

GREAT LAKES AND MISSISSIPPI
RIVER INTERBASIN STUDY (GLMRIS)
PUBLIC MEETING

February 11, 2014

Northwest Indiana Planning Commission
6100 Southport Road, Auditorium
Portage, Indiana

The above-entitled matter came on for a public meeting, pursuant to notice, at 4:05 p.m., and was presided by Kendall Zaborowski, Moderator.

1 A P P E A R A N C E S

2 MR. KENDALL ZABOROWKI, Planner, USACE, Moderator

3 MR. JOHN GOSS, Council on Environmental Quality

4 COL. FREDERIC DRUMMOND, Commander, USACE-Chicago

5 MS. LAUREN FLEER, Panelist/Interim P.M.

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1 P R O C E E D I N G S

2 MR. ZABOROWSKI: I'd like to welcome
3 everybody here tonight. Thank you, State of Indiana,
4 for finding accommodations for us.

5 My name is Kendall Zaborowski. I'm with the
6 US Army Corps of Engineers, Chicago District. And I'm
7 going to be moderating this evening's meeting as well
8 as one of the panel members may be answering some of
9 your questions.

10 So, before we get into the meeting, I'd like
11 to just kind of point out a few things that may have
12 been given to you when you arrived. The first is a
13 green agenda that's just going to kind of speak to the
14 order of events that we're going to have here tonight.
15 The next is these blue pieces of paper that are
16 frequently asked questions about aquatic nuisance
17 species efforts the Corps of Engineers takes, and the
18 Great Lakes and Mississippi River Interbasin Study, or
19 as you'll probably hear referred to it tonight as
20 GLMRIS. And then last is this booklet here that is a
21 summary of the GLMRIS report. So, it just takes the,
22 you know, 200 plus page document condensed down to 30
23 pages so that it's easy to digest. And we'll be
24 presenting information contained in here tonight and
25 then answering any questions or listening to any

1 comments that you may have.

2 So, I'd like to now take a moment to
3 introduce our panel. Again, my name is Kendall
4 Zaborowski, Chicago District, Corps of Engineers. I'm
5 a planner there.

6 Farthest to the right, we have Mr. John Goss
7 who is a representative of the White House Council on
8 Environmental Quality. Next to Mr. Goss, we have Ms.
9 Lauren Fleer who is the interim project manager for
10 the Great Lakes and Mississippi Interbasin Study. She
11 is also out of the Chicago District Army Corps of
12 Engineers. And then immediately to my right is
13 Colonel Frederic Drummond, Jr. who is the Commander of
14 the Chicago District US Army Corps of Engineers.

15 So, for those of you that wish to speak
16 tonight, if you registered on our website and did not
17 have a chance to check in at the front table, please
18 take a moment to do so. Also, if you did not register
19 on our website and would like to speak, please take a
20 moment to sign in at our front desk.

21 So, this is our tenth public meeting since
22 we released the report on January 6th of this year,
23 and we're happy to have everybody here with us. We
24 look forward to it. I'd like to say that the report,
25 the GLMRIS report in its entirety can be downloaded

1 from the GLMRIS project website which is
2 <http://glmrис.anl.gov>. I think I got that.

3 So, our GLMRIS team has organized tonight's
4 meeting with two goals in mind. The first goal is
5 present the information that is contained in the
6 GLMRIS report. And the second goal is to solicit
7 comments to hear your words and for you to ask
8 questions of us about the information that is
9 presented in the GLMRIS report.

10 We have extended our public comment period
11 to March 31st of this year. There are three ways
12 primarily to get comments to us. One is to speak in
13 one of our public meetings as many of you will
14 tonight. Another way is to mail comments in to our
15 office and we can record them that way. Or you can go
16 to our website and submit comments through our project
17 website.

18 So, and comments are not weighted, you know,
19 the forms of comments are not weighted one over the
20 other. So, if you speak tonight or if you don't get a
21 chance to speak tonight, don't feel that your voice
22 will be heard less than it would have otherwise. And
23 as I've previously mentioned, the public comment
24 period runs through March 31st of this year, so if you
25 hear something tonight and you think of something else

1 that you want to say later, you have a little bit of
2 time to get back to us.

3 So, we're going to begin this meeting with a
4 couple of presentations, and then we'll open it up to
5 all of you. That's where we want to spend the most of
6 our time tonight. So, I'd like to now turn it over to
7 Mr. John Goss and let him begin.

8 MR. GOSS: Thanks everyone for demonstrating
9 how much you care about the Great Lakes by joining us
10 to work on what are the next steps. I'm here on behalf
11 of the federal agencies and the state agencies from
12 all the Great Lakes states that are working as a team
13 to do our best, to buy more time, and to contain the
14 Asian carp population. I'm going to give you about a
15 four-minute update on those activities, and this
16 really is contained in what's called Alternative 1 in
17 the report.

18 I do report to the White House Council on
19 Environmental Quality. They've gotten involved to
20 make sure that we do have a coordinated project here.
21 So, it's not all on the Corps of Engineers, it's not
22 all on EPA or any other one agency. This is a big
23 team effort.

24 We've got a four-part strategy; an effective
25 electric barrier system which is being added to as we

1 speak with a third electric field that will be
2 constructed in the course of the next year. We do a
3 lot of monitoring of the fish population in the
4 Chicago Area Waterway, the fish downstream from the
5 barrier, and all over the Great Lakes which I'll give
6 you a little more on in a minute. We're working on
7 some additional control technologies. And we also
8 have this long-term book which is the GLMRIS study.

9 Just a few highlights. The field testing of
10 some of these other control technologies will be
11 taking place this year. USGS scientists have
12 developed a microparticle which would be a toxin that
13 only kills Asian carp. They've developed something
14 that only dissolves in the digestive system of Asian
15 carp. It works very well in the controlled
16 environments where it's been tested so far, and we're
17 taking it out for field test this year.

18 Also, we're looking at carbon dioxide, ozone,
19 and some other possible ways to keep fish from moving
20 into lock and dam areas or other areas as potential
21 blocks in addition to electricity. And we're
22 harvesting a lot of bighead and silver carp downstream
23 from the barrier. Over 50,000 Asian carp were taken
24 out of the 25 or 30-mile stretch south of the barrier
25 to keep that population pressure away from the

1 electric area. And that monitoring continues in the
2 Chicago waterway and all around the Great Lakes.

3 I just want to talk for a minute about other
4 than Chicago, the Corps early identified along the
5 Continental Divide from New York to Minnesota that
6 there were 18 other partial water connections. So,
7 this takes place at flood stage when headwaters of
8 streams intermingle. And the highest risk area that
9 was concluded from that study was in Fort Wayne and
10 Eagle Marsh connection on a wetland area there between
11 the Wabash River which does have a significant Asian
12 carp population and the Maumee that leads to Lake
13 Erie. We're making progress on the control project
14 for Fort Wayne. We'll have details later this year,
15 but certainly we hope within a year or two to have
16 that connection effectively blocked so that we do not
17 have a springtime connection there.

18 The other locations that are high priority
19 are in Ohio. The Ohio Erie Canal and Little Killbuck
20 Creek are two others that the State of Ohio are
21 looking at. And we're going to be working on coming
22 up with a way to break those connections also.

23 Most of the others were found to be low
24 risk, so it's up to the states to determine if they
25 want to do anything else with those locations.

1 There is a national carp control plan
2 looking at how do we deal with this population that
3 has spread all over the Mississippi and Ohio River
4 Basins up through Indiana and through the Wabash,
5 through White River. We've had reports of Asian carp
6 as far north as Martinsville and White River, and
7 certainly all the way up to Huntington area on the
8 Wabash. I know Attorney General Greg Zoeller is going
9 to speak to that concern here in Indiana.

10 One problem is it has not been significantly
11 funded. There's only, to date, only about a half
12 million dollars as in federal budget. So, I'm not
13 lobbying, I'm just informing you of that situation.
14 But certainly all the states in the Mississippi and
15 Ohio Basin are in communication and that's going to be
16 a project independent of this report, looking on how
17 to work on taking back our waters for our native fish.

18 The map shows you how many states are
19 affected by this river network where the Asian carp
20 are currently spreading rapidly, and also our
21 endangered species coming out of the Great Lakes going
22 into the river system and spreading across the rest of
23 the states. So, as we talk about support for this,
24 support for funding to continue this project,
25 certainly your connections through organizations in

1 those states could be very important. We're going to
2 need Congressional interest in this outside the Great
3 Lakes if we ever hope to get this whole thing put
4 together for funding.

5 And just a few concluding thoughts.
6 Certainly the Great Lakes area has a lot of history of
7 working together. The Sea Lamprey Control, the Great
8 Lakes Water Quality Initiative, the Great Lakes
9 Compact, the Great Lakes Restoration Initiative are
10 all things that the states have done together, because
11 they got together, they got focused, they came up with
12 a path forward. And Asian carp is the next on our
13 list, that's the challenge. And we developed a
14 consensus to move forward and we developed support in
15 Congress to fund those next steps, short term and
16 longer term, which you're going to hear about in the
17 report.

18 So, thank you again for your help on this.
19 And we need your comments today, we need your
20 thoughts, if you want to send other suggestions and
21 comments over the next month. And then we're going to
22 have a lot of follow-up discussions with organizations
23 that are out of Great Lakes, and they're the Great
24 Lakes Commission, Great Lakes governors, other groups
25 that are looking at it, you know, can we develop a

1 consensus to move forward. So, that's the challenge.

2 Appreciate your help. Thanks.

3 COL. DRUMMOND: Well, I'd like to welcome
4 everybody out here to the lovely Northwest Institute.
5 Kay, thank you very much for having us out here. I
6 know this was sort of a, it was a request and I'm glad
7 we were able to fit it in to a very tight schedule.
8 We're getting ready to head to Buffalo on Thursday, so
9 that will sort of put the bookends to this as well as
10 we're looking forward to working with our Canadian
11 partners sometime in March.

12 Attorney General, thank you again for
13 coming. This shows me first-hand your passion and
14 your love for the Great Lakes. So, thank you for
15 being here again tonight.

16 I'd like to also highlight a couple of
17 offices, key offices in the State of Indiana that are
18 here. Senator Donnelly's staff is here, thank you
19 very much, as well as Senator Coats' staff,
20 Congressman Stutzman and of course Congressman
21 Visclosky's staff. Thank you very much for coming
22 out.

23 As you can probably imagine, I know that
24 this is a very passionate topic. It is very complex.
25 I've spent a good part of the last month and a half, a

1 good part of the last two and a half years analyzing
2 this and, you know, I'll be the first one to tell you
3 that it is a very complex topic, but it's also very,
4 very important not only for the Great Lakes but for
5 the Missouri River Basin.

6 So, GLMRIS is a complex study that examines
7 opportunities to prevent aquatic transfer of many ANS,
8 not just fish like Asian carp but other species along
9 the Great Lakes and Mississippi River Divide. That is
10 key. It's many different species of ANS.

11 The GLMRIS report is going to outline a
12 variety of potential prevention methods and presents
13 an evaluation criteria to help readers distinguish
14 among the alternatives. So, the purpose of the GLMRIS
15 report is to paint an objective picture of several
16 alternatives to offer decision makers, stakeholders,
17 and the public like yourself, information about those
18 alternatives. The GLMRIS report does not make a
19 recommendation nor does it prioritize the plan.

20 Our GLMRIS team is one that's spread across
21 the country. They have worked painstakingly on this
22 report in close coordination with federal, state and
23 local, nongovernmental and tribal stakeholders. We
24 strove to ensure decision makers and the public can be
25 well informed on various ways to prevent the transfer

1 of ANS through the Chicago Area Waterway System.

