MINUTES
MEETING NO. 41 OF THE INLAND WATERWAYS USERS BOARD

CHATTANOOGA, TENNESSEE
APRIL 25, 2002

The following proceedings are of the Inland Waterways Users Board meeting held on the 25th day of April, 2002, in Chattanooga, Tennessee. Mr. Daniel P. Mecklenborg, Chairman, presiding. Inland Waterways Users Board (Board) members present:

Mr. Gerald W. Brown, President, Cargill Marine and Terminal, Inc.

Mr. Larry R. Daily, President, Alter Barge, Inc.

Mr. Mark K. Knoy, President, MEMCO Barge Line, Inc.

Mr. Daniel P. Mecklenborg, Vice President and General Counsel, Ingram Barge Company (Board Chairman)

Mr. Timothy M. Parker, Jr., President, Parker Towing Company, Inc.

Mr. Michael R. Rayphole, Vice President – Transportation and Customer Service, Peabody COALSALES Company

Mr. George H. Shaver, President (Owner), Shaver Transportation Company

Mr. Looman F. Stingo, Senior Vice President of Logistics, Holcim (US), Inc.

Mr. Ronald G. Stovash, Vice President, Transportation and Marketing Services, CONSOL Energy Inc.

Mr. Lester E. Sutton, Manager, Government Affairs, Kirby Corporation (Vice Chairman)

The following Chairman Emeritus was present:

Mr. W. Norbert Whitlock, Senior Vice President, American Commercial Barge Line Company (Chairman Emeritus)

Also present were the official Federal Observers, designated by their respective agencies as representatives:

Mr. Raymond Barberesi, Maritime Administration, U.S. Department of Transportation

COL Richard Hobernicht, Office of the Assistant Secretary of the Army (Civil Works)

Mr. Nicholas Marathon, U.S. Department of Agriculture

Mr. P. Tod Schattgen, National Oceanic and Atmospheric Administration

Official representatives of the Federal Government for conduct of the meeting and administrative support of the Inland Waterways Users Board were the U.S. Army Corps of Engineers officials as follows:

Major General (MG) Robert H. Griffin, Executive Director, Inland Waterways Users Board, Director of Civil Works, Headquarters, U.S. Army Corps of Engineers.

Mr. Norman T. Edwards, Executive Secretary, Inland Waterways Users Board, Civil Works Planning Division, Headquarters, U.S. Army Corps of Engineers.

Mr. Mark R. Pointon, Executive Assistant, Inland Waterways Users Board, Navigation and Water Resources Applications Division, Institute for Water Resources, U.S. Army Corps of Engineers.

Staff support provided by the U.S. Army Corps of Engineers was as follows:

Mr. David V. Grier, Navigation and Water Resource Applications Division, Institute for Water Resources, U.S. Army Corps of Engineers

Mr. Leonard M. Henry, HQ Programs Management, U.S. Army Corps of Engineers

Mr. Michael F. Kidby, Civil Works Operations Division, Headquarters, U.S. Army Corps of Engineers

Program speakers in order of appearance were as follows:

Mr. David V. Grier, Institute for Water Resources, U.S. Army Corps of Engineers, *Status of the Inland Waterways Trust Fund, Time-series Tabulation of Trust Fund Revenue Estimates by Waterway, and O&M Trends for AIWW (is lack of maintenance driving traffic off system?)*

Mr. Leonard M. Henry, HQ Programs Management, U.S. Army Corps of Engineers, *FY 2003 Funding for Inland Navigation Projects and Studies.*

Mr. Michael F. Kidby, Civil Works Operations Division, Headquarters, U.S. Army Corps of Engineers, *Comparison of Tow Delays and Critical Backlog*

Mr. Paul J. Hanley, Great Lakes and Ohio River Division, U.S. Army Corps of Engineers, *Status of CELRD Construction Projects, ORMSS and Chickamauga Lock*

Mr. Daniel E. Steiner, Great Lakes and Ohio River Division, U.S. Army Corps of Engineers, *Advancing the Engineering and Science of Navigation Modernization*

Mr. Wesley W. Walker, Huntington District, U.S. Army Corps of Engineers, *Forecasting Commercial Traffic, Ohio River.*

Mr. Henry A. Edwardo, Pittsburgh District, U.S. Army Corps of Engineers, *Lower Mon Construction Update*

Mr. Joseph L. Dykes, New Orleans District, U.S. Army Corps of Engineers, *Bayou Sorrel Update*

Mr. Lonnie E. Mettler, Walla Walla District, U.S. Army Corps of Engineers, *Lower Snake River Juvenile Salmon Migration Feasibility Study*

Public comments were made by:

Mr. Richard J. Hommerich, Volunteer Barge and Transport, Inc.

Mr. Don Waldon, Tennessee-Tombigbee Waterway Authority

Ms. Janice L. Jones, Tennessee River Valley Association

A list of meeting participants and a list of current Board members, Federal Observers, and U.S. Army Corps of Engineers support staff are included as Appendices A and B, respectively. See Appendices C through E for materials from presentations at this meeting.

MR. NORMAN EDWARDS: Good morning. I would like to welcome you to the 41st Meeting of the Inland Waterways Users Board. Before we start the meeting, we are obligated to read for the record that the Users Board was created pursuant to Section 302 of the Water Resources Development Act of 1986. It provides the Secretary of the Army and the Congress with recommendations on funding levels and priorities for modernization of the inland waterways system.

The Board is subject to the rules and regulations of the Federal Advisory Committee Act. The U.S. Army Corps of Engineers is responsible for it and provides the executive director, the executive secretary, and all normal support activities. This is a Sunshine meeting, and as such, is open to the public. The proceedings are being recorded and a transcript will be available after the meeting, actually not exactly after the meeting but sometime in the near future. Mr. Chairman.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Norm. We're now going to open the meeting with comments from General Griffin.

GENERAL ROBERT GRIFFIN: Well, actually, I think,before I do that, do we not have the District Commander, Colonel Steve Gay?

CHAIRMAN DANIEL MECKLENBORG: Yes, our host from yesterday, a great tour.

COLONEL STEVE GAY: Thank you, sir. Mr. Mecklenborg, I am not going to take that personally. General Griffin, Mr. Mecklenborg again, all Members of the Inland Waterways Users Board, on behalf of General Hawkins, the Lakes and Rivers Division Office, the 830 great Americans of the Nashville District who I represent, and my friends and partners at the Tennessee Valley Authority, welcome again to Chattanooga, and thanks, again, for the opportunity to give you an overview of our study and a tour of our lock yesterday. You're willingness to meet here to learn more about the methodology of projections that we used in the study gives us promise.

Just let me tell you, the U.S. Army Corps of Engineers, who I represent, is very, very proud of what we do for the nation, what we do for this region, and we're just as proud of what we have done in the study to try to keep the upper Tennessee River open. We hope you feel the same way.

With the help of the TVA, numerous Federal and State of Tennessee agencies, some of whom are represented here today, our stakeholders, individual citizens, many of whom are here today, our congressional delegation from Tennessee, and maybe most importantly, the champion of the Tennessee lock, Congressmen Zach Wamp.

We have completed the feasibility report in record time. We're still committed and confident that we can have this ready for the May Chief's Report and the next Board. We stand by today and in the future to answer any of your questions, anything you may have for us, we want to be there for you. It's been a pleasure having you here yesterday and today.

In honor of your visit, your willingness to come here to see us, I have the privilege of passing out something to you. It's called a Commander's Coin. In the Nashville District, we pass them out to the heroes and folks who are great team players and help further the cause. So I have some folks who are going to help me pass those out. We also have a photograph of the boat ride yesterday of the Board Members that were there, so we can memorialize this moment. Thanks a lot.

CHAIRMAN DANIEL MECKLENBORG: Thank you very much. We really appreciate this photo and the coin.

COLONEL STEVE GAY: Thank you. And to all of you, come back soon, come back often. Thanks.

CHAIRMAN DANIEL MECKLENBORG: I just want to take a moment, and on behalf of the Board, acknowledge just a wonderful job that the Nashville District has done in hosting this meeting. It really should make Chattanooga feel proud. And certainly, Colonel Gay, Carol Warren, and all of the others from the Nashville District have really set a standard that, you know, I think is going to be hard to beat in the future. You know, all of our Districts do a wonderful job hosting, but this has especially run very smoothly, and the Board wants to thank you very much for your efforts.

(Applause in the audience.)

CHAIRMAN DANIEL MECKLENBORG: Okay. With that, I will turn it over to General Griffin.

GENERAL ROBERT GRIFFIN: Good morning to all. I was thinking here, and I have got a real long speech that my speech writer gave me, mercifully I won't give it to you. But this is my favorite Board. It's a working board, number one, and it is also, I think, very representative of the federal private partnership, industry partnership,and we have with us other federal observers.

So this truly is a one-team partnership that, I think, epitomizes how the Corps of Engineers wants to operate, as we serve the nation. We need input from a lot of different folks. We need to consider all of that and build the best program for industry, for the environmental groups, for any other interests as we move forward; we don't just do this in a vacuum.

So I am very glad to be here this morning. I always look forward to this Board because it's just a great group of folks. The visit we took, I thought that was a great trip, I mean, not only from an engineer's standpoint for me personally, I mean, Chick Lock is an engineering challenge. It's an engineering marvel. When I have built things, I have never seen them grow after they were built, and there are some problems there that are just unbelievable and very unique.

The other thing is Chick Lock is not dead. It's not like Olmsted Lock which sits right in the middle of the system. It is on one of the tributaries, and this is one of the arguments we have been having about ton miles. You can't simply look at ton miles, you have got to look at the entire system, you know, where does this cargo go? It just doesn't go in this one stretch of the river. It may start here, it may end up in New Orleans. And so those are very important things that we all need to consider as we go further.

First, I would like to welcome our Federal Observers. We have got Colonel Rich Hobernicht here, he's representing the Office of the Assistant Secretary of the Army for Civil Works. Incidentally, he will this summer leave D.C. and become the District Engineer for Portland, and I know Mr. Shaver is very happy about that, and I saw them talking last night and I think that's great.

We also have a USDA representative, Nick Marathon. We welcome him back, Nick. DOT, Ray Barberesi with MARAD is back with us. NOAA, we're represented by Tod Schattgen. And he tells me he was in the Coast Guard, right?

MR. TOD SCHATTGEN: Right.

GENERAL ROBERT GRIFFIN: Or drove boats anyway, but he said really -- while he was in charge of them he never got to drive them, he just told the others which way to go, and it had to have a steering wheel on it. And he was grading our paper last night as we were trying to operate that great boat last night.

We also have a new Chair. Dan Mecklenborg moves up from the Vice Chair, and he replaces Norb Whitlock. And Norb, we're glad to have you as an emeritus with us still. You have been a great Chairman, and we certainly appreciate you staying on in your capacity as an emeritus. Our new Vice Chair is Les Sutton. Les, and we're glad to have you replacing Dan Mecklenborg.

Reappointments: Larry Daily. New members: Gerald Brown, President of Cargo Carriers representing Region I. Mark Knoy we have with us, MEMCO Barge Line, representing Region III. And Looman Stingo, vice president of Holcim, Incorporated, representing Region II, the Lower Miss area. So to our new board members, welcome aboard.

We also have an individual in the audience that I need to recognize, and I think he's going to give a presentation this morning, Dan Steiner is the planner for Lakes and Rivers Division, my old division. And Dan, we're delighted you are here. Dan is going to retire in a month. Dan is recognized in the Corps. Unquestionably he is the senior planner in the Corps, and he's not recognized just because of age, I will tell you, it's capability.

He has been with the Corps, started off in Huntington District, came to the division, served in every capacity within the engineering side, started out 41 years ago. So he has served our nation very faithfully, but I will tell you, he's done a lot of things. But as a planner what Dan personally did on the Ohio River Main Stem Study, that system, thus far, is five plus billion dollars worth of authorized work, more to come.

But I will tell you another thing, and I am going to attribute this publicly. I may not have it exactly right, but there's --Dan Steiner and a guy named Norb Whitlock realized a long time ago that you just can't build a lock, that it has to be done in an environmentally sustainable way, and also, at the time we were looking at locks saying, what do we do for the environment.

And because of that, we have an environmental enhancement program on the Ohio River system to the tune of about $300 million authorized, and so it's a partnership with the natural resource agencies, both at state and federal level. As we go forward, it is truly a model. And, Dan, I just wanted to recognize you for what you have done.

MR. DAN STEINER: Thank you for those kind words, sir. I was there in the mid '80s, kind of at the birth of this group when trust funds and strategies and organizations were debated. And I'd just like to congratulate you-all on the great job you have done. I consider it a privilege to have worked with many of you for many, many years. I guess I have attended and participated in over a third, maybe half of your meetings, and I have enjoyed them very much.

So, as I always tell everybody, navigation modernization is God's work. If you go over to the European communities, in the community they take it very seriously. You know, Maritime transportation is very, very important, and I think what you're doing is very, very important and I appreciate the opportunity. And thank you again, General.

GENERAL ROBERT GRIFFIN: And Dan, thank you.

(Applause.)

GENERAL ROBERT GRIFFIN: Dan will stay in navigation. He is an avid kayaker.now. Here's where I make up some time. I was asked to talk about some projects. The Lower Snake River

Juvenile Salmon Migration Feasibility Study, the ROD on that will be signed the end of May. We will also get an overview on that this morning.

Missouri River Master Manual. As you know, the Corps of Engineers has been trying to revise the Master Manual since 1989. We had a biological opinion from the Fish & Wildlife Service issued several years ago that said we needed to change the operation of the system because we're endangering three species, the pallid sturgeon, least tern, piping plover, and since then we have been doing yet another EIS. We're about to roll out that EIS. Northwestern Division will roll out that EIS publicly in May. At that time we are in a process, a Section VII consultation with the Fish & Wildlife Service.

So we will offer them the operating plan that will help recover the species and continue to maintain the authorized purposes of the project to balance all of that, and Fish & Wildlife will have approximately 135 days then to comment on that. So more to follow, but you will start seeing a roll-out of this in May. If history proves correct, I don't know how far we will get. We have rolled this out three previous times and haven't gotten very far. We're in a legal process driven by NEPA and we will continue to move on that path, and you will be hearing about that very soon.

General Dave Fastabend is the commander out there. I think he's done a wonderful job of getting all of the public comments up and down the river. I think they got something like 55,000 comments, and they have had to shuffle through all of those, consider all of those as they move forward.

On the Upper Miss study, we certainly know that was stopped awhile back. We have relooked at that study and agreed with the National Academy of Science that it is, in fact, to look 50 years in advance, and, yes, there is no model that is going to empirically model that. And so we have gone to a scenario based process that would go from a total loss of the system, that we just quit navigation altogether, to imports and exports that would actually be on the other side of the scale where you would need a much more robust system and everything in between. Then what you do is work some likely scenarios, some common features from that.

