

NEPA Public Scoping Meeting

Please note this document is a compilation of two transcripts, the afternoon session followed by the evening session of the NEPA Public Scoping meeting. Please use the Acrobat "Find" tool to perform key word searches within this document.

GLMRIS
GREAT LAKES AND MISSISSIPPI RIVER
INTERBASIN STUDY

FEBRUARY 8, 2011

2:00 P.M.

NATIONAL GREAT RIVERS MUSEUM
#2 LOCKS AND DAM WAY
ALTON, ILLINOIS

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

2

3 PANEL:

4

5 MR. BILL BOLEN

6 MR. LIEUTENANT COLONEL DAVID BERCZEK

7 MR. DAVE WETHINGTON, III

8 MR. MIKE SAFFRAN

9

10 LIST OF COMMENTS:

11

12 Glynnis Collins 56

13 Christine Favilla 59

14 Brad Walker 64

15 Lorin Crandall 66

16 Tim Robinson 82

17 Michael Luhr 84

18 Jim Bensman 84

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

2

3 MR. BLUHM: Welcome everybody. My
4 name is Kevin Bluhm, and I'm the moderator for
5 today's meeting. I come from the St. Paul
6 District Corps of Engineers office, and this is
7 our third week in a row of doing meetings here
8 for the GLMRIS, Great Lakes and Mississippi River
9 Interbasin Study, and this is a NEPA public
10 scoping meeting. I'm glad you're all here.

11 Just want to let you know a few
12 things about the information that we passed out
13 for you. The packet here is really important.
14 If you haven't got the packet, just raise your
15 hand and we will make sure that you get one.

16 In that packet we have got a short
17 explanation for the different pieces here. The
18 green piece half-sheet here is the agenda. This
19 is what we are going to be working off of today.
20 Following that we have got a quarter-size sheet
21 and a small little booklet that has a lot of
22 details of what the study itself entails.

23 Also, the most important piece for
24 today's meeting and the main reason why we are

1 here, is the white half-sheet of paper, our
2 comment form. This comment form is designed so
3 it gives you the ability to write down anything
4 on the inside or the backside, as well as all of
5 our pertinent mailing information. So keep that
6 in mind if you have anything that you would like
7 to add or any comments you would like to provide
8 for us.

9 The yellow sheet here is what we ask
10 you to fill out if you want to make a oral
11 comment or presentation to us today. We have
12 also got a purple sheet of paper here that has a
13 lot of information that will help with any
14 frequently asked questions. These are questions
15 that we have already answered in case you have
16 some questions, they may fall into that category.

17 We have also got a salmon-colored
18 sheet here that has information on the other
19 efforts that are going on, and you will hear more
20 about that in the presentation following. And
21 then the blue sheet of paper here is a piece that
22 we use for documenting any submittal materials
23 that you have for us. So if you want to submit
24 anything, if you have got any backup material or

1 documents you would like to turn in, accompany
2 this with that. That will help us get the proper
3 credit for that as we prepare our documents. And
4 then the last stapled booklet here has all the
5 slides that we will be using, so this is
6 something you can use as a reference to go
7 through as you see the slides.

8 If you do need any additional copies
9 to take with you when you leave, you can feel
10 free to get any extras as well for anybody that
11 may not have been able to attend.

12 If you preregistered on the project
13 website to give an oral comment and have not
14 checked in yet, we would ask that you do that at
15 the table in the lobby out here to get your name
16 on the list. And if you want to make an oral
17 comment now but have not already registered,
18 again, you can go up to the comment table there
19 and register yourself.

20 Our GLMRIS team has organized this
21 public meeting in two different goals. The first
22 is to present information about the study itself,
23 and then the second is to solicit your comments
24 on the significant issues that should be included

1 in GLMRIS and on the insignificant issues that
2 can be eliminated from further study.

3 The Corps is hosting 12 public
4 meetings throughout the study area in an effort
5 to provide opportunities for those interested in
6 the study to learn more about the study and
7 provide your oral comments. Please take note the
8 NEPA public scoping period closes on March 31st,
9 2011.

10 As indicated on the agenda, this
11 public meeting is organized in two sessions.
12 Identical presentations will be given at the
13 beginning of each of the sessions, followed by
14 the oral comment period. Our first session will
15 end here at 5:00 if we are still going strong
16 until then, and the second one will start at 5:30
17 promptly. Our study staff will be available
18 between the sessions to answer any questions as
19 needed and then again after the last session as
20 well.

21 If you have any questions or
22 concerns, our staff will be around and we will
23 stay around here as long as we have to. Just
24 keep in mind any conversations you have offline,

1 either in the back of the room or out in the
2 hallway, will not be recorded as part of the
3 official documentation. So if what you have to
4 say is important and you want to make sure that
5 it's included as part of the NEPA documentation,
6 we would ask that you make sure that you either
7 come to the microphone during the comment session
8 to give those orally or you write them down and
9 put them on a comment form or you mail them in.
10 Those will be the three ways that you can best
11 have your comments recorded and heard as part of
12 the documentation.

13 At this time I would like to
14 introduce the members of the panel here.

15 To my left here, Mr. Bill Bolen from
16 the USEPA, and he is representing the Asian Carp
17 Regional Coordinating Committee. At the table,
18 Lieutenant Colonel David Berczek from the --
19 deputy commander from Chicago District, US Army
20 Corps of Engineers. Center of the table there,
21 our project manager for the GLMRIS effort, Dave
22 Wethington. And on the far side of the table
23 from me, Mike Saffran, and he's the Other
24 Pathways project manager.

1 And also want to take note we are not
2 in the Chicago District area. We are down in the
3 St. Louis District, Mississippi Valley Division,
4 and Colonel Tom O'Hara, the commander from the
5 St. Louis District is with us in the back there.
6 So thank you, sir, for allowing us the day and
7 the opportunity to use your facility. This is a
8 wonderful opportunity. Thank you.

9 With that, I'm going to turn it over
10 to Bill and we will start the Asian carp control
11 update.

12 MR. BOLEN: I just want to check with
13 everybody, can you hear me in the back fine? I
14 coach basketball, so I assume that my voice will
15 carry.

16 Good afternoon. Thank you very much
17 for coming. My name is Bill Bolen. I'm the
18 senior adviser with the United States
19 Environmental Protection Agency. I'm also on the
20 Asian Carp Regional Coordinating Committee, and
21 I'm part of the Senior Executive Committee as
22 well.

23 I'm here today to tell you that the
24 Obama administration has taken a keen interest in

1 Asian carp. We are taking an aggressive,
2 proactive, and unprecedented approach to keep
3 this invasive species out of the Great Lakes.

4 Many of you might have heard the
5 Asian carp began their migration south of here in
6 the 1980s, imported to control plankton and
7 algae, primarily in sewage treatment ponds and/or
8 fish farms. They were able to escape. They
9 moved their way up the Mississippi River, moving
10 up into the Illinois River. Much of your
11 Mississippi River -- as I understand from fish
12 biologists, 90 percent of the biomass in the
13 Mississippi River is Asian carp.

14 What we are concerned with now is the
15 possibility that Asian carp could get into the
16 Great Lakes to affect the multi-billion dollar
17 sport fish industry.

18 How can that happen? It's pretty
19 basic. The Chicago Sanitary Ship Canal now
20 provides a connection between the Great Lakes
21 Basin and the Mississippi River Basin.

22 The administration, though, and the
23 Army Corps of Engineers is concerned not just
24 about Asian carp. We have many invasive species

1 that we are trying to battle right now. And one
2 of the things you are going to hear a lot more
3 about this afternoon is the great work that the
4 Army Corps is doing under the GLMRIS study. So
5 the GLMRIS study is not only looking at just
6 Asian carp, it's looking at all invasive species
7 and how to prevent the passage of invasive
8 species from the Mississippi River Basin up into
9 the Great Lakes and vice versa.

10 I want to assure you all we are
11 committed -- we, the federal and state agencies,
12 are committed to battle this problem. We are
13 putting all available resources toward it. And
14 to date I would like to say that we are effective
15 so far in this battle.

16 Now, I got out in the public quite a
17 bit. I'm not a fish biologist, I'm a geologist,
18 by the way, but my background is in emergency
19 response so I do know how to collaborate and
20 cooperate.

21 What I found interesting about Asian
22 carp is -- and, again, when I go to the public,
23 they say, "Do they eat the other fish?" No, they
24 don't eat the other fish. They outcompete the

1 other fish. They procreate more rapidly than
2 native species. They eat plankton and algae more
3 rapidly than native species. So they basically
4 starve the native species.

5 One of the interesting things that I
6 have learned about Asian carp recently: They may
7 be able to survive on leaf litter, detritus,
8 until they get to the next plankton or algae
9 source.

10 The Asian Carp Framework. In
11 February of 2010, the Obama administration
12 released the first Asian Carp Framework. It's a
13 collection of short- and long-term actions that
14 the federal government and the State of Illinois
15 committed to, and it also established the Asian
16 Carp Regional Coordinating Committee, which I
17 will talk about in just a minute.

18 The primary agencies you see on that
19 cover that were responsible for putting this
20 together, these agencies have the jurisdictional
21 authorities or the financial wherewithal to do
22 most of the actions that we have implemented so
23 far. You see USEPA up there, Army Corps of
24 Engineers, Fish and Wildlife Service, the Coast

1 Guard, and that's -- I can't see the other one
2 over there -- Illinois DNR.

3 In September of 2010, the Obama
4 administration announced that they have selected
5 a Asian carp director. That individual is
6 Mr. John Goss, who extends his regrets for not
7 being here today, that's why I'm here today, but
8 he has attended most of these GLMRIS meetings.

9 This is how we are structured: At
10 the top we have a federal executive committee
11 that's cochaired by Director John Goss;
12 Mr. Cameron Davis of USEPA, who is Lisa Jackson's
13 senior advisor. He's also in my Chicago office.

14 Underneath that you will see my name
15 to the left; Admiral Michael Parks of the Coast
16 Guard; Mr. Charles Wooley, senior executive for
17 the Fish and Wildlife Service.

18 The other side of the column, Major
19 General John Peabody of the Army Corps out of the
20 Cincinnati office; Colonel Vincent Quarles of the
21 Chicago District; Senior Executive Leon Carl of
22 the Geological Survey; and Deputy Director Jim
23 Bredin, recently from the state of Michigan but
24 now working also for the Council on Environment

1 Quality along with Mr. John Goss.

2 Underneath that, the most important
3 part of this whole structure, this whole diagram,
4 is the Regional Coordinating Committee. What I
5 want to point out there is you see not only
6 federal representation but you see state
7 representation and, most importantly, state
8 representation from every one of the Great Lakes
9 states that surround the basin. We are also
10 lucky to have the City of Chicago as part of that
11 organizing group and the Metropolitan Water
12 Reclamation District.

13 I'm going to briefly touch on the
14 bubble off to the left. I think Mike Saffran is
15 going to talk more about that, the
16 interconnecting waterways work that Mike has been
17 leading on. We also, because of the robust
18 nature and interest in Asian carp, we have
19 established a communications and outreach work
20 group.

21 We also have a stand-alone entity.
22 Many of our industry partners, our researchers,
23 our residents -- for example, the American
24 Waterways Operators, they wanted an opportunity

1 to be involved in the process, so we have created
2 this nonfederal technical and policy work group,
3 it's chaired by a Sea Grant person named Phil Moy
4 -- we are trying to get a cochair right now --
5 but this is a chance for those of you not part of
6 the federal executive team or a state agency or
7 regulatory agency to get involved in this effort,
8 even beyond what you can do today with our Army
9 Corps representatives here.

10 Pretty simple to understand what
11 happened and why things have changed so
12 dramatically. Years ago, we used to take our
13 sewage and dump it into Lake Michigan. I'm sure
14 you are all aware of the health concerns and
15 health issues that created. So back in the early
16 1900s, I want to say 1902, '05, something along
17 those lines, there was a artificial waterway that
18 was connected called the Chicago Sanitary Ship
19 Canal. The Chicago River, the flow was reversed.
20 Our sewage was then taken, put into the
21 waterways, including the Cal Sag Channel down
22 there to the south, the main channel of the
23 Chicago River and the Des Plaines River, all that
24 wastewater from the Metropolitan Water

1 Reclamation District is now funneled down into
2 the Illinois River and into the Mississippi
3 River. That created the passageway by which
4 Asian carp could migrate from the Mississippi
5 River Basin up into Lake Michigan.

6 The most important defense we have
7 right now is the Chicago Army Corps of Engineer's
8 electric barriers. They currently have three
9 barriers.

10 But I want to make this point to you
11 today: You cannot fight biology with a single
12 engineering solution. That's what the Framework
13 really does. It takes this and brings in many
14 other technologies and resources to keep the
15 battle going and keep the carp out.

16 We did some very significant things
17 this past year thanks to the Great Lakes
18 Restoration Initiative monies. One of the very
19 significant things that we did, beyond those
20 electric barriers, there's a possibility that
21 flooding from the Des Plaines River above these
22 electric barriers -- flooding, again, from the
23 Des Plaines -- could overflow into the Chicago
24 Sanitary Ship Canal and could bring Asian carp

1 roe, fish, eggs -- primarily adults is what we
2 are concerned about -- into the CSSC above the
3 electric barriers.

4 Army Corps did an exemplary job of
5 building about 13 miles of barriers between the
6 Des Plaines River and the CSSC. There's also
7 some connections -- you can't see it on the map
8 right now -- but the Illinois and Michigan Canal
9 had some connecting passageways. Army Corps got
10 it all done in one -- less than 1 year, about
11 1 year, they brought it in under budget, and they
12 returned a lot of those monies back to the Asian
13 Carp Regional Coordinating Committee to do
14 further work, so we are very, very appreciative
15 -- the administration is very appreciative of
16 that.

17 Mike is going to -- I think -- you
18 want to talk about this briefly, Mike, about the
19 Wabash-Maumee or should I delay this for some
20 later period of time?

21 MR. SAFFRAN: We will go into it in
22 more detail later.

23 MR. BOLEN: I will just make this
24 point that the money that the Chicago District

1 saved putting those barriers up enabled you to
2 cut off this other temporary pathway between the
3 state of Indiana and Ohio.

4 Mike is going to be talking more --
5 want me to delay this too, Mike? Want me to skip
6 past this, the interconnecting waterways? You
7 might as well take the mic if you want.

8 MR. SAFFRAN: I will just -- we will
9 do it the way we have done all the other ones.
10 Just hit the highlights if you want.

11 MR. BOLEN: I will hit the
12 highlights.

13 One of the things that we are
14 concerned about is even beyond the -- I
15 apologize, this is my first GLMRIS meeting, so
16 I'm learning this as I'm going.

17 One of the things we learned though,
18 we don't need to be concerned about the CSSC and
19 that connecting pathway. There's many
20 interacting pathways that may pose a potential
21 risk in Great Lakes Basin. So the Army Corps --
22 primarily Mike and his state DNR counterparts --
23 went out, surveyed the entire basin, located
24 these other potential pathways of concern. The

1 highest risk one I just mentioned was the
2 Wabash-Maumee connection between Indiana and
3 Ohio. That connection, if Asian carp got past
4 that point, would have a free swim up into Lake
5 Erie. The fish biologists tell me that the Lake
6 Erie regime, by the way, is probably the best
7 lake for Asian carp to survive and propagate in.
8 It's got the most plankton and algae of all the
9 Great Lakes.

10 We have spent more time on the
11 waterway making sure that the Asian carp are not
12 getting above the barriers. Fish and Wildlife,
13 State of Illinois, spent \$3,200 in the past year
14 in electrofishing, seining, and netting to make
15 sure that we did not have carp above the electric
16 barriers. We found one, by the way, one in Lake
17 Calumet, and we don't know if that was an
18 introduced species or if it got beyond the
19 electric barriers.

20 Again, the Framework, this is the
21 document that drives the whole thing. It's the
22 way that we collaborate and cooperate. It's a
23 very interactive process. I mentioned the 2010
24 Framework we came out with. This is the

1 brand-new 2011 Framework that was announced by
2 the administration in December. It's an
3 interactive process. We're coming out. We're
4 listening to you, the public, the industry. We
5 are incorporating your ideas into what will make
6 this a better document.

7 Currently there's 42 short- -- and I
8 shouldn't say short- and long-term -- there's 42
9 action items now in the Framework. I'm going to
10 briefly cover a few of the most exciting ones,
11 and I'm looking forward to, in the coming year,
12 to hopefully be further developed.

13 One of things we are going primarily
14 through the Army Corps of Engineers, we are using
15 environmental DNA as an indicator of where Asian
16 carp might be. Now, the tool isn't refined yet.
17 When we find Asian carp DNA in the water, we
18 don't know if that means that's a live fish, a
19 dead fish, if it's something from a sewage
20 outfall. We are going to recalibrate that tool
21 in 2011. But that's a really good tool that
22 we're using to try to track the leading edge of
23 Asian carp.

24 We are also looking at innovative

1 commercial fishing and netting. We believe that
2 our existing electrofishing, netting, and seining
3 are effective, but maybe there's some more
4 innovative ways that we can come up with to not
5 only control Asian carp below the barrier but
6 above the barrier as well.

7 There's, again, many ongoing things
8 that we're looking at. We need to determine risk
9 assessment: How at-risk is the basin and the
10 Great Lakes from having Asian carp get
11 established? We are trying to collaborate even
12 more. We are trying to bring in not only -- we
13 brought in our federal and state and regional
14 partners. We are getting Native American tribes
15 involved. We are getting NGOs, both
16 environmental and industry involved. So we are
17 really trying to push forward on everything that
18 we can possibly do to keep Asian carp out.

19 One of the really exciting things I
20 think that the State of Illinois is doing, along
21 with commercial fishermen, you can imagine Asian
22 carp being a bug infestation. The more there
23 are, the more they proliferate, the more pressure
24 it puts on electric barriers. The State of

1 Illinois through the Great Lakes Restoration
2 Initiative funding is getting into commercial
3 harvesting of Asian carp below the electric
4 barriers. In essence, removing the population,
5 taking them away from the electric barriers.
6 That Lockport Lock and Dam and it's progressing
7 to the lower pools. They are overfishing those
8 pools. They are taking the Asian carp out.

9 The State of Illinois, Governor
10 Patrick Quinn, signed an agreement last year with
11 a Chinese entity. They are beginning to start
12 the process of importing up to 50 million pounds
13 of filets per year of Asian carp into China.
14 It's considered a delicacy there. The Chinese
15 waters are more polluted than ours. They are
16 willing to pay a premium for Asian carp.

17 Again, we have the ongoing work of
18 the Coast Guard. We are very fortunate that the
19 Coast Guard is our partner. Every time that we
20 have to shut down the Chicago lock and dam system
21 for one of our rogue known actions, for electric
22 fishing, seining, netting, health and safety is
23 the first concern, so the Coast Guard is our
24 constant partner. They do secure the waterways

1 for us and make sure we have, if possible, safe
2 passage of traffic through the waterways.