2 You just heard from John Goss. I'll tell
3 you, 33 years in this business, this is probably one
4 of the flatter organizations that I've seen in my time
5 working with the government, and let me just state
6 why. These two PMs right here, to include Dave
7 Wethington who couldn't be with us, he is off getting
8 some good, additional training right now at Fort
9 Leavenworth, they have a direct line all the way up to
10 the ASA. It is about that flat. I can look over to
11 John Goss; John Goss has got a direct line to all the
12 different agencies that are involved here. So, it is,
13 you know, as I said, it's very complex, but at the
14 same time I feel like there has been a system that has
15 been put in place to deal with this emerging threat to
16 the best of our ability.

17 This report is unique in comparison to most
18 Corps of Engineers reports, as many of you in this
19 room have dealt with before, in that it identifies a
20 range of options and is adaptable for the
21 incorporation of future technologies. Apart from
22 GLMRIS, the Corps will continue to be embedded with
23 the ACRCC and be involved in their meetings. You're
24 going to hear tonight on a couple of different
25 occasions that the prevention of the spread of aquatic

1 nuisance species is a shared responsibility among
2 federal, state, local agencies as well as you, the
3 public. That's why it's important during our public
4 comment period that you take the time to go to our
5 website which will be mentioned on many different
6 occasions and in this book to give us your opinion
7 about the topic.

8 So, a few GLMRIS tidbits. You know, we
9 started this on the 6th of January, started by having
10 a meeting in Washington, DC. Since then, over 7,000
11 news media outlets have reported about this topic, a
12 wide range of different discussions on it. You're
13 going to hear tonight 13 aquatic nuisance species,
14 three that are coming from the Mississippi River into
15 the Great Lakes, most commonly known the Asian carp,
16 there's a couple of others out there, ten coming from
17 the Great Lakes down into the Mississippi River.
18 You're going to hear about the eight different
19 potential alternatives, 90 different technologies.

20 I might add that it's not just the Chicago
21 District that's been involved in this; it's 19
22 different Corps Districts ranging from the
23 Jacksonville, Florida District who deals very
24 specifically in invasive species, all the way up to
25 Seattle who deals with a whole host of dam and lock,

1 sea lamprey type of stuff that they have been dealing
2 with. So, my point is, you know, behind the scenes we
3 have Kendall and we've got Lauren and we've got Dave
4 and a host of other Chicago engineers. We've also got
5 over a hundred professional engineers that have the
6 same amount of passion. I always say that you can
7 trust our engineers who are just as passionate about
8 the Great Lakes and the Mississippi River as anybody
9 else. And you can also trust darn sure that the right
10 information has been put into this book.

11 This book is 25 pages long. You should have
12 received it when you came in. I would highly
13 recommend that if you didn't, please get a copy. It
14 is a very easy read. It lays out all eight options to
15 include some background data on the threat. And as
16 you go through this book, I'd say it's like a primer,
17 you know, it's going to get you interested.

18 Then this book, you can go to the website,
19 download if you would like, or at least open up the
20 books, the report itself, 232 pages. And then there
21 is over 10,000 pages of appendices which either
22 Kendall or Lauren can talk in more detail about the
23 specific ANS threat, economic data, a whole host of
24 other things. So, it's been talked about a lot. I
25 think it has helped the public sort of understand on

1 the complexity of what we're trying to accomplish with
2 the Corps of Engineers and the ACRCC.

3 So, I'm going to turn it over to Lauren and
4 she's going to go through approximately 18 slides.

5 Again, our point is to get to your comments, so
6 without further delay, Lauren, I'll turn it over to
7 you. Thank you.

8 MS. FLEER: Thank you, sir, and thank you,
9 everyone, for coming out tonight. Again, my name is
10 Lauren Fleer and I'm an environmental engineer at the
11 Corps of Engineers Chicago District. And I'm
12 temporarily filling in as project manager; Dave
13 Wethington will be back next month.

14 But tonight, I just want to take a little
15 bit of time to tell you about what you're going to
16 find in the GLMRIS report. And I won't go on too long
17 as advertised, just because we want to get to your
18 questions and comments.

19 So, first of all, let me tell you about, a
20 few things about the GLMRIS study, the Great Lakes and
21 Mississippi River Interbasin Study, otherwise known as
22 GLMRIS. It was authorized in 2007 by the Water
23 Resources Development Act. It directed the Corps of
24 Engineers to evaluate a range of options and
25 technologies available for ANS prevention, to prevent

1 the transfer of aquatic nuisance species or ANS
2 between the Great Lakes Basin and the Mississippi
3 River Basin.

4 So, the two main goals of the study of
5 course were to prevent ANS transfer, but also if in
6 the course of preventing the transfer of ANS we were
7 also to cause adverse impacts to any of the other
8 existing uses or users of the Chicago Area Waterway
9 System, we are directed to identify those too, and
10 also identify ways to address those impacts.

11 So, stakeholder engagement has been a very
12 important part of our process from the beginning of
13 the study. In 2011, we made a tour of the Great Lakes
14 and Mississippi River Basin communities to talk with
15 the public in a series of scoping meetings to sort of
16 chart the course for it, about how the study would
17 proceed. We've also had frequent coordination
18 meetings with state agencies, local agencies, and
19 nongovernmental organizations over the last several
20 years. So, there's been a continuing input from a
21 wide variety of stakeholders as we've, you know, made
22 various steps forward in the study.

23 And we've published a lot of interim
24 products. So, it didn't all just come out this
25 January. There's a lot of interim products that we

1 published on the GLMRIS website that, you know, I
2 encourage you to go and take a look if you want some
3 more information after tonight.

4 In July 2011, there was some intervening
5 legislation that directed the Corps to change course
6 on GLMRIS in really three main ways. One, it directed
7 us to complete the study within an 18-month time
8 frame, which we did. We just submitted, you know,
9 within the 18-month time frame the GLMRIS report to
10 Congress on January 6th of this year.

11 Secondly, it instructed us to look at the
12 Chicago Area Waterway System first and foremost
13 because it's the only permanent, continuous connection
14 between the two basins. As Mr. Goss mentioned, there
15 were 18 other potential pathways identified, and so
16 those are addressed in one of the appendices of the
17 GLMRIS report, and we refer to those collectively as
18 Focused Area 2. But those really represent possibly
19 simpler, really episodic connections that only form
20 intermittently when there's flood events and, you
21 know, significant precipitation events. And something
22 on the order of, you know, irrigation ditches,
23 something that we feel like could be solved perhaps
24 with, you know, with less complexity. So, Focus
25 Area 1 is how we move forward after this intervening

1 legislation.

2 And then the last thing that this
3 intervening legislation asked us to do was to
4 incorporate consideration and evaluate hydrologic
5 separation as one of the alternatives.

6 So, I'm sure a lot of you are very familiar
7 with the Chicago Area Waterway System and how it
8 works. But I just want to highlight a few main things
9 so we're all on the same page.

10 The Chicago Area Waterway System is not your
11 typical natural waterway. It's a very complex,
12 modified, multi-use waterway. It's a, before 1900, as
13 many of you know -- that looks better, right? That
14 helps out? Okay.

15 You know, the Chicago River system and the
16 Calumet River system drain primarily to the lake. The
17 Chicago Sanitary Ship Canal and the Cal-Sag Channel
18 were dug basically to serve a couple of functions.
19 Obviously, it facilitates navigation between the two
20 basins, but it also allows for Lake Michigan water and
21 water from the Chicago area to drain downstream
22 towards the Illinois River and Mississippi River
23 Basins.

24 Today, the system continues to serve a
25 number of very important functions. Both commercial

1 vessels and recreational boaters utilize the waterway
2 system for navigation, water supply and conveyance. I
3 don't know if you know, but on any given day, between
4 50 percent and 100 percent of the flow of this system
5 is waste water treatment plant effluent. In Chicago,
6 we call them water reclamation plants. But so, water
7 supply and conveyance is a very important function.

8 Also, water risk management, before
9 precipitation events, you know, the system is operated
10 where we draw down the system before expected
11 precipitation events, so when it rains it can accept
12 all the stormwater from, you know, this major
13 metropolitan area, the third largest city, in Chicago.
14 As the city fills up, it discharges, you know, as
15 normal down to the Illinois River system, but also in
16 some especially significant events will backflow to
17 Lake Michigan and discharge the stormwater in a two-
18 way direction.

19 The system is also being used increasingly
20 for recreation. And just, you know, not too long ago,
21 the uses of the system were redefined to, you know,
22 really support this continued use for recreation.
23 Also, there have been local strides, or recent strides
24 made in habitat improvement for natural resources.

25 So, the report itself describes eight

1 alternative plans designed to prevent ANS transfer
2 between the basins. For each alternative, you'll find
3 basically a conceptual five percent level of design.
4 You'll find an analysis of any adverse impacts that
5 are expected. And you'll find some suggested
6 mitigated features to correct for those impacts.

7 There is also a range of cost estimates
8 provided for each of the alternatives. And this cost
9 information is really, you know, at the same five
10 percent level of design that the rest of the measures
11 were designed to. So, they're best used to really
12 compare one plan against the other. Absolute costs of
13 implementation would be, you know, possibly
14 significantly changed by any kind of delays or that
15 kind of thing. So, absolute costs are not really
16 fully captured perhaps in these conceptual level
17 costs.

18 The report does not make a recommendation or
19 provide a ranking of the alternatives. What it does
20 do, and I think very well, is it provides a tool for
21 decision makers. There are number of evaluation
22 criteria that are provided that will allow readers to
23 examine the tradeoffs and the costs and benefits of
24 each of the alternative plans. So, some of these
25 evaluation criteria include costs, time to

1 implementation, and potential other impacts, for
2 example, economic impacts, impacts to flood risk
3 management, impacts to environmental quality.

4 For any of the projects that are identified
5 in the GLMRIS report, additional analysis will be
6 needed before we can move to implementation on any of
7 them. This might include site specific analysis. It
8 might include some more design work. And
9 environmental compliance documentation will all be
10 needed to move any of these plans forward, so do keep
11 that in mind.

12 To give you some idea about how we came up
13 with these plans, first, we identified the connections
14 between the two basins. And you'll see, we'll show a
15 map, and there's basically five aquatic pathways
16 through the Chicago Area Waterway System. We
17 identified 254 species, non-native species in both of
18 the basins that could pose a threat for transfer. Of
19 these inventoried species, they were studied further,
20 and 35 were found to be of concern for interbasin
21 transfer. And of those 35, 13 were found by our
22 biologists and researchers to pose either a high or
23 medium risk of transfer.

24 So, really the GLMRIS study was built around
25 this analysis of the species, of the connections, and

1 then we did an additional analysis of potential ANS
2 controls. And so, we published, these are all
3 represented in interim products, those interim
4 products I mentioned that are available at the GLMRIS
5 website. But we also looked at over 90 potential ANS
6 controls which included really everything you could
7 think of from, you know, accelerated water velocity to
8 temperature controls, either freezing or boiling the
9 channel, to pheromones to predators, natural barrier,
10 you know, physical separation. A lot of things were
11 examined and really sifted out and screened for
12 application to the identified high and medium-risk
13 organisms.

14 So, before I get to the eight alternative
15 plans that the GLMRIS report identifies, let me talk
16 to you about some of the elements of each of these
17 plans. The ANS control technologies identified in the
18 report, you'll probably be most familiar with the idea
19 of a physical barrier on your right, which is
20 basically a dam that is meant to separate the two
21 watersheds. We designed these barriers to be
22 functional up to a 500-year storm level of design, or
23 a 0.2 percent chance of exceedance. Thank you.