And we're on the process, as testified by the Chief of Engineers last summer, to deliver an interim report to Congress this summer, which we will do and we're on track to do that.

There is a very critical meeting. One of the things we added was Dr. Jim Johnson, our chief planner, is working with a federal principles group. And so we have a vertical team, both in the region and in the federal family at the national level where we're involving all of the participants to make sure that we have agreement as we move through this.

And we're also working with the environmental community and other interests, and I think that process has been very successful. Tomorrow's meeting will be very key, and we are on track to roll out this interim report this summer. From that, we expect the Congress will review that and give us some direction on where we may go further on that.

WRDA Bill, I have got a note here that says prospects for Bill, question mark. I see my speech writer didn't write much more than that. As many of you know, there is a proposal set forth

by Senator Smith, Feingold and others, McCain, I believe, on a Corps reform package. This would have independent review, would raise benefit cost ratio of projects approved to 1.5 and some other features. Some like it. Some don't like it at all.

And because of that Corps reform piece that is in the WRDA, whether it will pass is anyone's guess, because if that provision is in there, it could jeopardize the passage of WRDA, particularly on the Senate side as we see it. That said, this will play out and we will keep you informed.

We did do a WRDA package though. Office of ASA Civil Works and the Corps of Engineers, with others and input from our listening sessions, we have various provisions in WRDA. One of them that, I think, would be of interest to you is the non-traditional public port facilities providing credits or some type of federal support for dockside facilities, something we have never looked at. We simply do the federal channel and really go no further than that, but there is a provision in there for that.

I would also say that we're doing some ads for security of dams and other water resources infrastructure. Since 9/11 there are some modifications, other than project purposes, that we need to make to these dams, and there's some language in there on that.

On the FY '03 budget, I will simply say we absolutely support the President's budget. We think it's a great budget. And now we have heard -- actually, there has been in Congress as this thing moves through -- and our budget pretty much mirrors the last year's President's budget.

There are some features to it. It proposes completion of a number of studies and projects, 30 of those. There were five high priority funded items. One that would be of great interest to this Board, is Olmsted receives full funding at 77 million, and that was a commitment to navigation. New York, New Jersey Harbor got 120 million, which is their full capability.

Our 169 other authorized projects and environmental, flood damage reduction, navigation, inland waterways, shore protection, because of this budget would, in fact, be constrained to a level of about 50 percent of what is needed to maintain the optimum schedule.

We do recognize the President's and OMB's job as they set priorities. It is a tough year. We are conducting a war on terrorism. And I will tell you that the Corps is very sensitive to ensuring we're in line with the President's priorities, which is, one, win the war.

And there are a number of civil works folks over in Afghanistan right now supporting that war effort, and you need to know that, a lot of real estate folks, other folks, infrastructure folks as we get into -- if we get into a rebuild mode, the nation can draw on our civil works capabilities to do that.

The other is homeland defense. We --Charlie Hess, our chief of operations, has been loaned to FEMA for the next six months to a year to support them because of our cross relationship. The FEMA director asked the Chief of Engineers if he could have our Chief of Operations. Obviously,

we're not going to turn down Joe Albert. He's over there working today. And also, protection, homeland defense, we are in the process of modifying our facilities.

And thirdly, the President's priorities, I think this is where this Board comes in, is rebuild the economy, strengthen the economy. And certainly, that means a strong domestic economy, it means trade, and I think that is what this Board is about.

And so with that, I will finally say we have had a change in leadership in Washington, for those of you who may have been visiting somewhere else. Our Assistant Secretary of the Army for Civil Works, Mr. Mike Parker, resigned. He was a great friend of the Corps, I think a great supporter. He certainly understood our business and we will miss him.

That said, as I told my own people, the Corps of Engineers has been around and fought in every war this nation has had. We have been through a lot worse times. And we had a mission before that. We have a mission now to execute and support the needs of this nation, and we will continue to do that.

The good news is, as Mike Parker resigned, the Under Secretary of the Army, Mr. Les Brownlee, took over as the acting Assistant Secretary of the Army for Civil Works. And while he doesn't know our business that well, I have spent a number of hours in briefings. He is very supportive of the Corps. The good news is he's willing to listen to these tough issues that he has to deal with, and he has incredible courage and integrity. Once he's got all of the facts, he will make a decision and do the right thing. And I think he's a great representative for us as we move toward a permanent appointment at some point in the future.

I will also note that Secretary Brownlee was a staffer for Senator Warner, so he is certainly familiar with the hill. He is a retired infantry Colonel, served in Vietnam, has two Silver Stars and a Purple Heart. So he has a great deal of courage, certainly as evidenced by that.

Again, we're Corps of Engineers, I personally, as the Executive Director, Norm Edwards, and the rest of our team are very happy to be here to support the IWUB and the President and the Vice President as we kick off our new season. With that, Mr. Chairman.

CHAIRMAN DANIEL MECKLENBORG: Thank you, General. Those are really great remarks, and I wanted to start off by first saying just what an honor it is to serve this Board as Chairman. I appreciate the confidence that you-all have in me, and I look forward to this year. It's certainly an important function that we have as the Board, and I think it's a testimony to how seriously we all take it that we almost always have excellent attendance at the meetings. I appreciate all of you taking time out of your busy schedules to be here.

And I also want to say what an honor it is to follow Norb Whitlock. Norb's leadership for this Board has been tremendous. And I know personally he has been a tremendous help for me in terms of understanding the intricacies of the issues we face.

I think equally, Les Sutton, as Vice Chair, is a tremendous resource. He has great experience on this Board and will help us tremendously in this challenging year.

It's my fourth year on the Board, and I have to say that I marvel at the resiliency of the Corps of Engineers, both on the military side and the civilian side. Looking at what has transpired over the last three years has been just amazing, the twists and turns and the ups and downs.

And it's an area where, I know from an industry standpoint, we feel there really is a tremendous need to keep our finger on the pulse at all times of the issues, and that's reflected in the Corps reform effort that's currently underway. And certainly, it's reflected in the fact that a number of us in this room have strongly supported the waterways work lobbying team. And I think all of us here are happy that we have that resource in place, and it's really a resource for the Board to be able to get its message out more effectively to the Members of Congress, the media, and the general public.

We certainly share the General's disappointment that Secretary Parker resigned, but it is certainly a strong team going forward, and we look forward to the future with optimism. With that I will conclude my opening remarks, and we will ask the Board for a motion to approve the Minutes of the last Board meeting.

MR. TIM PARKER: So move.

MR. LESTER SUTTON: Seconded.

CHAIRMAN DANIEL MECKLENBORG: All in favor?

BOARD MEMBERS: Aye.

(Unanimously approved.)

CHAIRMAN DANIEL MECKLENBORG: So moved. The next item on the agenda is Status of the Inland Waterways Trust Fund, David Grier.

MR. DAVID GRIER: Thank you, Mr. Chairman. The Board should have copies of the Trust Fund Status Report in your notebooks. If anyone does not have their notebook, I have some 23 extra copies up here. Under Tab 3 you have a Status Report and then the Trust Fund Analysis. The Status Report is a one-page summary of revenues, outlays, and the end year balance for 2001 and then the current status through March of 2002.

We ended last year with what appeared to be record revenues of nearly 113 million coming into the Trust Fund, interest earned of about 21 million, and outlays, in terms of transfers to the Corps for ongoing construction of 110 million, and that left us with an end year balance of 411 million in the trust fund.

Through the year-to-date, revenues have run about 19 percent lower. And yesterday, talking with Mr. Sutton, we thought that perhaps those record revenues for 2001 reflected some early crediting for perhaps what would have been October receipts, and that may explain why

revenues were so high and why they are running somewhat lower through year-to-date figures for this year.

Currently the balance in the trust fund is 407 million through March, and we have transferred about 51 million for ongoing construction through March of this year, and that's up about 10 percent over this time last year.

In terms of the Trust Fund Analysis itself, as has been done in the past, we have two scenarios in there, a baseline and a capability. The baseline is based on funding levels in the FY03 budget requests and the 10-year budget program as reflected in the ceilings that we have on our funding amounts. The baseline scenario is shown in Tables 1a and 1b in the Trust Fund Analysis, and also included is some discussion of the assumptions that go into that.

Some of the changes, just to note very quickly, principally the changes would be some increase in the cost estimates at a couple of the projects. In particular, the Lower Mon Project has increased by 45 million to 750 million total estimated, and the Inner Harbor project by 28 million to about 605 million total for the shallow draft portion of that project.

Using the baseline scenario, as you can see in Tables 1a and 1b, all of the ongoing construction can be completed. The projects are somewhat delayed due to the funding ceilings. We have additional delays reflected at this time for the major rehabs at 24, 3 and 11 or stretched out by one more year. There are no other new starts under the baseline scenario. And this is a graphic depiction of Table 1b, what happens to the balance and to the outlays.

We have a gradual increase in outlays programmed after next year that run up to about 200 million total over time, and that begins to draw down the balance after the balance peaks next year at just under $500 million. What we have noticed in the past though is those higher outlays programmed in the out years tend to get reduced as those out years get closer.

Next table. Under the capability scenario, first, Tables 2a and 2b, and then there's also a 2c and 2d. The capability scenario was broken into two parts this time because in running it through the model, if everything moved forward at capability level funding, all of the ongoing construction could be accommodated by the Trust Fund and projects could be completed on a somewhat accelerated optimum schedule than under the baseline.

The 10-year program for capability also shows a number of new starts, actually beginning in '03. And these include rehabs at Markland, Emsworth, and O'Brien and Lock 19 on the Upper Mississippi. Those could also be accommodated by the Trust Fund, but then further work beginning in 2004, which includes programmed work on the Gulf Intracoastal Waterway between High Island and Brazos, and also at Matagorda Bay. If those were initiated, it would actually reduce the Trust Fund to a level that you would have a zero balance and would actually go negative.

Next slide. Here you can see we would go negative by about 45 million by 2008 if those new projects were initiated and if all other ongoing construction proceeded at capability level funding. So I ran a further analysis where the capability schedules are modified to avoid a Trust

Fund deficit, and new starts are delayed in order to allow the Trust Fund balance to build back up to support those programs.

The next table. This is Table 2c, and this is what this schedule would look like to avoid a Trust Fund deficit but continue building projects as they appear in the 10-year capability program.

And effectively, what happens is the bulk of new starts are pushed out to about 2008 to 2010. By 2010 much of the ongoing construction now underway is completed, and a number of many new projects could be started in that 2010 time frame.

And this is what the outlays and balance would look like under that modified capability scenario. The balance peaks this year at a little over 450 million and then falls off rapidly to support the capability program. Outlays increase to a little over 200 million and then begin to come down as ongoing construction is completed, and outlays are at a level that will match the Trust Fund revenues and the amount that the Trust Fund can support.

Any questions on the Trust Fund analysis?

MR. LESTER SUTTON: David, I have a comment.

MR. DAVID GRIER: Mr. Sutton.

MR. LESTER SUTTON: Les Sutton. First, I want to commend you for this work. I think this is one of the most valuable pieces of information we have. And this one is particularly dramatic because it shows when some of these projects can be started and staying within Trust Fund capability.

Now, it's a bit optimistic to assume that Congress is going to appropriate $400 million for new construction. Waterways work goal is $300 million. So it's probably going to continue to be constrained by appropriations.

But either way, this information is very good because I think we are exactly where Senator Domenici wanted us when he initially passed the user charges. We have to make choices.

And so I would commend these reports, and there are others that were passed out in the last meeting, which I missed, that are very valuable in helping us make choices by which projects move more rapidly. And I would also point out that Chickamauga is not yet in these numbers. So for any project that moves up sooner than 2010, something else must move back or existing projects must not move at capability levels. So I think it's very good. It helps us make the choices that we need to make.

MR. DAVID GRIER: Thank you, sir. I will attempt to get the numbers I need to have Chickamauga in the analysis for next time.

Before I get to the analysis of the Atlantic Intracoastal, the Board also requested some estimates for the fuel tax revenues by waterway segment. There's a one-page handout in front of

you. This is not in your notebooks, but you should have a one-page table saying, Inland Waterways Fuel Tax Receipts Estimated by Segment, and the Board wanted to just have a look at how the revenues are estimated to be apportioned by Inland Waterways Segment.

We would not have been able to do this in terms of the way the Trust Fund receipts are actually recorded, since they are paid by the companies directly to Treasury, and it's regardless of where their movements are on the system. But fortunately, our friends at TVA have a model that uses the water-borne commerce data, origin/destination for every movement on the system and the towboats associated with those movements and the horsepower for those towboats.

And they have generated estimates of fuel consumption for those movements, and then they have modeled those movements to determine an estimate of what the Trust Fund receipts would be associated with those. I would note that this is an estimate of the receipts just for the time the cargo is moving on a particular segment. It does not indicate how much cargo has moved from one segment to another. And the receipts are associated with an origin or a destination. This is strictly as the cargo passes on a particular fuel tax waterway.

And you can see, it's '95 through '99 and then an average. And the Lower Miss comes out on top at nearly 40 percent of the total receipts, followed by the Ohio, the Upper Miss, the Middle Miss, and the Illinois Waterway, but you can look at that for yourself.

I would offer that we could try and work with TVA to actually generate some estimates by origin or destination so you have some attribution for the total movement for where it started or where it ended. For example, looking at the Upper Miss,you could figure out what the revenues were for traffic that began or ended on the Upper Miss, and the numbers we have looked at for that suggest it's more on the order of 40 to 50 percent of Trust Fund receipts.

And you would see that for the other range waterways, too, if you looked at the origin and destination rather than just what was generated while traffic passed through a particular portion. Any questions on that table?

If not, I will go ahead with the last analysis we were asked to put together. And this was for traffic in terms of ton miles on the Atlantic Intracoastal Waterway, this came up at our last meeting in November, and a comparison of the ton miles and what's been happening in terms of O&M expenditures on the Atlantic Intracoastal. This is in Tab 6 in your notebooks. And you have most of these slides in there. I have added a couple more that will not be in your notebook.

In terms of the ton miles, the Atlantic Intracoastal generates about 283 million on an annual basis. This is concentrated in the North Carolina reach, as you can see there, but the North Carolina reach is about 62 percent of the total on average.

But the traffic there, as you can see, has been declining somewhat since '96. It's down about 44 percent since '96. And my understanding is this is principally due to a fall-off in agricultural chemical traffic that was moving for export and some of that market has been lost.