3 I talked a little bit about the eDNA
4 surveillance. What this picture shows you is all
5 the different stretches of where we are
6 conducting eDNA surveillance now, again, above
7 the electric barriers. We want to know every
8 potential location where Asian carp might be, and
9 if we are getting that eDNA evidence there, we
10 are getting out with more intensive
11 electrofishing, seining, and netting using our
12 normal techniques to try to find Asian carp.

13 I would like to close with this: I
14 appreciate your time in listening to me today. I
15 encourage you to go to asiancarp.org, that's the
16 website where we put all of our information up.
17 I appreciate your attendance today. And with
18 that, I'm going turn it back to Kevin I think.

19 MR. BLUHM: I'm going to turn -- at
20 this point here I'm going to see if the --
21 Colonel, you want to use the microphone or are
22 you going to try to go without it?

23 LT. COLONEL BERCEK: I will try it.

24 Good afternoon, everyone. Welcome

1 and thank you for your attendance here today.

2 Just heard quite a bit about the Asian carp, so

3 makes you think a little bit, well, this Great

4 Lakes and Mississippi River Interbasin Study,

5 what is it? Is this another study about Asian

6 carp? No, this is not. This is Asian carp and

7 beyond. This is --

8 One of the things too that I think

9 comes out of studies like this and meetings such

10 as being held today is the opportunity to have

11 discussion and have dialogue, both of which will

12 serve to inform and educate. And know that every

13 time we come away from this with the questions

14 and the comments made, I learn a lot and I go out

15 and read some more. So I just wanted to share

16 with you a little bit, as an introduction, some

17 of the things here that I have been reading and

18 why this study is significant.

19 I read a 2004 publication entitled

20 "100 of the World's Worst Invasive Alien

21 Species," and in that it talks about -- it poses

22 the question, "What happens when a species is

23 introduced into an ecosystem where it doesn't

24 occur naturally?" And it further says, "History

1 is rich with tales of the disastrous outcomes of
2 some intentional introductions, such as that of
3 the Nile perch, which resulted in the extension
4 of more than 200 other fish species."

5 And I read also from the National
6 Invasive Species Council here, the National
7 Invasive Species Management Plan dated 2008 to
8 2011, and the opening statement in both their
9 executive summary and the main body of the text
10 says this: "Invasive species inhabit all regions
11 of the United States and every nation. The
12 problem is complex and accelerating. The species
13 of benefit in one area or application may not be
14 an invasive in another. Only a small percentage
15 may become invasive, but even a single invasive
16 species can cause great harm."

17 Knowing that and coming into looking
18 at efforts that have been done in the past and
19 looking at other areas and things such as the
20 fight, depending on where you are in the United
21 States or the world, with these types of species,
22 I think Congress saw that we needed to have a
23 more comprehensive look at this. You look up
24 here with the study language and the

1 authorization in the Water Resources and
2 Development Act of 2007 where the Corps was
3 directed to conduct a feasibility study to look
4 at -- and you can see the words highlighted in
5 blue there -- "looking at options and
6 technologies to prevent the spread of aquatic
7 nuisance species between the Great Lakes and the
8 Mississippi River Basins." Says specifically
9 there as well "through the Chicago Sanitary and
10 Ship Canal and other aquatic pathways."

11 I point that out to you because we
12 will see a little bit, when we started looking at
13 this and trying to understand how to go ahead and
14 execute this study, how we went in and organized
15 to go ahead and build the teams and organize for
16 success.

17 Kevin mentioned at the start that I'm
18 here from the Chicago District, which falls under
19 one of our divisions, the Great Lakes and Ohio
20 River Division, and we are here in St. Louis,
21 which falls under the Mississippi Valley
22 Division, that is one of the first areas of
23 complexity. The Corps of Engineers sets up its
24 divisions under major watershed areas and now we

1 have a study that one district is trying to do
2 that spans two of them, two very large studies,
3 and I will show you that on this next map.

4 And it's not one species. We are to
5 look at aquatic nuisance species. So if there's
6 something that is a nuisance or invasive species
7 in the Great Lakes, we are tasked to study how to
8 keep it there. If there's something as well, in
9 this case here looking at the Asian carp that's
10 moved up the Mississippi River into the Illinois
11 and portions of the Ohio Rivers, that -- looking
12 at ways to keep that here.

13 The study is 100 percent federally
14 funded, and it is -- as well it's a feasibility
15 study. So these of you that are familiar with
16 how the Corps of Engineers does studies, that's
17 not the first step. We are down at Step 2.

18 The 100 percent federal funding is
19 another significant piece written into the way
20 the legislation was written, the way Congress
21 wanted us to act. A lot of times in a
22 feasibility study, which this is, we will look
23 for a feasibility cost-sharing partner and look
24 for a local sponsor to help share cost. In this

1 case here, the study is fully federally funded.

2 I mention that because when we talk
3 to the timeline in a little bit, you are going to
4 see that this is a lengthy process. There are
5 steps already at the outset of this process that
6 have been taken to try to accelerate and move it
7 along a little bit further.

8 The GLMRIS study area -- take a look
9 here and highlight -- primarily when we start
10 looking at these states here, the areas of the
11 detailed study area, the brown, the Great Lakes
12 states, and then the darker green upper
13 Mississippi River. When you look at the rest of
14 the region too, the other tributaries that feed
15 with the Missouri and the Arkansas River, there
16 are roughly 33 states that somehow feed and
17 contribute to these watersheds, so that's a
18 massive effort.

19 And there's a dash line that runs
20 across the top where we start talking a little
21 bit and you see a little bit more when we talk
22 about the detailed study areas. This is the kind
23 of the watershed divide that exists between --
24 water that lands north of that will flow into the

1 Great Lakes Basin, water to the south of that
2 feeds the Mississippi River. That portion there,
3 when we start talking about these alternate
4 pathways, remember back to the study language
5 talking about through the Chicago Sanitary Ship
6 Canal and other pathways, that's 1,500 miles of
7 other pathways to be considered and investigated.

8 What does the study include? We are
9 looking at aquatic connections, looking at -- you
10 see there on the -- including swimmers, floaters,
11 hitchhikers. I have a picture later that shows
12 some pictures, I like to say from fish to fleas.
13 So we are looking at -- that does not include
14 looking at terrestrial or airborne pathways or
15 transfer, does not look at human release.

16 One of the things where Bill
17 mentioned earlier about the Asian Carp Regional
18 Coordinating Committee, one of the great things
19 about that type of the collaboration and that
20 effort is there are other agencies and other
21 folks involved with that that are looking at
22 those things. They are looking at bait bucket,
23 looking at transfer on boats and trailers and
24 things like that, and those areas as well,

1 looking at biological controls.

2 Talking again to the left side of the
3 slide in the green, you can see the locations
4 there I highlighted on the map. This says
5 portions of 31 states. Maybe I was a little lax
6 maybe in counting. I counted one time sitting in
7 one of these meetings that there were 17 states
8 that did not have some color on them, so I just
9 subtracted 17 and came up with 33, but there may
10 actually be 31 states that are really involved.

11 What are we looking at? Looking at
12 options and technologies to prevent the
13 interbasin transfer of aquatic nuisance. Part of
14 that you will see a little bit later when we talk
15 about what's been done so far is cataloging and
16 identifying those aquatic nuisance species. If
17 you were to look at the National Oceanographic
18 and Atmospheric Association, NOAA, their database
19 for the Great Lakes, you will see over 180
20 species that are categorized as nonnative or
21 nuisance in the Great Lakes alone.

22 So which of these are we looking at,
23 which of those have the potential to transfer
24 from one to the other, and how do we control that

1 passage? Looking to some of the elements as
2 well. Hydrologic separation is something that
3 would be considered as well. This is a
4 feasibility study. It will result in not only a
5 feasibility report with some recommendations that
6 will then go to Congress for legislation to
7 implement, but it also will result in issuing an
8 environmental impact statement.

9 On the right side there, does not
10 include, you can see some of the areas there
11 compared with the elements. The one thing I do
12 want to point out is the Atlantic Slope and the
13 St. Lawrence Seaway are not part of the
14 consideration of this study, nor looking into
15 pathways through Canada.

16 The Great Lakes Commission has a
17 study with some other Canadian agencies that are
18 looking at some of these components, and Canada
19 is very much involved through the IJC,
20 International Joint Commission, looking at
21 Canadian pathways and things like that. So that
22 is under consideration, but that's not
23 necessarily part of the scope of our study.

24 Branching off, looking at the efforts

1 and how it would make sense to proceed, again,
2 drawing from the authorization, it made kind of
3 an easy break. Through the Chicago Sanitary and
4 Ship Canal, which you see somewhat identified
5 here under that CAWS, C-A-W-S, Chicago Area
6 Waterways, being a primary effort, then the other
7 pathways and those are the other areas and I will
8 have the project managers that are here talk
9 about each of those to help explain what it is
10 they are looking at.

11 Why is that the primary effort
12 through Chicago? Bill mentioned and you heard it
13 talked about, the artificial connection, the
14 man-made connection of the Chicago Sanitary and
15 Ship Canal, it's the only pathway identified to
16 date that is constantly open and is constantly a
17 pathway, a waterborne pathway.

18 We mentioned about organizing for
19 success that was part of the strategy, we had to
20 figure out how to do this, how to bring in the
21 right talent, how to set up the leadership and
22 keep everyone involved and gather in those areas
23 of expertise.

24 And you can just see there a little

1 bit, the Corps of Engineers, the Executive
2 Steering Committee, a number of those federal
3 agencies, nonfederal agencies, senior leadership
4 as well to make sure we continue talking and
5 understanding what each other is doing and some
6 of the efforts that are coming out of that.

7 And also then talking to
8 stakeholders. Here it mentions groups and other
9 things, but also the public. We are all
10 stakeholders in this. We all have a stake as to
11 what the outcome of this study provides.

12 It is a lengthy study, so some of the
13 things that are here, we talk about our strategy
14 to cycle out these interim progress reports. As
15 information becomes available -- there's a lot of
16 data that's out there. There's a lot of
17 information that, as the summaries mature and the
18 analysis matures, would be suitable for release
19 to the public so that we can keep people informed
20 of what the study is revealing and where we are.

21 There's a lot going on. Bill
22 mentioned with the Asian carp Regional
23 Coordinating Committee and the latest Framework
24 that was issued December that highlights -- I

1 think's 45 or 46 actions that are funded for
2 effort in this year coming up. So that's a lot
3 of effort going on out there, a lot of other
4 agencies, a lot of focus in talking to invasive
5 species. So we want to make sure that we're
6 adaptable and be open to anything that spins out
7 of those studies, incorporate those into either a
8 control or a new piece of information or an
9 impact or an influence of the study.

10 And, of course, as all things that we
11 do, we will abide by all legal regulatory
12 guidance in the course of the study.

13 Again, here is just the study
14 purpose -- again, kind of a repeat a little bit
15 of what we had said up front talking to the
16 authorization -- we are going to look at the
17 aquatic pathways, Chicago Area Waterways is the
18 focus area and then the other pathways is another
19 focus areas.

20 Here are the pictures a little bit to
21 give you an indication of, like I was talking
22 about, it's everything from fish to fleas and
23 things in between, plants and such.

24 And what are we going to do? Again,

1 it talks there analyzing possible aquatic
2 nuisance species control available to prevent
3 that transfer. And to drive home the point, we
4 are including a look at hydrologic separation of
5 the basin.

6 This slide has a little bit -- it
7 shows the map of when we talk about Focus Area I,
8 Chicago Area Waterway System. I'm going to let
9 Dave Wethington, the project manager, talk to you
10 a little bit and explain this map and I will
11 point some things out as he's talking to them.

12 MR. WETHINGTON: Thank you, sir.
13 Good afternoon, everyone. Again, my name is Dave
14 Wethington. I'm the project manager for what we
15 call Focus Area I or as you can see above me, the
16 Chicago Area Waterway System.

17 As Colonel Berczek pointed out
18 earlier, the reason why we are focusing on this
19 area -- and Mr. Saffran will talk a little more
20 about the other pathways -- is because the
21 Chicago Area Waterway System is the only open
22 continuous and therefore the highest risk
23 potential pathway for aquatic nuisance species
24 transferring between the Great Lakes to the

1 Mississippi River Basin or vice versa, from the
2 Mississippi River Basin to the Great Lakes Basin.

3 I want to spend just a couple minutes
4 kind of outlining some of the issues and concerns
5 and problems that we have with the Chicago Area
6 Waterway System. The map above me, you can see
7 -- along the shore of Lake Michigan, you can see
8 the Numbers 1 through 5. And those points, 1, 2,
9 3, 4, and 5, are the points at which the Great
10 Lakes Basin and Mississippi River Basin have the
11 opportunity to mix, to interact.

12 What's unique about this system is
13 that, like the prongs of a forks where there are
14 five prongs representing each one of those five
15 locations, they all flow down into a single
16 waterway system, which is the Chicago Ship and
17 Sanitary Canal, that is the handle of the fork.
18 You can see on the map above me, Number 7 is
19 where we located the electric barrier disbursal
20 systems.

21 So that's why we have chosen -- the
22 Corps of Engineers has chosen that place to
23 locate current aquatic nuisance species controls
24 for the Asian carp specifically is because we can

1 control all five points at that single point
2 downstream.

3 Another thing I like to point out
4 about the Chicago Area Waterway System is a lot
5 of times we hear advice from stakeholders that we
6 need to immediately close the locks and that
7 would basically stop the Asian carp problem. I
8 just want to point out that Numbers 1, 2, and 3
9 above -- I'm sorry -- 1, 2, and 3 are locations
10 that are basically structural controls that are
11 in the waterways. Number 1 is the Wilmette
12 pumping station, Number 2 is the Chicago Lock,
13 and Number 3 is actually controlled by that red
14 dot, Number 6, which is the TJ O'Brien Lock and
15 Dam, so those are three controlled waterways.
16 Now, remember they all flow into the same handle.
17 There's two located within the State of Indiana,
18 the Little Cal and Grand Cal, which have no type
19 of structural controls on these waterways so they
20 remain open under all conditions, all scenarios.

21 On the left-hand side, is basically
22 an outline of the Corps of Engineers planning
23 process. And we're basically looking at Steps
24 Number 1 and 2 right now, specifying pumps,

1 opportunities. We put together a team of
2 experts, not just from the Corps of Engineers,
3 but from other federal agencies, state agencies,
4 nongovernmental organizations, to help us
5 identify what are the problems here. And part of
6 the reason why we are here today speaking with
7 you and, more importantly, listening to what you
8 have to say to us is that your thoughts, your
9 ideas, your concerns are important to how we
10 scope and how we shape the path forward for this
11 study.

12 We will also be collecting a large
13 amount of data over the next about 12 to
14 18 months, and the purpose of that is to identify
15 what are the waterway uses in the Chicagoland
16 area or throughout the entire Great Lakes and
17 Mississippi River Basin. And something you might
18 have heard a lot about is commercial navigation,
19 I'm sure there's commercial navigation, but the
20 Chicago Area Waterway System specifically has a
21 number of other uses, they include, but aren't
22 limited to, recreation, industrial water supply,
23 water discharge -- about 70 to 80 percent of the
24 total volumetric flow of the Chicago River is

1 made up of the municipal discharge, the
2 wastewater discharge, from the Chicagoland area.

3 The Chicago River and Chicago
4 Sanitary and Ship Canal also play a significant
5 flood risk management role for the City of
6 Chicago and surrounding suburbs. The Chicago
7 Ship and Sanitary Canal acts as a passageway for
8 storm waters. And when we have significant
9 rainfall -- it doesn't happen very often, maybe
10 every 2 to 5 years, there's a storm of
11 significant magnitude that we must open that lock
12 at Number 2 on the map above to you allow water
13 to backflow back into Lake Michigan to alleviate
14 the potential flood risk, both overbase flood
15 risk in downtown Chicago, as well as sewer backup
16 throughout the entire Chicagoland area which
17 could have the potential to affect millions of
18 residents and businesses and industries
19 throughout Chicagoland area.

20 So what we are going to do is we are
21 going to identify what all those waterway uses
22 are and look at, when we implement aquatic
23 nuisance species controls, such as the barrier
24 system, such as looking at the potential for

1 hydrologic or physical separation, what kind of
2 impacts will there be to the existing waterway
3 uses. Part of our direction within our
4 Congressional authorization and our guidance from
5 our headquarters is to look at mitigation. So if
6 we have adverse impact to those waterway uses,
7 like flood risk management, what can we do to
8 mitigate those adverse impacts.

9 As was mentioned before, we are
10 working in full collaboration with all other
11 federal agencies, including US Fish and Wildlife
12 Service, USEPA, NOAA, I could go on, other Native
13 American tribes, and other nongovernmental-type
14 organizations.

15 With that, I will turn it over to
16 Mr. Saffran is going to tell you a little bit
17 more about our Focus Area II. Thank you for your
18 time and attention.

19 MR. SAFFRAN: Thank you, Dave.

20 When we went into the GLMRIS, there
21 was a lot known about the Chicago Sanitary Ship
22 Canal. The first fish barrier was built in 2002.
23 The second barrier had been authorized and was in
24 construction. There has been significant

1 investments in preventing aquatic nuisance
2 species transfer through that location. There
3 was a lot known about that.

4 But the other three words in that
5 authorization, "other aquatic pathways," there
6 was very little known about it. And last year in
7 the beginning of the summertime, General Peabody,
8 who is the commander of the Great Lakes and Ohio
9 River Division challenged the division team to,
10 in a period of about 60 days, do a preliminary
11 study that would identify all of the other
12 potential aquatic pathways that either exist or
13 may form across the basin divide between the
14 Great Lakes and Mississippi River Basins.

15 As Colonel Berczek has already said,
16 that's about a 1,500-mile-long divide, and
17 anybody that's familiar along with that divide
18 is, it's very, very flat topography. There's --
19 it's not a very distinct divide. It's not like
20 the normal continental divide that you would
21 normally see through a mountain range. Anyway,
22 that was a very tall order.

23 The first thing we did was we went to
24 the Asian Carp Regional Coordinating Committee

1 and folks like the USGS and Fish and Wildlife
2 Service stepped up and identified key biologists
3 that could help us right away to get started on
4 what is the universe of species that we had to
5 consider. They helped put us in contact with
6 their state water science centers with the USGS
7 and all the state DNRs where we also got their
8 very best water science folks who really knew the
9 conditions in the local area.

10 Long story short, we reached out to
11 the best experts that we could find within the
12 federal community as well as within the state
13 government agency and then also down to the local
14 agencies where we had time to do that. And by
15 doing that we were able to form a team that could
16 quickly assess and identify locations. We
17 identified a total of 36 locations for this study
18 where it appeared there was a reasonable
19 probability that the pathway either exists or
20 could form from a significant storm event.