24 Anyhow, so, physical barrier, probably the
25 most straightforward of the technologies identified in

1 the GLMRIS report. There we go. Over here on the
2 lower left-hand corner, the electric barrier with an
3 engineered channel, I'm sure many of you are familiar
4 with the electric barrier system that the Corps
5 currently operates in Lockport outside the Chicago
6 area. The electric barrier in place has been in place
7 since 2002, and the Corps has been in the process of
8 updating and refining and optimizing this system as
9 time has gone on.

10 The electric barrier proposed in the GLMRIS
11 report proposes further optimization of the design
12 we've already tested thus far in the field. We
13 propose an engineered channel which would, you know,
14 help us out in a few ways. First, it would eliminate
15 any voids or crevices along the lining of the canal
16 that could provide places for fish to hide. Secondly,
17 the engineered channel could also be designed to have
18 special insulated properties that would prevent any
19 sort of stray electrical current from entering the
20 groundwater in the surrounding area. And lastly, this
21 engineered channel could help the barrier be optimized
22 to get, you know, either by the dimensions of the
23 canal or with the electrode configuration to really
24 get the maximum electric field in the water for, you
25 know, an optimized power input. To be more efficient,

1 basically.

2 You'll see at the top of the screen, there's
3 two novel technologies that are described in the
4 GLMRIS report. The first of these is the GLMRIS lock.
5 And the GLMRIS lock is based on your traditional
6 navigation lock design. You'll see over here the
7 green water represents the water that's potentially
8 contaminated with nuisance species.

9 And so, the idea behind the GLMRIS lock is
10 that it's really a flushing lock mechanism. When the
11 barge or other vessels enter the lock chamber, the
12 lock door is closed, and then through a series of
13 pumps and also gravity-fed systems, water is flushed
14 through, emptied out the other end, and then the water
15 in the chamber will be substantially ANS free, and the
16 vessels can exit.

17 So, this is a technology that we developed
18 with our researchers at the Engineer Research and
19 Design Center in Vicksburg, Mississippi, it's the
20 Corps of Engineers' research facility. We've done
21 some conceptual level design, and this option helps us
22 maintain the possibility for maintaining navigation
23 while still controlling for aquatic nuisance species.

24 Similarly, the ANS treatment plant, aquatic
25 nuisance species treatment plant you'll see in the

1 report is frequently paired with the GLMRIS lock and
2 would supply ANS treated water for the flushing of the
3 lock chamber. This technology is really based on your
4 typical water, waste water treatment plant like we
5 have in, you know, any city across, you know, the
6 country. It consists of a series of screens,
7 filtration, and then ultraviolet disinfection to
8 either screen out and remove the target organisms or
9 inactivate the really small ones like the spores and
10 the viruses, again to help maintain navigation and
11 other uses of the waterway, to maintain its existing
12 uses but still removing ANS.

13 There's really three mechanisms for ANS
14 movement. We've got, among the species we identified;
15 you've got your swimmers, your floaters, and your
16 hitchhikers. Some of the shortcomings really of all
17 these technologies, the hitchhikers aren't removed.
18 The only way to prevent the hitchhikers from going
19 back and forth is to prevent movement of vessels. You
20 know, this hull fouling species will stick on to the
21 hulls of boats and won't be treated by these
22 technologies here.

23 Okay. So, now I'm going to sort of walk you
24 through the eight alternatives that the Corps put
25 together. They're basically a compilation, either one

1 of the technologies I talked about or a combination of
2 them. So, if you want to follow along your book,
3 there's a little bit extra information. And if you can
4 see the lower left-hand corner of the slide over here,
5 it will tell you exactly what alternative plan I'm
6 talking about.

7 So, the first alternative plan is the
8 baseline alternative. It's frequently talked about,
9 it's the no new action alternative, but we prefer to
10 call it the sustained activities because there are
11 quite a few activities that are going on to prevent
12 interbasin transfer of aquatic nuisance species
13 already. Under the baseline alternative, we assume
14 that all current efforts to stop interbasin transfer
15 of ANS will continue.

16 For example, the operation of the existing
17 electric barriers in Lockport by the Corps of
18 Engineers would continue under this alternative. The
19 construction of the new permanent barrier that Mr.
20 Goss mentioned would continue. The electrofishing
21 and response actions that the Corps participates in
22 would continue. And also, a lot of the other
23 activities sponsored by state agencies, other federal
24 agencies, and that are supported by the Great Lakes
25 Restoration Initiative are also assumed to continue

1 under this alternative. Those include the commercial
2 harvesting of Asian carp in the Illinois River that,
3 again that Mr. Goss mentioned, and also a lot of the
4 monitoring and control operations that are currently
5 ongoing.

6 So, this baseline alternative is really used
7 as a yardstick against which to measure the relative
8 risk reduction of each of the subsequent plans. We
9 assume for each of the subsequent seven plans that
10 these activities will continue. So, this is kind of
11 built upon on each of the next alternatives I'm about
12 to describe.

13 Okay. Alternative 2 is the non-structural
14 control technologies alternative. And just like it
15 sounds, this is an alternative built up on measures
16 that don't require construction of any kind of
17 permanent, physical structure. They include active
18 management such as like fishing down populations of
19 carp and other fish species, and application of
20 herbicides, piscicides, and other poisons to address
21 populations of ANS.

22 Public education is also a very powerful
23 non-structural control. Public awareness campaigns
24 can, you know, let the public know that bait bucket
25 transfer, for example, is a very important factor for

1 aquatic nuisance species transfer. Also, public
2 education can inform the public of why you want to
3 clean your boat before you transfer it from one
4 waterway to the next.

5 Promulgation of new laws and regulations
6 could also be effective non-structural controls to
7 help prevent ANS transfer. Just like the Lacey Act
8 which made it unlawful to import or export aquatic
9 nuisance species across state boundaries, there could
10 be other laws and regulations devised to further
11 restrict the -- transport of potentially invasive
12 species.

13 So, these non-structural technologies are
14 really best management practices. They delay rather
15 than prevent the transfer of these species. It's
16 assumed, you know, that the sustained activities that
17 are already ongoing would continue under this
18 alternative. And we also assume that for each of the
19 subsequent plans which do propose physical structures,
20 structural controls, that these non-structural
21 controls could also be added to perhaps delay transfer
22 of ANS while the physical controls are being
23 constructed.

24 So, the first of the two technology
25 alternatives is Alternative Plan 3, the flow bypass

1 alternative. The flow bypass alternative creates two
2 physical structures, two control points, one on the
3 Chicago Sanitary Ship Canal right here, and the other
4 on the Cal-Sag Channel. These are both two-way
5 control points. So, they are intended to control
6 against both the Great Lakes species as well as the
7 Mississippi River Basin species. And it consists of a
8 GLMRIS lock and an ANS treatment plant at each of
9 these control points.

10 At each of the control points, the entire
11 flow of the waterway would be rerouted through an ANS
12 treatment plant to remove aquatic nuisance species. It
13 would be treated for ANS and then the water would all
14 be deposited back on the downstream side of the
15 system. In parallel with the ANS treatment plant, you
16 would also have a GLMRIS lock that would flush ANS
17 from the chamber, refill the chamber with ANS treated
18 water to allow vessels to navigate the lock while
19 prevent spread of ANS. Also on either end of the
20 parallel technologies here, we propose the electric
21 barrier with the engineered channel to deter the
22 swimmers from entering the lock channel from either
23 direction.

24 We have identified some adverse impacts that
25 this alternative would cause, mainly the flood risk.

1 If you dam up the, if you, you know, place an
2 impediment to the system right in the middle there
3 during significant precipitation events, where is that
4 water going to go? Well, from our point of view, you
5 could either really oversize the plant, the ANS
6 treatment plant to handle all that stormwater, or you
7 could temporarily store it and treat it down as time
8 goes on. And so, that's what we proposed, was tunnels
9 and reservoirs to capture the storm flows during
10 significant precipitation events until such time as
11 they can be treated and discharged back to the
12 waterways.

13 So, you'll see that the estimated time to
14 completion here is 25 years, and the estimated cost is
15 \$15.5 billion. These costs and the time to completion
16 are really driven by the mitigation to build, you
17 know, reservoirs and tunnels to the scale that would
18 be necessary to contain all these significant storm
19 flows. It would take an extraordinarily long period
20 of time. And as you'll see in many of the subsequent
21 alternatives, it's really just mitigation projects
22 that drive both the timeline and the cost. But we
23 feel like it's, you can't flood out the third largest
24 city in the America, so we felt like we should include
25 it.

1 Okay. So, Alternative Plan 4 is the cross
2 buffer zone alternative. And instead of two control
3 points, you'll see in this alternative we have six. We
4 have five control points along the lakefront which
5 protects against Great Lakes species entering the
6 system, and then you have one control point in the
7 downstream location at the Brandon Road Lock and Dam.
8 This creates a buffer zone in the middle of the system
9 where ANS will be prohibited from entering in from
10 either direction. So, the advantage of creating this
11 buffer zone is that you give yourself some time and
12 some space to conduct any sort of emergency operation
13 should you have a failure at any one of the control
14 points.

15 Okay. So, you'll notice that there is a
16 much shorter time to completion, ten years to
17 completion and an estimated cost of \$7.8 billion. We
18 assume that, this is basically because of the lack of
19 flood risk mitigation infrastructure that will be
20 needed. Should a significant precipitation event
21 happen, any precipitation falling would presumably be
22 ANS-free because it was coming from the sky and not
23 from either of the two basins, so you wouldn't need,
24 you know, the big reservoirs and tunnels to capture
25 it. At each of the locations here, you have a GLMRIS

1 lock in the downstream location to prevent ANS
2 movement heading up, and then you have ANS treatment
3 plants and GLMRIS locks at each of the lakefront
4 locations, too.

5 So, moving along to Alternative Plan 5, this
6 is the first of the two hydrologic separation
7 alternatives proposed in the GLMRIS report. You'll
8 see that there are four physical separation barriers
9 proposed along the lakefront at the system. As I
10 mentioned before, the waterways in Chicago, Chicago
11 Area Waterway System plays a very important role for
12 flood risk mitigation as it drains the entire system
13 during precipitation events. Under this alternative,
14 backflows to the lake would be prevented which would
15 be a benefit for water quality to Lake Michigan.
16 However, it would put the Chicago land area and its
17 9.2 million residents at significant flood risk.

18 So, again, for this alternative to address
19 those impacts, significant flood risk mitigation
20 infrastructure would be required. Therefore, we
21 propose a tunnel or reservoir system capable of
22 handling that precipitation. So, again you'll see a
23 25-year estimated time to completion and an \$18.4
24 billion estimated cost.

25 Alternative Plan 6 is the mid-system

1 hydrologic separation option, the second of the two
2 hydrologic separation alternatives presented in the
3 GLMRIS report. Here you have two barrier locations
4 located again in the middle of the Chicago Sanitary
5 Ship Canal, and also in the Cal-Sag Channel. This
6 alternative optimizes for the flood risk management
7 problem we saw in the last alternative. We asked
8 ourselves, okay, how do we do better than those huge
9 tunnels and reservoirs that were proposed in the last
10 one?

11 Well, these locations do optimize for flood
12 risk management, and smaller reservoirs and tunnels
13 would be required to manage the flood risk. However,
14 with this proposed alternative, you also move about
15 200 combined sewage stormwater outfalls on the Chicago
16 River system as well as in the Calumet River system
17 into the Lake Michigan Basin. You also move the
18 effluent via the world's largest waste water treatment
19 plant into the Lake Michigan Basin from the
20 Mississippi River. And by reversing the flow of some
21 sections of the river, you actually expose Lake
22 Michigan to some contaminated sediments.

23 So, based on our understanding of the Clean
24 Water Act and the anti-degradation provisions included
25 in the Clean Water Act, and based on our conversations

1 with regulatory agencies, we think that this project
2 would not be implementable unless we provided some
3 water quality mitigation projects as well. So, in
4 order to solve these problems that I mentioned, we
5 propose, you'll see over here on the right-hand side
6 of the screen, a green line, and that represents a
7 tunnel that would take the wastewater treatment plant
8 effluent from the north side plant down to the
9 Mississippi River Basin side of the proposed
10 separation barrier.