Virginia reach also showed some decline. On the other hand, there's been some growth on the Florida, Georgia, and South Carolina portions of the system. The growth in Florida has been especially pronounced. It's now about 22 percent of total traffic versus 8 percent in '95. And my understanding is that this is principally due to longer haul movements and increased volumes of fuel oil.

This shows O&M expenditures by state reach on the Atlantic Intracoastal. And again, as you might expect, North Carolina dominates because of the mileage and some of the challenging projects there for maintenance purposes and several side segments that come off the AIWW.

This is what the Board actually asked to see: a comparison of the ton miles and the O&M together. We don't have ton-mile data yet beyond 2000, but you can see for the '96 through 2000 period there is a fair correlation. Perhaps this might be the chicken and the egg situation. I don't know what's responsible for what, but the O&M has gone down and the tonnage and the ton miles have gone down. You see a blip-up in the O&M outlays in 2001. I don't think we will see a corresponding upturn in the traffic, but we don't know that for sure yet.

This slide I thought the Board would be interested in. This is just to show what's in the '03 budget request by waterway segment. And you can see that compared with actual appropriations in '02, you have fairly substantial declines in what's being requested for many of the tributaries. And you can see the Florida Intracoastal Waterway and AIWW pieces, their declines of over 60 and over 80 percent respectfully.

And just to close, these are some of the restrictions that we're currently experiencing on the Atlantic Intracoastal. There have been problems with maintaining the authorized depths, both in terms of funding and in finding disposal areas for any dredging that does take place. And so there are a number of navigation restrictions currently in place on the system.

And just for comparative purposes, this is an estimate of the Trust Fund revenues generated on the Atlantic Intracoastal by state reach, and those averages come out to just under a million dollars annually generated by that system.

That's really all I had in terms of remarks for the Atlantic Intracoastal. Are there any questions from the Board? Yes, sir. Tim Parker.

MR. TIM PARKER: This is Tim Parker. Will you be disseminating this information to some of those user groups that we met down there in Miami who represent that area?

MR. DAVID GRIER: Yes, sir. Many of these slides were in a presentation I gave there at the Atlantic Intracoastal Waterway Association meeting in January, and so they do have this data. And they were going to put it on their web site, I believe.

MR. TIM PARKER: Good. Thanks.

CHAIRMAN DANIEL MECKLENBORG: David, do you have any feel for why we had the decline in the Virginia receipts?

MR. DAVID GRIER: Not for sure, but the ton mile traffic on the Virginia portion has gone down and that might be associated with through movements on the North Carolina portion of the system. So it would reflect the same declines in the agricultural and chemical movements and some of the mineral movements that took place in that reach.

CHAIRMAN DANIEL MECKLENBORG: Thank you.

MR. DAVID GRIER: Certainly.

CHAIRMAN DANIEL MECKLENBORG: David, I want to thank you for that presentation, just some great material. As Les said, excellent visual representation of what we're looking at over the period of time. And this work on the AIWW is fascinating, and we very much appreciate your efforts. The next person on the agenda is Mr. Henry. He's speaking on FY02 Funding for Inland Navigation Projects and Studies.

MR. LEN HENRY: Good morning. My handout is found at Tab 4. And Mark handed them out right before the meeting, and I don't know if he inserted them in Tab 4 or had them loose, but the first handout I am going to discuss is the Program Budget Cycle chart.

This chart represents our three-year program funding cycle. At any given time we're in all three stages of the budget cycle, the developing, the defending, and the executing. You can see where we are right in the middle of the chart by the vertical row of crosses in the month of April. The first bar represents our FY02 program. Has everybody found it? Start right here.

MR. LESTER SUTTON: It's the funding time line, correct?

MR. LEN HENRY: Yes. The top line represents our FY02 program. And as I said, the crosses in the middle of the chart represent where we are in April. And you can see we're in the second half of executing our FY02 program.

This FY02 program is the program that was enacted by both the Administration and the Congress, their joint program. For FY03 we're in the defense cycle. The President has testified and now we're defending it with Congress.

And a bottom row represents our FY04 budget cycle, and we're just beginning that by putting out the budget EC and developing new cost estimates. So it's an ongoing cycle. At any given point in time we're working over three years.

Down below in more detail there's a month-by-month description of what we do to develop, defend, and execute our program. Are there any questions on the chart?

MR. LESTER SUTTON: General, I have a comment or a question pertaining to FY04, and that involves the billion ton-mile guidance that's in OMB's document. I know we have had some conversations with OMB. Is there anything working or what do we need to do to try to change that

paragraph that doesn't allow you to put in any of the tributaries that don't generate a billion ton miles on that segment?

GENERAL ROBERT GRIFFIN: Les, I will tell you that we have IWR, and quite frankly, Fred Caver, and we are very concerned in the Corps. And what this relates to is a way of measuring and somehow or other prioritizing the waterways based on ton miles. It is a method that OMB uses, but here is the problem with a ton-mile piece. You're looking at segments when it's actually a system.

For those in the audience, it is not unlike when you get up in the morning and you get on your feeder street that goes to the interstate and you drive down the interstate and then you get off and you go to the office, the interstate has the highest ton miles. Based on that, we'd have interstates all over the country, but you'd have to park your car on the side of that interstate and walk to your house because those streets that go to your house are not economically justified. That is the methodology that is being used.

The other thing is, it doesn't view the navigation system as an integrated whole, recognizing that you have to have the feeder streets (such as Chick lock) to get to the main lines to go to these other places.

Finally, I would tell you, and I saw this absolutely around the Houston/Galveston area; and that is, if you have got refineries on these little short stretches, they may be doing a lot of business, but the stretch is so short they don't generate the ton miles. So you can be inefficient and weigh up something and you will get more ton miles. And as we also heard, I believe, yesterday, if you're moving Saturn boosters, there is no accounting for that either. So we have heard all of that.

IWR, we are working to see if we can come up with another way. I think, like many agencies, what they are trying to find is some simple way to do this. But in developing the simple analytical tool, I think that folks can understand we have probably thrown the baby out with the bath, as they say.

It's a long answer to your question, but I think everybody needs to, wants to be educated on the issue; and two, that we're very sensitive to this; and three, with IWR's help we're working with OMB. And, quite honestly, Les, they have asked us to offer something else. So if we move forward, and we believe we have the best tool to make sure this Board is aware of that so we can offer a counter to it. And I know the office of ASACW is certainly willing to do that. We certainly have an imperfect tool today.

MR. LESTER SUTTON: Thank you. And that's where I headed. We saw another onerous formula that is in the Smith-McCain Bill, and I think we have to come up with something else, and that's not easy.

For those of you who remember the Tisdale effort, which I thought, by the way, was quite good, it had some problems, but I think until we come up with some way to prioritize, other people are going to continue to try to do it for us.

GENERAL ROBERT GRIFFIN: Very true.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Les. Great question. And thank you, General, for your insight on that.

MR. LEN HENRY: Are there any more questions on that time line?

GENERAL ROBERT GRIFFIN: If I may note for the Board, you see the name Steve Hudak there. Steve has not gotten nicer looking, we just have Len Henry down here filling in and doing a great job for Steve as we're in the process of recruiting a replacement for Steve, but Len has been doing a great job in his absence as Steve has retired and gone on to other things.

MR. LEN HENRY: Now, this list of projects is the same list that was presented at the last Board. This is because we had no new starts, either in general investigations or in construction general. So the universal projects is the same, and it's been updated to reflect what we have in the FY03 budget.

With respect to the FY03 budget, for construction general our budget is 1.4 billion as compared to 1.7 billion that was appropriated for FY02. This FY03 budget puts an emphasis on completing projects. OMB has placed a priority on project completions. It reflects no new starts. As General Griffin said, it placed a priority on Olmsted Waterway.

It's important to note that once you take away the completions from the universal projects and you take away the high priority projects, our ceiling allowed only 80 percent of the funding required to fund our continuing contracts. And some of these projects that received inadequate funding in the budget, some of these were Trust Fund projects. We have a shortfall estimated at approximately 380 million for our continuing requirements.

Now, some of these contracts that represent this shortfall for continuing contracts have not been awarded yet. They are going to be awarded later on this year. And we are continuing to execute our '02 program and award these contracts with the idea that Congress and the Administration together have not acted on the FY03 budget. Having said that, are there any questions?

CHAIRMAN DANIEL MECKLENBORG: Okay. Let's see. Len, do you have any other comments?

MR. LEN HENRY: No. I could go through the table project-by-project, but it's names and numbers.

GENERAL ROBERT GRIFFIN: Again, for the Board's information, I was just remarking to our Chairman here that I just several days ago got a briefing on our current program execution this year, and we're on pace right now, we're 112 percent of schedule for our construction program this year. So we are moving out very aggressively this year to get our program executed.

Why is that important? That is very important. If you will recall a number of years ago the Corps had a substantial carry-over where we didn't fully execute the program every year. It is

difficult if you're in that kind of situation where you're not fully executing your program, if money is available the Congress and the President, they are going to look to other areas to fund.

And so one thing we must do is make sure we fully execute our program, and we're well on track to do that this year. Yes, sir.

MR. MARK KNOY: Mark Knoy. One question. Where do we find what was budgeted for '03 versus what the request or the difference between requested dollars versus budgeted?

MR. LEN HENRY: The numbers shown here are the President's request. The President's request is what we budgeted.

MR. MARK KNOY: Okay.

MR. LEN HENRY: Congress has not acted yet. That comes on later this summer when the House and the Senate act.

MR. MARK KNOY: Where would we find the difference between the President's request and full capability?

MR. LEN HENRY: You would ask what the capability amount was for the projects and then we would tell you.

GENERAL ROBERT GRIFFIN: Len's doing a good job. That is our request, I might add.

CHAIRMAN DANIEL MECKLENBORG: In the Users Board's report each year, we get that information from the Corps. And you can see from last year's report that the expected capability or full funding level is listed with each of the project priorities.

I don't think we have those numbers developed for this coming year as yet, but I think we will have them for inclusion in the report, I believe.

MR. LEN HENRY: Yes.

CHAIRMAN DANIEL MECKLENBORG: Great.

MR. LEN HENRY: Well, I do have one more thing. As General Griffin said, we're executing our program at a high rate, and we're on target to execute a program of 1.9 billion this year out of 2.1 billion that's available, leaving 200 million on the table. And that is all Act language money that can't be reprogrammed to other projects. So we're on target to execute 100 percent.

And where we were in March compared to last year, we're $90 million ahead and ahead of our projection, our schedule this year. So things are moving along well.

CHAIRMAN DANIEL MECKLENBORG: Great. That's good news. Next on the agenda is Michael Kidby. He's presenting Comparison of Tow Delays and Critical Backlog.

MR. MICHAEL KIDBY: Good morning. At the November Users Board meeting, the Users Board asked for an analysis of delay time broken out by waterway and a determination of whether the critical maintenance backlog was a factor in those delays.

What I have shown here are the major waterways across the country, whether shallow or deep draft alphabetically, and the parenthesis behind the name is the number of lock locations on that waterway.

And what I have done is come up with an average delay at each lock site on each of the waterways. This is from 1999 published data that our Navigation Data Center provided. It's based upon the average of each of the locks in the waterway and then an average taken of those averaged delays.

The reason I did an average delay at each lock in the waterway was so that when we look at the -- excuse me. This is the average tonnage. What I want to compare is average delay with average tonnage along the waterway so that you get a relative comparison there. The the average tonnage there is ranked, and that is the number in parentheses, and that, again, is 1999 tonnage.

Next column, please. What I have done is then look at the average delay at each of those locks along the waterways and I have ranked those in parentheses.

Next column, please. And this column shows the critical maintenance backlog as presented for the year 2003, fiscal year 2003. And again, I have ranked the waterways based upon maximum critical maintenance backlog in millions of dollars to minimum.

And the last column, next, please, shows how these waterways compare. When you're looking at the average tonnage, average delay, critical maintenance, you will get the ranking, and it's basically what we would expect to see. If you look at the waterways, No. 1 is the Ohio River. No. 2 is the Upper Mississippi River. No. 3 is the Illinois Waterway. No. 4 is the Tennessee River. No. 5 is the Gulf Intracoastal Waterway.

So there is a correlation between the average delay along those waterways and the critical maintenance backlog that we have on the same waterways. This was done just for one year. It has to be done by hand at this time, but it does show that there is a correlation.

MR. LESTER SUTTON: This is Les Sutton. I have a question. It appears the average delay is not weighted by tons, is it? It's averaged by lock?

MR. MICHAEL KIDBY: It is averaged by lock.

MR. LESTER SUTTON: Okay.

MR. MARK KNOY: Is that hours?

MR. MICHAEL KIDBY: That is in hours, yes.

MR. MARK KNOY: And the tonnage, what is that, tonnage per –

MR. MICHAEL KIDBY: That is in millions of tons that go through that lock in a year's time. And what I have done is added up the tonnages of all of the locks and then averaged for each lock.

MR. LESTER SUTTON: This is Les Sutton again. The reason that Ohio River number is so high, it's inordinately affected by those auxiliary locks when your main lock is closed. So, I mean, that's why it's different than your boats experience.

MR. NORB WHITLOCK: Question for you. The St. Mary's, is that -- St. Lawrence Seaway, is that --

MR. MICHAEL KIDBY: That's Soo Locks.

MR. NORB WHITLOCK: And the other question I have is critical backlog on the Red River is 18 million?

MR. MICHAEL KIDBY: That's what we are showing for the year 2003.

MR. NORB WHITLOCK: That seems to be an incredible amount of backlog for projects that were just recently completed. I mean, recent, within the what, past ten years?

MR. MICHAEL KIDBY: Those are the numbers that our districts and divisions have brought forward to us as critical maintenance.

MR. LESTER SUTTON: Les Sutton, again. Another question. Does that include construction or is this just O&M?

MR. MICHAEL KIDBY: This is O&M.

GENERAL ROBERT GRIFFIN: Actually, out of the critical backlog, Mike, I would say what, maybe 60 percent of it is dredging, is that correct? It's a very high number in our O&M backlog.

And by the way, for the Board, our critical backlog -- and we have other deferred maintenance, but our critical backlog, that which we define as work that if not done jeopardizes that project to provide full capability.

Our backlog this year right now is slightly over $700 million. Were the President's budget enacted as brought forward, our backlog, we project, would go to $884 million. One of the things that the Chief of Engineers asked us to do, and we can provide it, would be happy to provide it, we produced a CD-ROM that has the top ten projects from every division, just as an example where they are in the state, that we pass out to those who are interested in this backlog work.

Obviously, you know, we see backlog as a big issue. It's a national issue. It's not just waterways, but it's roads and other things. And quite honestly, we're probably too successful at

times, between our contractors and hired labor force of responding and keeping these aging locks open. We're able to do that with fewer dollars than we need.