21 When we went through the risk
22 characterization process to determine if there
23 were any other locations out there that pose a
24 significant risk for transfer of aquatic nuisance

1 species, and specifically focusing on Asian carp
2 because, again, General Peabody's primary concern
3 is we have got these huge investments in the
4 Chicago Sanitary and Ship Canal, what happens if
5 we are getting outflanked and the carp finds its
6 way into the lakes through another pathway.

7 So the big focus on the other
8 pathways was to identify and inventory the
9 location and to do a preliminary risk
10 characterization to determine if there was any
11 really significant risk.

12 Well, we found 18 locations where we
13 determined that there was a significant risk, but
14 one of those really jumped out, and it's already
15 been discussed just a little bit here today,
16 which is the Eagle Marsh, which is in Fort Wayne,
17 Indiana. That's fairly special condition that
18 occurs there. But you have two rivers, the
19 St. Mary's and the St. Joseph's, that come in
20 from the south and from the north into the town
21 of Fort Wayne and then they formed the Maumee
22 River, which flows to the northeast into Lake
23 Erie.

24 Well, when those two -- when you have

1 a significant rainfall event, anything bigger
2 than the normal event you would expect in any
3 given year, so at least once a year or about once
4 a year, you generally have flow where the waters
5 in the Maumee River Basin from the St. Joseph's
6 and St. Mary's get so high that they backflow
7 across into the Wabash River Basin and cause a
8 flow across the divide.

9 There was a 2009 flood insurance
10 study that we had available at that particular
11 location and it identified that the depth of the
12 water column across the divide from a 10-year
13 storm event, the largest storm you would expect
14 to occur in any given 10-year event, it was 4.5
15 feet deep of water. The USGS concluded -- well,
16 that circumstance, with the combination of
17 collections and observations of established
18 populations of Asian carp, silver and bighead, in
19 the Wabash River about 25 miles downstream, led
20 to a very quick meeting on-site where USEPA,
21 USGS, the Indiana DNR, National Resources
22 Conservation Service, a nongovernmental
23 organization called the Little River Wetlands
24 Project, local county surveyor, we had all the

1 right people in the right room who had the right
2 authorities and right knowledge and right
3 information and we basically discussed the issues
4 and what were our options, what could we do. And
5 everybody agreed that we needed a long-term
6 solution, a permanent solution, for this
7 location, but that it would take some time to
8 work that out.

9 We jumped to the type of barrier that
10 was used in the Chicago Area Waterways to
11 separate the Des Plaines River from the Chicago
12 Sanitary and Ship Canal, and said, yeah, that is
13 something -- the Indiana DNR stepped up and said
14 yeah, that's probably something we could build
15 and get in place very quickly.

16 Long story short, some federal money
17 became available. Less than 60 days from the
18 time we had that meeting there was a physical
19 barrier in place there, and it does show the kind
20 of speed and things that can happen, I think,
21 under the GLMRIS and under this collaboration
22 that we have among all the partner agencies in
23 here right now for the right agencies to step
24 forward and do the right thing at the right time.

1 And so we have a temporary fix at
2 Fort Wayne right now that's a chain link fence on
3 steroids that's protecting from adult Asian carp
4 being able to make the migration, that 25 miles,
5 and go across the basin divide the next time we
6 have a really significant storm event. We also
7 are in the process right now of preparing a draft
8 feasibility study for a permanent solution for
9 that location and that report is expected to be
10 done this year.

11 Last but not least on the other
12 pathways is that we are evaluating the other 17
13 locations right now. We have got a draft study
14 plan out that, within the federal and state
15 agencies that are contributing to the effort,
16 doing their review. We will start in earnest
17 later this spring in completing the risk
18 characterization at those other locations, and,
19 again, before the end of this year we anticipate
20 having a final report on that.

21 LT. COLONEL BERCZEK: Henry Ford said
22 "nothing is particularly difficult if you break
23 it down into small jobs." So you just heard Dave
24 and Mike both talk a little bit about their small

1 jobs.

2 So what's been done so far? You have
3 heard Bill talk a little bit about some of the
4 efforts with the Asian Carp Regional Coordinating
5 Committee and we have talked a little bit about
6 where we are with the study from the
7 authorization and this talks a little bit about
8 the timeline, receipt of funds going through till
9 we got to the point where we established the work
10 plan. Again, anything like this we got to
11 identify how we are going to do the work before
12 we can get out and start doing it. You can see
13 down on the left-hand side where the timeline has
14 been leading us to where we are here today.

15 What's been going on? You can see on
16 the right-hand side, the simultaneous execution.
17 We haven't just been sitting still waiting to
18 develop plans and get to this point. There's
19 been a lot of work being done to look at the data
20 out there, identifying the nuisance species. You
21 have heard Mike's story there with Eagle Marsh
22 and going ahead and adjusting and making sure
23 that we continue to move wherever we could and
24 implement whatever possible.

1 So what's next? This is the project
2 schedule. And if you see an asterisk up there,
3 that is the best-case scenario. Kind of look at
4 best-case scenario, making sure that the funding
5 is available as needed to go ahead and identify
6 the data that we get and if there are other
7 projects that we are looking at other agencies
8 and other folks to provide that they arrive in a
9 timely manner and that nothing really shows up to
10 go ahead and knock us off track.

11 That being said, you can kind of see
12 looking to where the big black star is there is a
13 recommended plan -- a draft recommended plan
14 sometime in the fall or winter of 2014.

15 You can see the other pathways focus,
16 the bar across the bottom. Mike just talked
17 about what his schedules are, and you can see the
18 block on the right-hand side when he's talking
19 about having his report out to start looking at
20 what could be done along those lines and get
21 something for implementation. But that's a long
22 time to wait.

23 So what's going on? How do we know
24 where we are going and what's happening since?

1 And you see we have those little arrows with
2 projects spinning out.

3 The other thing I want to mention
4 too, back to this Asian Carp Regional
5 Coordinating Committee and Strategic Framework.
6 We are not just waiting for the study to go ahead
7 and move on this. Bill mentioned about all the
8 other agencies and what's still going on. We are
9 still operating and maintaining the electric
10 barriers. We are still going ahead and looking
11 at other measures that could go ahead and enhance
12 the effectiveness of those barriers and we have
13 other agencies looking and other types of
14 controls. So we are not just sitting around
15 waiting for a bigger study to look at -- look
16 broader than that single issue. But all those
17 other things are going on. They are not waiting
18 for this study to inform those actions.

19 What are we talking about when we
20 talk about interim projects and updates? Dave
21 talked about identifying the waterway's usage.
22 Well, once we go ahead and identify that and the
23 value of some of those uses, either navigation,
24 commercial, or recreation, looking at emergency

1 response efforts, looking at the fisheries. As
2 those reports and that data is available and is
3 mature enough to go ahead and release for review,
4 we will do that. That's the kind of thing that
5 will keep people informed, identifying what we
6 have been looking at and what we have found out.

7 One of the keys, of course, as I
8 mentioned that at the very beginning about being
9 adaptive and flexible a little bit. We do need
10 to continue to get input. That's what we are
11 here today to hear.

12 I'm looking at my watch here. I
13 think I talked a little longer than I like
14 because this is really your time to tell us what
15 you think, help us to focus the study. But you
16 see here a little bit too we are relying on a lot
17 of other folks for these types of input, areas of
18 expertise, that don't necessarily fall in our
19 realm, and that's what's going to keep the study
20 moving along is those other organizations and
21 agencies that have focus areas or subject matter
22 experts feeding us that information so that we
23 can go ahead and process it through.

24 This here just shows the list, and

1 you have this information in some of the data
2 that we have provided. And you can see where we
3 are heading next, heading down river a little bit
4 more in the next few weeks, and then for some
5 reason we are turning back around to go north.
6 We had a big snowstorm last week that kind of
7 knocked out a good portion.

8 Moving to Chicago a year and a half
9 ago, I was told our snow plan for the Chicago
10 District what happens is people say if it snows,
11 you go to work. It snowed, we didn't go to work.
12 I think that's the first time the Chicago
13 District has not gone to work in a snowstorm. It
14 was a rather significant event. That being said,
15 we couldn't go anywhere either, so that was the
16 day we were supposed to go to Ann Arbor the day
17 after.

18 Plenty of efforts to go ahead and get
19 inputs and continue this dialogue and discussion.
20 Like I said, we have some of this information, so
21 I'm not going to belabor the point, but you will
22 see this, a little bit of brand recognition
23 almost, this GLMRIS thing, this business card,
24 this little button. If you go to the Chicago

1 District website, you go to those other websites
2 mentioned, you will see a button that looks like
3 this card. All you have to do is look at this
4 card and you will know how to do that and how to
5 get in touch with and keep up with what's going
6 on. If you are technically inclined or social
7 media inclined, you see a couple of other options
8 there to keep up to date with what's going on
9 through either Facebook or Twitter.

10 I thank you for your time and look
11 forward to your input and comments.

12 MR. BLUHM: Okay. Excellent. Thank
13 you, sir.

14 Well, for about an hour now you have
15 heard a little bit about what we are working on,
16 what we plan to be working on, and where we go
17 from here. At this point, though, I would like
18 to make sure we turn the meeting over to you, the
19 audience, and hear what you have to say for us
20 given what you have now heard and what you have
21 done for the study.

22 Before beginning, I want to make sure
23 that you understand our website is a very good
24 source of information for additional study and

1 the Corps will use the GLMRIS study e-mail list
2 to give you any project updates and any other
3 future information. So if you would like, you
4 can go into the website and sign up to be part of
5 that electronic distribution in the future. Any
6 additional documents that we have will be added,
7 such as any other additional public involvement
8 opportunities and any other important news or
9 events for GLMRIS. The website itself can be
10 found on any of the -- or several of the handouts
11 that you received as well as the little card that
12 the Colonel was just mentioning. And then again,
13 the social media aspect is definitely another way
14 to stay informed.

15 Now, moving into the oral comment
16 period for the meeting, for any individuals that
17 have indicated on their registration form that
18 they would like to make a brief formal statement
19 will have the opportunity to do so. If you are
20 going to ask a question in addition to making a
21 comment, we would ask that you manage your time
22 so that the comment, question, and response can
23 be allowed in that time frame. And the Corps
24 staff here will answer any questions that are

1 answerable.

2 Typically at this point if we had a
3 larger crowd and more people signed up, I would
4 go through a series of ways that we can manage
5 our time and I have got some visual slides that
6 we can use, but looking at what I have got in my
7 hand here, I have got seven people that have
8 registered to speak.

9 And if at all possible, if it's
10 agreeable with the group, I would like to propose
11 a slight change to our agenda. Our agenda calls
12 for a strict three minutes per person and
13 following that, and as long as nobody has an
14 objection to it, I would like to run a little bit
15 looser and allow people a reasonable amount of
16 time to make your comment to us. If anybody has
17 a problem with that, though, because that is what
18 we have recommended and advertised, I would like
19 to see a hand if you object to that proposed
20 change. So if you object to that, if I could see
21 your hand now, we can definitely follow that, but
22 if not, I really think, in value of everybody's
23 time and knowing that we only have seven people
24 signed up, I would like to just be a little bit

1 more flexible and allow a reasonable amount of
2 time for that.

3 I didn't see any hands, so we will
4 give that a try, and I will let you know if it
5 seems like it's not working, but it has worked
6 for us in a lot of our other meetings that were a
7 similar attendance.

8 Also want to let you know that all
9 forms of comment received during the scoping
10 period will be given equal consideration, so you
11 do not have to get up in front of the crowd to
12 have your comments heard. Anything that's been
13 written down, e-mailed in to us or mailed in to
14 us, will be all considered equally.

15 Now, I would also like to mention
16 that we have a stenographer with us, she's
17 located on the other side here, and she will be
18 directly recording all comments that we have.
19 For that, we want to make sure that you all use a
20 microphone so that it can be easily heard for
21 herself as well as everybody here on the panel
22 and the audience. The second microphone is
23 located on that side, and what I would ask is
24 when I call your name, if you can go to that side

1 of the room, grab the microphone, and then help
2 us, make sure we understand -- if you can say
3 your name over again and if you can give us also
4 any organization or affiliation that you
5 represent and then for statistical purposes your
6 ZIP code, if you could give that to us, that
7 would be greatly appreciated. We would ask that
8 you speak into the microphone. I notice there's
9 not a stand over there either, so you will
10 probably have to do a little bit of an impromptu
11 hold, kind of like what we are doing here as
12 well.

13 Also just keep in mind you can talk
14 slowly, we don't have the timer going on you, and
15 speak slowly into the microphone so we can all
16 hear you. Okay?

17 I'm going to start with the list of
18 people that have a blue card that have
19 preregistered and asked to speak.

20 Our first person that checked in
21 today was -- and I do apologize if I mispronounce
22 her name, I'm very, very poor at this, but that's
23 part of the reason why we ask you to restate your
24 name. So the first person, number one, I have

1 got Glynnis Collins. Second up will be Christine
2 Favilla. So, Ms. Collins, if you want to go to
3 the microphone and start us.

4 GLYNNIS COLLINS: Glynnis Collins.
5 My ZIP code is 61820.

6 Good afternoon. My name is Glynnis
7 Collins, I'm executive director of Prairie Rivers
8 Network. We are Illinois only statewide river
9 conservation organization headquartered in
10 Champaign, Illinois.

11 Is the sound okay?

12 MR. BLUHM: It's pretty weak. I
13 think I'm going to give you my microphone, and I
14 will see if we can get somebody from the building
15 here to help us out.

16 GLYNNIS COLLINS: I'm glad we have
17 the lenient time policy so I can thank you all
18 for all your efforts to date that you've shared
19 with us today. We all really appreciate that.

20 And thank you very much for this
21 opportunity to provide input on the Great Lakes
22 and Mississippi River Interbasin Study or GLMRIS.
23 I appreciate the extensive public comment period
24 that you have elected to provide.

1 Much of the press conference on
2 GLMRIS -- press coverage on GLMRIS so far has
3 been on the Asian carp threat to the Great Lakes
4 and understandably so. The monstrous bighead
5 carp and the flying silver carp make great fare
6 for headline photos and YouTube video clips. But
7 at this meeting we are here in the Mississippi
8 River Basin, and it's important to look beyond
9 carp and I was delighted to hear you use that
10 phrase today.

11 As you know, implementing the end
12 result of GLMRIS isn't going to help the carp
13 problem here. Our basin is already infested with
14 Asian carp, and it has been for years. In
15 Illinois all of our rivers that can be infested
16 are, with the notable possible exception of the
17 upper reaches of the Illinois River and the
18 connected Chicago Area Waterways.

19 So here especially it is important to
20 highlight that successful completion of GLMRIS
21 isn't just about Asian carp. It's also about the
22 zebra mussel that has infested our basin after
23 migrating here from the Great Lakes via Chicago.
24 It's also about the quagga mussel, the zebra

1 mussel's more evil cousin that many scientists
2 believe is poised to follow the same path. It's
3 about many others. We need our great river to be
4 protected from an endless procession of aquatic
5 invaders that an ongoing connection with the
6 Great Lakes Basin means.

7 With that primary goal in mind, I
8 submit the following comments regarding the scope
9 and timing of the GLMRIS study:

10 Number 1, the study should focus
11 solely on options and technologies available to
12 prevent the spread of invasive species through
13 the waterways as mandated by Congress.

14 Number 2, physically separating the
15 basins, often referred to as hydroseparation, is
16 the only 100 percent effective way to achieve
17 this goal. Lesser measures, such as chemical or
18 acoustic barriers, will only delay the inevitable
19 and should not be considered in this study.

20 Number 3, the portion of the study
21 focused on Chicago should be on the fast track
22 aiming for completion within 18 months. Although
23 Asian carp are not the only concern, they are the
24 most immediate threat, and every month of delay

1 subjects the Great Lakes to the real possibility
2 that we will have acted too late.

3 Number 4, to speed up the Chicago
4 portion of the study, efforts should focus on
5 comparing costs for permanently separating the
6 basins at several well-chosen locations,
7 identifying the least costly option. A full
8 benefit/cost analysis is not required because the
9 benefit, preventing the spread of aquatic
10 invasives, is identical for every option.

11 Finally, we urge the Corps to engage
12 with the Great Lakes Commission Chicago Waterways
13 Study. With similar goals, the processes and
14 products of both efforts will only be improved
15 through open, constructive collaboration.

16 Thank you very much for your
17 consideration.

18 MR. BLUHM: Thank you, Ms. Collins.

19 Second up I have got Ms. Favilla, and
20 third will be Brad Walker.

21 CHRISTINE FAVILLA: Christine
22 Favilla. ZIP Code is 62002.

23 I want to thank all of you for the
24 opportunity to speak because we know that you

1 have taken on this incredible task and it's not
2 an easy one and we know you are taking our
3 comments to heart and we appreciate that.

4 Time is of the essence in the effort
5 to save our Great Lakes from the Asian carp. I
6 mostly going to be speaking about the Asian carp
7 in my comments.

8 We need a permanent solution that
9 ends the need for chemically killing fish in the
10 Chicago River system and protect our Great Lakes
11 forever, and we have months, not years, to plan
12 for that solution.

13 So while Congress directed the Army
14 Corps of Engineers to study ways to prevent
15 invasive species transfer, we were surprised in
16 one of the November Corps planning documents that
17 instead describes the study's objectives as the
18 prevention or reduction of the risk of invasive
19 species transfer. Particularly relating to
20 Pathway I, researching risk reductions we believe
21 will likely divert resources from quickly
22 determining how to achieve prevention. And so
23 physically separating the Great Lakes from the
24 Mississippi would achieve that, and there's very

1 likely no other alternative to achieve complete
2 prevention in Pathway I.

3 Severing the artificial Mississippi
4 River-Great Lakes connection would require
5 modifications to the series of canals and quite a
6 bit of modification for the canals, locks, and
7 the channels or the cause. The CAWS has allowed
8 for the movement of goods through the city and
9 the region, and we are aware of that. We are
10 also aware that it has diverted massive amounts
11 of water away from the Great Lakes, it's allowed
12 the city to postpone a sustainable solution to
13 deal with its sewage problems, in addition to
14 serving as a virtual expressway for invasive
15 species in both directions.

16 If done right, however, we believe
17 that building a physical barrier between the two
18 waters could involve investments in new
19 infrastructure in the Chicago are, not only
20 closing an invasive species pathway, but also
21 enhancing Chicago's transportation, sewage
22 treatment, and flood control, creating jobs and
23 improving water quality, tourism, and recreation,
24 which are other uses of the water system.