11 There is similar tunnel proposed on the
12 south side of the system. You'll also see a yellow
13 squiggly line. This would represent a tunnel designed
14 to capture all the combined sewage, stormwater
15 overflows on the Chicago River and Calumet River
16 systems and transport those to reservoirs where they
17 would be stored, treated, and then discharged back to
18 the waterway.

19 Lastly, we recommend sediment remediation on
20 the lake side of the barriers. So, this mitigation
21 work is done to offset the impacts of the hydrologic
22 separation project. It's above and beyond any work
23 that's already planned for the future. And it's
24 basically what we think will be necessary to implement
25 a plan in compliance with existing laws and

1 regulations as we understand them.

2 So, next, the last two alternatives, 7 and
3 8, are hybrids. They're combinations between the
4 technologies and the hydrologic separation plans we've
5 already described. So, for example, this one, you
6 know, as the name implies, is the Cal-Sag open. That
7 means that the Cal-Sag Channel would be open to
8 navigation and flow but not to ANS. We propose the
9 same technological solutions on the Calumet River side
10 of the system and propose a hydrologic separation
11 barrier on the Chicago River side. The estimated time
12 to completion for this project is 25 years, and the
13 estimated cost is \$15.1 billion. Again, this is driven
14 by the mitigation just as it has been for really all
15 of the other alternatives.

16 Lastly, Alternative Plan 8 is a hybrid but
17 in the reverse. We propose a hydrologic separation
18 barrier on the Cal-Sag Channel and then technological
19 solutions on the Chicago River side. You'll notice
20 that the estimation time to completion of this
21 alternative is 25 years as well, but the estimated
22 cost is much less, \$8.3 billion. This is because the
23 mitigation required on the Chicago River side is
24 absent from this alternative where it was included in
25 the previous one.

1 Okay. So, those are, it's a basic summary
2 of the eight alternative plans presented in the GLMRIS
3 report. As I mentioned earlier, the report does not
4 recommend one of these plans or rank them against each
5 other. But what it does do is it provides a tool for
6 decision making. It gives an evaluation criteria that
7 could be used by all the readers and all the users of
8 the report to examine the tradeoffs and the benefits
9 and costs of each.

10 So, some of the costs are financial, and
11 some of the costs are impacts to water quality, flood
12 risk, and navigation. So, again, the point of the
13 report and its main use is to help facilitate decision
14 making amongst the public, decision makers, et cetera.

15 Before I conclude, I just want to leave you
16 with a few additional considerations, and then we can
17 get into some comments and questions. As I mentioned
18 earlier, the mitigation is a significant factor in the
19 required investments for all these projects. It
20 doesn't take, you know, \$18 billion and 25 years to
21 construct a couple of dams. However, to construct
22 those dams and protect against flood risk management,
23 or to protect against, you know, floods for, you know,
24 the third largest city in America and to build those
25 dams and prevent a significant natural resource that

1 we have in the Great Lakes from pollution, significant
2 costs and time would be required, according to our
3 analysis.

4 So, each -- also, residual risks, we should
5 acknowledge that each of these alternatives has
6 residual risks. ANS, the aquatic nuisance species
7 could be transferred outside of the aquatic pathways
8 through bait buckets, avian transport, animals, birds,
9 et cetera. And then another residual risk is that ANS
10 could transfer before some of these alternatives are
11 built.

12 So, if I leave you with nothing else
13 tonight, it's the idea that ANS control is a shared
14 responsibility along multiple stakeholders and members
15 of the public. Implementation of any plan to further
16 control ANS is going to require significant resources
17 and investment and participation from everyone.
18 That's the reason why your participation here tonight
19 is so important, so we can really build a consensus
20 among all the stakeholders and residents of each of
21 these basins to find a collaborative path forward.

22 So, that's why we're conducting these public
23 meetings like the one here tonight. We have 11
24 planned in total; this is the 10th of 11. We want to
25 build a consensus among all the different

1 stakeholders. And as Kendall mentioned, the public
2 comment period will be open through March 31st, so we
3 do encourage your comments here tonight but also in
4 writing up until and then beyond March 31st so we can
5 really incorporate everyone's perspectives.

6 So, with that, I will turn it back over to
7 Kendall. Thank you.

8 MR. ZABOROWSKI: Thanks, Lauren. First, I'd
9 like to apologize. Before the presentation started, I
10 forgot to tell everyone where the restrooms are. So,
11 if you need to use the women's restroom, it's out this
12 door just to your right. The men's restroom, out this
13 door just to your right. Don't be afraid to walk up
14 around in front of us; as you've seen, we have all
15 already hopped up and walked out in front while we
16 were presenting ourselves.

17 The second thing is in case of an emergency,
18 emergency exits are at the back of the room on either
19 side, so, God forbid, but I just want everybody to
20 know.

21 So, I'd also like to remind everybody that
22 the GLMRIS report in its entirety can be downloaded on
23 the GLMRIS project website which is up behind me. So,
24 it's on several of your materials as well, so
25 hopefully you can take that down and take that with

1 you.

2 Now, we're going to move in to the oral
3 comment period of our meeting. So, those of you that
4 registered on our website or registered here in person
5 today will be given the opportunity to speak, to
6 address the panel, or ask a question.

7 For those of you who may have noticed, there
8 was a gentleman that popped a giant video camera down
9 here at one point during the presentation, we have a
10 news crew from the British Broadcast Company, the BBC,
11 here with us tonight. They're recording, they're doing
12 a story on the Great Lakes and Great Lakes issues, and
13 Asian carp is certainly something that they're
14 interested in learning more about. I'd like to warn
15 you that if you're going to speak, one of the
16 producers might run up with a microphone and stick it
17 in your face. So, I just want to give you a little
18 bit of a warning on that.

19 Additionally, we also have a stenographer
20 here with us. He is recording everything that we're
21 saying tonight to make sure that we accurately report
22 it and include it in our comment process. So, when I
23 call your names to come up and make a comment, we
24 don't have a microphone or somewhere for you to stand,
25 but if you come up and come up to either side of the

1 front row tables to address us, we would appreciate
2 that. Before you begin your comment, I'd like to give
3 you, or we'd ask you to give us your full name and the
4 organization that you represent and then your zip
5 code. This will allow us, when we go back through the
6 stenographer's report, to make sure that we categorize
7 comments accurately and that we're able to report them
8 accurately in our final public comment reports.

9 So, I apologize in advance for two things.
10 One, I'm almost guaranteed to mispronounce someone's
11 name, so I apologize if that's you. And then,
12 secondly, I will probably interrupt you if I do not
13 hear your name or zip code first.

14 We're going to do things a little more
15 informal tonight. Typically, I have a set of slides
16 that controls time for three minutes. With all your
17 permission, I'd like to waive formal use of that
18 tonight. And when you come up to speak, I just ask
19 that you be respectful of each other's time. There's
20 many of you here that would like to make a comment.
21 I'm just not going to try and be as rigid to the three
22 minutes. If that's okay with everybody? Just looking
23 for some head nods.

24 Okay. So, first, we're going to call, or I
25 will call up people that registered on our website to

1 speak. And, oh, I'd like to mention that after I run
2 through my list, you know, I'm going to open it up to
3 general comments or questions. The same rules will
4 apply. If you'd like to make a comment, you're going
5 to have to come up to either side, name and zip code,
6 feel free to ask questions, we can interact with you.
7 We'll respond to questions that we are capable of
8 answering.

9 So, with no further ado, I'd like to first
10 invite up Mr. Greg Zoeller, the Attorney General of
11 the State of Indiana. And, sir, just so I make sure I
12 set the tone, I'm going to need your name and zip code
13 as well.

14 MR. ZOELLER: Sure. My name is Greg
15 Zoeller; I'm the Attorney General for the State of
16 Indiana. My zip code, see, it's all the zip codes
17 within the State of Indiana, but 46204 is the state
18 capital.

19 Well, first, let me start by welcoming you
20 to Indiana. I think I attended the first meeting you
21 had up in Chicago. As you pointed out, you've heard
22 from me before. It was reported that I was critical
23 of the fact that you did not have a meeting in Indiana
24 which I thought I was actually just offering an
25 opportunity to come to Indiana. So, we appreciate you

1 coming to Indiana and hearing from some of the
2 friends, there's a number of us who were around the
3 Wabash River which is one of the points I wanted to
4 make.

5 I do have a statement that we can give to
6 the reporter, so I'll skip just reading my statement.
7 But just a few points. At the earlier meeting, you
8 all were very good at explaining the very specific
9 authority that Congress authorized you to focus on,
10 not just technically the Great Lakes but the Chicago
11 waterway particularly, some in and around the Great
12 Lakes. But I think it's that limited authority from
13 Congress which sets up what I would consider somewhat
14 of a false choice. You give us eight options to pick
15 from, and again the policy makers can sort through
16 those, but the limited authority granted by Congress
17 puts you in a position of creating alternatives, none
18 of which recognize the current issues in the Wabash
19 River, the Ohio River, some of the streams and
20 tributaries in our state, and some of the surrounding
21 states.

22 So, what I would like to do is offer maybe
23 another alternative, so I don't know whether I want to
24 call it number 9, but you can at least say that when
25 you make your report there was some attention to not

1 just the potential future problems of the transfer of
2 the invasive species between the waterways into the
3 Great Lakes and into the Mississippi River Basin, but
4 also the current problems that we have within our
5 rivers and streams. John Goss was very clear that you
6 all don't lobby, but the rather, let's say
7 insignificant amount of funds that have been
8 appropriated to work on our current problems is
9 another one of the, I think false premises that have
10 been created by Congress to limit that amount.

11 So, what I would say is the proposal that I
12 will call number 9 is this idea that each state as one
13 of the partners in the federal state coordinated
14 effort are going to be left with trying to do our own
15 efforts to contain and address the Asian carp problem
16 particularly in our rivers and streams. If we could
17 have some support, and again it would be, I'll be more
18 than willing to do the lobbying that John can't do,
19 but there needs to be significant resources in the
20 form of grants to states that would help us address
21 the current problems in the rivers and streams.

22 So, it not only would help the states as
23 your partners, but in the event, and again I don't
24 want to sound pessimistic, but say the possibility
25 that the Asian carp get into the Great Lakes, you'll

1 need some of these tests that states have each tried
2 to do in terms of containing the populations of Asian
3 carp if they were to get into the Great Lakes. So, it
4 would be not only helping the states, but also helping
5 the federal government in the event that the
6 containment is, let's say unsuccessful.

7 So, again, it's not so much that we don't
8 all agree that we'd like to keep them out of the Great
9 Lakes; we'd like to avoid some of the migration of the
10 invasive species into our rivers and streams. So,
11 we're all supportive of that. But let's not forget,
12 even though I'll give you the fact that Congress has
13 not authorized you to do more, put down at least some
14 modest proposal of number 9 that additional funds be
15 appropriated that will help the states around the
16 Great Lakes address the current problems so that we
17 can do our part in being your partners in this effort.

18 So, thanks again. Welcome to Indiana.

19 MR. ZABOROWSKI: Thank you, sir. Next, I
20 would like to ask Ms. Elizabeth Johnson who is
21 representing Congressman Visclosky to come up. And
22 then following Ms. Johnson, I have Lynne Dennis, and
23 then Kay Nelson. So, and again, name and zip code,
24 and then please make sure you speak loudly.

25 MS. JOHNSON: Absolutely. And please, let

1 me know if I'm not speaking loudly enough, I think I
2 shout all the time. My name is Elizabeth Johnson. I
3 am with the Office of Congressman Pete Visclosky. The
4 office zip code is 46410. And on behalf of
5 Congressman Pete Visclosky, I would like to read the
6 following statement into the public record.

