact --

1 CHRISTIE WARD: Not necessarily the
2 names.

3 COLLEEN REILLY: Yes, we did. So it was
4 residents. In fact, Mayor, I think we talked with
5 you and other residents. The Restoration
6 Advisory Board members, when that was up and running
7 still, and they also gave us recommendations of folks
8 to talk to.

9 CHRISTIE WARD: One of my concerns, I
10 guess, is I don't know if you guys had actually done
11 site inspections to the west of the landfill when you
12 come into Lockbourne and did you see all of the
13 agricultural land that is between the landfill and
14 Lockbourne? There is quite a bit.

15 Now, my concern is what happens to all of
16 that? The groundwater, you know, are those -- are
17 those areas affected?

18 PAUL KENNEDY: Well, if I could jump in
19 to maybe touch back on the comment I made earlier.

20 Maybe using this diagram, it might be
21 helpful to define where the landfill is and the
22 extent of contamination, and then the area between
23 where that ends and where Lockbourne begins.

24 And I think that the Corps or the Ohio

1 EPA has even placed a well in the Village of
2 Lockbourne.

3 DIANA BYNUM: The Corps.

4 PAUL KENNEDY: The Corps did. And that
5 was part of an investigative process for off-site. I
6 don't want to misspeak because I don't represent
7 either the Corps or Lockbourne. That's just my
8 familiarity.

9 And, as I understood, both the community
10 wells were tested, as Diana described, and a remote
11 well was placed off-site, in the Village, for the
12 purpose of establishing a relationship between the
13 two. And I understood that the results of the Corps'
14 well were negative detection. I don't have the
15 results myself, but that's my understanding.

16 COLLEEN REILLY: Right. There was a well
17 installed probably roughly I think it's further west
18 here. And then there were soil samples, some soil
19 samples off site in various locations here. There
20 were no issues with the soil samples.

21 The groundwater well, what we found in
22 that groundwater well was, again, consistent with
23 what we're seeing all over this area in the
24 groundwater. That's why I said that this risk

1 assessment approaches this very conservatively
2 because it automatically assumes that it's from the
3 landfill; when, in fact, if you look at what's in
4 this well and what's in other wells, you see roughly
5 the same thing. So this is upgradient of the
6 landfill. This is downgradient of the landfill.

7 JUDY CAMPBELL: The flow is what? Like
8 just pretty much --

9 COLLEEN REILLY: Yeah, it kind of goes
10 west-southwest.

11 So when you do look at that groundwater
12 well, you'll see similar contaminants as you see
13 upgradient from the landfill, which suggests it's not
14 the landfill, but we conservatively assume it is.

15 CHRISTIE WARD: But I -- and I -- I do
16 thank you for explaining all of this. We're trying
17 to understand it as well.

18 I think the big concern is that, you
19 know, our Village has been attacked by cancer. Now
20 something has happened; why?

21 And I know you didn't mean to trivialize
22 it, but it appears that you are trivializing our
23 circumstances.

24 On our one block, there were seven

1 houses. I just counted 31 percent of our residents,
2 on one block, have died of cancer or they have
3 cancer. I mean, that's not normal. I don't care
4 how -- it's just not normal. And there has to be a
5 reason for it.

6 If you see the same things in the wells
7 above, you know, are the other folks, the residents,
8 are they getting the same amount of cancer as our
9 residents? I mean, there has to be some explanation.
10 And that's our big concern.

11 COLLEEN REILLY: I understand.

12 ARISTOTLE MATSA: And I think with all
13 due respect to Ms. Bynum and the study that she cited
14 from back in the 1980s, the former mayor of
15 Lockbourne, and the council, actually met with people
16 from your agency and the health department. They
17 went through specific lists of residents and what
18 diseases and illnesses they had.

19 And the conclusion that was voiced at
20 those meetings, which perhaps you probably weren't
21 present at, is that the 1986 study was flawed. You
22 can have a study and that study can be wrong and not
23 be conclusive of what the actual problem is.

24 What's very difficult for all of us in

1 Lockbourne is if you have a, as Ms. Ward said, a
2 31-percent cancer rate, and if the average in
3 Franklin County is 3 percent -- and if I'm mistaken,
4 correct me in terms of what the average rate is in
5 the area -- versus what the rate is in Lockbourne; 31
6 percent versus 3 percent can't be explained away
7 easily, especially by what could very well have been
8 a flawed study back in 1986.

9 So I think that it's better what you
10 folks have been doing in terms of trying to look at
11 the situation, and not citing back to something from
12 1986, but rather looking in terms of what we do now
13 and what do we do in the future.