1 An Asian carp on Lake Michigan's
2 doorstep is not going to wait 5 years for this
3 study to be completed. The Chicago portion we
4 understand is not predicted to be completed until
5 mid-2015. That's nearly 5 years away. The Corps
6 must acknowledge the urgency of finding a
7 permanent solution, condensing the time frame,
8 and producing final results for the Chicago
9 portion of GLMRIS within 18 months rather than
10 mid-2015.

11 To reduce the time frame, we
12 appreciate that you have been doing a complete
13 literature review and we hope that you continue
14 on that path. We hope that you do not waste time
15 or money by repeating work that has already been
16 done or is currently in the process.

17 I wanted to highlight two studies
18 that are currently in process in hopes that you
19 will be able to look at them. The risk
20 assessment. At least two comprehensive reports
21 describing the likely impacts of Asian carp on
22 the Great Lakes have already been written. One
23 was from US Fish and Wildlife Service and one was
24 from Fisheries and Oceans Canada. And I have the

1 URLs for those as well, as I'm sure you probably
2 already do.

3 Another study that could hopefully
4 avoid some time delays is the wastewater and
5 transportation study that's being undertaken by
6 the Great Lakes Commission and the Great Lakes
7 St. Lawrence Cities Initiative. This study they
8 are conducting is on water management and
9 transportation alternatives available after a
10 physical separation of the Great Lakes and the
11 Mississippi River would occur.

12 We also believe that -- I say "we."
13 I don't think I said who I was with. I'm sorry.
14 I'm the Three Rivers Project Coordinator for the
15 Illinois chapter of the Sierra Club. We work in
16 Madison, Jersey, and Calhoun County, so I do
17 incorporate three of our greatest rivers in the
18 United States and definitely the confluence of
19 one that has a severe Asian carp interest.

20 So we really hope that you can create
21 opportunity for regular discussion forums during
22 which the public can interact with your technical
23 advisers and staff, beyond this NEPA process,
24 although we are very appreciative of the many

1 different meetings that you have already heard.

2 Thank you so much for your time.

3 MR. BLUHM: Great. Thank you.

4 Next Mr. Walker. Following

5 Mr. Walker will be Lorin Crandall.

6 BRAD WALKER: Name is Brad Walker.

7 I'm a staff member with Izaak Walton League. My
8 ZIP code is 52804.

9 The Izaak Walton League is a
10 nonprofit organization of hunters and fishermen
11 established in Chicago in 1922 with the mission
12 to protect the soil, water, woods, and wildlife
13 of North America.

14 At our 2010 convention that was held
15 this past summer, the members passed a formal
16 resolution in favor of the hydrological
17 separation of the Great Lakes from the
18 Mississippi River system, the object, of course,
19 being to close the primary avenue for migration
20 of Asian carp into the Great Lakes and also that
21 avenue for the transfer of other aquatic invasive
22 species between the two great water systems.

23 The clock is ticking, and we know
24 that time waits for no one, not the government,

1 not the Corps of Engineers. It is likely that
2 the problems will be resolved by the hydrological
3 separation of the Great Lakes from the
4 Mississippi River, therefore this separation must
5 be addressed quickly and efficiently.

6 We believe that enough studies and
7 data collection have occurred to understand the
8 problems associated with flooding concerns, barge
9 traffic concerns, and tourist boat excursion
10 business issues to proceed. We acknowledge that
11 there will be financial hardships, and these must
12 be correctly understood, with fair compensation
13 to those affected until the individual concerns
14 are resolved.

15 To summarize our concerns, the value
16 of the assets that are at risk are far greater
17 than the cost of physical separation, significant
18 as that may be, given the present and long-term
19 value of our Great Lakes. Any efforts to do
20 physical separation must include mitigation to
21 those with long- or short-term economic losses
22 that can be verified.

23 We believe that taking the position
24 that we cannot move to separate until Asian carp

1 in viable populations are verified is
2 unacceptable and by then it would be just simply
3 too late. We are where we are because of
4 three-plus decades of failed leadership.
5 Continuing as we have with legislative gridlock,
6 lawsuits, and debates is not acceptable. We do
7 need to urgently come together as a national and
8 regional community to move beyond conflict, move
9 beyond win-loss boxes based on political
10 connections and the influence of dollars and move
11 into the light of prevention that embraces the
12 reality of our opportunity and threats in a
13 comprehensive way.

14 I want to thank you for allowing me
15 to offer this perspective on behalf of the Izaak
16 Walton League and our Great Lakes community.
17 Thank you.

18 MR. BLUHM: Thank you.

19 Next, Mr. Crandall, and then
20 following will be Tim Robinson.

21 LORIN CRANDALL: I am Lorin Crandall.
22 ZIP Code 63130. I'm here on my own behalf and
23 also representing the Missouri Coalition for the
24 Environment.

1 This is a relatively new issue to me,
2 at least the GLMRIS report itself. Obviously I
3 have been aware of Asian carp for a little bit,
4 but I wasn't really informed on what this study
5 is all about.

6 And so I guess I could recite some
7 comments based on, you know, do we need to do all
8 these studies or, you know, isn't it pretty
9 obvious that separation would be the most
10 effective way to fix this problem, or, you know,
11 I could say something about living in St. Louis
12 and having an issue with Chicago dumping -- what
13 did you say, it was 70 percent of the flow in
14 that river is Chicago's -- that's combined
15 stormwater and sewage I assume. Do you know what
16 percentage sewage it is or what percentage
17 stormwater?

18 MR. WETHINGTON: I do not.

19 LORIN CRANDALL: Well, I have a
20 problem with that, so this might be a great
21 moment to not only fix this invasive issue but
22 also maybe fix the issue with dumping all that
23 raw sewage directly into the river, which seems
24 like it could be a clear-cut violation of the

1 Clean Water Act to me.

2 But I do have some questions, since
3 I'm not super-informed on this issue. And one of
4 my questions is: If breeding populations are
5 found in Lake Erie or Lake Michigan, will this
6 study continue? During the course of this study
7 being done will it continue if you fail because
8 of your not getting it done in time? Does anyone
9 have an answer on that one?

10 LT. COLONEL BERCZEK: Yes, the study
11 will continue. The study is -- we are charged to
12 look at all aquatic invasive species, not just
13 the Asian carp. We have already, through the
14 Asian Carp Regional Coordinating Committee,
15 responded to finding a carp or the environmental
16 DNA where the application of rotenone fish, it
17 inhibits their ability to process oxygen, so it's
18 nonselective, but it has -- in the area where we
19 had an indication that there might be Asian carp,
20 there has been a rapid response action undertaken
21 to go after that carp, that individual, or that
22 species, whatever might be there.

23 LORIN CRANDALL: Well, I mean, but I
24 -- obviously I'm referring to breeding

1 populations. I mean, when it's gotten to the
2 point where it is where it is in the Mississippi
3 right now, or in -- I guess Glynnis pretty much
4 said all the rivers in Illinois more or less. So
5 is that -- I mean, if it reaches that point, the
6 study still continues despite the fact that you
7 could reach a 50, 60, 70 percent bio mass carp
8 and you would basically be doing a pointless
9 study because it would already have failed but it
10 would still continue. I mean, it seems like
11 there's a real administrative gum-up right there
12 that's not responsive to what might really happen
13 on the ground.

14 MR. WETHINGTON: As Colonel Berczek
15 mentioned, the purpose of interbasin study is to
16 look at more than just Asian carp. There's
17 already a number of ongoing activities addressing
18 the control, the prevention, the spread of Asian
19 carp into the Great Lakes Basin. That's a
20 separate focus.

21 The focus of this study is to look at
22 all aquatic nuisance species. As other
23 commenters have mentioned, that includes quagga
24 mussel, zebra mussel, or looking, you know, 5,

1 10 years ahead of what is going to be the next
2 Asian carp or the next quagga mussel.

3 That's why, to answer your question,
4 no, we would not stop. Just because there was a
5 potential breach in the barrier, you know, we
6 would still be looking for other potential
7 aquatic nuisance species which we could prevent
8 the spread of between the two basins.

9 I just also want to make a clarifying
10 statement to what you mentioned earlier. The
11 City of Chicago -- I'm not a representative of
12 the City of Chicago, but the wastewater is
13 treated wastewater. It's not raw sewage.

14 LORIN CRANDALL: So it's not from a
15 CSO, a combined sewer overflow?

16 MR. WETHINGTON: Could be.

17 LORIN CRANDALL: So that would be raw
18 sewage during rain events. Because in St. Louis
19 we have CSOs, and we dump, like, 30 billion
20 gallons of combined sewage and stormwater into
21 the river, so that's essentially raw sewage
22 that's been treated.

23 MR. WETHINGTON: The number that I
24 stated, 70 to 80 percent of the total flow, is

1 treated wastewater.

2 MR. SAFFRAN: I would just like to
3 take one other part of it on.

4 The Asian carp Regional Coordinating
5 Committee has 42 ongoing actions right now that
6 are designed to prevent the Asian carp from
7 getting into the Great Lakes, so there's a very
8 significant effort that's going on in parallel
9 with the GLMRIS study that's focused specifically
10 on keeping the Asian carp out. And the
11 electrical barrier system is the big component of
12 that, as well as eDNA and other types of
13 monitoring techniques that are being used. But
14 it's not like --

15 LORIN CRANDALL: I'm sorry. I didn't
16 mean to cut you off there.

17 From my perspective, I see things
18 being over-engineered to the point where you are
19 engineering the next solution, which presents the
20 next problem, and you're engineering the solution
21 to that and that's the next problem, and then you
22 engineer the solution to that. And so I think a
23 lot of people who stand where I'm standing and
24 look the direction I'm looking say, you need to

1 unengineer that hydrologic connection. That is
2 the answer.

3 We could have these -- are they
4 electrical fences? I don't know if you had a
5 picture up of them or not. But that sounds like
6 something that's not really very sustainable. I
7 mean, how much power do those use? How does that
8 work? Is that something that will have to be
9 maintained forever? Will that just be one more
10 project that perpetually has to be maintained and
11 operated for as long as Asian carp are a problem?

12 MR. SAFFRAN: There are significant
13 operation and maintenance expense, and there's no
14 doubt about that. And it is more of an interim
15 solution than it is potentially a permanent
16 solution. But we have to finish the study. We
17 have to look at all the options and technologies
18 and do the economics.

19 LORIN CRANDALL: But we do know that
20 the -- disconnecting the hydrology will make it
21 impossible for the carp to migrate into Lake
22 Michigan.

23 MR. SAFFRAN: To swim on their own.
24 There are a lot of other vectors that could allow

1 them to bypass any type of hydrologic separation.
2 There's bait bucket transfers. There's lot of
3 other vectors for the spread of nuisance species
4 that are possible.

5 So the answer is, you know,
6 hydrologic separation should keep them from being
7 able to swim across the basin divide. But is
8 that the only way they can get across the basin
9 divide? The answer to that a clear no.

10 LORIN CRANDALL: But it's the most
11 likely.

12 MR. WETHINGTON: I don't know if I
13 could say that or not.

14 LORIN CRANDALL: Okay. All right.
15 And then do these electrical barriers -- again, I
16 didn't know if you guys put a picture of them up
17 or not. I don't know what they look like or how
18 they work. How do they work when we get record
19 floods?

20 LT. COLONEL BERCZEK: The electrical
21 barriers, there's a series of electrodes we take
22 and pulse DC current into the water. The
23 electrodes go along the length -- the width of
24 the canal, and they are spaced -- there are a

1 couple different arrays. One array has lower
2 voltage and then the next array upstream is a
3 higher voltage. And they are set right now --
4 it's a combination of voltage and frequency and
5 duration of the pulse. And they are set to go
6 ahead -- and the fish that come into the higher
7 voltage array will be stunned and they will float
8 back downstream. So it's a --

9 How do they work in floods? The same
10 as they work in normal. They provide 2 inches --
11 2 volts per inch at the top of the water column.
12 Further down will be a little bit stronger than
13 up at the surface to maintain that 2 volts per
14 inch at the higher level.

15 LORIN CRANDALL: What would be like
16 the yearly operational cost on this array setup,
17 including power conception and all that? I mean,
18 how long have you been doing it?

19 LT. COLONEL BERCZEK: We would have
20 to look at the records on that because I couldn't
21 go back and tell you right now. We have had --
22 we have been constantly managing and changing the
23 system a little bit and modifying and looking at
24 how to make improvements with it, so I don't know

1 that I have that. I could look through a certain
2 month or a certain time period and say, "Here's
3 an average," certainly we would have that
4 information, but I don't have that readily
5 available today.

6 LORIN CRANDALL: So we couldn't be
7 able to compare the cost of those to other
8 alternatives, like perpetuating those for the
9 next 20 years versus something else?

10 LT. COLONEL BERCZEK: Sure, we could.
11 That would be part of the study to look at the
12 cost. We would have to look at -- part of what
13 we have to look at -- it's obvious we can do this
14 separation if we only consider that. You can say
15 that, I can say that maybe individually, but when
16 I'm tasked to go ahead and do a study, I can't do
17 that and say, "Here is the solution, Congress.
18 Here's what it costs to do," without looking at
19 the options and technology. The electric barrier
20 -- part of that authorization was to look to
21 existing structures, but that told us to put a
22 control structure, look at some sort of a
23 structure to put in the water, either on its own
24 or tied into existing structures, like maybe a

1 lock or another facility. That's how we got
2 where we are. In this case here we have been
3 told to look at the feasibility study looking at
4 the range of options that could be done,
5 hydrologic separation obviously being one of
6 them.

7 But part of our study is we also have
8 to look at and analyze the current and future
9 uses of the waterways, the current and future
10 aquatic nuisance species that could become under
11 consideration. And so what are those
12 technologies today? What are those technologies
13 that could eventually be devised?

14 So it is a little bit more in-depth
15 than me just saying, "I want to do this, and here
16 what's it takes to do that." We will have to
17 look at that. We are being urged to consider
18 hydrologic separation. That is also one of the
19 things that we have to consider as part of that.
20 So that will include those costs. It will also
21 include what will be the impacts of that type of
22 an operation and then what would be mitigation
23 measures to take care of that. So it's not just
24 "how do I turn the water from going this way back

1 to that way."

2 I would have to look -- I do remember
3 that it took a number of years to build that
4 canal. I don't know how long it would take to
5 reengineer and reverse that water to go back in
6 that direction. So there's just --

7 That's why we do things like this.
8 You are bringing up your comments and asking your
9 questions. When we talked in Chicago about
10 modifying perhaps the way that we -- the manner
11 in which we operate the locks, it might be, from
12 our standpoint, saying, "Well, here's the through
13 put, here's the tonnage, oh, here's the impact,"
14 but then a guy in Indiana says, "The only place
15 that I ever get my one material that is singular
16 to my business is these three times a year and it
17 comes to Burns Harbor, so you guys don't even
18 track what I get and what's significant to me."
19 We didn't know that. So that's why we do this.
20 Those things have got to come up so that we can
21 consider and fully evaluate all the impacts.

22 LORIN CRANDALL: What type of thing
23 -- what type of considerations would come up that
24 would make it worthwhile to sacrifice the Great

1 Lakes?

2 MR. WETHINGTON: The study is going
3 to look at all economic, social, and environment
4 potential impacts for implementing aquatic
5 nuisance species control based on values of
6 fisheries, based on values of commercial
7 navigation, based on values of flood risk
8 management. When you talk flood risk management,
9 you are speaking of human life and human safety.
10 So we will weigh all those options as part of
11 this feasibility study and not predetermine a
12 solution because we, as the federal government,
13 we're stewards of your dollar and everyone's
14 taxpayer dollars and so we must remain unbiased
15 in how we implement this study, how we move
16 forward.

17 And so we will take on all this
18 information and, you know, go through the
19 principles and guidelines that are documents that
20 outline how a federal study is implemented, how
21 we coordinate with other federal agencies, with
22 nongovernmental organizations, with stakeholders
23 such as yourself, and how we come to that
24 recommendation, which will go to Congress and

1 Congress will have the ability to look at it --
2 it will go through the Secretary of the Army to
3 the Congress and have the ability to authorize
4 and appropriation for that recommendation.

5 LORIN CRANDALL: Who is accountable
6 if you fail? Who is accountable if we fail? Who
7 loses their job? Who in Congress has to pay for
8 Lake Michigan? Who has to pay for Lake Erie? I
9 mean, is there an impetus for this to get done
10 before the carp get there? Is there any
11 provision that says that we must expedite this?
12 You know, when we reach this threshold and the
13 problem has become too immense, we have to do a
14 disconnection, we have to do something
15 immediately. I mean, is that pressure there or
16 is this just sort of a paper stacking, research,
17 you know, we are going to build up a bunch of --

18 MR. WETHINGTON: At the very
19 beginning of Colonel Berczek's presentation, he
20 put up the Congressional authority. What we do,
21 as a Corps of Engineers, we require authority and
22 appropriations, two things we need for us to do
23 anything. What you read up there is what our
24 authority is, to look at the prevention of

1 transfer of aquatic nuisance species between the
2 two basins through Chicago Ship and Sanitary
3 Canal and other pathways. That is what we are
4 doing.

5 LORIN CRANDALL: I just like Lake
6 Michigan.

7 LT. COLONEL BERCZEK: Well, no. I
8 think the objective is clear with the study too.
9 The purpose is not to sacrifice the Great Lakes.
10 But I think -- I know the big fish is still in
11 the room, and that's what we keep focusing on.
12 The fact that we are coming and asking the
13 questions all about this study and are we going
14 to let the fish get through -- the Asian carp get
15 through with this study, this study is beyond
16 that. This study is looking at the flea. This
17 study is looking at the duck weed. This study is
18 looking at the viruses.

19 The Asian carp, we are actively
20 engaged still with that with all those issues
21 that Bill mentioned in the Asian Carp Regional
22 Coordinating Committee. We are very much
23 involved with improving the barrier system and
24 looking at that. We are testing now today with

1 that next version -- not the next version but the
2 other component of the barrier on how to safely
3 pass through. That is, you know, 5,000 volts DC
4 in the water. How do you get through that
5 safely? Okay?

6 So there's a lot of things that are
7 still going on. We have looked at and have some
8 recommendations going on how to make sure that
9 barrier is more effective. Bill mentioned about
10 looking at -- we found that there could be a
11 potential overland connection with flooding from
12 the Des Plaines River and the I&M Canal through
13 the Chicago Sanitary and Ship Canal. They don't
14 exist now because we put up barriers to block
15 that.

16 So we are not sitting here waiting
17 for this study to inform our actions on Asian
18 carp. Those are still ongoing and we are still
19 working on that on a daily basis.

20 So your question about, well, what if
21 this study fails --

22 LORIN CRANDALL: It's just a study.
23 It doesn't have any accountability.

24 LT. COLONEL BERCZEK: -- of this

1 study to prevent Asian carp. I have got 45 other
2 things I'm helping other agencies work with to
3 prevent Asian carp. This study is looking at
4 more than that.