7 I thank the Army Corps of Engineers for
8 their willingness to hold a public meeting in
9 Northwest Indiana on the Great Lakes and Mississippi
10 River Interbasin Study. I appreciate their diligence
11 and thoughtfulness in crafting the study. I also
12 appreciate their consideration of the economic impact
13 that these potential alternatives may have in
14 northwest Indiana which is one of the most densely
15 consolidated, industrial environments in our country.
16 Thank you very much.

17 MR. ZABOROWSKI: Thank you very much. Next,
18 I have Lynn Dennis.

19 MS. DENNIS: Thank you.

20 MR. ZABOROWSKI: So, name and zip code
21 please.

22 MS. DENNIS: Lynn Dennis, representing The
23 Nature Conservancy, 46202. Thank you for this
24 opportunity and for coming to Indiana to receive our
25 comments. I'm going to read the statement that was

1 prepared for another person who couldn't make it
2 today, so I apologize for reading.

3 As scientific evidence mounts indicating the
4 potential for imminent spread of Asian carp, Eurasian
5 ruffe and other invasive species through the Chicago
6 Area Waterway System, The Nature Conservancy continues
7 to advocate for an interim two-way ecological
8 separation solution implemented in a matter of years,
9 not decades. I want to remind everyone that the Grand
10 Calumet and the Little Calumet Rivers in Indiana are a
11 part of the Chicago Area Waterway System. We are
12 concerned with the potential 25-year timetable for the
13 proposed barrier solutions.

14 The need for urgent action was recently
15 highlighted when the Conservancy and our partners, the
16 University of Notre Dame and Central Michigan
17 University, found evidence that Eurasian ruffe, a non-
18 native species already in the Great Lakes, may have
19 spread to Southern Lake Michigan, and threatens to
20 invade the Illinois River, the Mississippi River, and
21 beyond. We have seen what the invasive Asian carp has
22 done to Indiana's Wabash River. It is essentially
23 ruining recreational opportunities for this grand
24 river. To think that the Asian carp could be just the
25 tip of the iceberg is very disturbing. This emphasizes

1 the need for urgent action and a two-way management
2 system to prevent invasive plants and animals from
3 moving into and from the Great Lakes.

4 While the Great Lakes-Mississippi River
5 Interbasin Study limited its assessment to 13 species
6 of concern, these two basins need a solution that
7 considers a full range of organisms. This includes
8 species like the golden mussel or killer shrimp that
9 will continue to threaten North American freshwater
10 ecosystems until protective state, provincial, and
11 bi-national federal aquatic invasive species policies
12 are implemented.

13 With the information and ideas gathered by
14 the Corps, and we're very appreciative of that, and
15 others, there are a number of viable options that
16 achieve long-term environmental separation while
17 maintaining crucial transportation and economic
18 activity. Implementing effective methods to stop all
19 species in both directions is vital to protecting two
20 of the world's largest and most important freshwater
21 resources.

22 In short order, the region must now come
23 together to identify, select, and implement measures
24 to accomplish two-way separation. Aquatic invasive
25 species are a shared problem and require a shared

1 solution. Thank you.

2 MR. ZABOROWSKI: Thank you, ma'am. Next, I
3 have Ms. Kay Nelson, and then following here I have J.
4 Timothy Ritchie, and then Michael Beauchamp. Hopefully
5 I got that right.

6 MS. NELSON: Good afternoon. My name is Kay
7 Nelson. I'm Director of Environmental Affairs for the
8 Northwest Indiana Forum, and our zip code is 46368.
9 Thank you all for coming back to this room for another
10 meeting on Asian carp. We've hosted you a couple of
11 years ago and I appreciate your return. This is my
12 seventh time viewing this presentation. You're doing a
13 good job with your consistent message.

14 For the past four years, I have participated
15 in meetings such as this and many others concerning
16 this issue. And the message that I've carried on the
17 behalf of the Forum members has been consistent. That
18 is, one, to protect the residents and businesses of
19 northwest Indiana against any flood problems that
20 would be implemented by the reversal of the flow of
21 water through the physical separation. Also, to
22 maintain the high quality of the water in Lake
23 Michigan as we know and appreciate it today. And
24 importantly, to retain our marine transportation
25 highway that northwest Indiana businesses and the Port

1 of Indiana rely upon for delivery of raw and finished
2 materials.

3 I would like to emphasize that marine
4 transportation has a fabulous safety record as well as
5 it is the most environmentally protective means of
6 modal transportation compared to rail and truck. Going
7 forward, we recognize that there is going to be a
8 great deal of emphasis and desire to focus on the
9 physical separation of the long-term separation
10 alternative that is mentioned in this report and many
11 other reports that are out there. However, we need to
12 be cognizant of the issue of the potential for the
13 risk to not be protected in the short term. As such,
14 the Northwest Indiana Forum along with businesses from
15 Illinois and other states along the Mississippi as
16 well as our Canadian partners have discussed the need
17 to have four parallel paths of action undergoing as we
18 move forward at this point.

19 Perhaps to allow Fish and Wildlife to take
20 over the role and responsibility of expanding the
21 research that's currently ongoing with regards to AIS,
22 recognizing that, as has been mentioned, that this is
23 a shared responsibility. There are 32 states that
24 have watersheds draining into the Mississippi River
25 system. So, it's important for us to be looking at

1 AIS beyond just the Chicago Area Waterway System, much
2 as the Attorney General referenced with the interim
3 river systems.

4 Secondly, the report that came out in late
5 December I believe concerning the potential
6 opportunities for fish to hitch a ride between barges
7 through the electric barrier system, the marine
8 transportation industry and those of us who have been
9 paying close attention to this recognize that this
10 needs to be addressed as well at this point in time.
11 It's not specifically called out in any of the
12 presentations or alternatives, but we see this as an
13 opportunity to be proactive as regional stakeholders
14 on taking a look at means to minimize the risk of
15 hitchhikers through the electric barriers.

16 The third item is to potentially initiate a
17 stakeholder discussion allowing the Corps of Engineers
18 to work with marine transportation, feds, and other
19 interested parties to discuss the opportunity to use
20 the Brandon Lock and Dam area as a demonstration
21 project on a national basis. It's recognized that
22 there are more than just the Chicago Area Waterway
23 System as far as waterways in the country that have
24 locks and dams. And AIS is a national problem, so
25 perhaps the Brandon Lock and Dam area could be

1 utilized to implement portions of the GLMRIS lock
2 concept that Lauren spelled out earlier.

3 All these things should be ongoing while the
4 discussion on the long-term separation issue
5 continues. As has been mentioned by the presenters at
6 the table as well as the commenters so far and more
7 that will follow, to do nothing or to wait and
8 implement just a long-term process allows for AIS to
9 spread between our waterways and we must protect those
10 going forward. Thank you very much for the
11 opportunity to comment.

12 MR. ZABOROWSKI: Thank you. So, next, I
13 have J. Timothy Ritchie. Following him, Mr. Michael
14 Beauchamp, and the Lee Botts. So, sir, when you're
15 ready?

16 MR. RITCHIE: My name is Tim Ritchie, and
17 I'm Vice-Chair of The Nature Conservancy, Indiana
18 Chapter. And my zip is 46304.

19 And I'm also a retired banker. And while
20 the environmental impact of our problem is
21 significant, also the economic impact is significant.
22 And I see that the cost of remediation is staggering,
23 but the costs that are currently going on to prevent
24 the invasive species from contaminating our waterways
25 is significant. And the costs will only increase.

1 There is a study by the Anderson Economic
2 Group that shows the states in the Great Lakes region
3 are spending significant amounts annually to prevent
4 this problem. Wisconsin spent \$12 million in 2009-
5 2010; Michigan, \$3.1 million; and Indiana is spending
6 about \$3 million annually. And these costs are going
7 to go up.

8 As has been mentioned, the AIS problem is a
9 two-way street. And a lot of the problems that
10 Indiana faces are things that are in the Great Lakes
11 that are moving downstream and contaminating our
12 lakes, streams and rivers. We have to protect our
13 aquatic habitats for both commercial purposes as well
14 as for the recreational industry because we have
15 874,000 recreational anglers, 19,000 wild fowl
16 hunters, and 9,000 trackers who depend on aquatic
17 quality not only for their recreation but for their
18 lifestyles.

19 I was a little amazed to hear from speakers
20 that there are 35 species in the Great Lakes and Lake
21 Michigan that are potentially going to go downstream
22 and affect our waterways. We've all talked about the
23 zebra mussels, the cost that has incurred for the
24 industry to prevent problems, and those costs are
25 passed on to the consumers. So, really my point is

1 that we can't delay in doing something because it's
2 going to make an incredible expense later on for all
3 of our states.

4 25 years is too long to wait. The
5 implications are, the increases of costs will be
6 exponentially great. And I think there is immediate
7 need to do bold action to prevent the next influx of
8 AIS into Lake Michigan and from Lake Michigan into our
9 waterways. Thank you.

10 MR. ZABOROWSKI: Thank you. Just real
11 quick, sir, as a point of clarification, the 35 ANS of
12 concern that was mentioned earlier, they're not
13 exclusively in the Great Lakes. I believe of that
14 list of 35, roughly 10 are in the Mississippi River as
15 a threat to the Great Lakes. And then the remaining
16 are in the Great Lakes as a threat to the Mississippi
17 River. All of that information can be found in the
18 report or on our website. There's a paper called the
19 ANS white paper that talks about a whole litany of
20 invasive species that were examined as part of this
21 thing. So, I just wanted to make sure you got that.

22 So, sir, when you're ready?

23 MR. BEAUCHAMP: My name is Michael
24 Beauchamp.

25 MR. ZABOROWSKI: All right.

1 MR. BEAUCHAMP: And I represent the Wabash
2 River Heritage Corridor, a state commission of 23
3 counties in Indiana, and also a little local group
4 from my county, Wabash County, called the Wabash River
5 Defenders. And ma'am, I want to congratulate you on
6 an excellent presentation, and gentlemen, a very
7 interesting afternoon.

8 MR. ZABOROWSKI: Can I get your zip code
9 please?

10 MR. BEAUCHAMP: Yes, 46992.

11 MR. ZABOROWSKI: Thank you.

12 MR. BEAUCHAMP: Yes. I've paddled, I've
13 boated on thousands of miles of rivers in the United
14 States, so perhaps I'm a little bit biased. I see all
15 this concern about this interbasin waterway and Lake
16 Michigan and the waters of the Mississippi, but I've
17 been on the Allegheny and on the Monongahela, on Ohio
18 and the Tennessee and the whole route of the Wabash,
19 most of Mississippi, all of the Missouri.

20 And so, I am envious of Chicago getting this
21 authorizing legislation for just this interbasin way.
22 Because in many of these rivers, I am familiar with
23 the Asian carp problem. I've gone down the river and
24 had these fish jump up and hit me in the face. And it
25 is a great problem for our local species and our

1 natural species.

2 And I wish that Congress would authorize the
3 Corps to study all the waterways, not just, you know,
4 just to be a little bit cynical, it sounds like the
5 Chicago jobs bill. I think you have to appreciate;
6 I'm concerned about my own backyard, the Wabash River.
7 The Wabash River is the longest, free-flowing river
8 east of the Mississippi in the United States. And we
9 have Asian carp. Mr. Goss and Mr. Zoeller went down
10 our river and they got to see evidence of the Asian
11 carp that are right in my river and that's affecting
12 the fishing there. And it's going to get worse and
13 worse.