And so far, thank goodness, we have had no real catastrophic failures. We have been able to work closely with the Coast Guard, and certainly with you the industry, and we appreciate your patience as we have these unscheduled outages. But my belief is if we continue to not put money toward O&M backlog simply because we don't have it, I think you will see those unscheduled outages increase. That will be the practical effect of these increased O&M critical backlogs.

MR. LOOMAN STINGO: Looman Stingo. Can you tell me again how you do the average ranking, how you get this ranking on the ton average?

MR. MICHAEL KIDBY: Okay. For average tonnage, I --

MR. LOOMAN STINGO: Just the actual, the last column.

MR. MICHAEL KIDBY: Okay. That was based upon a simple multiplication of the ranking for each of the waterways by the average delay ranking, the tonnage ranking times the delay ranking times the critical backlog to come up with where they ranked overall.

MR. LOOMAN STINGO: I see. Thank you.

MR. MARK KNOY: This is Mark Knoy. Once again, Michael, Les mentioned this to me, but explain again the Ohio River average delay. You took a stab at that, Les.

MR. LESTER SUTTON: Yeah. I believe that is the average delay, and it's inordinately affected. And you can see it in the information passed out last time that's in your book.

The auxiliary locks, when you close one of those big locks on the Ohio and you start going through those little locks, the delay gets several days. And so the Ohio happens to have a lot of auxiliary locks, so that tends to affect the average. If you did it just on main locks, the Ohio wouldn't look like that.

MR. MICHAEL KIDBY: Mike Kidby. Our data collection at the Navigation Data Center is for the main chamber and auxiliary chamber on the Ohio, and I have indicated there 20 locations. There's actually 40 locks at those 20 locations. So I added up the tonnage of the main and auxiliary lock at each of those locations and then came up with the average for those 20 locations.

But it does indicate that the Ohio River, with its backup locks, does carry a significant amount. Even though the delays, if the main chamber is closed, are great because of the sizing of the tows, that auxiliary lock is a safety valve and it helps where other locks -- or other systems don't have that valve.

GENERAL ROBERT GRIFFIN: Actually, a lot of that is the economic foundation for why they have so many approved projects right now, and more in the pipeline if the economics are there to justify these total rehabs and double larger locks.

MR. MICHAEL KIDBY: Yeah.

MR. MARK KNOY: Michael, could I get some detail on that? I'm just interested in it.

MR. MICHAEL KIDBY: Certainly.

MR. MARK KNOY: Thank you.

CHAIRMAN DANIEL MECKLENBORG: Okay. Other questions? Michael, do you have anything further on that?

MR. MICHAEL KIDBY: No.

CHAIRMAN DANIEL MECKLENBORG: The General mentioned the CD's or CD that is available, and that would be great, General, if we might be able to get copies of that for the Board members.

GENERAL ROBERT GRIFFIN: Chairman, we will be happy to provide those to each member of the Board.

CHAIRMAN DANIEL MECKLENBORG: Thank you. The next item on the agenda is Mr. Hanley, who is going to speak on the Ohio River Project Status and the Ohio River Main Stem Study Status.

MR. PAUL HANLEY: General Griffin, Mr. Chairman, Members of the Users Board, my purpose this morning is to give you a brief update on several of the major construction projects on the Ohio River. I should note that it's rather obvious to all of us, the purpose of the Corps of Engineers is not to regale you with treatises on accounting spreadsheets and studies of elasticity and demand, but to actually put in place real projects that provide benefits to the nation.

So the exciting news is that we are doing that in LRD, and I am going to describe some of these projects rather briefly. Now, having said that, we have to put that goal in the context of some of the items that David Grier and Len Henry have mentioned earlier.

And the exciting news is that we are moving forward on these engineering projects, but we bump up against the budget constraint. And the exciting news is that our goal is, for the most part, to put these five major projects in-service in a time frame approximately 2008, 2010. I know the dollars kind of stretch out, but these projects, for example, Olmsted is targeted to be operational by 2008. The demo of 52, 53 will occur after that, but the project will be available.

But as you can see from this chart, that goal is going to require a level of funding substantially higher in the next couple of years than we have now. So, when I make these reports, you have to understand that we're going to have to have a bump-up in funding that's rather substantial.

I am going to report on Kentucky, Olmsted, McAlpine, and Marmet. And Hank Edwardo, who is the project manager for the Lower Mon project is going to tell you about Braddock.

Olmsted, okay, it's been going on for a long time. The good news is that the lock is done. And what you see on the right, this is kind of a fascinating piece of engineering. This is a section of an approach wall, and that section is approximately 350 feet long, 38 feet wide, and about 25 feet tall. Think of it as a cement boat with many watertight compartments.

These sections are being built at a grading yard on the Tennessee River near Paducah, Kentucky, and there are dozens of these sections. This contract was a $99 million contract. The project manager tells me that these wall sections will be floated out to Olmsted starting in November, and that activity will be completed in February, and they will be linked together at piers which are currently being constructed on-site.

So instead of having a wall that goes all the way down to a riverbed, you have a wall section that floats, and it's rather amazing. But, you know, I look at this and I say, it's a cement boat.

The Olmsted project is essentially 50 percent complete. What we're doing right now with the $38 million of 02 money is continuing the construction of the approach walls. Again, they should be in place in February.

Getting back to some of the things that we were talking about earlier, the project manager is almost counting on getting another 59 to $60 million this year to continue this construction of the approach walls and bulkheads. And then in -- we're well funded in '03. We're planning to initiate the dam construction. That dam contract should be awarded this summer.

So this project is moving along very nicely, but full funding is very important for this February in-place approach wall scenario, you know, it could be in jeopardy without some additional funding.

Kentucky Lock, obviously we have been building a new lock at Kentucky for some time. We have continued to come here and report about the movement of some power transmission towers, not very exciting news.

The good news is that you can see in the background, we're constructing something in the water. The bad news is it's not a lock. It's the substructure for the railway and highway bridges that had to be relocated. So there's several things going on at Kentucky Lock. We have completed this tower relocation. We have completed the construction of the embankments, which involved something like a million cubic yards of dirt being moved. We're putting in these pilings for the substructure for those bridges, and the district has also initiated the construction of a cofferdam.

Again, funding for next year is a little light. So that project, which is anticipated to be completed in 2010, has a total project cost of $533 million. So funding levels of $27 million in '03 are kind of tight.

Very exciting news at McAlpine. This is a recent picture. The cofferdam, if you'll look at the bottom end, the downstream end, there's just one little piece that has to go in. The cofferdam should be completed in May, but there was an opening left here so, as I understand it, a repair boat could get in and out. I'm not sure what we're repairing, because we're going to start destroying the auxiliary lock very soon.

But at any rate, the cofferdam will be closed off shortly, and then it will be dewatered in June. The demo of the auxiliary lock is going to occur in the period May through December, and the project manager tells me that the award of the lock contract is scheduled for this summer.

Now, that's all very exciting news. We have $6.1 million funding for next year. So you can see that the progress of the lock is going to be somewhat constrained unless we get a bump-up.

Now, this is really interesting. That is a leaf, a gate leaf. Standby gates were put in, hung on piers very near the old lock. I think it's called the surge basin, in the last month. In the background you can see the gate lifter is lifting that gate leaf to position it on that pier, and those gates weigh over 300 tons. There's some device on the gate lifter where they can measure the weight. And as I understand it, the gate lifter has been tested to be able to lift over 600 tons.

So what has happened here is using O&M funding, these standby gates were built and put on piers. Obviously, now we're down to one lock at McAlpine. So if anything happens to one of those gates, we have standby gates nearby that could be put on the old lock probably in five to seven days because we're now at risk with one lock.

Now, when the new lock is built, these standby gates will become the new gates for the totally rehab'd older lock. So that's kind of exciting news.

Marmet, building a new 110 by 800-foot lock in Marmet. Total cost $313 million. Project is anticipated to be completed in 2009. Again, the project though is likely funded next year.

Up to the present, the Marmet project has consisted primarily of relocations. There were a number of houses – I think there were a couple 100 houses, actually, and some businesses that had to be moved out of the area. So that project, which is 21 percent complete, was primarily a real estate relocation up to the moment.

Now we're actually building something. It's not a lock. It's a maintenance building, but we are building something, and we are going to initiate the lock construction in '03. Again, though, the progress of that lock is somewhat constrained by the level of funding.

Okay. Most of you were here yesterday and you've already heard the Chickamauga Lock story, but for those of you who weren't, this is a project nearby. The report has been completed. We are in the final throes of the administrative report process. Hopefully, we will have an authorized project. Apparently, it's a 400 by 75-foot lock recommendation, and hopefully next year we will have that authorization to be in design.

And that is a schematic of the new lock, which is riverward of the existing lock. The lock is projected to cost $242 million. And then briefly an update on where we are on the Ohio River Main Stem Study. Because of the necessity of producing feasibility reports on Greenup and Myers, which demonstrated early needs, and the other priorities, we stretched the ORMSS schedule out a little bit.

Right now we're scheduled to produce the draft system investment plan, SIP is system investment plan, next summer. And for those of you who may be new to this and aren't familiar with what the Ohio River Main Stem System Study is, in addition to producing feasibility reports on Greenup and Myers and Ohio system rec -- Ohio system ecosystem restoration, this study will culminate in a master plan for the Ohio River System for the next 50 years. So we're looking forward to having this SIP next summer. That concludes my presentation. Are there any questions?

CHAIRMAN DANIEL MECKLENBORG: Thank you, Paul. We have got a question from Tim Parker.

MR. TIM PARKER: Yeah, this is Tim Parker. Would you back up two slides, that summary slide you had of Chickamauga that had the time. Okay. And I guess that would – the bottom line there of '04 -- okay. I was scribbling some notes down there. For the benefit of our local folks here, I just wanted to see that time frame there. Thank you.

MR. PAUL HANLEY: I might – you know, Mr. Knoy asked a question earlier about capabilities, and I realized that on the back of this Ohio River book, if you look in the back of the book, you will see a table which compares FY 2003 budgeted versus FY 2003 capability. The Olmsted project next year is funded very close to capability. The other projects are not in the same mode. And the exciting news is the districts in their contract is moving now very aggressively in getting these projects completed, but again, they are bumping up against the budget constraints.

And if there are no other questions, I'm done.

CHAIRMAN DANIEL MECKLENBORG: We have got one more here. Mark Knoy.

MR. MARK KNOY: General, this is exactly what I was looking for for all the other projects, a summary like this on capability dollars versus what's in the President's budget.

GENERAL ROBERT GRIFFIN: Okay.

MR. NORB WHITLOCK: Paul, I guess the question, of all of the projects where you're showing the budget and the capability, I think it's probably worthy of note, the one that is of the greatest concern about being stretched out is the McAlpine project where you have no other alternative if you have a lock closure there.

MR. PAUL HANLEY: Your point is very well taken. I mean, we essentially closed the auxiliary lock. We have those standby gates in the event of an accident, but the funding of 6.2 million, I

mean, the project manager tells me that, you know, they won't allow a lock contract this summer. So we're up against it as far as the funding is concerned, but I'll leave that to the people that are --

CHAIRMAN DANIEL MECKLENBORG: Yes. We have got --

MR. LEN HENRY: Len Henry. This is Len Henry. Our guidance to the field was to keep on executing the 2002 program the way Congress and the Administration enacted it, and you should go ahead and continue to strive to award these contracts until you receive guidance otherwise.

We're not trying to delay the program. Congress has not acted on '03. And until they do, we're continuing the '02 program, business as usual.

CHAIRMAN DANIEL MECKLENBORG: Okay. Yeah, thank you, Len. And I wanted to mention that I certainly agree with Mark Knoy that this presentation is really where the rubber meets the road, as far as the capability versus the funding level, and it's probably the greatest emphasis.

In terms of the lobbying efforts that waterways work undertakes is to try to look at these key projects as being deserving and to get the word out that you have got critical issues at McAlpine. It seems like on the Olmsted project we got the word out and it was heard. So that's where we're focused.

Yes, Len.

MR. LEN HENRY: Len Henry again. Let me make one comment about the Olmsted additional funding requirements for FY02. We intend to provide the FY02 funding to any of the projects that need it in FY02 by reprogramming from other projects that fall behind.

And at this point in time, there's no reason to believe that we are going to fall short. It's going to be close, but we expect to be able to fund all of the '02 requirements.

GENERAL ROBERT GRIFFIN: Yes, for the Board and our audience, I would like to amplify what Len said. Obviously, we're in a budget cycle for '03 right now where the President has proposed a budget. It is substantially less than what we have this year on certain projects, given there were a number of adds. So right now we're executing an '02 program.

And there are those, even within the Corps, who can look to next year and say, should I award this contract if the money isn't there at this point?

Well, the budget process is quite complicated. The President has proposed a budget. The Congress will do what they do with it. There will be discussions between the Congress and the Administration, and all of that will play out over the summer. And then the President will either approve the bill or veto it, and it will go back and forth. So that will play out at a much higher level than the Corps of Engineers. We have certainly had our say.

And so our focus right now, as Len rightly says, is we have been provided in law a program -- an authorized program in 'O2 which we are bound to execute. We don't assume the prerogatives of anyone for '03 at this point. And so we will move ahead and execute the '02 program, and when '03 comes we will adjust accordingly. But make no mistake -- and I say this, because even within the Corps, they get a little nervous when they don't see that continuation out there at this point in time, but that's why we have continuing contracts and these funding clauses in our contracts. It's very unique to the civil works program and is designed exactly for that reason.

So the Corps of Engineers will move aggressively, as I said, to execute that '02 program. And when '03 comes along, we will aggressively manage and execute it when it comes. Just a point of clarification, Len. Thank you.

CHAIRMAN DANIEL MECKLENBORG: I have a question for Mr. Henry. Did you say that there are adequate funds that can be reprogrammed to keep Olmsted going this year.

MR. LEN HENRY: Well, yes. We don't know where they are, but some projects are going to full behind schedule. And as those projects fall behind schedule, we will take the monies from them and reprogram it to Olmsted and the other projects that need it. Right now we're shuffling fourth quarter earnings to the projects that need them here in the near term. And as we get closer to the end of the year and we recognize which projects are falling behind, we can take those funds and replace the fourth quarter earnings of the projects we borrowed from, if that's the right term, and right now we don't expect to run out of money.

CHAIRMAN DANIEL MECKLENBORG: Thanks, Len. Appreciate the straight answer there. And now we have Mr. Steiner.

MR. DAN STEINER: Yes. Just to top that off, let me assure you that we are poised to spend effectively all the money we can get our hands on, this year, next year, and I think quite a way in the future. Paul got to cover the exciting stuff, but I wanted to spend a few minutes talking about some stuff that I think is really important.