5 So I can appreciate your concern; we
6 all share that concern. But this is looking at,
7 okay, what's out there that's not swimming around
8 that we can see jumping and makes a good YouTube
9 video, what's something that's been out there a
10 number of years that we need to go ahead and make
11 that doesn't transfer and beyond that.

12 So I do thank you for your comments.
13 They are good questions.

14 LORIN CRANDALL: Thanks for giving me
15 a chance to talk. Keep up the good work.

16 MR. BLUHM: Thank you.

17 Next we will hear from Mr. Robinson.
18 Following will be Michael Luhr.

19 TIM ROBINSON: I really did set mine
20 up for three minutes, so this will go fairly
21 quickly.

22 My name is Tim Robinson. I'm port
23 captain for American Commercial Lines. We're a
24 towing company. We range all throughout the

1 waterways. My ZIP code here in St. Louis is
2 63111.

3 My company is pleased that the Army
4 Corps of Engineers is following the Congressional
5 mandate to study the range of options and
6 technologies available to prevent the spread of
7 aquatic nuisance species between the Great Lakes
8 and the Mississippi River Basin, including the
9 many pathways. As you spoke of earlier, there's
10 a number of pathways involved with this.

11 We feel the Army Corps of Engineers
12 must engage industry on a regular basis, at least
13 before each decision point, to ensure the study
14 is taking all navigational issues into account.

15 My company also endorses the comments
16 from AWO, which will be submitted at a later
17 date.

18 I understand we talked about here
19 recently about how broad of a scope this really
20 impacts. I understand we have set a meeting up
21 in New Orleans also, and I really appreciate it
22 extending all way down to there. There's quite a
23 few people down there with issues.

24 That's all I have. Thank you very

1 much for your time.

2 MR. BLUHM: Thank you.

3 Our sixth speaker, Mr. Luhr, and then
4 our seventh one, Mr. Jim Bensman.

5 MICHAEL LUHR: My name is Mike Luhr
6 with Luhr Brothers, Incorporated, out of
7 Columbia, Illinois. We are a family-owned
8 business for over 60 years.

9 I want to speak for the AWO as Tim
10 did. I'm going to piggy-back a little bit what
11 he said.

12 The AWO, which is American Waterways
13 Operators, is an association made of tow boat,
14 tug boat, and barge operators. It's very
15 important they are part of any and all of these
16 studies. Because you talk about fixed barriers
17 and shutting the locks, you are talking about
18 putting a lot of companies out of business and a
19 lot -- thousands and thousands of people out of
20 work, so please include the AWO.

21 Thank you.

22 MR. BLUHM: Thank you.

23 Next we will hear from Mr. Bensman.

24 JIM BENSMAN: Jim Bensman, 62002.

1 First, I got a question. In one of
2 your slides you had the authority, and that
3 language seemed quite clear to me where it says
4 "prevent." And when you're dealing with the law,
5 if the language is clear, you don't need to go
6 any further than that. It seems clear to me.

7 But I'm wondering if you can tell me
8 where the Army Corps came up with prevent also
9 includes reduction of the chance. Do you have
10 some legislative history, some committee reports,
11 or something? What are you basing this leap on?

12 LT. COLONEL BERCZEK: Thank you, sir.

13 As we are looking at the study, of
14 course the objective of -- the overall objective
15 is to prevent and achieve 100 percent prevention
16 or blockage of transfer. And in the language to
17 the study team and the project management plan,
18 we have got to look at options and technologies.
19 We have got to do a risk assessment of each one
20 of those and look at does it have the ability,
21 does that --

22 JIM BENSMAN: That's not my question.
23 My question is: Where is your legal authority to
24 make this jump?

1 LT. COLONEL BERCZEK: There will be a
2 number of components, sir, with that idea being
3 to that 100 percent effectiveness. 100 percent
4 effectiveness may not be technologically or
5 feasibility --

6 JIM BENSMAN: So are you saying there
7 is no legal authority, there's nothing in any of
8 the legislative history of this language that
9 indicates it means something else? Is that what
10 you are saying?

11 LT. COLONEL BERCZEK: Actually, you
12 brought up a good word, "meaning." I'm not going
13 to argue with you and debate. Throughout that
14 legislation, the Water Resources Development Act
15 it does talk about preventing, the reducing of
16 risk. In that particular passage, you are right,
17 it does just say prevent. As far as what the
18 committee implied or intended, we have got to go
19 with the word prevent. Look it up in the
20 dictionary, prevent also does talk to reduction
21 of risk. So you mentioned the word "meaning," so
22 I will use "meaning."

23 But in the study we are not limiting
24 ourselves to only those things that show

1 100 percent effectiveness because I don't know
2 what those are. But if we have something that's
3 a promising technology or something that we can
4 put into place that has an 80 percent chance
5 right now that we can get involved, do we need to
6 continue to study that and not do anything until
7 it gets to 100 percent? I think our idea is to
8 go ahead and bring those things in that can
9 sequentially buy down that risk with, again, that
10 focus being that 100 percent effectiveness and
11 going ahead and getting to that point.

12 JIM BENSMAN: Well, I would offer a
13 comment that some of the basic NEPA requirements
14 are alternatives have to meet the purpose and
15 need and the purpose is to prevent, so if the
16 alternative can't prevent it, it's not a
17 reasonable alternative that should be studied.

18 The other thing I had the question
19 about was what was the natural -- was there any
20 natural -- after the glaciers receded, was there
21 any natural connection between the Illinois River
22 and the Great Lakes?

23 LT. COLONEL BERCZEK: I think General
24 Peabody spoke to that one time in the first

1 meeting in Chicago and it's interesting you
2 should mention after the glaciers receded because
3 I think when he was looking back there was
4 indicators geologically that after that last
5 period was when there were connections, natural
6 connections, but that have since eroded or
7 changed and everything so that now the connection
8 between is a man-made connection.

9 MR. WETHINGTON: The area in which
10 the Chicago Ship and Sanitary Canal was dug was
11 historically, before settlement, a marshy area
12 that did occasionally flow between each basin.
13 So was there a natural connection? Yes. Under
14 certain climatological and metrological
15 conditions, yes, there was naturally.

16 JIM BENSMAN: Well, I would say it
17 seems like to me, you know, the Corps always says
18 they are interested in doing restoration, and,
19 you know, I always have -- I'm always questioning
20 that and here would be a good chance to prove you
21 are by doing restoration by removing the
22 connection that the Corps built. You know, when
23 you just look at all of these impacts invasive
24 species can have, you know -- I have been out on

1 the river multiple times and it's just amazing
2 what those carp can do and you just, you know --
3 like here we have the bush honeysuckle, it's like
4 invading and destroying everything. It's just,
5 you know -- it's just seems insanity to, you
6 know -- particularly when you consider how highly
7 subsidized the barge industry is to have that
8 connection, that artificial connection, between
9 Lake Michigan and the Illinois River, you know.
10 It seems to me it's obvious that should be
11 removed.

12 Let's see. What else was I going to
13 say? Just one more point I thought.

14 It also seems reasonable to break
15 this down a bit. You know, it seems like you
16 know there's a big problem and, you know, the
17 study specifically mentioned the canal and it
18 seems like that should -- you shouldn't delay
19 dealing with that serious problem by dealing with
20 the rest. You ought to get the problem with the
21 canal done first and then do a second phase to
22 deal with the rest of the stuff and break it down
23 because, you know, the time frames you are
24 talking about is not a reasonable time frame, you

1 know, it might be too late.

2 That's all I have.

3 MR. BLUHM: Thank you.

4 That's all the people that we had
5 signed up that had asked at the registration
6 table to make a comment.

7 At this time I would like to ask if
8 there's anybody that has not had an opportunity
9 to speak so far that has now decided that you
10 would like to, raise your hand or make your way
11 to the microphone.

12 Not seeing anybody moving yet.

13 Then I will ask again, anybody that
14 has not or has made a comment that would like to
15 make an additional comment, now would be the time
16 to raise your hand or make your way to the
17 microphone.

18 Not seeing too much movement.

19 We have heard about 40 minutes of
20 testimony from folks, heard a lot of questions,
21 the panel has been engaged, and we have had very
22 good dialogue. I want to thank you all for
23 taking the time, working with us, and providing
24 those comments and thoughts.

1 As we move forward, I want to remind
2 you all that we are going to do the exact
3 identical presentation and comment period this
4 evening starting at 5:30. If you would like to
5 come back and hear the presentation again or sit
6 in for that dialogue, you are very welcome to do
7 that.

8 Also, if there's any materials that
9 you have been given that you're finished with and
10 do not need, you can either leave them at the
11 chairs here or at the table and we would gladly
12 like to recycle them as we are in our eighth
13 meeting out of twelve and we can definitely use
14 anything over again.

15 Lastly, if you have any presented
16 materials that you would like to leave with us
17 today, things that you are using as back-up
18 material or the actual statements that you have,
19 I want to make sure we collect anything you would
20 like to provide to us. You can either leave them
21 with myself or at the table on the way out so we
22 can be sure we can include them in our
23 documenting of the NEPA process.

24 Keep in mind our website is a very

1 good source of information through the comment
2 period, as well as the study itself. And the
3 comment period, again, closes on March the 31st,
4 2011, so we have got a little bit of time yet.
5 If you think of anything, use the comment form or
6 the website to help convey any of the comments,
7 questions, or thoughts that you have for us.

8 So with that, I will conclude my
9 closing remarks. It's 3:41 in the afternoon.
10 Thank you all for your attention. That dismisses
11 everybody from the meeting. Meeting is
12 adjourned. Thank you.

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1 STATE OF ILLINOIS)
) SS
2 COUNTY OF FRANKLIN)

3 I, Andrea M. Murphy, a Notary Public in
4 and for the County of Franklin, State of
5 Illinois, do hereby certify:

6 That the said proceeding was taken
7 before me as a Notary Public at the said time and
8 place and was taken down in shorthand writing by
9 me;

10 That I am a Certified Shorthand Reporter
11 of the State of Illinois, that the said
12 proceeding was thereafter under my direction
13 transcribed into computer-assisted transcription,
14 and that the foregoing transcript constitutes a
15 full, true, and correct report of the proceedings
16 which then and there took place;

17 IN WITNESS WHEREOF, I have hereunto
18 subscribed my hand and affixed my official seal
19 this 22nd day of February, 2011.

20

21

22

23

24 _____
 Andrea M. Murphy, RPR, CSR, CCR
 IL CSR #084-004558
 Notary Public in and for the
 County of Franklin,
 State of Illinois

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GLMRIS
GREAT LAKES AND MISSISSIPPI RIVER
INTERBASIN STUDY

FEBRUARY 8, 2011

5:30 P.M.

NATIONAL GREAT RIVERS MUSEUM
#2 LOCKS AND DAM WAY
ALTON, ILLINOIS

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

2

3 PANEL:

4

5 MR. BILL BOLEN

6 MR. LIEUTENANT COLONEL DAVID BERCZEK

7 MR. DAVE WETHINGTON, III

8 MR. MIKE SAFFRAN

9

10 LIST OF COMMENTS:

11

12 Lawrence Douglas Smith 52

13 Ruth Smith 66

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

2

3 MR. BLUHM: Thank you for taking your
4 time to come out. I apologize for starting late.
5 We just wanted to really make sure that we caught
6 anybody that might be coming in just a few
7 minutes late.

8 My name is Kevin Bluhm, I'm going to
9 be the moderator for this evening's session. I
10 work out of the St. Paul District Corps of
11 Engineers office. I'm very pleased that you took
12 the time to come and meet with us.

13 I will introduce the staff before we
14 begin here that are sitting with us. Sitting
15 right here beside me is Bill Bolen, and Bill is
16 from the USEPA representing the Asian Carp
17 Regional Coordinating Committee. Next to him is
18 Lieutenant Colonel David Berczek, and Colonel is
19 the deputy commander for the Chicago District
20 Army Corps of Engineers. Center of the table,
21 Dave Wethington, and Dave is the GLMRIS project
22 manager. You will hear from him in a little bit.
23 And then on the far side of the table, Mike
24 Saffran, and Mike is the Other Pathways project

1 manager. You will hear more about that also in
2 the presentation.

3 You'll notice that I said Chicago
4 District is sitting up at the front table, and we
5 are obviously not in Chicago anymore, so I would
6 like to turn your attention to the back, our
7 hosting district office, Lieutenant Colonel
8 Bittner is the deputy commander from St. Louis.
9 Thank you, sir, for providing us the facilities
10 here and the opportunity to be in your district
11 area.

12 Before we begin, I just want to go
13 through the packet of materials here that you got
14 when you came in. The green half-sheet here is
15 our meeting agenda. This is the basic guidelines
16 that we are going to follow. We have also got
17 two pieces of information here that will serve
18 as study background here, the quarter sheet. And
19 the blue booklet is detailed information for the
20 actual study itself and some background overview
21 information. So that's an important piece to
22 take with you.

23 The most important piece, from my
24 perspective as the moderator, while we are in

1 this comment period, is the white half-sheet
2 here. This half-sheet gives you information on
3 how you can have comments recorded and entered as
4 part of our scoping process. The center has
5 room, as well as the back page has space for you
6 to put any comments that you have for us. Keep
7 in mind, any comments that you want to have for
8 us need to be postmarked or turned in by
9 March the 31st, that's the end of our comment
10 period for the scoping session.

11 And then on the full-size sheets of
12 paper, the yellow one is designed to help us if
13 you want to make an oral presentation. The
14 purple or lavender-colored one here has
15 frequently asked questions on both the front and
16 back to answer some of the things we have heard
17 the most. The salmon-colored sheet here has
18 information about the other efforts, and that's
19 what Mike will be talking about a little later in
20 the presentation. And then the blue sheet here
21 is a piece that we are using, and we are asking
22 if you have documentation that you want to submit
23 or hand in, that this would accompany that so we
24 get proper credit for any of the materials that

1 you are potentially giving.

2 Did you have all those sheets of
3 paper?

4 LAWRENCE DOUGLAS SMITH SMITH:

5 Perhaps the blue sheet.

6 MR. BLUHM: Here it is.

7 Then the slides just basically mimic
8 the slides that we will be going through once we
9 can figure out how to get our computer to work.

10 Let's see here. Let me go over some
11 logistics here. I will ask anybody that's in the
12 room, if you have got a cell phone on, if I could
13 ask you to turn it off or turn it to silent, and
14 it will keep us a little bit more quiet, that
15 would be great.

16 And then if you are not familiar
17 fully with the facilities here, if you need to
18 use the restroom, you can excuse yourself at any
19 time through the doorway and off to the right,
20 the restrooms are located near the entrance.

21 Our presentation will last somewhat
22 less than an hour, and then after that we will go
23 on to our second portion of the meeting.

24 I will just start with some

1 introductory statements about the GLMRIS study
2 itself. The GLMRIS team has organized this
3 public meeting to accomplish two goals: Our
4 first is to present the information about the
5 study, that's what we will try to do as soon as
6 the computer works. And then our second is to
7 look close at your comments on the significant
8 issues that should be included in the GLMRIS
9 work, as well as any insignificant issues that
10 can be eliminated from further study.

11 The Corps is hosting 12 public
12 meetings -- this is the eighth one -- throughout
13 the study area in an effort to provide
14 opportunities for those interested in the study
15 to learn more about it and to provide any oral
16 comments. Please, again, note that the NEPA
17 public scoping period closes on March the 31st.

18 We had an identical session to this
19 that started at 2:00 today, and we had about
20 40 minutes of discussion from the people that
21 were here, heard from seven people, and had a
22 very interesting dialogue with the panel and were
23 able to get some good information from the local
24 folks. So it was very helpful for us.

1 And we will take as much time as it
2 takes after our presentation to answer any
3 questions you may have, and then after the
4 meeting has been adjourned, again, you will have
5 the opportunity to talk to anybody you like --
6 keeping in mind, if you want your information
7 recorded as part of the scoping document, you
8 will want to make sure that you ask any questions
9 while we are still in the meeting before we
10 adjourn. Okay?

11 So this is a graphic that shows
12 different materials that we have. If you do need
13 more, if you want to take any back with you to
14 give to any friends that couldn't be here today,
15 we can get you as many pieces as you like.

16 And with that, I'm going to turn the
17 floor over to Bill here, and he will give you a
18 little bit more information about the Asian Carp
19 control update.

20 MR. BOLEN: Thank you. My name is
21 Bill Bolen. I'm actually senior adviser with
22 USEPA. I'm part -- you will see this in a minute
23 -- I'm part of the senior executive team that's
24 kind of guiding the Asian carp control response

1 effort. Normally the Asian carp director, John
2 Goss, would normally be here, but he is not able
3 to be here today, so I'm appearing in his stead.

4 It's been, you know, quite an
5 interesting year for us with these Asian carp.
6 This pictorial here, these are the silvers that
7 jump. I'm sure you're aware of that. It's been
8 a challenge for the entire government.

9 They were introduced down in
10 Arkansas. They moved their way up the
11 Mississippi River. They are in the Illinois
12 River proximate to Lake Michigan at this point in
13 time. As I'm sure you guys are aware, there's a
14 connecting waterway now between Lake Michigan and
15 the Mississippi River basin called the Chicago
16 Sanitary and Ship Canal. That's the artificial
17 waterway that could allow the Asian carp to
18 migrate.

19 Beyond even that artificial waterway
20 though, Mike Saffran is going to talk to you
21 about 18 other naturally occurring connections
22 that the Corps is looking at as well to try to
23 protect the Great Lakes.

24 You are going to hear a lot about

1 GLMRIS. And a lot of people focus on Asian carp,
2 but what GLMRIS is doing is looking at all
3 aquatic invasive species, not just Asian carp.
4 That's a key difference between maybe -- when I
5 start talking about the Asian Carp Framework,
6 which really is focused on Asian carp, versus the
7 bigger study which Colonel Berczek is going to
8 talk about.

9 Are you guys familiar with -- do you
10 know the propensities of Asian carp? Are you at
11 all familiar?

12 LAWRENCE DOUGLAS SMITH: Read about
13 it.

14 MR. BOLEN: They are prolific
15 breeders. A lot of times when I go to the
16 public, people think they eat other fish. They
17 don't do that. They outcompete for the plankton
18 and algae. So that's how they basically starve
19 out the other species.

20 I'm going to talk about this for a
21 minute. This is the Framework. This is the
22 original -- actually, the White House introduced
23 this document in February of 2010. It was
24 finalized in May of 2010. This is what we use --

1 the collaborative we -- federal and state
2 agencies, primarily the Illinois DNR -- we
3 combined our efforts back in 2010 to put all of
4 our resources toward Asian carp.