14 I hear about \$15 billion being spent in
15 Chicago and understand the authorized legislation and
16 what your duty is, but I wish some of this could be
17 allocated, or the Congress would reauthorize that all
18 of these rivers, the Ohio River, the Asian carp in the
19 Ohio is a serious problem. I've driven through those
20 fish. They're going to get into the Monongahela,
21 they're going to get into the Allegheny, the Tennessee
22 River, I assume the Missouri River, and certainly up
23 and down the Mississippi River, the White River. And
24 then you have significant investments on my river in
25 the Salamonie and the Mississinewa Dam system, the

1 flood controls already, tens of millions of dollars
2 have been invested for flood control and recreation
3 very near my home. And Asian carp will infest those.

4 So, I hate to just see \$15 billion or
5 whatever the number ends up being spent in Chicago. I
6 wish you'd take the message that there are some people
7 out here that are asking you to have Congress
8 reauthorize their legislation to call this the Great
9 Lakes-Mississippi River Basin All Waters Act, all
10 waters. So, with that I'll end and I thank you very
11 much for giving me this time.

12 MR. ZABOROWSKI: Thank you, sir. Next, I
13 have Lee Botts, and then following, I have Michael
14 Ryan, and then Jennifer Caddick. So, ma'am, when
15 you're ready? Can I get a name and zip code please?

16 MS. BOTTS: Lee Botts, B-o-t-t-s, 46403. I'm
17 a long-time activist on behalf of the Great Lakes
18 since I've been outside government. My experience
19 includes founding the Lake Michigan Federation now
20 known as the Alliance for the Great Lakes as the first
21 environmental organization devoted entirely to the
22 Great Lakes. I also served as Chairman of the Great
23 Lakes Basin Commission, now disbanded, in the Carter
24 administration, and later was head of the City of
25 Chicago Environmental Agency under Mayor Harold

1 Washington. Currently, I'm deeply involved as a
2 volunteer in environmental matters as a resident here
3 in Northwest Indiana.

4 I hope this meeting and all the other public
5 meetings inspires the Corps of Engineers with a sense
6 of urgency. Part of my job when I worked for the City
7 of Chicago in 1980's was to try to urge the Corps to
8 get on with addressing this issue. And it has taken a
9 long time.

10 Preventing the entry of the Asian carp from
11 the Mississippi Watershed into the Great Lakes is not
12 the only reason to disconnect these two of the largest
13 watersheds in the United States, but it is the most
14 immediate. This corrective action like so many others
15 is needed because of mistakes in the past is long
16 overdue. Unlike some other examples, this one has
17 been shown to be feasible, and delay will only
18 increase the costs. It is needed now not only to
19 prevent introduction of Asian carp into the Great
20 Lakes, but to prevent other possible exchanges of non-
21 native species either way in the future.

22 It is also needed to force compliance by the
23 City of Chicago with the sewage treatment requirements
24 of the Clean Water Act which will provide other
25 protective benefits for Lake Michigan as well as the

1 native organisms and people who depend on the sixth
2 largest lake in the world. It needs also to proceed
3 as quickly as possible to enable the industries that
4 have depended on transportation use of the current
5 connection to proceed in working with governments at
6 all levels, to develop alternative means of
7 transporting bulk commodities. These companies are
8 not to blame for the presence of the carp, and are
9 themselves vitally important to the economies of the
10 Great Lakes region and the United States. Further
11 prolonged delay in achieving the disconnection could
12 cause them greatly as well as prolong the threat to
13 the Great Lakes.

14 In summary, it is vitally important for the
15 future for the Federal Government to establish the
16 working partnerships and means of communication from
17 all affected parties as quickly as possible in order
18 to proceed with correcting the misguided mistake that
19 was made so many years ago in connecting the two
20 waterways. In short, we cannot wait for another seven
21 years, even one or two years, to focus on taking this
22 action rather than on debating whether to proceed.
23 Thank you for the opportunity to participate today.

24 MR. ZABOROWSKI: Thank you, ma'am. Next on
25 my list was Michael Ryan.

1 MR. RYAN: Hello, my name is Michael Ryan.
2 My zip code is 46304, Chesterton. I'm President of
3 the Northwest Indiana Steelheaders and I'm also a
4 sport fishing advisor for the Great Lakes Fishery
5 Commission.

6 Being involved with the Great Lakes Fishery
7 Commission over a number of years, we've been involved
8 with lamprey. For 50 years, all we can do when this
9 invasive species came into the Great Lakes and totally
10 decimated the fishery on the Great Lakes is to control
11 them. And we're having a hard time doing it, it costs
12 millions of dollars a year to control lamprey.

13

14

15 Also, what's driving all this is economics.
16 Sport fishing in the Great Lakes, recreation in Great
17 Lakes is \$78 million. We also have, you know, one of
18 the highest industrial areas in the country like here
19 in northwest Indiana where all of our billion dollars
20 in shipping goes through the canal.

21 I like some of your new technology. I think
22 it's, you know, getting out of the box in looking at
23 other things. We need those doors closed and closed
24 as soon as possible. And the main thing is there's
25 other technologies along with shipping. Intermodals

1 could be put in where shipping can go from barge to
2 barge, and be a separation there. Recreation boats can
3 move in a different direction.

4 And you can also use rails and trucks. Right
5 in that very area, I think UPS has one of the largest
6 intermodals in the world right there. And so, that's,
7 you know, there's things that can be done to, you
8 know, mitigate shipping and also the flooding problem.
9 But what we have to do is close the doors, whether
10 it's putting a barrier out there or using the new
11 technology you can come up with.

12 The thing about these carp, they're going to
13 be in all of our streams. I know when we first
14 started working on the electrical barrier, it wasn't
15 for keeping the Asian carp out, it was to keep the
16 gobies from coming down into the Mississippi River.
17 And one of the things, when we went to put the second
18 barrier in, was the Canadian Government was down here,
19 their spokesman was there at the groundbreaking. And
20 they want that closed up because these carp not only
21 will spread all over Canada, clear to the Hudson,
22 almost to Hudson Bay, there is nothing that's going to
23 stop these carp unless we close the doors.

24 Thank you for your time and thank you for
25 your study. And the faster you can get this done, I

1 know there's a Congressman in Michigan that's
2 introduced a bill to make you speed up the efforts,
3 and we hope this all goes through. And thank you.

4 MR. ZABOROWSKI: Thank you, sir. Next on my
5 list, I have Jennifer Caddick, followed by Herb Read,
6 and then John Kindra. So, when you're ready, ma'am,
7 name and zip code.

8 MS. CADDICK: Hi, my name is Jennifer
9 Caddick. I am with the Alliance for the Great Lakes.
10 Our zip code is 60601. I will take the Attorney
11 General's example or standard and say that the
12 Alliance for Great Lakes represents the entire Great
13 Lakes Basin so we should include all those zip codes
14 as well.

15 First, I want to take a minute and thank
16 you, the Corps, for listening to public comment over
17 the past few weeks and adding a couple of additional
18 meetings, the meeting here tonight in Indiana and also
19 one in Buffalo. We at the Alliance and many people
20 around the region including I think many in this room
21 have felt that it was really important that the Corps
22 hear from concerned stakeholders in all of the Great
23 Lakes states because everyone around the Great Lakes
24 Basin will be impacted if we fail to prevent the
25 ecological catastrophe that would occur with the

1 establishment of Asian carp in the lakes. This threat
2 is extraordinary and imminent.

3 Extensive data and repeated studies of the
4 US and Canadian governments have demonstrated beyond a
5 shadow of a doubt that the Chicago Area Waterway
6 System is by far the highest risk pathway for Asian
7 carp. And by your own data in the GLMRIS report, the
8 only option that has the highest potential to prevent
9 invasive species transfer not only into the Great
10 Lakes but into the Mississippi Basin is physical
11 separation. We don't have time to waste.

12 Studies confirm that the electric barrier,
13 currently the last line of defense to keep carp out of
14 the Great Lakes may not be a barrier at all as it
15 allows small fish to pass through. The status quo is
16 not acceptable and we need quick action on separation.
17 We know that restoring the natural divide between the
18 Great Lakes and Mississippi River Basins is feasible.
19 It is important to remember that this report, I think
20 as you noted tonight, simply laid out a range of
21 options, but none of them are set in stone.

22 At the Alliance, we feel and many people
23 around the region feel the cost estimates and time
24 lines provided in the GLMRIS report are a bit
25 overblown and are not the true cost of stopping

1 invasive species. The giant price tags that were
2 presented around the past few weeks and tonight, in
3 that price tag, the Corps is including the cost of
4 fixing Chicago's serious infrastructure problems that
5 need to be addressed anyway. It's like saying that
6 it's going to cost you \$20,000 to bake a birthday cake
7 because you have to remodel your kitchen. The costs
8 included in the GLMRIS report are including the
9 kitchen sink when some of this remodeling has to
10 happen regardless of the carp issue.

11 We have a tremendous opportunity here to
12 jumpstart progress in 2014 to keep Asian carp and
13 other invasive species out of the lakes. The Great
14 Lakes region stands ready to invest serious dollars in
15 the Chicago Area Waterway System to stop invasive
16 species and to renew our regional infrastructure here
17 in the Chicago land area. We need to seize this
18 opportunity and not bury our heads in the sand. The
19 health of the Great Lakes and Mississippi River as
20 well as the communities and many jobs that they
21 support are worth it. Thank you for your time.

22 MR. ZABOROWSKI: Thank you. Next on my
23 list, I have Herb Read. When you're ready sir. Name
24 and zip code please.

25 MR. READ: My name is Herbert Read, R-e-a-

1 d, by the way. My zip code is 46383 which is in
2 northwest Indiana.

3 I am a member of quite a number of
4 environmental and conservation groups, most notably
5 the Border County Chapter, the Izaak Walton League,
6 and the Save the Dunes Council, as well as some of the
7 others who have spoken here. However, I expect the
8 current officers will probably, I hope, have a
9 statement made, so I'm speaking for myself and my
10 concerns.

11 Now, most of you are aware of why the
12 Chicago River was reversed in the first place. Sewage
13 from the Chicago River was falling into Lake Michigan.
14 And at that time at least, the only way to save
15 Chicago from more outbreaks of cholera and other
16 diseases was to flush it downstream. That was good
17 for the City of Chicago; it creates future problems
18 for the people who have to deal with it downstream.

19 Now, my particular concern besides the carp
20 problem is I don't want to see any polluted water
21 returned to Lake Michigan. Now, I also am a retired
22 architect and engineer, and my employer did work on
23 some of these treatment plants, most notably the Deep
24 Tunnel project. I designed the control room, control
25 building for it.

1 Whether the water goes back to Lake Michigan
2 depends upon a number of factors. One is where the
3 barrier is, barrier and/or locks, how many barriers,
4 and besides the location, the degree of treatment of
5 the water that goes into the area that is upstream
6 from the barrier. And we have the problem of the
7 combined sewer overflows.

8 Now, the cost of this, and I look upon this
9 as an opportunity, it's an opportunity to finally make
10 some of these people clean up their act. I've been at
11 it for 70 years and maybe this will be the thing that
12 says that in order to solve this problem, you are now
13 forced to clean up all of this polluted discharges.
14 And despite the advances that have been made in
15 treating the water, and I'm very familiar with it,
16 it's still pollution.

17 So, we have to have that into the mix in
18 what you're considering. It costs money. At my age,
19 my children and grandchildren will be paying for it.
20 But I like, I'm still drinking Lake Michigan water and
21 I'm sure that they do, too.

22 So, keep that in mind. I see possibilities
23 here. I have not had a chance to read the whole
24 thing, the whole booklet. Our newspapers concentrate
25 on the barge traffic problem. If I have to pay more

1 for reshipping it another way, I'm willing to do it.

2 And I think my kids are, too. So, thank you very

3 much.