We talk about design innovation and the advancing science. It's important to recognize we need to work with a lot of different people on that. Because of our unique situation, some of those people are Canada and the Great Lakes Commission, and it's surprising the things we're picking up from them that have direct benefit on our inland waterway systems. So it's kind of a happy marriage.

More close to home, we particularly want to thank you and some of our navigation stakeholders for the interest you have taken in what we have done. Neil Diehl challenged us on design innovation. He really got in our face. Norb has done a very good job of following up on that. And more recently, Watson and others have raised some questions about how we're doing projections.

So I am going to address a little bit of that right now. The middle bank there is the agencies we have really got to work there. And on the far right is some folks that we're trying to constantly

improve our working relationships with. I can't thank the Institute for Water Resources enough for the contributions they've made. And TVA and Oak Ridge are wonderful partners.

Here's how we're organized for success. Our regional design team is responsible for a lot of our design innovation. All of the Mississippi River districts that have a design role in navigation are participating on that team. Our regional planning team is pushing the science button in conjunction with the Nav. Center and Oak Ridge and other folks.

In-the-wet. In a little while Hank will give you an update on Braddock. Paul talked about what's going on with the approach walls at Olmsted. We are totally committed to building everything that makes any sense at all in-the-wet. Cofferdams still have a place, like at McAlpine, but strategically the new thrust of our construction program is in-the-wet.

We talked a little bit about the impact of undersized auxiliary locks when we have to close the main chambers for maintenance, and it's important to know that those main chambers are middle aged and getting older. While gate lifters help, age is the other side of that equation.

So we have these two projects authorized. There are design emphasis now. What we are looking at is more efficient ways of filling extended lock chambers. It's easy to empty them, but filling them is tough.

In the feasibility report, we went through a very expensive filling. I am pleased to advise that we have now got a high level confidence in the scheme that will reduce project costs probably by 30 to $40 million, bringing in some laterals right over the floor of the existing lock and then leading to a distribution system, not unlike what we originally had.

We tested that out down at WES with an excellent model and some excellent support. It works. Everything fits. We have got the empty fill time down to a very reasonable 12 minutes or so. So we're very pleased with this kind of design innovation. From this kind of thing, we're going to learn and it's going to have other applications in other places.

Lastly, I want to just touch on what we're going to do with lock walls. We look upon the relatively small amount of lock wall construction required for Greenup and Myers as a learning opportunity. So we're going to look at float-in, we're going to try some lift-in to, once again, extend our ability for innovative design and to get to better construction costs.

I want to switch gears now to some planning issues. This kind of conceptual analysis and comparison on what would happen without a capital investment, what happens with, goes all the way back to Gallipolis, which now, of course, is the new Byrd Lock.

But there's a whole bunch more complications. The principles and guidelines have always been with us. The items in blue kind of evolved out of the National Science look at the Upper Miss. Probably you don't need to weave and woven, so we might have an extra word in there.

Let me touch on operating at the leading edge of the applied science. I am not a great fan of computers, but we absolutely must take advantage of the crunching power that's available. We can

do things now that you could only idly dream about doing 10 or even 15 years ago. So when people like Dan or Les say, we have got to have a comprehensive investment strategy for the inland system, my comment is, well, the computer capability is there and it can be done. It may take some money, it may take some effort, but it certainly can be done.

Lastly, we have got a lot of challenges from a lot of competing interests. My administrative assistant thinks this slide is humorous. I'm not sure I do. These are some of the things we have got to talk about, mode of scenario analysis, a probable realistic approach to the engineering risks and cost benefit ranges. Actually, we have been doing this for local protection projects for some time, but it gets much more complicated for navigation.

I want to start with where we're at on engineering risks. Particularly Emsworth and the Montgomery Locks are of concern to us in terms of how long can they be sustained with rehabilitation and what's going to happen over time. And I'm not going to go through this slide in a lot of detail, but I want to tell you that the analysis is complete. There's a thick report for anybody that wants to wish that upon themselves. We would be happy to provide that. And we feel we have got a handle on probabilities of failure and about what kind of modes. We're not only fairly pleased with this effort on the Upper Ohio River, but we're also starting to collaborate with the St. Lawrence Seaway folks to do the same things on that waterway.

Planning models, we have got a bunch of them. We don't look forward to doing new ones, and right now the emphasis is on getting the most out of what we have. I believe at your last meeting Dr. Randy Curlee of the Oak Ridge Lab gave you an excellent presentation on Ornim. It simulates operation on the waterway. It integrates engineering risks and it can come up with an optimum investment schedule.

One of my guys in the Navigation Center in Huntington went down to Oak Ridge with a dedicated PC. They built this model right into it. So in terms of crunch power, they are sitting there and navs at Huntington are running it on a PC. Once you have got it, it's not easy to use, but it's effective to use.

We have got a lot of other things we have to work on. We have got to integrate environmental in what we're doing, General Griffin hit it early on, very, very critical.

Another thing we're doing, because of the Great Lakes, but it has great application in other places, is input/output models have been around since I took Econ 102 longer ago than you want to know, but they haven't been really powerful.

We have developed a Maritime input/output model that can get down to counting a level of definition of effects in both the United States and Canada. So, for example, if we were concerned about some structural failures that might cut off Pittsburgh to navigation for three months or six months, we can fairly precisely evaluate those effects, not national account benefits, but important to decision-making nevertheless.

We're putting a lot of effort into refining some models that we have to evaluate the effects of navigation changes on the riverine environment. Also, we're putting a lot of emphasis on

cumulative environmental assessments. I was pleased with the support that we received for environmental restoration, and I can't emphasize enough how important this is.

Our philosophy, each of you have to pick out an environmentalist and be very nice to them, be their friend, listen to them. You have got to help us with this because this has to be part of the solution.

That's just a little laydown on the input/output model. We're very fascinated by what we can do with this new tool, which was really developed conceptually by IWR but fueled by Oak Ridge.

Let's take a minute and look at that first group of words. We have been doing this, as I said, for some time for simple things. Now we're moving to the navigation. We have a single lock study up at the Soo St. Marie where the system configuration is fairly simple.

So one of the things we're getting a handle on is cost uncertainty, uncertainty in forecast. If you were tempted to add iron and steel to your portfolio, this volume might discourage that. That's kind of the set of forecasts we're working with.

And what this gives us is the capability then to come up with some ranges, probability based ranges, of cost of annual benefits and of net benefits. So instead of a single BCR, you can look at a more realistic band that reflects higher or lower possible demand or cost scenarios. This to me is a much more realistic way of looking at navigation investments. Obviously, this has to be managed so you're not overwhelmed with more information than you know what to do with.

Lastly, I would like to finish up on something I talked about so much when General Griffin was back with us that his eyes would glaze over, air quality and highway safety. Minister Colanet of Transport Canada made a great speech not too long ago about how we have got to get all of these trucks off our highways. And if you've ever driven through Toronto, you know what he's talking about.

These are powerful, powerful things that we're only starting to get our hands on, but we can't measure them. Here are a few of the "gee whiz" numbers. Based on what we have done so far, we're convinced that the existing Ohio River System prevents illness, mortality, at least equivalent to half a million dollars. And I think if we get all the numbers right, about a billion dollars a year. Soo Lock, somewhat less. The Great Lakes and St. Lawrence Seaway, that's just our beginning number. If we were to modernize that system so it could handle containers, we think the benefits would be about $2 billion.

I once asked Norb why he wasn't moving the containers, and he said to me, "Show me the money, honey." Norb is real subtle. If you could crank some of these external impacts into that equation, it would be very profitable. So that is not a container movement going past Cincinnati, but maybe someday it will be. I will be glad to answer any questions that you have at this time.

GENERAL ROBERT GRIFFIN: Dan, could you elaborate a little bit, I remember it was actually Marshall University, was it not, that did the interface between transportation and public safety?

MR. DAN STEINER: Yeah. Because of all the litigation on asbestos and lung damage and all of this, the courts have sorted out what kind of cost you put on illness or you put on death. So all of that stuff, you know, we can talk about, but it's not controversial, the numbers are out there.

So what you have got to look at is alternate modes of moving commodities between Point A and Point B, be it rail or be it truck. You can evaluate the pollution effects of each of those modes and you come up with a computation. It really isn't very difficult once you get the alternate modes defined.

So our center in Huntington is working with Dr. Burton, who is an expert in this area, to put some numbers on it. I would like to see this pushed a whole lot more. What we in the Corps have is authorities to do individual studies, but sometimes to look at whole systems and tie everything together is a little difficult. In dabbling just a little bit with the folks over in Europe, this is very much a part of their planning, you know. They understand that they have got to use their Maritime system to avoid terrible congestion on their highways and to avoid some of the adverse effects of that kind of transportation mode. So I love to champion this point every chance I get. You can tell.

MR. TIM PARKER: Dan, this is Tim Parker. This is a fascinating slide you have up, and I'm just wondering, have you had a chance to see if any of your federal partners or other people that you interact with would sign off on data like this or comment?

MR. DAN STEINER: Yeah.

MR. TIM PARKER: Because this is exactly the type of thing we have got to start working in the grand scheme of things on.

MR. DAN STEINER: We're making a lot of progress. The U.S. Department of Transportation is interested in working with us. The Great Lakes Commission has done studies in this area and they're going to do more. Transport Canada is very much on this. So, yes, we have got a fairly broad partnership on it.

MR. TIM PARKER: Well, the broader that is, I think, the better it will be perceived as opposed to being kind of self-serving data to the Corps.

MR. DAN STEINER: As the previous commander, this dog may be able to hunt. Thank you very much.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Dan. And, you know, once again, we want to thank you for all your efforts, and I wish you the best in your retirement. I think certainly the innovative design efforts of the Ohio Division and the Corps, in general, should be applauded, and they have saved us a heck of a lot of money as a nation over the past year. So, thank you, Dan.

MR. DAN STEINER: And we thank you because you have challenged us, and a big federal bureaucracy doesn't have a lot of competition. So this friendly challenge from Norm and you and

Les and all the other folks really has been a big part of our success. Wes Walker will follow and talk about how we're going to develop the mode-of-scenario forecast for the Ohio River.

CHAIRMAN DANIEL MECKLENBORG: Yeah. Dan, we're thinking we will take a break at this point, and maybe let's limit it to 15 minutes and we can get back here at ten after 10:00.

(Brief recess was taken.)

CHAIRMAN DANIEL MECKLENBORG: We're going to go ahead and get started. I see Wes Walker is in position. Okay, Wes. Thank you.

MR. WES WALKER: I am with the Great Lakes Ohio River Division's Navigation Planning Center. We're in the process right now of updating our traffic demand forecast for the Ohio River System, and I thought I'd briefly go through and tell you how we're going to go about doing that.

Just a little background first to get you oriented a little bit thinking about the Ohio River System. In the year 2000 the system handled 270 million tons of traffic. Coal accounted for 54 percent of that total. The electric utilities are the primary shipper, they account for half the traffic on the system all by themselves.

You can see growth on the system for the past 50 years, and I picked 50 years because our planning cycle is a 50-year planning cycle. Over the past 50 years growth has been pretty steady, 3 or 4 percent annually. The first four decades, that growth was really driven by the electric utilities. The last ten years you can see coal has kind of flattened out. And our other, 135 million tons of traffic that's driven by petroleum refineries, chemical plants, steel mills, cement plants, paper plants, corn processors. That other 135 million tons of traffic has picked up the slack.

Now when we want to move from the past into the future and we want to look at the traffic, what's the traffic situation going to be in the future. What kind of demands are we going to be facing on that waterway? We go through the same general steps regardless of the commodity that we're talking about. First, we want to identify the key shippers in the basin, who's demanding the transportation service.

Then we want to analyze those key industry's growth prospects. Once we have done that, we turn to the Waterborne Commerce Database and we want to establish a base here of traffic. We want to get a traffic level that's representative in terms of the volume of traffic that moves on the system and in terms of the patterns, what locks does it go through, that's what we're interested in after all, the locks.

Once we have established that base, we're going to apply the growth rates that we developed in the industry analysis to those base level traffic flows. Once we have the numbers, we want to move on and describe the uncertainty that we have with regard to those numbers. Our regulations require us to do a most likely scenario, what do we think is going to happen. Our regulations also require us to test the sensitivity of our project benefits to the key inputs, and traffic forecasts are certainly a key input.

In the past we have looked at no growth after 20 years, what's the project performance if there's no traffic growth after 20 years, that's required by regulation. That's one of the ways the Corps deals with uncertainty. And we would look at high and low demands, do sensitivities on those.

And as Dan mentioned, what we're going to move towards now in the future is we're going to build scenarios around key issues for each of our major commodities. Utility coal gets a little more involved treatment since it's such an important commodity; half the traffic is utility coal. In the first ten years of our forecast, again, we have got this 50-year forecast horizon. The first ten years we lean on the electric utilities to provide us these forecasts. Their planning horizon is about ten years. So we ask them for their electricity demand forecast. We then ask them how they intend to satisfy those demands, are they going to buy power from other places, are they going to generate electricity on their own, and if so, what's the fuel mix, what plants are they going to use to do it so we get generation forecast by each plant.

We get the coal consumption at their coal plants, and then we ask them, how are they going to get the coal to these plants, are they going to move it by truck, rail, water? Of course, if it's water, we want to know where is that coal going to hit the waterway system. So for the first ten years in the short-term we have got the electric utilities' forecast and that's what we rely on. In the long-term we extend their electricity demands using county level economic and demographic forecasts. To keep all of that stuff straight, we use what we call the utility coal model. Again, remember, the first ten years we're using utility survey responses. The next 40 to 50 years we're going to step through this model.

Our model, the first thing it's going to do for us is forecast electricity demands for each of the utilities in our area, in our basin. It's going to apportion that demand out among the plants that they have.

Then we're going to focus on coal. The model is going to say, okay, given that generation by coal plants, how much coal do you need to do that? And once it's done, then it's going to apportion those -- the coal consumption of those plants out among the waterway origins.

Obviously, these allocations and apportionments are important. The base case, we rely on the 2010 information we get from electric utilities in terms of these allocations. The nice thing about this model is it will allow us to alter those allocations based on information we get from the Department of Energy or industry experts. So we can build our scenarios by changing those allocations based on what we learn from the experts.

When you talk about uncertainty in the electric utility sector, you start with government policy, and more specifically with environmental policy, which has been changing and evolving at a quickening pace since 1990.