5 On a personal note, I'm the primary
6 author of that, so I'm pretty proud of this
7 document.

8 This is the Regional Coordinating
9 Committee, and I think I had mentioned to you
10 that I have been Superfund, so I did emergency
11 response work. So I can tell you from a personal
12 note that this is collaboration that I have
13 experienced at Katrina, Rita, Columbia shuttle,
14 anthrax on Capitol Hill. This is really
15 spectacular for an invasive species. I have
16 experienced this before in the past, so I can
17 stand here before you right now and say that
18 these people are all working for a common goal
19 and a common effort here.

20 So if you look at the top, we do have
21 a federal executive committee, Asian Carp
22 Director John Goss, appointed by the
23 administration in September of last year; Cameron
24 Davis, who I work with in Chicago, he is a senior

1 advisor to Administrator Lisa Jackson at the EPA,
2 those are the two co-chairs.

3 You got me off to the left; Admiral
4 Michael Parks of the Coast Guard; you've got
5 Senior Executive Charles Wooley of the Fish and
6 Wildlife Service.

7 The other side you've got General
8 John Peabody of the Army Corps; this guy's boss,
9 Colonel Vincent Quarles; and then Senior
10 Executive Leon Carl of the Geological Survey; and
11 Jim Bredin is John Goss' deputy. He came from
12 the state of Michigan and is now also Council of
13 Environmental Quality Control. John Goss and Jim
14 Bredin are the two administration, if you will.

15 The important thing to note, in this
16 inner circle right there, we started out with the
17 federal agencies and the State of Illinois
18 leading the efforts. It's now grown to all of
19 the Great Lake states, so we are all in this
20 together.

21 This bubble over here,
22 interconnecting waterways, Mike is going to talk
23 more about that. So, again, we are concerned
24 with more than just the Chicago Sanitary and Ship

1 Canal. We are concerned with many other
2 interconnecting bodies.

3 One of the things we have trouble
4 with as a federal agency, we have to follow
5 certain rules where we can engage the public.
6 For example, this is a formal public meeting, but
7 we need to provide an opportunity for industry,
8 for residents, for scientists, for other folks to
9 engage in our process. So we have established
10 this nonfederal technical policy group to really
11 allow, for example, a professor at the University
12 of Missouri and his significant other the
13 opportunity to engage in the process and so you
14 are engaging today. Thanks for being here.

15 Back in the day there was no
16 connection between Lake Michigan and the rest of
17 the basin. We dumped our sewage, treated sewage
18 -- untreated back in the 1900s -- right into Lake
19 Michigan. The decision was made to reverse the
20 flow of the Chicago River, locks and dams were
21 put into place. All of our effluent now flows
22 down into the Illinois River and into the
23 Mississippi River, and if you live around here,
24 probably flows right by your house.

1 Colonel Berczek is going to get into
2 this a little bit more. Our main defense that we
3 use are the electric barriers. The Army Corps
4 funded and built these, and this is our main line
5 of defense. But we have acknowledged that you
6 can't use a single engineering control to beat
7 biology, that just doesn't work. So that's what
8 the Framework is all about. The Framework is
9 about putting all of our resources, the
10 geological survey, the pheromone and tracking,
11 looking at different encapsulated fish poisons
12 that are specific to Asian carp that could be
13 ingested by the Asian carp. So we are looking at
14 all the different mechanisms by which we can
15 defend the Great Lakes from this invasion.

16 I want to give kudos to the Army
17 Corps right now. There are many times we hear
18 they take too long, they spend too much. This is
19 a great example -- we used the Great Lakes
20 restoration money last year, we were aware that
21 there would be a possible bypass situation. If
22 you look at the Des Plaines River up there, it
23 flows right next to the CSSC, approximately --
24 well, right above the electric barriers. And in

1 flood conditions, significant flood conditions,
2 adult Asian carp could go from the Des Plaines
3 into the CSSC and then swim free to Lake
4 Michigan. Army Corps identified that. Again, we
5 committed GLR monies. In one short year, the
6 Army Corps constructed 13.2 miles -- does that
7 sound about right? -- of a barrier to basically
8 defend from that occurring. They did it in
9 one year, they did it under budget, and so we
10 were able to take those monies and plan for other
11 Asian carp activities. So the Army Corps gets
12 credit for that.

13 I'm going to just -- I will let Mike
14 talk a little bit more about this. We took those
15 monies, we found another natural occurring
16 waterway between the states of Indiana and Ohio
17 that could allow a free swim in flood conditions
18 of Asian carp into Lake Erie, so that's a
19 temporary barrier. Mike is going to talk more
20 about that later on.

21 Mike is also going to talk about
22 these other 17 possible higher risk areas that
23 the Army Corps is going to be evaluating.

24 You know, many times we are

1 criticized for a variety of things, but right
2 here this is some electrofishing, seining, and
3 netting. Between the agencies we spent \$3,200
4 last year on the waterways, either trying to find
5 Asian carp above the barrier or removing them
6 from below the barrier. All of our resources are
7 going to this.

8 This is the new Framework from 2011,
9 so we have gone up to 45 activities now. If
10 recollection serves me, I think we had 32. Does
11 that sound about right?

12 LT. COLONEL BERCZEK: Yes.

13 MR. BOLEN: So we are learning things
14 from you all and from industry and so we are
15 expanding the Framework. This is really the
16 document that binds us all together. It's the
17 way we collaborate and cooperate. We use our
18 jurisdictional authorities, our funding
19 resources, state programs, Great Lakes
20 Restoration money, and this is really what kind
21 of guides our action here.

22 We are looking at DNA, really
23 cutting-edge technology, environmental DNA. We
24 are trying to figure out where the leading front

1 of Asian carp are.

2 We're looking at, as I mentioned,
3 pheromone and tracking repellants and new seining
4 and netting activities.

5 This is GLMRIS. I'm going to skip
6 right past this. This Corps is going to cover
7 this pretty quickly.

8 One of the exciting things that we
9 are also doing is we are doing commercial
10 harvesting, if you imagine Asian carp being bugs,
11 and so if you take the bugs out, there's less
12 pressure on these electric barriers. So the
13 State of Illinois is hiring commercial fishermen
14 to pull the Asian carp out. The governor of
15 Illinois last year signed an agreement with a
16 Chinese entity to begin importing up to 50
17 million pounds of fillets a year because they are
18 a delicacy in China.

19 We partnered with the Coast Guard in
20 all these activities to protect public safety and
21 health.

22 We are doing -- this map shows where
23 we are doing the eDNA analysis, both below as
24 well as above the electric barriers. So we are

1 really trying to find out where the leading edge
2 is, if there is any Asian carp. I would like to
3 point out in all those activities we found one
4 single Asian carp last year in Lake Calumet,
5 about 6 to 8 miles from Lake Michigan. We don't
6 know if it got past the electric barrier. If you
7 ask me my opinion, I think it was an induced
8 species because in the City of Chicago it was
9 legal to sell live Asian carp in the market. And
10 it is sometimes a cultural practice to buy two,
11 consume one and release the other, but I don't
12 know.

13 This is our main website. This is
14 where we post all of the Asian carp stuff, so
15 this is a good website for you all to go to.

16 And with that, I'm done with my
17 remarks. Thank you for your patience.

18 Colonel Berczek, I think I will turn
19 it over to you.

20 LT. COLONEL BERCZEK: Thanks for
21 coming today. Personalized briefing for you -- I
22 was telling Dave I felt like I could sit across
23 the table from you, but then I also have spent
24 time on stage and I keep three-quarters front so

1 I don't want to turn. There are a couple things
2 I want to make sure I point out to you on these
3 slides.

4 One of the things -- Bill spent a
5 little bit of time talking about the Asian Carp
6 Regional Coordinating Committee, we talked about
7 the strategic framework, and those are efforts of
8 a lot of federal and state agencies and other
9 local partners to go ahead and fight one
10 identified invasive species.

11 We talk about Asian carp. If you
12 think about other words -- and I will say a few
13 other words, start thinking a little bit broader
14 and look at what the GLMRIS study is. It's
15 beyond Asian carp. It's zebra mussel, sea
16 lamprey, snakehead fish, nutria. Depending on
17 where you are, those words will go ahead and
18 invoke some sort of feeling or idea in your mind.

19 One of the things that I was looking
20 at, there's been a -- the National Invasive
21 Species Council released a report a number of
22 years ago under executive order -- they were
23 established in 1999, had to report every 5 years
24 on the efforts of invasive species control.

1 Their 2005 report, recently they just updated the
2 National Invasive Species Management Plan for
3 2008 to 2012. It's kind of significant.

4 The opening statement in both their
5 executive summary and the main body of the report
6 says, "Invasive species inhabit all regions of
7 the United States and every nation. The problem
8 is complex and accelerating."

9 And one of the challenges that they
10 point out in identifying an invasive species and
11 hence the means to control it is that species
12 that benefit in one area or one application may
13 be invasive in another.

14 I brought a report with me that I was
15 looking at and it's kind of an example that
16 highlights that. I grew up in upstate New York,
17 and one of the things every year is we used to
18 like to skip school on April 1st to go trout
19 fishing down in Naples Creek. One of the species
20 that we went after were the brown trout.

21 I had a report I looked at that talks
22 about the 100 most invasive species. Brown trout
23 and brook trout are two invasive species that
24 they consider the most invasive. Where I grew

1 up, they were naturally occurring, but I guess in
2 other environments they are invasive species.

3 So looking at that and understanding
4 that we do have a challenge and a problem to
5 address that goes beyond a single species,
6 Congress in 2007 directed the Corps of Engineers,
7 under the Water Resources and Development Act, to
8 go ahead and conduct this, the Great Lakes and
9 Mississippi River Interbasin Study.

10 What is it? It's a feasibility
11 study. The language -- the key language, of
12 course, here looking at options and technologies
13 available to prevent the spread of aquatic
14 nuisance species between those two watershed
15 areas, between the Great Lakes Basin and the
16 Mississippi River.

17 Where specifically? We need to focus
18 through the Chicago Sanitary and Ship Canal, Bill
19 mentioned that, that artificial waterway
20 connected there to go ahead and bring water from
21 Lake Michigan into the Mississippi River, and
22 other aquatic pathways.

23 Some of the special considerations in
24 this study -- you can see right there -- it talks

1 about the alternative recommendations. We will
2 look at the impacts and do an analysis of those,
3 to include hydrologic separation as one of the
4 options under the study.

5 The study is 100 percent federally
6 funded. If you are familiar with Corps of
7 Engineers studies where we typically will go and
8 look first to establish federal interest in the
9 reconnaissance phase, this is the next step
10 beyond that, so we are already beyond the point
11 in the whole study process. So, in effect, they
12 have taken that little bit of timeline out.

13 The other significant part with the
14 feasibility study is feasibility studies have a
15 cost-share sponsor, a local sponsor contributing
16 part of the funds, which sometimes could be a
17 lengthy process in identifying the sponsors and
18 interested parties and also being able to come up
19 with the funding source. In this case here, to
20 go ahead and get this study moving and keep it
21 going, Congress said this is 100 percent
22 federally funded for this study, a rather
23 significant effort.

24 The middle bullet we have talked

1 about a little bit here -- I will spend a little
2 bit of time on this because in the last session
3 this did come up. Typically any time we engage
4 in a study we come up with a project management
5 plan. The key to carrying out the study is
6 instructions to the team, "Here's what we need to
7 look at. Here's how we need to go about doing
8 this."

9 In this case here we included in
10 there prevent and talking about including the
11 reduction of risk to the maximum extent possible.
12 It's primarily a guidance. If we are looking at
13 a technology or looking at an option and it comes
14 out in testing or other applications 70 percent
15 effective, should we not consider it because it's
16 not 100 percent effective or should we consider
17 that as an implementable technology and then deal
18 with what else can be done to go ahead and get to
19 that 100 percent goal? And so it could be --
20 there may be individual technologies or options
21 that, in and of themselves, are not 100 percent
22 effective but the end result, the end objective,
23 is to be 100 percent effective in keeping those
24 two basins separated.

1 The study area is large. You can see
2 through all the different colorings there, these
3 are all the states from the Rocky Mountains down
4 the Appalachians that feed both these two
5 watershed areas. The direct -- the detailed
6 study area for the GLMRIS study primarily focuses
7 up in these areas. The states that constitute
8 this brown shade there, the states where the
9 water contributes to the Great Lakes Basin, and
10 then below this dashed line here, which is
11 somewhat of a flow divide, water to the south of
12 that then feeds into the upper portion of the
13 Mississippi River. That dashed line there
14 represents roughly 1,500 miles.

15 What is it we are looking at? Under
16 this study we are looking at aquatic connections
17 -- we heard there with the authorization language
18 -- focusing on the Chicago Sanitary Ship Canal,
19 Chicago Area Waterway System, and then also
20 through other aquatic connections.

21 Talks about aquatic nuisance species,
22 swimmers, floaters, hitchhikers, things like
23 that. That's one of the challenges with the
24 study, you know, looking at some other items that

1 -- trying to come up with a control for items
2 that we may not be able to see except through
3 microscope. So it is a rather challenging
4 project to do.

5 Does not include looking at those
6 types of either connections or transfer or human
7 release. We are looking at the interface between
8 the Great Lakes Basin and the Mississippi River.
9 Portions of 31 states overall with that larger
10 area, but primarily right now I think it's 17
11 roughly in the main detailed project area where
12 those two with the green and the brown shades.
13 The study scope does not include the Atlantic
14 Slope or the St. Lawrence Seaway or up into
15 Canada.

16 You can see there too listing under
17 the elements what it is we are going to be
18 looking at doing. A range of options and
19 technologies, what is it that's out there, or
20 what can be out there that we can apply to
21 prevent the interbasin transfer of aquatic
22 nuisance species.

23 I won't go through all those things
24 on the right- and left-hand side, but typically

1 this outlines a little bit too part of what our
2 process is. We have got to look at regional
3 economic modeling. We have got to look at
4 ecological decision-making processes. We will
5 evaluate hydrologic separation. This is a
6 feasibility study, so it will result in two
7 things: A feasibility report, which will have
8 options and recommendations to Congress for
9 implementation, but then also we will release an
10 Environmental Impact Statement as part of this
11 study.

12 How do we do this? First of all, I
13 mentioned the word "prevent" because it came from
14 our project management plan. Part of the other
15 thing we had to figure out is how we are going to
16 do this. The authorization told us to look at
17 kind of two different areas, the Chicago Sanitary
18 and Ship Canal and the other pathways. So we
19 broke that down with the primary effort being in
20 the Chicago Area Waterway System. Dave
21 Wethington will talk to you a little bit about
22 that. He's the project manager for that section
23 but also for the study overall. Mike Saffran is
24 the project manager of the other pathways, and he

1 will talk to you a little bit about the details
2 when there's a slide that comes up on that,
3 what's been done so far, what we have identified.

4 We had to organize for success. You
5 saw the area of the country involved with a study
6 like this. The Corps of Engineers were designed
7 -- our districts are set up primarily along
8 watershed areas. This study -- we are down here
9 in St. Louis. We are part of -- we are not part
10 of the Mississippi Valley Division. Chicago
11 District belongs to the Great Lakes and Ohio
12 River Division. So there you have got two
13 general officers that have different regions of
14 responsibilities.

15 How are we going to work together?
16 How do you work that whole system and everything
17 else? So it's -- you might look at something
18 like this and say it's just obvious you got to
19 succeed. It's not quite as obvious how you set
20 up to do that. Bill mentioned about the Asian
21 Carp Regional Coordinating Committee and the
22 collaboration in there. Okay. This is broader
23 than that, so it -- it has all those problems and
24 then some. So we set up like this to try to go

1 ahead and address that through the command and
2 control, through the executive steering
3 committee, keeping the leaders and agencies
4 involved in understanding what's going on and how
5 we are proceeding with the study.

6 Also, stakeholders. There it talks
7 about the heads of agencies and organizations but
8 stakeholders, the public, how do we keep you
9 informed and how do we keep you involved.

10 One of the ways to do that is that
11 next bullet that talks about cycling out interim
12 products and reports. There's a lot of
13 information, a lot of details, a lot of data
14 that's being put together and refined and
15 analyzed as a part of this process. As some of
16 that information has matured and ready to go
17 ahead and be delivered so people can see what we
18 are looking at and what's coming out of the
19 efforts so far, we will go ahead and submit out
20 reports of some of the data and everything so
21 people can keep up to date with what's going on.

22 Two key things with this is because
23 it's such a difficult challenge to go ahead and
24 identify those nuisance species -- what is there

1 today? What could be there tomorrow? -- and
2 planning for that. And also the controls -- what
3 are the controls today? What are the controls
4 for tomorrow? Or waterway uses -- how do we use
5 the water today? How might we use it tomorrow?
6 Or other types of transportation means. Looking
7 at that and all the efforts of the other agencies
8 involved with this, something may come out. Bill
9 talked about the biologic controls. That may
10 come out as a technology that might get us a
11 60 percent solution. We need to be able to adapt
12 our study to incorporate that into and have that
13 part of the whole process.

14 Of course, as in everything we do,
15 the Corps of Engineers will abide by all legal
16 and regulatory guidance.

17 The study purpose is to identify
18 those aquatic pathways, identify those species
19 that are in there. Again, I talked about this,
20 how we are going to deal with these two focus
21 areas. One of the first steps is an inventory of
22 current and future potential aquatic nuisance
23 species. We talked a little about the Asian carp
24 and we talked about what's going on right now

1 with the electric barrier and the Asian Carp
2 Regional Coordinating Committee. I like to say
3 this study is from fish to fleas, looking at all
4 these areas, looking at all those things, to
5 include plant life where -- if it's where it
6 shouldn't be or where we don't want it to be, we
7 just got to make sure it stays there. It might
8 be a nuisance species in one basin. Well, we are
9 not looking at how to eradicate it in that basin.
10 We are looking to control it, keep it where it
11 is, keep it where it is separate and go from
12 there. Again, we will evaluate hydrologic
13 separation as one of the options and controls.

14 This slide shows you a little bit
15 Chicago Area Waterway System, Focus Area I. Dave
16 will talk a little bit about this. The reason
17 why it is kind of the priority effort is because
18 it represents the only known continuous waterway
19 to the basin.

20 Go ahead, Dave.

21 MR. WETHINGTON: Thank you, sir.

22 Good evening, everyone. My name is
23 Dave Wethington. I'm project manager at the
24 Chicago District for what we are calling the

1 Focus Area I, which is on the Chicago Area
2 Waterway System.

3 I want to spend a couple minutes
4 talking to you about the complexities that we
5 have inherent to the Chicago Area Waterway
6 System, as well as waterway uses.

7 On the map above me, you will notice
8 on the right-hand side there are five points
9 numbered 1 to 5 starting at the top and working
10 the way down the coast line of Lake Michigan that
11 represent areas where the Great Lakes Basin and
12 Mississippi River Basin have to potential to
13 interact.