14 Now, I suppose what we're asking, if not
15 begging you to consider is that the high cancer rate
16 in the Village of Lockbourne is a significant issue,
17 and that the most logical explanation is that it's
18 coming from the things that are in the ground.

19 And part of the problem that we have is
20 that, and I think your soils analysis, though I'm not
21 a soils expert, is that this is -- the water is not
22 very deep and that this is very wet and spongy soil.
23 Clearly not the best place to put a dump in the first
24 place in terms of trying to encapsulate the dump.

1 It's really in a place where it all just kind of
2 spreads.

3 So if you're spreading all these toxins
4 from 1951 to 2011, now, how much they've spread and
5 how that happens, I think is more a look at the past,
6 instead of what's the best way to not have the
7 problem continue. And I think that's our real
8 concern is that -- I think you've approached this in
9 a very principled way and I think this is the best
10 information that we have to date.

11 And I think what we're saying is, given
12 the high rate of illness that can only be explained
13 by the dump, that the, you know, whatever more can be
14 done to prevent this from continuing as a problem for
15 the residents of Lockbourne, I think is very
16 important to us.

17 CARLA HECK: Well, you know, as I've said
18 before, when it comes to what we look at and how we
19 look at it, you know, we have very specific
20 guidelines that we can't physically get outside of.
21 I mean, it would be against the law for me to try to
22 do something that the law doesn't allow me to do. So
23 from that standpoint, I mean, we were able to look at
24 what we were able to look at.

1 And in no way, I'm sure, do any of us
2 mean to trivialize what is going on in your
3 community. My mother died of cancer and I've lost my
4 father, I've lost my sister, and I have an aunt and
5 an uncle that will die, this year, of cancer. It
6 hasn't been a few good years for my family.

7 But, you know, that being said, I don't
8 know enough about the entire history of the area to
9 be able to speak to it. But based on what we know
10 about this particular area now -- I mean, I'm not
11 saying in the years past of what could have possibly
12 contributed to ill effects on the community -- what
13 we know about that now is that shouldn't happen, that
14 shouldn't be a factor.

15 And just as an example, you know, there's
16 a constituent that's in the groundwater here, that's
17 also in the groundwater here, and it's physically
18 impossible for that constituent to have come from the
19 landfill. So there are other influences on this
20 water that did not come from this landfill. What
21 those are, I don't know, other than like, you know,
22 Colleen was indicating we have done a lot to
23 contaminate this country; it's just the nature of the
24 beast.

1 ARISTOTLE MATSA: Are you saying that the
2 same amount of constituents that are in that area
3 that you pointed to above the landfill, are pervasive
4 in equal amounts in the entire county?

5 CARLA HECK: No, that -- that I have no
6 idea. All I'm saying --

7 COLLEEN REILLY: Our study didn't go that
8 extensive.

9 CARLA HECK: Right. All I know is that
10 there is groundwater contamination here. There's a
11 constituent that's in here, that's in here, but this
12 one couldn't have come from here, it had to have come
13 from some place else because this is upgradient.
14 This is flowing this way. It's physically impossible
15 for the constituents that are here to go here.

16 CHRISTIE WARD: But it still came from
17 the base.

18 ARISTOTLE MATSA: Right.

19 CHRISTIE WARD: It still came from the
20 base, regardless.

21 CARLA HECK: And that goes back to as far
22 as the remedy for the landfill.

23 COLLEEN REILLY: Versus other sites on
24 the base; it would be a different remedy addressing

1 those.

2 PAUL KENNEDY: Could you clarify that
3 statement that you did not conclude that that
4 constituent in AOC 2 came from Air Force activities.
5 Your statement is more about migration.

6 CARLA HECK: It did not come from the
7 landfill.

8 PAUL KENNEDY: Right.

9 CARLA HECK: I have no idea where it came
10 from.

11 PAUL KENNEDY: Right. I guess we just
12 want to make sure that -- we're not quite sure what
13 all you looked at when you were doing your study, and
14 that's what we're trying to understand, because there
15 may be factors that needed to be looked at that you
16 may not have looked at.

17 CARLA HECK: And there could be, you
18 know, and I hope that from a, you know, federal
19 employee, I'm not speaking out of turn and get myself
20 in trouble and I'm on the record as saying this, but,
21 you know, it could be that there are certain, you may
22 have to go through different venues to get some of
23 the answers that you want. I mean, we will do
24 whatever we can to help you, but we can only do what

1 we can do.