Right now President Bush himself has two significant proposals, the Clear Skies Proposals, which is seeks to cut sulphur dioxide emissions pretty dramatically by 2018. And he's also looking for voluntary carbon emission growth reduction. He wants to see the growth rate in carbon emissions reduced through voluntary program. Of course, the environmental community, a lot of

them would like to see the sulphur dioxide emissions cut faster and they would like to see mandatory carbon emission reductions.

Kind of unspoken in all of this, and maybe lost in the shuffle sometimes, at least for lay folks, is that to accomplish all of that implies heavy dependence on natural gas, which also implies higher prices for natural gas and maybe by extension higher prices for electricity. We have to be aware of all of that. We have to keep that in our minds when we're building these scenarios.

Now, when we look at the other commodities, they're also affected by government policies, but it tends to be on a more global scale. So we're looking at world trade flux. And in the Ohio River System you start again with coal. You want to look and see what are the prospects for export coal, a number of scenarios there, you know, will it disappear completely? And you want to look at import coal, that's been growing. So what kind of role is that going to have in the future?

Iron and steel products, imports of that has been really important recently. How will the tariffs affect that? So right there you have the nucleus of some scenarios.

We also need to talk to the ports, the carriers, Department of Transportation. There are other commodities out there that we're not aware of that we need to consider when we're doing these traffic projections.

And, of course, one of the questions that keeps coming up, is there a role for the inland waterway system for this container traffic, which the Department of Transportation sees growing unabated, congestion at the ports along some of the coastal highways, how does that affect us? Is there a role for the inland waterway system?

So just kind of to recap our multi-scenario, it really springs from a shipper survey. In the short-term we're going to rely on the shippers to tell us what their plans are. In the long-term we start to branch out. The first thing we want to do is identify the key issues which we have touched on, and then we're going to build scenarios around those issues. And they tend to involve either fuel use with regard to coal or world trade patterns with some of our other commodities.

Just a brief look. This is our schedule for completing the non-utility coal portion of the forecast, the other 50 percent of our traffic, the other 135 million tons. Jack Frost & Associates is helping us right now. The shipper survey is underway. We also intend to survey the carriers, and the ports have already informally talked to some of them. We intend to have numbers for the base case in late fall in some of these scenarios this winter.

And this is the time line for utility coal. Our friends at Oak Ridge National Labs are helping us upgrade our coal model and we tend to have numbers, again, late fall, winter. And they will get their first use in the Myers Greenup update. Again, economic update. Again, this is one of the institutional ways the Corps of Engineers manages uncertainty.

Before we move into construction, are those two projects still justified? We will use these forecasts in that economic reevaluation and make sure we're okay.

The next use will be, Paul talked about it a little bit, the Ohio River Main Stem System Investment Plan. We have got a preliminary set of runs, benefit estimates due this coming year, and we will use them in that. Any questions? Good. Thank you.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Wes. And certainly, the quality of the analysis and the forecasting that the Corps does is, you know, the most important underpinning for maintaining credibility with the Congress and the various constituencies out there. So we appreciate your efforts, Wes.

Okay. Next we have Hank Edwardo. Lower Mon Construction Update.

MR. HANK EDWARDO: General Griffin, Mr. Chairman, Members of the Board, I consider myself the luckiest project manager in the Army Corps of Engineers. And an example of how lucky I am, I represented the Corps. I represented Pittsburgh, the Corps, you, for the success that we achieved and the challenge that we all undertook with Braddock Dam. Last Thursday I received an award that said Braddock Dam was one of the top 25 newsmakers in this country last year, and that really is a testimony to the success that we have all had with Braddock Dam. I think the success can be best summed up in this short video clip.

(Video playing.)

MR. HANK EDWARDO: That followed the successful setdown of segment No. 1 in December. Last July we shipped the first of two segments from the Leetsdale facility up the Ohio River 27 and 1/2 river miles to an outfitting location.

This is what it looked like in the video clip I showed the Board several times over the last couple of years, the concept of how we might be able to dam in-the-wet.

This was one of the concepts presented to potential contractors of using a two-level casting basin. And the interesting part is, if you look at that and then you look at the reality, that's Leetsdale.

That's the arrangement of the Jones-Traylor joint venture to build Braddock Dam selected, and it looks remarkably similar to the concept we proposed in the animation. Where we're at right now, segment one has already been outfitted and sunk, as I said in December. Segment two, shown at the bottom, is currently at the outfitting pier at Duquesne. It is scheduled to be sat down in the mid May to late May time frame.

The Lower Mon project is addressing the problems that we have at the first three locks and dams on the Monongahela River. Locks and Dam No. 2, which we will eventually rename Braddock Locks and Dam, has this 100-year-old fixed crest dam that's being replaced with the new Braddock Dam. This new dam is going to be able to allow us to raise the river 5 feet, enabling us to remove Lock and Dam 3 near Elizabeth, Pennsylvania.

We have also been authorized to build larger new lock chambers at the Charleroi, or what is now known as Locks 4 project. These locks are a condition concern. You'll notice there's a new

dam there. I will talk about the situation at Charleroi in more detail. A concern of the traffic changes since authorization suggested that we take a look at where we were headed with project economics. We did that this past year. We still have a positive benefit to cost ratio for the authorized project. And once again, Lower Mon is a condition driven project.

This is where we are, everything to the left of that status line in the middle has been completed. Of course, we're here constructing the Braddock Dam. We have already started on the relocation program. We have a significant amount of facility relocations, shoreside facilities, a lot of sewer work that has to be accommodated because of the changing river levels. We're well into that.

We have already built approach dikes in Charleroi for the new Charleroi Locks work, which will be done now in four contracts. We have already started dredging Pool 3. We're going to be lowering Pool 3 because of eliminating Dam 3. We have to dredge to reclaim a 9-foot deep, 300 foot wide navigation channel. The bulk of that work is still ahead of us. The last thing we do is remove locks in Dam 3. Depending on where we go with the funding, we will be completing in the 2009 time frame.

This is some of the relocation work we have been able to start. A lot of sewers, as I mentioned, these old river communities, have combined sewers. We're making them whole by ensuring that they will function after we raise the river. And we also have completed, on the federal side, adjusting two submerged pipelines in the area where we're going to be dredging in Pool 3. This is a waterline for the Authority of Charleroi that's done through directional drilling. This is a forced sewage main for Monessen that has already been completed. These are, I'm calling, hours. These are what the Government is paying for.

We have also coordinated closely with eight natural gas pipeline companies that approximately 20 crossings in Pool 3 that have to be either lowered or removed before we dredge. They are on-line to start their work this summer. They are completing the permitting to get that work done, and so that work will be out of the way.

Now, at Charleroi, as I mentioned, we're authorized to replace the existing 56-foot wide chambers with twin 84 foot, 720 foot chambers. Those existing chambers are about 70 years old. When the dam was built in 1967, it increased the loads on these lock walls to their design limit. I will talk about that in detail in a second. We are going to be dropping the lower pool even further. We're going to be lowering it approximately 3 feet, which is going to increase the wall loads to an unstable condition, and we will then have inadequate depths over the seals and floor struts in the existing chambers.

We are going to be constructing the new locks under four contracts. We're about ready to advertise for construction for a site development contract that will build a new access road and bridge into the project and operations and service building and new utilities. Depending on funding, we also are going to be starting next year to take out of service the river chamber. We have to demolish the floor strut system that was installed to make these stable in the '60s and prepare us to be able to use the existing land chamber while we're constructing a new river chamber.

We also are planning to build floating guard walls. And, of course, the big one is the main locks contract scheduled to be awarded in November of 2003. We're actively completing plans and specs for that right now.

An interesting part of the work at Charleroi is that we're planning to build the floating downstream guard walls -- guide walls using the Olmsted contract that you heard Paul Hanley and Dan Steiner brief on earlier. This upper photograph is a panoramic view of the Olmsted casting facility where they're building 11 Pontoons. We need to build two of them for Charleroi. So, hey, why not build them at Olmsted. So if we can strike a deal, we're going to strike a deal. We're going to save money by doing that.

This is an interesting slide because it shows the Lock 4 in the '60s. In the upper left, you can see there was a fixed crest dam there. And then in 1967 the gated dam was built, and it raised this upper pool 6 feet, that allowed for removal of old Lock 5 and old Lock 6 and allowed for the construction of the Maxwell Locks, which is the first lock upstream of locks for where there are twin 84-foot wide chambers.

Now, that raising of the pool, as I mentioned, first required that we go in and stabilize these lock walls for that new higher upper pool level. I mean, this is a shot of the floor strut system being installed to make these lock walls stable.

Now, when we go in here and remove Dam 3, we're going to lower this part of the river, and that's going to cause these structural elements then to become unstable. And as I mentioned, the depth over seals and depth over these floor struts will be inadequate.

Construction sequence for the new locks, as I mentioned, we're going to be building the new 84-foot, 720-foot long river chamber first, and all traffic is going to pass through the existing 56 by 720-foot land chamber. And when this chamber is operational, we will then be starting to achieve the benefits that the Lower Mon can provide. We will be able to take Locks and Dam 3 out of service and obviously lower the lower pool. And at that point, then we will finish the project completing the new land chamber. That concludes my presentation. Do you have any questions?

CHAIRMAN DANIEL MECKLENBORG: Yeah. Les Sutton.

MR. LESTER SUTTON: Yeah. Hank, one quick one. How long did it take for you to prepare the base at Braddock to put the dam on?

MR. HANK EDWARDO: The foundation for the dam at Braddock consisted of 77 large diameter drilled shafts. Each was 78 inches in diameter. And before they could be placed, we had to dig a 140-foot wide hole across the footprint of those two segments, place a graded gravel basin and start placing the drilled shafts. That work took approximately ten months, in my recollection. And while that work was underway, we were actively completing the segment construction at Leetsdale.

MR. MARK KNOY: How long will it be down to just one chamber there?

MR. HANK EDWARDO: If we get underway on the schedule we're planning, we will be looking at about two and a half years to have the first river chamber operational at Charleroi.

GENERAL ROBERT GRIFFIN: Hank, in my former role as the Commander of Lakes and Rivers Division, one of those was Pittsburgh District. I congratulate -- and certainly now as the Director of Civil Works, on behalf of the Chief of Engineers, I congratulate and thank you and the entire team that did this magnificent work. It has been rightfully recognized. It was incredibly successful, and there were very, very few hitches along the way, which is a testament not only to the great planning but professionalism of the Corps contractor team that did all of this, and my thanks to all of you.

MR. HANK EDWARDO: I appreciate that, and I will take that message back to the team, sir. And we also are documenting our hitches, that's one of the reasons we undertook this challenge too, is to figure out what doesn't work. Thank you.

CHAIRMAN DANIEL MECKLENBORG: Okay. We have got one more there. Tod.

MR. TOD SCHATTGEN: Who is paying for the deepening of the natural gas pipeline across the river?

MR. HANK EDWARDO: The private companies are paying for that.

MR. TOD SCHATTGEN: The owners of the pipeline are paying for that?

MR. HANK EDWARDO: Correct.

CHAIRMAN DANIEL MECKLENBORG: Okay. We're now going to proceed to the briefing by the Nashville District regarding the Chickamauga Lock. Okay. I'm sorry. Apparently we're going to have a change there. Why don't we go to Mr. Dykes the Bayou Sorrel Update.

MR. JOEY DYKES: Okay. I'm Joey Dykes, Senior Project Manager with the New Orleans District. I would like to give you a little background on Bayou Sorrel Lock. Bayou Sorrel Lock is a feature of the Atchafalaya Basin Floodway Project, which is a part of the Mississippi River and tributaries project. It was completed in 1956 and it passes GIWW traffic through the East Atchafalaya Basin Protection Levee. And this is how it fits into the flood control system. The yellow lines are the major levees on the Atchafalaya Basin Floodway and the Mississippi River, you know, and along the Mississippi River. You can see the Bayou Sorrel Lock is located in the East Atchafalaya Basin Protection levee.

Bayou Sorrel Lock, now, as far as from the inland navigation standpoint, Bayou Sorrel Lock consists of two U-frame reinforced concrete gated structures with an earthen chamber and timber guide walls. And the chamber is emptying and filling by opening and closing the sector gates.

The chamber dimensions are 56 feet wide, and about 800 feet long. The lock is structurally sound and it's reliable. However, it's 8 feet below the project flood design grade, and it must be

modified to safely pass the project flood, and that modification is an authorized feature of the Atchafalaya Basin Floodway Project. And this is how it fits into the inland navigation system. You've got Bayou Sorrel Lock with dimensions of 56 by 797 feet.

The next lock upward where it ties into the Mississippi River at Port Allen is 84 by 1200 feet and over 99 percent of the traffic used by Bayou Sorrel also uses Port Allen, and most of the traffic goes west on the GIWW to the Leland Bowman Lock, and about 80 percent of the traffic from Port Allen also uses Leland Bowman.

This is the projected tonnage and delays at Bayou Sorrel with the existing lock. Right now they're about 25 million 800 thousand tons, I think, or a million tons. The delays are 4.3 hours averaged delays per tow, and we see that going up to 29,400 in an 030 and a delays of 17.5 hours per tow.

And the purpose of this study was to determine the most cost-effective plan for passing the MR&T project flood at Bayou Sorrel and the optimum plan for passing inland navigation through the lock. From the problems and needs, of course, as I just said, Bayou Sorrel is 8 feet below the design grade for the Atchafalaya Basin Protection Levee and it must be modified to safely pass the project flood.

From the navigation standpoint, delays to tows at Bayou Sorrel Lock have averaged 5.2 hours over the past five years and they are projected to increase and there's an immediate need for a capacity increase at the lock. We looked at Alternative Flood Control Plans, and that was to make the Flood Control Project whole. The two things we looked at there were a floodgate on the flood-side of the existing lock and then replacement-in-kind of the existing lock with the same dimensions as the existing lock, 56 by 797 feet.

And then because of the navigation delays, we looked at larger locks. We looked at new locks with widths of 75 to 110 feet. And we only looked at 1,200-foot chamber lengths. Okay. Then that gets us to – after the analysis of a Tentatively Selected Plan, and there's been some changes here since we last presented it to you. We have a new lock adjacent to the existing lock. It's a U-shaped concrete chamber with fiber-reinforced plastic fenders. The chamber dimensions now, the NED Plan is now 75 foot wide lock, 1,200 feet long with a 15-foot sill depth.

The existing lock will remain in operation until the new lock is completed. There will be no closures. And the East Access Channel in the Atchafalaya Basin Floodway, which comes in at the entrance to the lock will be realigned downstream to reduce cost-currents that cause problems with emptying and filling.

This is the Effects of the Tentatively Selected Plan on Average Delays Per Tow, going from the 4.3 hours now to .7 hours if it were there today. In 2010 the delays would be reduced from a projected 12.7 hours to .9. And in 2020 from 15 to 1.2.