14 You will also notice that Points 1
15 and 2 are denoted with red circles. Those red
16 circles, as well as Point Number 6, indicate
17 water control structures.

18 Before I get into that, there are
19 five points, and what's unique about the Chicago
20 Area Waterway System is that all five of these
21 points will come together, converge, as in like
22 five prongs of a fork converging into the handle
23 of it, they all flow into a single waterway,
24 which is the Chicago Ship and Sanitary Canal,

1 which is where we have established the fish
2 barrier system, the electronic disbursal barrier
3 system, that is used to control Asian carp.
4 That's at Point Number 7.

5 So I was getting into Points
6 Number 1, 2, and 3 are all controlled streams
7 basically. That means there's some type of water
8 control structure on there. Starting at the top,
9 Number 1 is Wilmette Pumping Straight, Number 2
10 is Chicago Lock, and Number 3 is actually
11 controlled by a structure at Point Number 6,
12 which is the O'Brien Lock.

13 You will also notice that Points 4
14 and 5 are completely uncontrolled, which
15 basically means that there's no physical
16 structure controlling the flow of water. This is
17 kind of the reason why perhaps the idea of
18 closing the locks at Chicago may not be an
19 effective solution for stopping the spread of
20 Asian carp.

21 Moving on, on the left-hand side is
22 basically kind of the plan of study that the
23 Corps of Engineers uses on a feasibility study,
24 specifying problems, opportunities. What we have

1 done is we have put together a team, you know,
2 disparate expertise, scientists, engineers, to
3 look at this issue of aquatic nuisance species
4 and how to prevent the transfer between the
5 basins. We have gone through the Corps of
6 Engineers, incorporate other federal and state
7 agencies, and we are also here speaking with
8 everyone in the room to kind of get your idea on
9 what you think is significant or maybe perhaps
10 not significant as we scope out the path forward
11 for the study.

12 We are also in the process of what we
13 are calling inventory and forecasting conditions.
14 I spoke a little bit earlier to the idea of
15 waterway uses. And something you might have
16 heard a lot about is commercial navigation, the
17 Ship and Sanitary Canal is used for commercial
18 navigation, and that's true, but there are also
19 several other waterway uses, including, not
20 limited to, recreation, water supply, water
21 discharge. The City of Chicago Metropolitan
22 Water Reclamation District discharges treated
23 wastewater into the Chicago Ship and Sanitary
24 Canal. About 70 to 80 percent of the total flow

1 of the Chicago River is made up of this treated
2 municipal discharge.

3 Additional, the Chicago Ship and
4 Sanitary Canal is used for flood risk management.
5 Doesn't happen very often, maybe a couple years,
6 every 5 years, we get a significant storm event
7 that will basically require us to open up the
8 locks at Point Number 2 to allow water to
9 backflow, so flow the opposite direction from
10 which it normally flows, which is down toward 7,
11 8, and 9 down there, and allow release for
12 stormwater in the Chicagoland area. Basically,
13 if we were not able to open the locks at Chicago,
14 O'Brien, Wilmette Pumping Stations, it would
15 cause significant overbank flooding in the
16 downtown area, as well as basement flooding
17 throughout the entire Chicagoland area, as well
18 as suburbs, causing impacts to likely millions
19 residents, businesses, industries, et cetera.

20 Once you identify what all these
21 waterway uses are, what we basically need to do
22 is evaluate the impact of any proposed aquatic
23 nuisance species control. So evaluate the impact
24 to waterway uses of the electric barrier, future

1 other technologies, or hydrologic separation. So
2 if we were going to do, say, a physical barrier
3 in the system, how would we account for adverse
4 impacts to existing waterway uses as well as
5 mitigate for those? So those are all the things
6 that the Corps of Engineers needs to do in
7 assessing this feasibility study. We cannot come
8 up with a single prescribed solution as we are
9 the steward of taxpayer dollars and basically
10 must remain unbiased and look at the whole suite
11 of potential aquatic nuisance species controls,
12 the waterway uses, and then the potential impacts
13 to waterway uses and how to mitigate for those.

14 As was mentioned by both Mr. Bolen
15 and Colonel Berczek, we are collaborating with
16 state, federal, local governmental partners. We
17 are also collaborating with Native American
18 tribes and other nongovernmental organizations
19 and private industry.

20 Thank you for your attention. I will
21 turn it over to Mike to talk a little about the
22 other pathways efforts.

23 MR. SAFFRAN: Thank you, Dave.

24 Again, I appreciate you coming out

1 tonight. This is not a very easy location to get
2 to. I very much appreciate you folks coming out.

3 The other pathways. The last three
4 words in that authorization, "other aquatic
5 pathways." In 2007, and we later got
6 appropriations in 2009, we were able to -- we
7 knew a lot about the Chicago Sanitary and Ship
8 Canal. We knew very little about the other
9 aquatic pathways and what the role scope of that
10 was within the GLMRIS.

11 Last summer General Peabody, who was
12 our commanding general, basically challenged the
13 division staff to come up with a plan to develop
14 an inventory of all the potential aquatic
15 pathways outside of the cause along that
16 1,500-mile-long divide and to do a preliminary
17 risk characterization to see if we were at risk
18 for having some sort of a back door that the
19 Asian carp could outflank us in the Chicago
20 Sanitary and Ship Canal and get to the Great
21 Lakes. We were also tasked to look at other
22 species, but the species of most significant
23 concern at the time was the Asian carp.

24 Given that task -- it was pretty

1 daunting to be frank -- what we did was we
2 reached out to the experts that we could find
3 within the other agencies as well as within the
4 Corps. And we reached out initially to the Fish
5 and Wildlife Service and USGS because they have
6 the best database, if you will, on invasive
7 species. USGS has a wonderful database. US Fish
8 and Wildlife Service has had some very eloquent
9 writings on invasive species.

10 The Fish and Wildlife Service
11 developed us a list of all the species in the
12 Great Lakes, non-indigenous species in the Great
13 Lakes, not known to be in the Mississippi River
14 Basin, there was about 120 of those, and then a
15 list of the species in the Mississippi River
16 Basin, non-indigenous species, that weren't
17 present in the Great Lakes yet. There was only
18 about 21 of those.

19 We started out with those lists. We
20 got the best biologists we could get within the
21 Corps, within the state DNRs, and within USGS,
22 Fish and Wildlife Service, and NOAA to help us
23 evaluate those species as to which ones would be
24 the biggest risk to either basin to help us focus

1 the study.

2 And then the other side of the
3 equation is we had the best hydrologists we could
4 get from the state DNRs, each of the Corps
5 districts -- again, as has been said, we have got
6 a Corps district on either boundaries -- so we
7 got our best hydrologists from the eight
8 different corps districts and then USGS has a
9 water science center in each state who are very
10 familiar with the conditions. So we really
11 relied on the locals to help us identify where
12 are the pathways potentially there.

13 And so, long story short, we
14 identified 36 pathways from New York all the way
15 over to Minnesota that appeared to be viable for
16 either forming the existing aquatic pathway being
17 there for forming. And those 36 locations, a
18 Number of them are just like natural wetlands
19 that exist along the basin divide. Some of them
20 were urban areas where it looks like intricate
21 sewers systems and things that might cross the
22 basin divide. There were locations where there
23 were just ditches, agricultural ditches, that
24 crossed the basin divide and connected to the

1 other stream. So there was a number of different
2 types of locations.

3 But only one of them really jumped
4 out as a really significant risk, and that was
5 the Eagle Marsh in Fort Wayne, Indiana. And the
6 combination of circumstances there, we have a
7 natural overflow point that occurs there. The
8 St. Joseph's River comes from southeastern
9 Michigan and drains into Fort Wayne, which is a
10 little bit to the west of where its headwaters
11 are, and then St. Mary's River comes from the
12 southeast into Fort Wayne, and those two rivers
13 form the Maumee right there in downtown Fort
14 Wayne which then flows to the northeast to Lake
15 Erie. When you have the largest storm event you
16 would expect to occur in any given year,
17 1-year-type storm, water backflows from the
18 St. Mary's River through and across the Eagle
19 Marsh into the Wabash River Basin.

20 Very fortunate at that location, we
21 had a 2009 flood insurance study which indicated
22 that the 10 percent annual return frequency
23 storm, the biggest storm you would normally
24 expect in any 10-year period, the depth of the

1 water column across the divide under that
2 condition is four and a half feet. You couple
3 that with the fact that about 25 miles downstream
4 there's three different locations where Asian
5 carp have been collected and been -- two of those
6 they have been determined to be established, so
7 we had the combination of Asian carp within
8 25 miles and a condition where generally at least
9 once a year or so we have a connection that
10 occurs and a little less frequently a very
11 significant connection occurs.

12 So we got all of the parties together
13 on-site, USEPA, National Resource and
14 Conversation Service, Little River Wetlands
15 Project, which is a nongovernmental organization
16 that basically operates the Eagle Marsh, Indiana
17 DNR, the county surveyors, we got all the right
18 people in the room and start talking through the
19 issues and what we could do about it.

20 Everybody agreed that we needed a
21 long-term solution but that we might not have
22 time to get a long-term solution in the ground,
23 so we came up with two alternatives, one path
24 toward a long-term solution and another toward a

1 very quick interim solution.

2 The interim solution, you saw a
3 couple pictures in Bill's discussion there of a
4 chain link fence basically running across the
5 marsh. What that chain link fence is designed to
6 do is prevent adult Asian carp from being able to
7 make the passage the next time the water comes
8 up. There's no evidence right now that there's
9 fry or any reproducing populations within that
10 25 miles. The biologists looked at it pretty
11 good and felt like that the chain link fence
12 would be substantial enough to keep any adults
13 out, and that if it needed to be modified, you
14 could add netting or something like that to make
15 it a little finer. There's also a concern with
16 flooding.

17 Bottom line is within 60 days we had
18 that fence up across the marsh, and it was, I
19 think, a very good testament to the way
20 government can work when you have got the right
21 people sitting at the table at the right time.
22 And Indiana DNR deserves a lot of credit for
23 stepping up and taking responsibility doing the
24 design and getting it in the ground so quickly.

1 The Corps of Engineers is currently
2 working on a feasibility study for permanent
3 solution at that location. We expect to have
4 that report out by the end of this year. We got
5 a couple issues though, we don't have any actual
6 implementation authority, we don't have a local
7 sponsor, so we have got some issues we have got
8 to work through. But we should, by the end of
9 this year, have a good thorough document that
10 provides a well-based recommendation for a
11 permanent fix at that location.

12 For the other 17 locations, there was
13 a fair amount of uncertainty because of the
14 repetity that we had to do the study in and just
15 a very flat topography that exists over much of
16 the area. So what we are also doing this year --
17 there's a draft study plan out among the agencies
18 right now that's being reviewed -- but we are
19 going to do a much more detailed risk
20 characterization that will establish basically
21 the baseline condition at each of those locations
22 and determine whether there's any significant
23 risk for species migration through those
24 locations and that report is expected to be

1 completed by the end of this year as well.

2 That's the other pathways.

3 LT. COLONEL BERCZEK: Pretty simple,
4 right? But part of the organizing for success
5 was breaking things down so that we could have
6 some more manageable functions and pieces. When
7 Henry Ford talked about that, he said, "Nothing
8 is particularly hard if you divide it into small
9 jobs," so here's the two small jobs with this
10 study.

11 You see here on this slide talking a
12 little bit about some of the accomplishments,
13 just in the initiating stages of the study what
14 could have possibly have been done.

15 Down on the left-hand side there's a
16 lot of activity and a lot of things that have to
17 be done to then go ahead and know we're meeting
18 the intent and following the legislative and
19 regulatory guidance in initiating a study.

20 See down on the right-hand side, Mike
21 talked a little bit, you heard some of the other
22 efforts involved, but there is still work being
23 done to get to this point. Mike talked about
24 some of the efforts done to identify nuisance

1 species and part of this is understanding, of
2 course, the species of concern right now, the
3 Asian carp. What's out there, what's been
4 written about them, what do we know, what is
5 speculation, where do we go. Drafting that and
6 identifying what it is that we need to be
7 concerned with.

8 And I think in the last session here
9 I had a discussion with somebody afterwards and
10 she asked the question, "Are there things that we
11 do want to pass between the two?" I don't know.
12 I think that's part of what it is we are looking
13 at. Over 100 years or so of a canal being there,
14 has something now started going back and forth
15 that maybe is desirable. I don't know that
16 that's -- I don't know that this is something
17 that has happened. But she asked the question,
18 and I said, "I honestly don't know the answer to
19 that. That's a good question."

20 Talked about some of the preliminary
21 risk characterization as well, and then as we
22 start going through, identifying what are some of
23 the controls. Not everything is going to work on
24 all types of species and all types of organisms.

1 You know, you don't shoot skeet with a pistol, so
2 we have got to get the right weapon for the right
3 target.

4 What's coming next? This here shows
5 a little bit on the project schedule for the
6 overall conduct of the GLMRIS study, and I'm
7 going to highlight a couple little stars on here,
8 this tiny little star and then this big star.

9 This tiny little star talks about --
10 down here at the bottom -- the best case
11 scenario. I mentioned earlier that this is a
12 feasibility study that's 100 percent federally
13 funded. Of course, federal funds will follow
14 with federal budget cycles and everything else,
15 so we want to make sure we keep on track and we
16 express the needs that the study has to have to
17 continue on track and that everything arrives as
18 we need it to maintain progress.

19 If that progress is maintained, we
20 look at this big star out here now, we are
21 talking sometime in the fall or winter of 2014
22 having a draft recommendation and plan to go
23 ahead and come out for public review once again
24 with looking at some recommendations out of this

1 study.

2 Meanwhile, Mike mentioned about some
3 of these reports in this report coming out with
4 the other pathways, again, with the idea there
5 would be options and recommendations there that
6 would then have to go forward for consideration
7 or for implementation or legislation to occur.

8 What's going to happen? What should
9 we expect to hear during this little black hole,
10 so to speak, of this study? It's not a black
11 hole. We see these little arrows we have talked
12 about cycling out interim products. We don't
13 want to keep people in the dark. We continue to
14 engage in dialogue, these public sessions, to let
15 you know what's going on and also getting input
16 from you. There's a lot of data we talked about,
17 a lot of things we have to look at, and a lot of
18 analysis that has to be done. As that data is
19 processed, we can go ahead and cycle out reports
20 that are mature enough to release, and we plan on
21 doing that and sharing with you.

22 We talked about some of these control
23 technologies, talked about some of these waterway
24 uses and the value of those uses. To share with

1 everybody what it is we are looking at so there
2 are no surprises as we start heading down and
3 coming up with recommendations and what that
4 draft report looks like.

5 The key to this is, like we are doing
6 today, getting your input, getting input of
7 others, and also that collaborative effort.
8 There are a lot of other efforts out there that
9 aren't necessarily within our expertise at the
10 Corps of Engineers. You will see some of the
11 other agencies that we are looking to there.
12 Mike talked about using USGS and Fish and
13 Wildlife and the state agencies because they are
14 the local experts, they do this day in and day
15 out, they have authority to do what they do. So
16 they could bring that expertise to the table and
17 help us go ahead and evaluate what's out there
18 and what needs to be done.

19 These meetings and gathering input
20 and sharing, educating, and informing and then
21 also collecting your inputs and learning from
22 you.

23 You can see the list of where we are
24 today, St. Louis, we have got a few more meetings

1 left to go, that would be this part of the study
2 phase, and then the public comment period will
3 close out at the end of March and we will move on
4 from there.

5 Other ways to stay in touch and
6 provide input. We talked a little bit -- Bill
7 had mentioned with the Asian carp efforts, the
8 Asian carp -- when you go to the Chicago District
9 website or other websites, you will see a button
10 that looks like this. It's because we want you
11 to know if you are looking at that button -- and
12 Dave's got a business card he's holding up, I
13 think it's in the materials you have. The
14 website is on there. This website is very
15 important because this is the website where the
16 public comments can be submitted if you choose to
17 submit a comment online. And then also
18 acknowledging the fact that there's a reason that
19 these little buttons here, these little pictures,
20 look like application buttons. They trying to
21 get into the technology age using social media
22 like Facebook and Twitter if you choose to follow
23 along with the study that way. I know Dave is
24 pretty good on updating those things, and I'm

1 glad he's not tweeting today while I'm talking.
2 If he were, I would know it if your cell phone
3 wasn't silenced because I would hear that he was
4 tweeting you.

5 With that, I think I have talked
6 enough. I hope you got a better understanding
7 now of what it is we are looking at with this
8 study and the process and the timeline, and now
9 it's your turn to talk to us. Thank you.

10 MR. BLUHM: Thank you, sir. You have
11 just heard about an hour of discussion from our
12 side. Our four panelists have informed you, told
13 you some of the things that we have been working
14 on, and given you the road map of where we plan
15 to go in the future.

16 With that, I want to add that the
17 website that the Colonel was talking about is a
18 great source for information now and into the
19 future. If you would like to be part of our
20 mailings, we have got a button and a location on
21 there where you can subscribe to an e-mail list,
22 and that will give you details on any type of
23 public information or upcoming meetings, any
24 study or interim results that come out. That

1 would be a great opportunity just to inform and
2 give you additional public involvement
3 opportunities. That information is on the packet
4 in several locations as well as the business card
5 that Dave just showed you.

6 Now, going through this, we have
7 taken an hour of your time and now it's our time
8 to hear from you. As we go into the comment
9 period, I want to let you know that we are a
10 slightly small crowd here tonight, so we will go
11 through this relatively informally.

12 We do have a court reporter
13 stenographer with us, and she is going to be
14 recording all of our information. We want to
15 make sure anything you have to tell us gets
16 properly recorded. I have got a microphone. I
17 would ask that you use the microphone for us,
18 mostly so we can amplify it for the folks in the
19 back of the room and also make sure that our
20 stenographer gets the information correctly.

21 I do have an adjustment I would like
22 to ask, if it's okay to follow. Our information
23 and our website shows that we are allowing three
24 minutes for your comments that you may have for

1 us. Given that I'm not too worried about running
2 out of time and that my list of preregistered
3 speakers shows one, I'm going to ask if it's okay
4 that we keep it a little informal and, as long as
5 you don't object, we will say that we would like
6 to hear what you have to say in a reasonable
7 amount of time if that's all right.

8 LAWRENCE DOUGLAS SMITH: Lovely.

9 MR. BLUHM: Very good. Just want to
10 make sure we don't have an objection to that.

11 When you start I would ask that you
12 start with your name, any affiliation or
13 organization that you may represent, and, if we
14 could, your ZIP code for statistical reasons,
15 just want to try to get a tracking as we get
16 through our meetings to know who stopped in and
17 who talked to us.