4 MR. ZABOROWSKI: Thank you, sir. Next, I

5 have Mr. John Kindra, and then Mr. John Folta.

6 MR. KINDRA: Hi, good evening. My name is

7 John Kindra, and I'm the owner of Kindra Lake Towing.

8 We're a barge and tug operation in Chicago.

9 MR. ZABOROWSKI: Zip code please?

10 MR. KINDRA: Oh, sorry, sorry. 60617. Sorry

11 about that.

12 MR. ZABOROWSKI: It's okay.

13 MR. KINDRA: And I'm against physical

14 separation. I think I more support the alternative

15 number 4 which is the buffer zone with the GLMRIS

16 locks where they treat the water as the barges come

17 back and forth. I've heard a lot of talk about taking

18 the barge, lifting it up; taking it over land and

19 setting it back down into the different basins. If you

20 pick up a loaded barge, it will crush on itself. It's

21 not designed to be able to pick up, it's designed to

22 float.

23 Right now coming through O'Brien Lock onto

24 the Calumet River is seven million tons of freight.

25 That's 1,300 truckloads per day every week on the

1 roads. 1,300 per day. Do you know, just the
2 snowstorm out there, all the traffic that we had on I-
3 65 and on 94 over there by Michigan City? Add another
4 1,300 trucks or at least 1,000 in that direction. And
5 the air quality. This is just not a small thing.
6 There's a lot of ramifications of having physical
7 separation.

8 I've heard a lot of people say that they
9 don't want the Asian carp in the Great Lakes. I don't
10 want them in the Great Lakes. But a lot of great
11 things are being done. The breeding population has
12 not moved for seven years, and it's a hundred miles
13 from the locks. Now, there's what they call scouts
14 and there's some fish above that, but the breeding
15 population isn't moving. And the catches, the
16 Illinois DNR is reporting that when they're catching
17 the fish, they're smaller, meaning that they don't
18 have a chance to grow up to be big because they're
19 being hauled out.

20 What I'd like to see is a little bit more
21 commercial fishing. I'd like to see the Corps use a
22 prototype, maybe on the Wabash River, and concentrate
23 a heavy commercial fishing operation and see what
24 happens on that. One or two million dollars is
25 nothing compared to \$18 billion. So, I'd like to see

1 that explored.

2 The new technology. I don't know if anybody
3 in here knows but there is something called
4 microparticles, it's poison in a pill that is
5 encoated, that only the encoating gets broken down by
6 the enzyme in the Asian carp. If a bass takes it, it
7 goes right through the bass, it excretes it out.
8 Available for the Asian carp to get it, it breaks it
9 down with the poison absorbed and the fish is killed.
10 That's just great technology. That would be great to
11 have that.

12 I heard also Kay mention about the December
13 study at the fish barrier, current fish barrier right
14 now down in Romeoville, Illinois, that the Corps of
15 Engineers put fish, and this is a study, actually put
16 fish, common carp, in between the barges to see what
17 would happen. Well, they didn't fish out, swim out,
18 but what they didn't say is that they never found them
19 in there; they never put cameras in there as they came
20 in. The fish stayed in there because they were put in
21 there.

22 We need to do more study in there. We've
23 heard also this lady say that the little fish are
24 coming across the barrier. Yes, we've seen that
25 through the cameras. So, the Corps has an opportunity

1 now because again the fish are in here to tweak the
2 barrier, to tweak the electric current, to address the
3 little fish coming across the barrier.

4 Finally, Dr. Schumann, of I think DePaul
5 University, took this GLMRIS report and evaluated it
6 and said that the true cost is about \$32 billion. You
7 know, a billion here, a billion there, you've got some
8 real money. \$32 billion is a huge amount of money.
9 Someone say that they thought their sons and grandsons
10 and granddaughters would be happy to pay this cost. I
11 think everybody is.

12 But what I fear is that we're going to lose
13 jobs here. Someone is going to go ahead and say I'm
14 not going to reinvest. Arcelor Mittal, the biggest
15 steel company in the world and huge in Northwest
16 Indiana says, okay, we're done investing, and the
17 plant starts powering down just like Southworks did.
18 It's torn down now, it doesn't even exist. So, I hate
19 to see that we do even talk about physical separation
20 and then the companies start not reinvesting.

21 I think unless we take such as alternative
22 number 4 where there's a buffer zone and there's the
23 GLMRIS locks, I think what is proposed in physical
24 separation is too expensive. It's way too long. And
25 it's too uncertain to be a practical solution. Thank

1 you.

2 MR. ZABOROWSKI: Thank you, sir.

3 MR. FOLTA: John Folta, 46321. My name is
4 John, I work for a tugboat company in South Chicago.
5 We handle raw products, moving them to Northwest
6 Indiana refineries, the mills.

7 I'm against the physical separation for
8 concerns of job loss and the impact it would have to
9 local economy. And even if there was a physical
10 separation, there is no guarantee this Asian carp
11 still don't make it into the Great Lakes. I'd hate to
12 see us kill all these jobs, spend all this money, and
13 still, you know, there's no guarantees that that's
14 going to keep them out. You spend all that money, all
15 that time, and they still get there.

16 I love to fish. I fish at Great Lakes. I
17 spend vacation, my favorite place to vacation is
18 Ludington, Michigan, you know, I go out there. You
19 know, Michigan is so worried about keeping them out
20 but their biggest business I think is tourism. And I
21 know there's a lot of people that work with our
22 industry, we go to Michigan. You know, they're going
23 to hurt it that way, too. There's always a reaction
24 for every action. But I'm against the physical
25 separation.

1 MR. ZABOROWSKI: Thank you, sir. At this
2 point in time, we have heard from everybody that
3 either registered before today or registered at
4 today's meeting to speak. So, it is about 5:40. You
5 know, we're scheduled to go until 7:00. You've got
6 our attention right now.

7 So, at this point, I'd like to open it up to
8 the room if anybody has any comments or questions.
9 Yes, ma'am? Same procedure, please come up to the
10 side, name and zip code. And you know, if you want to
11 make a comment or ask a question, please do so.

12 MS. BARKER: Yes, we thought we had
13 registered on the website. It looks like it didn't
14 come up but --

15 MR. ZABOROWSKI: Oh, that's okay, that's
16 fine.

17 MS. BARKER: My name is Nicole Barker, B-a-
18 r-k-e-r. I am the Executive Director of Save the
19 Dunes. My zip code is, or the organization zip code
20 is 46460.

21 Lake Michigan is an invaluable resource for
22 this region. And the health of Indiana Dunes'
23 ecosystem is very much affected by the bulk of Lake
24 Michigan. It supports a range of aquatic life and the
25 source of drinking water for millions. It provides

1 public recreational opportunities and is a vital asset
2 for our economy.

3 Indiana's Lake Michigan shoreline supports
4 commercial and sport fishery with an annual value of
5 \$400 million, recreational boating opportunities that
6 contribute over \$2 billion annually to our economy,
7 and tourism dollars from the two million visitors that
8 go to our Indiana Dunes National Lakeshore, and one
9 million, 1.2 million, 3 million together visitors that
10 hit our dunes and parks here each year. And that's on
11 the same par as the visitors that go to Yellowstone
12 and Glacier National Parks. This is really important
13 to the region.

14 The proposed solutions presented in the
15 GLMRIS report are costly. We understand that. But
16 the cost of adding aquatic invasive species once they
17 have established in the lakes will certainly be much
18 more expensive. Aquatic invasive species are already
19 causing hundreds of millions of dollars in damage each
20 year to commerce, recreation and the environment.
21 Some of the species were mentioned earlier.

22 Rather than investing millions of dollars
23 annually on temporary solutions, physical separation
24 of the Great Lakes and Mississippi River Basins would
25 provide the most effective permanent solution to

1 keeping invasive species out of the Great Lakes.
2 However, it's important to acknowledge the very
3 lengthy process of pursuing physical separation, and
4 it's crucial that we take interim steps very quickly
5 that provide more protection to the Great Lakes while
6 plans for separation continue. Preventing further
7 transfer of aquatic invasive species between the
8 basins is a shared responsibility. It shouldn't only
9 be on your shoulders, but should also include other
10 federal, state, local agencies and private sectors as
11 well as NGOs like ours.

12 We at Save the Dunes believe that full
13 separation is the only option to adequately protect
14 our most significant asset in Northwest Indiana and
15 Michigan. That being said, while we recognize the
16 urgency here, it's crucial that we proceed with
17 caution when pursuing separation. We must consider
18 all the communities, ours included, that will be
19 affected by it and completely extend some research
20 necessary to ensure that plans will not sacrifice the
21 progress of important regional projects such as those
22 taking place right here in northwest Indiana.

23 In the past decade, for example, we have
24 invested hundreds of millions of dollars in dredging
25 the Grand Calumet River, and also in installing

1 incredibly expensive flood control levee system along
2 the Little Calumet River. These meaningful and
3 incredibly costly projects could be affected by
4 separating the basins. And thorough engineering and
5 hydrologic work needs to happen to avoid undoing all
6 the great work that's been done already. But we
7 believe it can be done with great minds like yours.

8 To ensure a clean and healthy Lake Michigan,
9 aiding infrastructure also needs to be considered and
10 addressed before implementing separation. We don't
11 believe that enough research has been done to fully
12 assess what measures would have to be taken in Indiana
13 in terms of fixing our aging infrastructure and
14 addressing our many CSO issues that we have here. We
15 feel that in the plan we saw, Chicago had a lot of
16 detail on these issues and yet we didn't feel enough
17 attention was paid to our local issues here.

18 In fact, we also had a tour recently with
19 the nations of the others that are in the room
20 inviting the Forum and many others to go see these
21 projects in the field to get a sense of what we've
22 done and why we're worried. And so, if you ever want
23 to come out and have us redo that tour with you, we're
24 more than happy to take anybody else who is interested
25 to see our particular concerns.

1 We also believe that concerns relating to
2 shipping to and from local industries along Lake
3 Michigan are significant. While some concepts have
4 been proposed in the past, you mentioned one about
5 lifting barges; many of these are not palatable to
6 companies like yours. We believe that smart
7 engineers, innovative thinkers, and solid planning can
8 help find a solution that everybody can live with.

9 It's time to think that separation is an
10 opportunity to create something sustainable,
11 incredible, and iconic of the can do spirit we embody
12 in the Great Lakes region. And I also want to say
13 I've worked with the Army Corps of Engineers,
14 definitely worked with the City of Chicago for years,
15 and it's a pleasure seeing all the due diligence and
16 incredible work you've put into this report in
17 particular.

18 MR. ZABOROWSKI: Thank you, ma'am. Sorry
19 that the mix-up happened with the registration.

20 Now, at this point, is there anybody that
21 would like to make another comment or ask a question
22 of those of us up here? Don't be shy.

23 COL. DRUMMOND: This is always the point
24 that my team doesn't like because the floor is open.
25 And you know, I would encourage you, if you have any

1 questions, feel free. Just come up and ask and we'll
2 talk about them. At the closing, I'll talk a little
3 bit about the barrier, its effectiveness, latest
4 reports, sort of define what I call characterization
5 of risk, where it's at and sort of frame that. I
6 think that will, you know, perhaps give you another
7 insight of what we're seeing and how we're dealing
8 with it. Comments? Thoughts?

9 MR. ZABOROWSKI: Going once, okay. Going
10 twice. This is really your last chance now.

11 COL. DRUMMOND: Maybe one side talk that
12 will spur some more discussion. Yes, come on up, sir.

13 MR. NOVITSKI: I'm John Novitski. I'm a
14 worker in a steel warehouse near here.

15 MR. ZABOROWSKI: Sir, can I get a --

16 MR. NOVITSKI: 46302.

17 MR. ZABOROWSKI: Thank you.

18 MR. NOVITSKI: 46369 is my business.

19 Something that's missing here, everybody says you can
20 find another route, what's going to happen is
21 eventually businesses are going to move to riverside,
22 away from the lake. They're not going to pay the
23 extra cost to move bulk materials because the shortcut
24 from Asia and South America is the Mississippi River.
25 If they have to go around to St. Lawrence, the cost is

1 too big. And businesses aren't going to pay, it's a
2 competitive, steel business is a global market and
3 it's competitive. People will just buy from other
4 people.