And this is some of the economic analysis. Average annual costs of the lock are $1,160,000. Average annual benefits are 16,200,000. And a benefit-cost ratio is 4.1 (sic). On the

cost side, just looking at the increment over and above flood control and the optimum flood control plan, we had some closures associated with it, and that's what reduced our average annual costs.

And when we get down to the allocation and apportionment of costs, the optimum flood control plan was a float-in floodgate. And this is the other difference from the Flood Control Plan we presented last was a replacement lock, replacement-in-kind lock with dimensions of 56 by 797 feet that would be – that would not be over top of the project flood.

And now we have developed a floodgate -- a float-in floodgate that reduced the flood control cost to $25,500,000, and that increases the cost share for inland navigation up to $50,900,000. And you see the Inland Waterway Trust Fund portion of that is now $25,450,000.

And this time we came up with the Least-Cost Flood Control Plan. We had a float-in floodgate that had a first cost of 25.5 million compared to the replacement lock, replacement-in-kind lock of 74.6.

We had average annual construction cost on the floodgate of $5.6 million. Excuse me. Yeah. And the average annual navigation losses are associated with the -- there's a mistake here with the float-in floodgate. The numbers are reversed.

Anyway, the float-in floodgate had the lower average annual cost of $5.6 million, just the sums are reversed. I apologize for that. But anyway, the NED Plan, even with the closure -- float-in floodgate would result in a minimum of a 30-day closure to the lock for installation and also an eight-hour shutdown a day, eight hours a day for a period of about a year.

And when those costs were factored in, it was still the least cost Flood Control Plan. And this is the schedule we have. A draft report is scheduled for June of 2002, the final report for December. We expect to complete preconstruction in June, design by 2005, with the construction starting in 2006, and completion of construction in 2008. Are there any questions?

CHAIRMAN DANIEL MECKLENBORG: Les Sutton.

MR. LESTER SUTTON: Yeah, this is Les Sutton. Go back to your least cost slide. While you're doing that, if the numbers are reversed, the float-in floodgate is not the least cost. Another question bears on what I am going to talk about is, what is the sill depth of this lock?

MR. JOEY DYKES: 15 feet.

MR. LESTER SUTTON: What is the sill depth that was required for shallow draft traffic at Inner Harbor?

MR. JOEY DYKES: I'm not sure exactly.

MR. LESTER SUTTON: It's 26 feet, and that was used. And the point I want to make is, in order to retain our credibility we need to use facts as we see them, and 26 feet -- and my predecessor will never forget how it was argued that 26 feet was required to pass shallow draft traffic, and that made

a dramatic difference in how much of the Inner Harbor project was charged to the User Fund. So if 26 feet was required, the same kind of traffic goes through this lock.

And forgetting your reversal of numbers, I also understand that you are going to float that project in in two months, you're only going to have a two-month float?

MR. JOEY DYKES: That's correct.

MR. LESTER SUTTON: And that assumption that you could float that project in in two months makes a big difference on what the average annual costs are. And I asked the question about Braddock, and I recognize it's different for that reason, and I would like to request that these numbers get a good hard look before we finally decide.

And you can see the allocation has changed dramatically, and I just want to make sure that that is done objectively rather than how it was done in Inner Harbor.

MR. JOEY DYKES: Yes, sir. Yeah. This is just a single-sector gate structure that would be floated in. So it wouldn't have the – you know, quite a lot smaller structure than the one –

MR. LESTER SUTTON: I also question the logic of just saying we're going to close that waterway for two months, and I know you're not going to do it, but if you were instructed to carry out the least cost plan, would you really close that waterway for two months?

MR. JOEY DYKES: If we were strictly to build the MRNT -- well, to be perfectly honest, that would be the recommended NED plan. Now, what the final plan would actually come out being, I don't know, but that would be our recommended plan, yes, sir.

GENERAL ROBERT GRIFFIN: Les, you bring up some valid points, and what I want to do is, if you would, submit those. That raises enough concern at my level where we're going to drill back down through this because I don't think we have actually presented to this Board exactly what we're doing here, at least to my satisfaction. So we will certainly drill back down through that.

CHAIRMAN DANIEL MECKLENBORG: Okay. Any other questions? Okay. With that we will proceed to the briefing on Lower Snake River by Mr. Mettler.

MR. LONNIE METTLER: Thank you. The Lower Snake River Juvenile Salmon Migration Feasibility Study was started largely as an environmental restoration effort. It's driven by basically the Endangered Species Act for the most part.

This project takes place on the Lower Snake River, which encompasses the Snake River, which is made up of Southeastern Washington, the majority of the State of Idaho, a portion of Eastern Oregon, and picks up tips of Wyoming, Nevada, and also Utah. So that's the size.

As you can see on the slide up here, there are four lower dams on the Snake River, the lower portion of the Snake River. There are four more major dams on the Columbia River below that. The Snake River itself is the largest tributary of the Columbia River System. It drains

approximately 109,000 square miles. It's highest flows are in the spring. Annual peak flows are 165 cubic feet per second, and it's lowest flows in the summer are 25,000 cubic fight per second. It's approximately 140 miles long.

The four dams are flashing up in front of you, as you can see them. They make up what's called The Lower Snake River Project. There's four lock and dams that became operational between 1961 and 1975. They are run-of-the-river facilities, and what that means is the water that comes in is the water that goes out. There is no flood storage capacity here, even though they are managed with the overall system of dams in water movement in the Northwest to assist with flood control, but they are not intended for flood control. They are multiple use facilities. They were authorized for navigation, hydropower, irrigation, recreation, fish and wildlife conservation, but they were not authorized for flood control. I'm just repeating that because many people think that they are part of that.

Each dam has six generation units. They produce 90 to 135 megawatts. There are navigation locks. Each one is 86 feet, single lift. There are eight spill bays in each dam. The dams are approximately 100 feet high. The benefits from these dams are power generation, navigation, commodity movement. Wildlife areas are there for mitigation purposes for the project. They are both intensively and non-intensively developed. There's irrigation water that is taken from these facilities, mostly at the Ice Harbor Pool, but throughout there is also water taken.

There are fish passage facilities at each of these dams that were built in from the very beginning, both adult and juvenile passage. There are also municipal and industrial pump supplies where water is taken from here, and there are a large number of port facilities throughout the project.

This study started for several reasons. One of the first ones is the salmon numbers have been in decline in the Northwest. And as you can see from the slide, the region or the people started gathering numbers in the mid 1800's, and from that point on the numbers of returning salmon to the Columbia River have been on the decline.

It's important to note that in 1938 Bonneville Dam was put in and that was the major one, the first one you come to as you come into the Columbia River System from the ocean, and the dams have been built upstream from that point. The Lower Granite Dam, which is the last of the four Snake River Dams, was put in in 1975.

Salmon numbers have been in decline for several reasons. You can see on the right-hand side, we have identified those four reasons. They are often called the four H's. But there's been overharvest problems, and that goes way back to the early times in the 1800's, early 1900's when harvesting of salmon became very popular and there was a big commodity for it.

The degradation of habitat has occurred all the way through the system. It has occurred in the headwaters where the fish tend to spawn. It's occurred in the main stem of the rivers. It's occurred in the estuaries where the salt water and the fresh water come together, and it's also occurred out in the oceans.

The hatcheries, we have built a lot of hatcheries in the Northwest to try to replace or bring the losses of these salmon back up, and they themselves have produced some problems in trying to maintain healthy and viable populations.

And, of course, hydropower is in there because it sits in the main stem of many of these facilities or many of these rivers, and because of that, it's created some problems as well.

The next reason is that the Endangered Species Act identified a series of fish that became listed as threatened or endangered, and the first four that were identified were on the Snake River. In 1991 the first one was listed. In 1997 the last one was listed. However, since then nine more species have been identified in the Columbia River Basin, not in the Snake River but elsewhere. And essentially what National Marine Fishery Services first did was list the ones that seemed to be the ones that were of greatest danger.

And as more studies and petitions came down, we found that most of the stocks in the Northwest became listed. And those that weren't listed certainly have had their problems, but they haven't been identified seriously enough to become listed.

Another reason for this feasibility study was in 1995 National Marine Fishery Services issued the Biological Opinion for the Federal Columbia River Power System. The Federal Columbia River Power System is made of action agencies, the Corps of Engineers, the Bureau of Reclamation, and the Bonneville Power Administration. And we had to identify how our operations, or those facilities would affect salmon in the Northwest, at least in the Snake River System.

Coming out of this Biological Opinion, it was focused only on the Snake River stocks because at that time it was only the Snake River stocks that were listed. It identified a five-year life over which we had to come up with a recommendation. And there were hydroactions identified for facility configuration, system operations. And, of course, it identified the need to study dam breaching with a decision by 2000.

The purpose and the need for this Lower Feasibility Study was to identify structural alternatives that would increase survival of the juvenile fish, juvenile anadromous fish through the Lower Snake River Project, and, of course, the system in the regional recovery of these listed stocks.

We looked at four alternatives. The first alternative was existing condition, also known as base case or no action alternative. It's the way we operate right now. It's with the hydropower, the navigation, all the things that we're doing right now today, that was our base case.

We also had included in our number of actions, which were part of our overall program of continuing to make improvements for fish passage. The Corps of Engineers has been involved in fish passage improvements since the '70s, and so it's not like we haven't been doing anything and just sitting back. So we have been very actively involved, but this is the base case of how we would operate today, given no major changes as being proposed here.

One of the important things to understand is that fish migrate past these dams through three avenues. They can either be spilled over the spillways. Fish can move and pass over the spillway. Fish can drop down from the surface and move down towards the turbines and pass through the turbines and exit that way or they can be stopped before they get to the turbines through some traveling screens and brought up through our collection facility and brought down to our fish facility. They can either be returned back to the waters below the dams or they can be transported downstream.

At the present time, the Corps of Engineers was part of the 1995 Biological Opinion, which has been perpetuated up through the current biological opinion from the National Marine Fishery Service.

We're managing the four Lower Snake facilities with a spread-the-risk policy, and what that means is we collect approximately half the fish that migrate down the spring and we let the other half spill over the spillway. The idea is that if there's a real problem with one passage or the other passage, we don't want to put all of our eggs in one basket and end up losing a complete year of fish just because of that. So we're trying to balance it through that process, that policy.

Okay. The second alternative considered was maximum transport. Maximum transport is eliminating that spread-the-risk policy and essentially collecting and transporting as many of the fish as we can downstream. This has proven to be very successful, especially in low flow areas, to get the fish downstream, but it is artificial. It's not the natural way to go. And so many of our actions that I will mention later on look at more of a natural way to go, but maximizing transport was certainly one of the ways we looked at solving this problem.

Major system improvements was our third alternative, and it does everything that the first alternative does, as far as how we operate the facilities, but we have added a number of technical improvements. And I will try to identify those right here.

You can see the dam in this graphic here, lacing some of these, because what this does, before the water would just come down, it would crash down here and start to tumble, and the fish would be caught in this and they would come out rather dazed. When they come up dazed, you've got all kinds of predator birds down below just waiting for them, picking them out.

With this process of these spillway flow deflectors, the water comes and it tends to scoot more across the surface. It still goes down here but it tends to scoot, and the fish will be sent out this way as opposed to getting caught in this turmoil. That's been very successful in the places where we have put it, and we're continuing to advance that technology.

Okay. I guess I'm still here. With this removal spillway weir, by placing this up here we take away those big pressure changes because the fish don't have to drop down so far. They stay with less pressure placed on them as they move through the system.

The other thing we can do, it's called removable because we can actually drop this thing down in a very high flow situation. If we need to use all of our spill base for passage of flood waters, we can do that by just dropping the thing down.

The fourth alternative is dam breaching, and this has been the most controversial one. Actually, dam breaching is just the reverse of construction. And as you can see here, this is a construction photo of the Lower Granite Dam, the top of the four dams. Construction is largely complete there of the concrete portion, the hardened portions.

And to the left of your screen is the place where an earthen dam was placed, and that was the last structure placed at each of these four Lower Snake River dams.

The idea is we would go in and remove this, recreating the channel around the dam. We would leave this portion of the dam there, largely because of the cost, but we would remove this. And there would be a lot of work that would have to be done in here, channel navigation, along with shoring up and hardening up more surfaces to protect the things that are there.

Our recommended plan that we have presented, in 1999 we released the draft of this feasibility study, Environmental Impact Statement, and it went out without a recommendation.

However, in February of this year we've released the final document, and it has a recommendation in it. That recommendation goes with Alternative 3, major system improvements, which is also known as adaptive migration. It combines the structural and operational measures that we have talked about. It provides more flexibility. And when I say flexibility, it would allow us to use the barging when the barging works best, which is low flow years, or to use the river system when the river system works best for passing those fish.

It allows us to optimize combined passage, in other words, eliminating some of the spread-the-risk. It also allows to do continued research or use spread-the-risk if we wanted to do that or needed to do that. But largely, it reduces direct mortality, it reduces stress, and reduces dissolved gases, which is always a big problem with spill, and just reliability is improved.

Key factors that were considered and identified as we made this recommendation. Currently, we have got some very high positive runs coming back. The downside is that the largest number of those runs coming back are hatchery fish. And when you're dealing with Endangered Species Act, you're dealing with the wild natural fish that's there or that was there originally.

So our numbers for the wild fish are coming up but not as successfully as the hatchery fish, but we are getting a lot of numbers of fish coming back.

The ability to optimize. In river conditions and transport conditions, the fact that we have lesser uncertainty in the biological information if we use this alternative. There are concerns because of the large number of models that were run and used. They didn't necessarily all agree or come to the same conclusions, but none of them really identified one alternative or the other that would help us to definitely recover salmon.

There were positives to all of the alternatives. And, of course, if you think about it from a biological perspective, taking the dams out would make a more natural environment, which would be better for the fish, but that itself was never identified that that could recover the fish. With this

alternative, we'd have minimum economic impacts to the users, which are the navigators, the power users, the recreators, the irrigators, et cetera.

We're compatible with the National Marine Fishery Services and Fish & Wildlife Service 2000 Biological Opinions. And, of course, the other environmental resources that we evaluated, we would have minimal effects on those.

Just a summary of the 2000 Biological Opinion. It concluded dam breaching was not necessary at this time. However, it did not take dam breaching off the table. The Biological Opinion supports the basin-wide salmon recovery strategy. The big thing out of it is there's a reasonable, and prudent alternative which has a 199 actions for the Corps of Engineers, the Bureau Reclamation, and Bonneville Power Administration to deal with. These are both constructed, some operational, and also a series of studies and investigations.