18 Also, just want to let you know that
19 any and all types of communication are considered
20 equal for this, so anything you want to say
21 orally is going to have the same weight as
22 anything that you may write in or submit online
23 to us, any documentation you give as well, so you
24 do not have to say everything tonight. If

1 something comes to your mind during the comment
2 period and you send that in, that will have equal
3 consideration as well.

4 With that, I guess we will start with
5 our list of preregistered speakers. So Mr. Smith
6 has indicated that he would like to make a
7 comment.

8 LAWRENCE DOUGLAS SMITH: Thank you
9 very much. We really were impressed with your
10 presentation, and we're extremely grateful for
11 doing that for just the two of us this evening.
12 You have done a wonderful job, and we appreciate
13 how particular you are about it and the
14 thoroughness of the scope of the study. We will
15 say that right off.

16 I did prepare a few remarks expecting
17 to be constrained by the three-minute deadline, I
18 will share them, and then I have a series of
19 questions that just emerged from your
20 presentation that I could perhaps use to motivate
21 a little bit of discussion and hope not to keep
22 you all really long considering we have a limited
23 audience.

24 MR. BLUHM: Could I stop you? Could

1 I get your ZIP code?

2 LAWRENCE DOUGLAS SMITH: 63121. And

3 I did register at the desk.

4 My name is Lawrence Douglas Smith.

5 I'm a resident of St. Louis County, Missouri

6 63121. I serve as professor of management

7 science. I'm the director of the Center for

8 Business and Industrial Studies at the University

9 of Missouri in St. Louis. In that capacity

10 actually I have studied the upper Mississippi

11 River transportation system with a view toward

12 maximizing the efficiency of traffic movement

13 through the most congested section of the river

14 up here between Locks 20 and 25. That work,

15 incidentally, was funded by a succession of

16 grants from the US Army Corps of Engineers, so we

17 are grateful. They were made through the Center

18 of Transportation Studies at UMSL. I'm also a

19 summer resident of Georgian Bay of Lake Huron

20 with dual US and Canadian citizenship.

21 In my lifetime I have seen the

22 devastating effects of the lamprey eel,

23 overfishing by commercial fishermen in our area,

24 four-foot drops of water recently in Lakes

1 Michigan and Huron, and the current spread, of
2 course, of the zebra mussel population and the
3 quagga mussel. So I do have a great personal
4 interest in the protection of the world's
5 greatest freshwater resource and also an
6 understanding of the advantages, economically and
7 environmentally, of inland water transportation.

8 So I should first express my
9 appreciation for the scope and organization of
10 your planned study, the GLMRIS study, and the
11 clarification that you did offer about reduction
12 versus elimination of risk, that you have seen
13 some comment about the distinction between those
14 two, and we are fully comfortable with the way
15 you are approaching that and your interpretation
16 of that. And we also appreciate the assurances
17 that your own document has of the seriousness of
18 the threat to the waterway provided by the Asian
19 carp invasion.

20 Notwithstanding this express
21 recognition of the risk, I do feel compelled to
22 express our concerns, however, that the immediate
23 commercial and economic interest might prevail
24 over long-term sustainability of the Great Lakes

1 ecosystem, not from deliberate choice, but rather
2 from the delayed action as authorities await the
3 findings from your study and as they debate their
4 implications.

5 I was really pleased to hear this
6 evening about interim measures that you have been
7 taking. As you learn, you act. And I gather
8 that is your intention.

9 One of the concerns we had was your
10 acknowledgment of the limited resources in that
11 regard and wondering if there's some way that the
12 public can help make sure that when you learn
13 something that it can be put into action before
14 the entire study is completed.

15 So I guess our concern for the
16 evening was that immediate aggressive action may
17 be needed to prevent migration of the silver carp
18 or Asian carp into the Great Lakes where their
19 impact could be catastrophic and that
20 irreversible damage might be done before a 5-year
21 study could be completed and its implications can
22 be debated. We do hope that forceful and
23 immediate measures can be taken to provide
24 greater protection from this invasive species

1 pending the results of the further studies and
2 research, and I really believe that your
3 presentation tonight has helped give us some
4 assurance in that regard and for that we are
5 grateful.

6 Now, shall I open up to a series of
7 questions or would you wish to comment on my own
8 remarks? I'm sure you have heard this from
9 others. It's pretty standard.

10 MR. BOLEN: Frankly not quite as
11 eloquently.

12 LT. COLONEL BERCZEK: The one thing
13 that I did want to address with that is I did
14 want to reassure you that specifically with
15 actions related to Asian carp that we are
16 continuing along with the efforts that are
17 already in place there with the electrical
18 disbursal barrier also as part of the efforts
19 that Bill mentioned to you earlier, with the
20 collaborative effort with the Asian Carp Regional
21 Coordinating Committee.

22 We did have the authorization to go
23 ahead and conduct an efficacy study to look at
24 the barrier, and that's where the fence line was

1 put in between the Des Plaines River and the
2 Chicago Sanitary and Ship Canal because we
3 identified a means that existed that could reduce
4 the efficiency of the barrier. That was under
5 that authority that Congress gave us. We also
6 had the authority to immediately implement -- we,
7 as the agent for the assistant secretary of the
8 Army for Civil Works, was given the authority to
9 go ahead and implement those actions that were
10 deemed necessary go ahead and eliminate that type
11 of bypass or anything that would make the barrier
12 less effective. That was, I think, Section 126
13 we refer to that authority as part of the
14 National Defense Authorization Act. That is some
15 of the effort that we have done in looking at
16 additional measures that could be in place to go
17 ahead and make that barrier more effective.

18 We are involved with the monitoring
19 efforts with telemetry and other things to
20 identify where the fish are and working with the
21 Illinois Department of Natural Resources
22 primarily in the waterways, coming up with plans
23 for rapid response measures should fish be
24 identified if we have to go ahead and apply the

1 toxin or working with the Rock Island District as
2 far as using Lockport Lock and Brandy Road as
3 control points to go ahead and do that effort in
4 the waterways if it's necessary like we have done
5 twice already. So those efforts are ongoing.

6 We have submitted reports through the
7 Secretary to Congress on some additional barrier
8 measures that could be put in. Dave mentioned
9 about the uncontrolled pathways, the Little
10 Calumet River and the Grand Calumet River. We
11 have some recommendations and options to look at
12 technology there and other areas and downstream.

13 Part of the challenge with some of
14 these technologies, sonics or other things, they
15 have to be tuned to the fish, so we have got to
16 put them where the fish are. We are looking at
17 some areas down by the Brandon Road pool area
18 potentially, areas that could be used to herd
19 fish and maybe then do eradication efforts in
20 those areas. So we are looking at continuing
21 efforts along those lines to prevent Asian carp
22 from getting into the Great Lakes.

23 I say that just from the standpoint
24 because I don't want you to think that while we

1 are waiting to get to the ultimate solution with
2 this study we are sitting and waiting for this to
3 inform us as to the action we need to take today
4 to prevent the Asian carp from getting any
5 further. That is still ongoing and we're still
6 totally engaged with that, while at the same time
7 trying to execute this study and identify, beyond
8 Asian carp, what else has to be considered, what
9 else has to be done, oh, by the way, what are the
10 impacts, what are the mitigation measures, so
11 that we can then submit that to Congress as they
12 directed us to do in this authorization.

13 MR. BLUHM: Okay. Great. Good.
14 Excellent. Thank you, Colonel.

15 Just as a point of order, I want to
16 make sure I acknowledge the rest of the audience.
17 We have heard now from all of the people that
18 have indicated that they would like to make a
19 statement and would like to now ask if there's
20 anybody else in the audience that would also like
21 to make a statement that did not indicate so.

22 If you would like to make a statement
23 and have not had a chance, raise your hand.

24 That's what I expected. Just wanted

1 to check.

2 Now, if anybody has already made a
3 statement would like to continue or make
4 additional statements, comments, or ask
5 questions, now would be the time to do so.

6 LAWRENCE DOUGLAS SMITH: I do have a
7 series of questions. I guess I would offer these
8 in the spirit as I would of any member of a
9 research team and dialogue on these sorts of
10 things.

11 You did mention the serious financial
12 constraints and so on, I think you are also
13 saying you're managing successfully to get
14 resources when you learn things that can be done,
15 and I guess you expect that to continue to occur,
16 at least I hope so.

17 LT. COLONEL BERCZEK: Right now, sir,
18 we don't see any reason why it wouldn't. I think
19 we have got the funding we need for this year.
20 Mike mentioned with some of these other pathways,
21 taking advantage of the resources of the states
22 as well. Indiana came on board to go ahead and
23 implement that solution in their area, an area
24 that they had the authority to do, and then we

1 look to our friends at the EPA funding a lot of
2 these efforts to so far, yes.

3 LAWRENCE DOUGLAS SMITH: I was
4 prepared to come and offer a suggestion
5 facetiously but you have managed to trump me on
6 it. We were going to subject commercial culling
7 and taking advantage of the new hub that we are
8 trying to create at Lambert Airport to ship the
9 fish back to Asia, and indeed that's what you are
10 doing. I think that's wonderful. Really, I
11 think there's potential for that to just reduce
12 the intensity of the population in the river here
13 before it hits the Great Lakes.

14 MR. BOLEN: Let me just clarify that
15 we have actually been in discussions with the
16 aviation management team of that airport
17 facility, so that might be on the horizon, by the
18 way. That might be the shipping point for a lot
19 of these fillets to go back overseas.

20 LAWRENCE DOUGLAS SMITH: Interesting.
21 That's a nice surprise from the evening.

22 You mentioned the problems of the
23 diversion. You shut down the -- even if you were
24 to close the locks and shut down the Sanitary and

1 Ship Canal that there are other diversions. I
2 hope that people would really properly assess the
3 relative risks and not use that as a sufficient
4 reason to prevent you from implementing a measure
5 that may still have much more dramatic effect on
6 lowering the risk. And, of course, I'm sure you
7 will objectively assess that.

8 One thing that occurred to me as a
9 Canadian citizen as well as a US citizen is that
10 there haven't been Canadians at the table.

11 The question I would ask in this
12 regard is when you do an economic impact
13 statement, does the economic impact stop at the
14 US border when you are looking at costs and
15 benefits? And I rather fear from your comments
16 they may not. Is there some way that the scope
17 could be expanded to consider the effects in the
18 entire Great Lakes region?

19 MR. BOLEN: Actually, I will start,
20 Mr. Smith, with the financial part. There's
21 recently be a convening of risk assessment
22 professionals from DFO, several federal agencies,
23 and other entities, so there is now an ongoing
24 binational risk assessment to look at the impact

1 of -- focused on Asian carp right now but they
2 are also doing other invasive species.

3 I can't speak to the point of what
4 they are going to assess for economic impact, but
5 at least I wanted to share with you that, you
6 know, for you, on the other side of the border,
7 you know, we are now joining together, at least
8 on the science level, to begin that evaluation.

9 I will turn it over to Colonel
10 Berczek for the clarification.

11 LT. COLONEL BERCZEK: As far as the
12 economics go, I can't speak authoritatively to
13 that. I do know that Canada has looked at -- has
14 done some studies relative to Asian carp. We do
15 interact with Canada on a regular basis through
16 the International Joint Commission, so we are in
17 discussion with them. They are very much aware
18 of what's going on with this study. And I
19 imagine that we would have some collaborative
20 efforts there to look again between our two
21 nations on how we incorporate that and share that
22 information and go ahead and have that available
23 for assessment.

24 LAWRENCE DOUGLAS SMITH: So you will

1 be going beyond the typical core impact as
2 defined as the net economic effect for the United
3 States then possibly.

4 LT. COLONEL BERCZEK: I don't know,
5 sir. I don't know where we would have the
6 authority to go beyond that.

7 LAWRENCE DOUGLAS SMITH: That's my
8 fear, yeah, yeah, so we understand each other.

9 MR. WETHINGTON: Right. Right. I
10 think it's important to recognize, you know, that
11 through our authorization with the study and
12 being that it is a Corps of Engineers-authorized
13 study, we do follow the principles and guidelines
14 document for federal planning studies, and so any
15 kind of impact -- I'm sorry -- any kind of
16 environmental or economic evaluation would be
17 fully kind of described within those principles
18 and guideline documents.

19 LAWRENCE DOUGLAS SMITH: So it may
20 well be then that there will be other very
21 significant effects that the study will not
22 encompass.

23 MR. WETHINGTON: There may be.

24 LAWRENCE DOUGLAS SMITH: And the last

1 question, I guess, pertains to your schedule and,
2 I was -- it seems that there's quite a bit of
3 time in years 2, 3, and 4 that could be
4 compressed. And I'm wondering if you really need
5 the amount of time for the amount of study that
6 you prescribed in years 2, 3, and 4, just looking
7 at the study as a whole.

8 MR. WETHINGTON: I appreciate your
9 comment. I think that what we tried to do,
10 especially in the Chicago Area Waterway System,
11 is to appropriately outline the amount of
12 information that's necessary to establish
13 baseline conditions. We need to know what's out
14 there. What is the value of the fishery in the
15 Great Lakes? What is value of fishery in the
16 Mississippi River system? You know, just as
17 importantly, what are the navigation,
18 recreational value, the impacts there, as well as
19 trying to establish some kind of an environmental
20 habitat -- I don't want to call it evaluation,
21 but that's essentially what it is to both
22 ecosystems.

23 The amount of information that needs
24 to be processed, collected, et cetera, I believe

1 requires that timeline that we are looking at, as
2 well as going through the appropriate reviews.
3 You know, this is -- as I try to say, you know,
4 we are a steward of the taxpayers' dollars. We
5 must remain unbiased. We try to balance all of
6 our potential stakeholders. And so I believe we
7 are trying to be as aggressive as we can with our
8 schedule. We will continue to look for ways to
9 maximize efficiencies where possible.

10 LAWRENCE DOUGLAS SMITH: Thank you.

11 RUTH SMITH: Well, one question I
12 thought of, just my ignorance, I don't know how
13 much commercial traffic actually goes through
14 from Lake Michigan into the Mississippi area.

15 And related to that was I noticed you
16 mentioned something about ballast water. I'm
17 aware that a lot of the invasive species coming
18 to the Great Lakes have come through the
19 St. Lawrence Seaway, and although there are
20 regulations about dumping ballast water, they
21 have not really been enforced. So I just
22 wondered, is that something that pertains here or
23 is that an issue?

24 MR. WETHINGTON: With regard to

1 ballast water, we are working with partner
2 agencies, such as the US Coast Guard who is
3 really kind of taking up the lead on the whole
4 ballast water issue, so working with the US Coast
5 Guard, having their work inform the interbasin
6 study and form the work we are doing will
7 basically help guide the path forward to
8 recommendations for the study, as well as, you
9 know, the study potentially helping guide
10 recommendations for other agencies where their
11 authorities are appropriate such as US Coast
12 Guard or other federal, state, local agencies.

13 So the ideas -- we are in
14 collaboration. Maybe the Corps of Engineers part
15 of the study won't specifically address ballast
16 water, but we are working with the Coast Guard,
17 the Coast Guard is part of the study, and so by
18 sharing exchanges information by working
19 collaboratively, we can address the vector of
20 ballast water bringing aquatic nuisance species
21 into the Great Lakes or vice versa.

22 MR. SAFFRAN: I'm just going to
23 repeat that. That's one of the things that
24 really complicates this study is that seaway

1 staying open, and there's introduction of new
2 species all the time and ballast water appears to
3 be one of the primary ways that species have
4 gotten into the Great Lakes from abroad. That's
5 a very difficult problem and US Coast Guard I
6 know is feeling some pressure I think to help
7 close that window, if you will.

8 MR. BLUHM: The first question on
9 traffic?

10 LT. COLONEL BERCEK: The information
11 there -- I'm not exactly sure. I think we have
12 our navigation center expertise that might
13 have --

14 MICHAEL COX: I can give you some
15 numbers if you like.

16 RUTH SMITH: Just in general.

17 MICHAEL COX: In general, up by
18 Chicago, the Port of Chicago covers about 25
19 million tons a year. About 9 million of that
20 goes through O'Brien Lock, a little bit less in
21 the last couple of years because of the economy,
22 but it's a very vital pathway. There's well over
23 30 million tons of cargo that goes from the
24 Mississippi along the Illinois up toward Chicago.

1 LAWRENCE DOUGLAS SMITH: Does it go
2 as far as Milwaukee?

3 MICHAEL COX: There's a very small
4 amount that does, but, yes, it does.

5 And there's also the recreational
6 traffic. More than 20,000 rec boats go through
7 O'Brien Lock every year and more than that
8 through the Chicago Lock.

9 MR. BLUHM: Excellent. Very good.

10 Any other questions or thoughts that
11 have come to your mind?

12 LAWRENCE DOUGLAS SMITH: That covers
13 it. Thank you so much.

14 MR. BLUHM: All right. Very good.

15 Well, we have had about 25 minutes of
16 discussion and very good questions, so I do
17 appreciate that. That augments things we have
18 been hearing in our process and really is the
19 reason we are here. We really want to make sure
20 that folks that do come can get stimulated with
21 some of our information but then also can come
22 back to us with good questions. And so I have
23 taken some very good notes and so have the
24 panelists here and we will take those back and

1 add them as well, so thank you very much.

2 As we near the end of the meeting, I
3 would like to mention if you have materials that
4 you have received that you no longer need, you
5 can turn them back in and we will recycle them
6 gladly. If there's more materials that you would
7 like for other colleagues, we can give you extra
8 packets as well. So feel free to use the
9 materials however you see fit.

10 If there's no further questions, I
11 will ask one last time, anything else come to
12 mind?

13 Very good.

14 With that said, I would like to thank
15 you for your attention. It's 6:57. Meeting now
16 is adjourned. Feel free to stay as long as you
17 like to ask any other questions offline with our
18 staff members at the front or throughout the
19 room. Thank you and have a great night.

20

21

22

23

24

1 STATE OF ILLINOIS)
) SS
2 COUNTY OF FRANKLIN)

3 I, Andrea M. Murphy, a Notary Public in
4 and for the County of Franklin, State of
5 Illinois, do hereby certify:

6 That the said proceeding was taken
7 before me as a Notary Public at the said time and
8 place and was taken down in shorthand writing by
9 me;

10 That I am a Certified Shorthand Reporter
11 of the State of Illinois, that the said
12 proceeding was thereafter under my direction
13 transcribed into computer-assisted transcription,
14 and that the foregoing transcript constitutes a
15 full, true, and correct report of the proceedings
16 which then and there took place;

17 IN WITNESS WHEREOF, I have hereunto
18 subscribed my hand and affixed my official seal
19 this 22nd day of February, 2011.

20

21

22

23 _____
24 Andrea M. Murphy, RPR, CSR, CCR
 IL CSR #084-004558
 Notary Public in and for the
 County of Franklin,
 State of Illinois

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