2 And that website, I mean, there's lots of
3 other information that's ancillary to this particular
4 project. I mean, what's going to be on that website
5 is for this project and it might have some other
6 studies that --

7 COLLEEN REILLY: Well, how landfills are
8 capped and why that works; that's on there.

9 CARLA HECK: Okay. From a national
10 perspective, there's probably a whole lot of
11 information out there, but if it's not specifically
12 tied to this, it may not be on there.

13 The bottom line is probably, before we do
14 a whole lot of things, we have to talk to our
15 lawyers, but that's just the nature of the beast.

16 But if we can direct you to any type of
17 reference materials and that type of thing -- I know
18 Diana feels the same way -- whatever information that
19 we can get you that you may not already know about
20 with regard to just what is local versus what is
21 technically appropriate for a landfill like this,
22 which is pretty much what our job is.

23 COLLEEN REILLY: I will point out one
24 other thing about this well. That well, the

1 concentrations of things that we did find that
2 actually do meet what they call "maximum contaminant
3 levels," MCLs -- minimum contaminant levels --

4 CARLA HECK: Maximum. It's confusing.

5 COLLEEN REILLY: Maximum contaminant
6 levels that the EPA sets forth in drinking water, and
7 I think what you were referring to also, Diana, was
8 even back in the '80s when they did, or '90s
9 actually, when they sampled some off-site residents'
10 wells, that they also met federal and state drinking
11 water standards.

12 So, you know, even though they're seeing
13 dioxins there, for example, they're actually at a
14 level that would be acceptable in drinking water.
15 That's the unfortunate reality of, again, our
16 industrialized society now.

17 But to the point of where is
18 contamination and where are the levels at, that was
19 what was found in the off-site well.

20 ARISTOTLE MATSA: Are those results on
21 your website, as well, for each of those wells?

22 COLLEEN REILLY: Yes.

23 So the report that will have all of that
24 specific data is the Remedial Investigation Report

1 and that's the compilation of all the studies that
2 were done between 1986 and into 2008. So if you look
3 for the Remedial Investigation Report --

4 CARLA HECK: Obviously, a report like
5 that is pretty dry reading, and I might want someone
6 to help me walk through it and her name might be
7 Cindy or it might be Colleen.

8 COLLEEN REILLY: Yes, sir.

9 SHANNON BUSH: We have to be -- EPA --
10 we're on the storm-water runoff. We have to have
11 monitoring on all the runoff everywhere. Isn't
12 Lockbourne part of the permit thing where they come
13 in and monitor your storm sewers?

14 You don't know?

15 Isn't that part of the EPA permit?

16 DIANA BYNUM: That would be the Division
17 of Surface Water in my office.

18 SHANNON BUSH: Storm-water levels?

19 DIANA BYNUM: Uh-huh.

20 SHANNON BUSH: If you go up to Ridge
21 Station, nobody should be drinking the water up
22 there. People got 55-gallon drums running into their
23 sewers, running into their water. You should have
24 these things monitored through the EPA. You should

1 have a permit.

2 COLLEEN REILLY: Any other questions,
3 comments?

4 (No response.)

5 COLLEEN REILLY: All right.

6 CARLA HECK: Tiffany, would you mind
7 pulling up the last item and -- actually, I can sit
8 there and type it in, rather than write my stuff down
9 on a bunch of -- I'm just going to put my name and
10 phone number and e-mail address up here, and that way
11 if anybody wants to get ahold of me, because I forgot
12 business cards.

13 ARISTOTLE MATSA: I think we'd all like
14 to thank the Army Corps of Engineers and the people
15 from CH2M Hill -- whoever came up with that name --
16 also, of course, the gentleman from the Port
17 Authority, and the Ohio EPA for coming as well. I
18 think we really appreciate the input and the
19 opportunity to provide input as well.

20 CARLA HECK: It's actually refreshing to
21 have this much interest. You'd be surprised at the
22 number of public meetings at places that are
23 controversial and have a lot of issues that you don't
24 get this kind of input. So we're very, very thankful

1 that you all came.

2 And feel free, again, I appreciate the
 3 dialogue and the open exchange and we'll take what
 4 you provided in writing and we'll send it --

5 CHRISTIE WARD: There's a couple
 6 sentences on the page that didn't get printed out. I
 7 didn't realize until I was --

8 COLLEEN REILLY: And what was recorded
 9 here will become part of the official comments as
 10 well. Okay.

11 (The public meeting concluded at 9:45
 12 p.m.)

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CERTIFICATE

I do hereby certify that the foregoing is a true and correct transcript of the proceedings taken by me in this matter on Thursday, April 28, 2011, and carefully compared with my original stenographic notes.

Carolyn M. Burke, Registered Professional Reporter, and Notary Public in and for the State of Ohio.

My commission expires July 17, 2013.

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