5 So, the companies in the area will wind up
6 moving to the location that makes the most sense,
7 which means a lot of jobs in Indiana and Illinois,
8 Wisconsin that all use those rivers to get bulk
9 materials in. I just, you know, I understand the
10 problem and everybody wants clean water and no bad
11 things in the water. But you have to have a place for
12 that bulk material to come through. You cut that off,
13 you're going to lose the jobs. That's what's going to
14 happen, they'll move to other spots. That's something
15 that's got to be considered.

16 There has to be a path somewhere in there.
17 You guys are the experts and I hope you come up with a
18 good solution.

19 MR. ZABOROWSKI: Sir, would you mind, could
20 I get your last name again please?

21 MR. NOVITSKI: Novitski, N-o-v-i-t-s-k-i.

22 MR. ZABOROWSKI: All right, thank you, sir.
23 Okay, Colonel Drummond?

24 COL. DRUMMOND: Okay. Well, thank you very
25 much. I don't know if Herbert and Lee are still in

1 here, but thank you for your service. Ms. Lee, back
2 there, you hear me? Thank you for your service to
3 this area and to the Great Lakes. 70 years and how
4 many years, ma'am, for you?

5 MS. BOTTS: I'd rather not say.

6 COL. DRUMMOND: Well, my mother told me a
7 long time ago to avoid them type of questions. I'm
8 with you, but thank you very much for that.

9 For the folks that operate through the
10 Sanitary Ship Canal and the CAWS John, many of the
11 tugboat operators, I will just openly say thank you.
12 We have been safe because you have all made it safe
13 and you've worked closely with us. So, that's a good
14 thing and I would just encourage your operation and
15 the folks that work up and down that river to remain
16 safe as they work through our barrier on a day-to-day
17 basis.

18 It is a very difficult, complex topic. I
19 think you've heard a lot of it tonight. The barrier,
20 so the barrier, as most of you know, we had a
21 demonstration barrier designed in 2002 that worked at
22 some certain voltage, and then we were quickly
23 criticized, the voltage was not enough. So, we went
24 back to ERDC and they did some testing of various
25 sizes of Asian carp and they said, hey, let's turn the

1 voltage up to about 2.3 volts and volt it. The new
2 barrier and the latest barrier, so we've got three out
3 there, we got demonstration 2B, 2A, and eventually a
4 final barrier which I'll talk about in a minute.

5 So, all that analysis came out just as I was
6 coming in to command. We sort of turned the voltage
7 up which is a significant event in itself because
8 this, as Lauren said, it's not a pre-engineered
9 chamber. This is a chamber, I've got photographs in
10 my office, it was built well over a hundred years ago,
11 a hundred years ago, I've got actual photos and I can
12 look at exactly what happened. Old flathead engines
13 out there, people with hammers, you know, building
14 this canal.

15 So, as you can imagine, it's a lot of
16 limestone rock. And so, we had to go in and put in
17 our parasitics and our pulsers on this limestone
18 rock. And so, it creates what I call some engineer
19 difficulties. I mean there's stray voltage, you know.
20 Not too long ago, I think most of you are aware, I had
21 an issue with the railroad track, the railroad closing
22 that's going off. I've had issues with transformers
23 having problems. So, it's an electrical marvel for
24 some of my staff to deal with on a day in and day out
25 business, that said.

1 So, as part of this, we asked Fish and
2 Wildlife to come in and do these DIDSON studies and
3 their pretty high-tech cameras. I wanted to see, you
4 know, it's one thing to do it in a scientific lab
5 which I might add is very high-tech down in ERDC, but
6 it's another thing to see what's going on out in the
7 field. So, they came in and they did a series of
8 testing. And in one part of 2B, over one specific
9 array, roughly about I think 6 to 12 feet, these
10 cameras were put in, and amazingly enough, there were
11 some small fish, we don't believe they were Asian
12 carp, they were like shad, and the reason for that is
13 that we netted just shortly after that in the entire
14 barrier and we found, you know, common fish to that
15 area. But these fish in the photo came together in a
16 group and sort of pushed through one part of that
17 array.

18 Now, my job is to protect, and I take that
19 quite passionately. So, as I would tell most of you,
20 you know, we're going to go back to the scientific
21 drawing board and we're going to analyze exactly why
22 that happened. Does that specific type of fish has to
23 build up some immunity to the barrier that we need to
24 be aware of? Is there something, you know, is the
25 actual, as we call it, the actual 2.3 volts, is it

1 getting all the way to the top of the waves when the
2 barges are coming through? It's another study that
3 we're going to take a hard look at.

4 You know, so, the fact of the matter is
5 there is something. Here is what I will tell you, is
6 that that was one part of an enormous system that
7 we're working out there. So, since then I've turned
8 on all three barriers. So, we got the demonstration
9 barrier working. We got 1A working and we got 2B
10 working all at once.

11 That gives me a little bit more confidence,
12 but it doesn't do what you have all asked me to do and
13 that's protect. The only way I can do that is go back
14 to ERDC and sort of analyze this in the right way
15 because it's not easy just to go out there and say,
16 okay, let's turn it up another volt, because it has
17 impacts on shipping, it has impacts on the railroad,
18 it has impacts on a multitude of other things. That's
19 why the beauty of what, you were briefed here earlier,
20 a pre-chambered, engineer-designed barrier is
21 appealing to me because we have learned a lot and we
22 believe that we can do something like that to control
23 it, with insulated properties and concrete and certain
24 matters that we can put in there. So, that's that
25 part of it.

1 Now, to the characterization of risk, where
2 are these things at? It's always interesting for a
3 military man to talk about threat. You know, we can
4 go back and talk all the way back to Clausewitzian and
5 Jominian theory, but the risk as mentioned, I think
6 one of you mentioned a hundred miles, it's actually a
7 little bit farther. It's about 143 miles is what we
8 believe is where the spawning, the larvae and small
9 fish are at, all right. 55 miles from Lake Michigan,
10 you could use my lock as a point, 55 miles down is
11 where we are finding silver and bighead carp, the
12 population. So, that's sort of where they're at, 55
13 miles, 143 miles down.

14 Now, there's a couple of things, and I think
15 somebody mentioned seven years. We're on our eighth
16 year. That population has not moved significantly at
17 the 55 mile point, has not moved. We're trying to
18 figure out why that is. Is it because there's two
19 locks? Is it because the Sanitary Ship Canal was
20 manmade and may not be conducive to spawning? Is it
21 because the Sanitary Ship Canal is a little bit warmer
22 than most? We really don't know but we've got some
23 good biologists that are actually analyzing that.

24 So, my point is not to diminish the threat,
25 it's just too sort of give you the facts as I know it

1 today. It is hard to contest, Herbert and Lee and
2 anybody else out here, that it is not going to happen.
3 I don't know. I know what I'm going to do is I'm
4 going to do what Congress authorized me to do, and
5 that's protect, you know, the Asian carp, or to
6 protect from getting any Asian carp into the Great
7 Lakes.

8 John sort of hit on it, I just want to make
9 sure folks understand, the State of Illinois IDNR as
10 well as the DNR within Indiana are doing a lot. There
11 is a lot going on behind the scenes that, you know, I
12 wish more would be discussed on it. Everything from
13 Wabash that was mentioned all the way to the
14 significant amount of netting, and I have been out on
15 site with these fishermen and I see exactly, they know
16 how to net Asian carp. They know the fish.

17 And so, some folks say, well, sir, you know,
18 they know them but could they be missing them? I've
19 got my own fish biologists out there in the boat with
20 them to include myself. And so, they know how to net
21 these fish, and yet in over a couple of years of
22 netting we have not yielded anything within above the
23 barrier. We got 3.6 million detections of non-Asian
24 carp. They're sargon fish, we put little tags in
25 them, make sure they got the right amount of oxygen;

1 we put them back into the water. And out of all that
2 3.6 million hits, no passage through the barrier.

3 Now, that may not be perfect because what
4 I'm interested in is exactly what the Dyson study told
5 me, that's reality. There's something going on there.
6 But my commitment to all of you and to everybody else
7 that's passionate about this is we got what I would
8 consider a very good crew of engineers and scientists
9 that will analyze this in what I would say the most
10 prudent manner so they can give me the best advice as
11 we start to fine tune the final barrier and the other
12 barriers that are already in ground. So, that's sort
13 of the long way of telling you about what's going on.

14 There was something mentioned on the barges.
15 I had no idea that fish can ride in the wave of a
16 barge. But scientific lab tests, I've seen it, show
17 me that it could happen. What's the probability of it
18 happening? I don't know. But you know, you all
19 expect me to prevent so we're going to work closely
20 with the barge industry as well as the EPA, ACRCC to
21 work with them to see the best way. Is it, do we need
22 to reconfigure the barges? Do we need to ask the
23 tugboat operators to slow down at a certain point
24 before the barrier and let the fish sort of get out of
25 the barge?

1 That is kind of stuff that honestly I'm
2 going to need your help with and many others to try to
3 figure out. But I believe there is a solution to
4 that. Some of our reports say perhaps we, there's
5 indications if we slow the barges down a little bit
6 that will help some. So, you know, the barrier is a
7 very complex and unique operation that goes on out
8 there.

9 So, let me close by saying just a couple of
10 things. And earlier I heard somebody say smart,
11 innovative solutions. Honestly, it starts with you. I
12 mean we got expert engineers up here; we are the
13 nation's engineers. We are going to develop
14 solutions. We built the Hoover Dam. You know, we
15 helped with the interstate system in the '30s. This
16 is something that is within our means to control, but
17 we've got to have public input on it because it
18 impacts everybody.

19 You know, I'm certain, as mentioned, years
20 ago in Chicago, nobody thought that, you know, a
21 hundred and plus years later we would be dealing with
22 a different type of threat. But it's something I
23 think is manageable and that's why, one, we're going
24 around and getting public input. Your vote, your
25 knowledge, your experience, all that counts. You can

1 talk to your state DNRs; you can talk to your
2 representatives. You got congressional folks that
3 have been here, senatorial folks that have been there,
4 they're all interested in your opinion. And I would
5 ask that you share it with them.

6 With that said, I'm going to turn to John.
7 Do you have anything?

8 MR. GOSS: No, just thanks, everyone, for
9 your help on this. And please stay tuned because in
10 the next few weeks, months, we do need to develop,
11 we're not necessarily going to have complete
12 consensus, but we need to develop enough support to
13 move forward. So, we need your help.

14 COL. DRUMMOND: I would like to publicly
15 thank Lauren, good job! Lauren stepped in right at
16 the last minute and did a very good job. And as well
17 as Kendall and the rest of my team that's in here.

18 It is a very complex operation. The Corps
19 of Engineers has been in Chicago since 1833. We're
20 not going anywhere. The folks in my organization are
21 just as passionate about this very complex topic as
22 anybody else. And so, I really appreciate your
23 comments tonight and your opinions.

24 I would ask that you continue to go online
25 until that bell strikes midnight on the 31st of March.

1 And then from there, we'll have, you know, five weeks
2 of assessment going on. And then all of this data
3 will be online for your public viewing to help you
4 make the most well informed decision, not only for the
5 greater good of the 9.1 million citizens in Chicago
6 but the Great Lakes in general. So, thank you very
7 much.

8 (Whereupon, at 6:05 p.m., the public
9 meeting was adjourned.)

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