Probably a key to deciding whether or not dam breaching will continue to be a factor in how we operate in the future is that in 2003, 2005, and 2008 there's to be progress reports put together, which will evaluate the performance measures that have been established and more or less determine whether or not our current operations and the things we're doing is successfully leading to recovery.

The 2008 report, of course, will make the final call in that breaching. Although, it will be raised in those other ones if we're not being very successful in our efforts.

The future of salmon recovery, just a couple of items here. It's interesting to note that nationwide there are over 76,000 dams, and in the Northwest there are approximately 1,900 dams. We're looking at four dams on the Lower Snake River out of those 1,900. And of those four dams, they are probably the most successful at passing the fish through the system.

The salmon life cycle is a very complicated life cycle. The salmon go through a series of habitats from the time that they are born until the time that they go down to the ocean, and then, of course, come all the way back.

An example here of things that are important to understand, if you have two spawners, they will produce four to 5,000 eggs. Of those four to 5,000 eggs, 120 to 151 of those young fish will actually make it down the Lower Granite Dam, which means that poor habitat conditions, predators, whatever you might have, contamination, whatever you might have above the Lower Granite Dam and in the tributaries will certainly weed out these number of fish.

Of those 120 to 151 that make it down to Lower Granite Dam, 95 to 119 will actually make it down to Bonneville Dam. And if you transport, we can increase the success of that. Of those, four to five of those fish we started out with, will actually make it to their second birthday and exist in the estuary and ocean. Two to three will make it back to the mouth of the Columbia River. And one to one and a half will make it back to the spawning ground.

So we start with two fish, and we get down to one to one and a half fish. That's the problem we have is some things along the way are definitely affecting how those fish survive.

A couple of other important items. This slide shows Snake River Juvenile Spring/Summer Chinook. There's Spring/Summer Chinook. There's Fall Chinook. There's Steel Head and there's Sockeye. But this just shows the Spring/Summer Chinook juveniles moving out.

If you look at those water years, the years across the bottom, percents are viable on the left, in 1973 -- 1977 was our lowest water year on record. 1973 was the tenth lower water year. 2001 was the second lowest water year.

You can see with the things that we have done in the region, the Corps of Engineers and others have done, our numbers of returning fish, even though it's lower than what it should be, we're having a positive effect with the things we're doing out there.

These are adult fish coming back, and it's being recorded at Ice Harbor Dam, which is the lowermost dam. This happens to be just the Spring/Summer Chinook. You can see how the numbers fluctuate from the time the dam was put in 1960 --1962 -- 1961. Okay. And you can see Lower Granite went in in 1975.

We started making major fish passage improvements in '81, and you can see the effect that has had on adult fish returning. Keeping in mind, the fish are harvested. The fish are exposed to all kinds of other conditions. So it's not just the dams they have to deal with once they get past the dams.

This is the Fall Chinook, same sort of thing. The numbers were up. You can see the dam, Lower Granite went in, numbers dropped sizably, and this is one of the reasons why we have had to take the study on and why those lower Snake River dams were considered to be the problem, but we have started to see increases. The adult steelhead, same sort of thing, a little better than the other species.

The question still remains, do dams need to be breached to recover salmon? And as I have indicated, National Marine Fishery Service, along with the other regional partners, will be taking a hard look at this in 2003, 2005, and 2008 and will make recommendations at that point in time as to whether or not breaching is necessary in order to recover salmon in the northwest or if all of the other efforts that are being made in terms of habitat, harvest, and hatcheries, combined with the improvements we're making in hydropower, will lead to success. That's my presentation.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Lonnie. Any questions? Okay. Appreciate it.

MR. LONNIE METTLER: Sure. If anybody is interested, I do have copies of our summary document over here on the table and you're welcome to take those. Thank you.

GENERAL ROBERT GRIFFIN: One footnote for the Board, in my former life I commanded that division and got to testify ten or so times, and I was asked on a number of occasions, could the administration, namely the Corps of Engineers or NMSS, unilaterally do a dam removal, and the answer to that is no.

The reason is these projects were built -- one of their authorized purposes is navigation. The administration legally cannot in legal terms foreclose a project purpose. Certainly, the removal of these dams would not only foreclose navigation, it would foreclose hydropower for which these projects were built. Therefore, it will require Congress to approve the foreclosure of these project purposes. So regardless of the studies done and what they say, if they go to the degree that they foreclose a project purpose, it must go back to Congress for approval, a key point. Thank you.

CHAIRMAN DANIEL MECKLENBORG: Okay. Thank you, General. We're going to proceed now to the report that I am going to provide on our 2003 Board Investment Recommendations and Annual Report. We're breaking some ground here in a way. At the General's suggestion, we're accelerating the process for coming to a recommended priority list, and it's a great suggestion and a great strategy in the sense that it should result in us having our report finished very shortly following this meeting.

That will enable the report to be circulated to the decision-makers on the Capital Hill, and hopefully, have some information there in time for it to be useful to them in the summer debate regarding the Water Resources Development Act.

In the past the report has generally been published in August, and it's, I'm sure, been helpful information, but it's been a little late in the cycle. So this is our attempt to improve and be more in the game.

From the standpoint of this year's recommendations, and for those of you who have seen the Board's report in the past and the format, basically it's a report that is divided into four primary areas. And the first of those is the new construction and replacement project priorities. This year we are, of course, recommending the same top priority projects.

And when I'm talking about recommendations, basically these were generated through a working group session that we had organized. Following the last Board meeting, we met in Nashville in early February and had discussions regarding the project priorities. And so we're in a position today to report on the preliminary results of those discussions.

On the new construction and replacement project side, our priorities are, No. 1, Olmsted Locks and Dam. No. 2, the Inner Harbor Navigation Canal. No. 3, McAlpine Locks and Dam. No. 4, the Mon River Locks 2, 3, and 4. No. 5, Marmet Locks and Dam on the Kanawha River. And No. 6, Kentucky Lock and Dam on the Tennessee River.

Those priorities are fairly similar to the prior year's report. There is a one reordering in that list, which is, again, they are all very, very important, but we wanted to increase the priority level of McAlpine Locks and Dam in recognition of the crucial nature of that work and the fact that the auxiliary chamber is down during the construction process.

So it's something that if any problems were encountered, you could have a curtailment in navigation. So we want to increase that focus. Within that area, are there any comments that any

of the Board members want to make on that particular segment of the report or the recommendations?

Okay. The second segment of the report is focused on major rehab. And in that area, we are pretty consistent with the prior year's report. Again, we're listing our No. 1 priority as the work at Lock and Dam 24 on the Upper Miss. No. 2 is the London Locks and Dam on the Kanawha River. No. 3, the Lock and Dam 11 work on the Upper Miss, which is also a combined recommendation with the work at Lock and Dam 12. We were recommending this be considered as a joint project and should be performed simultaneously to prevent additional closures and delays for migrating along the system. And then finally in this segment we have got our priority No. 4, which is Lock and Dam 3 on the Upper Miss in Minnesota. And again, the key in these recommendations is the identification, as we discussed a little bit earlier, of the full funding capability for these projects, and the Board recommendation in every case is for Congress to authorize and appropriate funds at the rate that achieves the maximum efficiences and realizes the Corps' full capability in terms of executing the projects.

As we have seen in this year's budget, the one area in which OMB and the President's budget have come close to realizing that recommendation is on the Olmsted project, and we're extremely pleased to see that occur. And we're hopeful that through the Congressional process we will make some headway on some of the other important priorities that we have identified.

Now, in the third segment of the report we talk about preconstruction engineering and design projects, and I want to ask Larry Daily to talk a little bit about our insertion of our first priority as being the Upper Miss and Illinois Waterway navigation recommendation.

Larry.

MR. LARRY DAILY: Thank you, Dan. This is Larry Daily. Our reasoning behind this is to take advantage of the restructuring, I guess is the word I would use, of the direction of the Nav. study or the way the navigation study is being pursued now with the scenario approach where they will identify the major factors that will influence the decision for either rehabilitation or lengthening or replacement of the lock system on the Upper Miss.

We believe that the scenarios, as we see them, should at least most likely recommend an extension or reengineering of these lower locks on the Upper Mississippi, starting with locks 25, 24, and on up the system, as well as possibly Peoria and LeGrange Lock on the Illinois River.

So what we would like to suggest here is a return to putting the Upper Mississippi River back into pre-engineering and design funding so that we can be prepared once the interim report, and finally, the final report on the navigation study is finished, that we got some of the groundwork laid to get a little bit of a jump-start on getting this system finally up and running. That's the major reasoning.

Again, it's based upon belief in what we see as the economic models, the delays, the fact that the system ranks in the top five in the amount of tonnage it moves, as well as the amount of

delays that the system is experiencing. Therefore, it seems highly likely to us, as logical people, that something should be recommended down the road.

So, again, this is a way to jump-start to get it back into -- where in 1999 it wasn't listed in WRDA as being authorized for pre-engineering and design, and we want to return it to that status. Thank you.

CHAIRMAN DANIEL MECKLENBORG: Thanks, Larry. You know, it is, in part, a recognition that, you know, we have been 12 years in the making and over $60 million spent on the reconnaissance and feasibility phases of the study. And, based on that work and based on our experience and involvement in moving traffic in that corridor, we're confident that there is a need for modernization in that segment.

And so we don't want to get ahead of the report, but at the same time, it's something that we feel, given the timing of this report, that we want to come out strongly in favor of proceeding with the PED. The other element of that is that we do recognize the interrelationship of the environmental mitigation aspect of any project on the Upper Miss. And we're recognizing that we need to achieve both navigation improvement and environmental restoration objectives on a parallel and contemporaneous track.

Therefore, we are supporting moving forward on PED for appropriate environmental features at the same time that PED is proceeding for the navigation modernization segment. The priority No. 2 on the PED segment of our report is the Bayou Sorrel Lock, and I'm going to ask Les to comment a little bit on that one.

MR. LESTER SUTTON: Well, since the presentation was made, we have covered most of Bayou Sorrel, but it is, if you look at the reports, one of the largest locks that has the largest delays, and so that's why it shows up as priority No. 2, because of the delays and the economic costs of those delays.

CHAIRMAN DANIEL MECKLENBORG: Okay. And also on the PED priority list, we have No. 3 being the John T. Myers Locks and Dam, and No. 4 being the Greenup Locks and Dam. And in those cases, you know, I know last year, and we would intend to retain this language, which is that, we want to make sure that those additional lock structures are carefully re-examined in terms of the benefit/cost relationship and that it is, from the standpoint of the – the Waterways Trust Fund, what the recommendation is on Myers is that proceeding with PED is consistent with the ability of the Inland Waterways Trust Fund to provide efficient funding for the project within the current fuel tax rate structure.

And that's, in part, harkening back to David's presentation where, we do see that, if we get into a full funding arrangement, the drawdown of Trust Fund dollars starts to accelerate. That's a good thing, given the surplus that we have, but we just want to manage that in a fashion that doesn't result in pressure on the existing tax structure. And that same comment is contained relative to Greenup.

In terms of studies and future projects, the top priority, and again, this is consistent with last year's report, is the Upper Miss and Illinois Waterway Navigation Study. And it's proceeding, you know, toward completion. It's something that we're certainly encouraged that, you know, the interim report is on track and we're encouraged by the process that's in place there, which is certainly collaborative and reflective of all the various interests that are in play. So that's our No. 1 priority on studies.

Priority No. 2 is the Ohio River Main Stem Study. No. 3 is the Calcasieu Lock. And 4 is the GIWW modifications in Texas.

Before I go on to the next segment, are there any comments on any of those items?

MR. LARRY DAILY: Dan, this is Larry Daily again. I'd like to make a comment on the Upper Nav. study that, while it has gone on too long and it's costs too much, it is very important that it stays funded for the next two years in order to bring it to a successful completion, because a lack of funding it, again, will drag it out, as it would any project that the Corps has undertaken. So I think it's important that that be noted and that people keep going in order to finish it in 2004. Thank you.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Larry. Finally, we provide for a segment of the report that we call our special consideration of other inland navigation projects segment, and this really is a function of the fact that the Board is a national board. We have hopefully a global scope in what we're looking at and in making our priorities. But this really is a navigation system, and the system has high traffic areas, high volume areas. It also has, you know, lower traffic areas, which are important in the sense that, you know, I think the General mentioned the super highway versus the feeder roads.

And a good example of that is, of course, our Chickamauga Lock project. And our focus, you know, in coming here to Chattanooga, and as the General said, this really was an excellent tour and one that is important for the Board to see. Our focus on this is really because it's an important feeder area, and the Board in the past has included a recommendation relative to Chickamauga Lock, and we would intend to reiterate that recommendation in this year's report.

And what we say is that the Lock and Dam at Chickamauga, owned by TVA, is badly deteriorating from adverse reactions of the aggregate used to build the facility. And despite the many efforts of TVA and the Corps to offset the effects of the deterioration, the facility will permanently shut down, the estimate is 2010, due to its condition. And the Board recognizes a need for action to be undertaken at Chickamauga Lock and fully supports the design and construction of a replacement facility at this location before the facility is forced to close.

If this navigation facility were to be closed, hundreds of miles of navigable waterways on the upper reaches of the Tennessee River would be eliminated. And certainly from a systems approach standpoint, from the standpoint of the criteria that we apply in evaluating project recommendations, it's not an acceptable result obviously.

MR. LESTER SUTTON: Dan.

CHAIRMAN DANIEL MECKLENBORG: Yes.

MR. LESTER SUTTON: Before you go on with that, help me remember, why did we have that in special considerations instead of in PED?

CHAIRMAN DANIEL MECKLENBORG: That's a good question. I am going to ask Norb to help me out with that one.

MR. NORB WHITLOCK: I think the reason it was in prior reports it wasn't far enough long. They were still in the investigative stage. And in the other reports, we didn't know what the recommendation was going to be at that point.

CHAIRMAN DANIEL MECKLENBORG: So perhaps it's something that we might look at, the placement of that recommendation.

MR. LESTER SUTTON: I think we need to. I noticed it was funded in PED in '02.

CHAIRMAN DANIEL MECKLENBORG: Okay. The other arrangement or project that's contained in this section is the reference to the Columbia or Snake River issues, and I think those were extremely well covered in the last presentation.

And we share the concerns that were expressed there in terms of the recommendation that's being advanced is one which seems reasonable, and certainly the breaching option is not one that we would support as a Board and that's reflected in our report.

So I want to open it up at this point to any comments from the Board or any of the observers relative to any of these recommendations, and we can talk about any other points on this subject.

Okay. All right. Well, we will conclude then our discussion on that subject. We will, with Mark Pointon's expert assistance, proceed to prepare the report and circulate that among the Board members. Again, our hope is to have that to a completion phase within, you know, a period of several weeks and then out to the members of Congress and to the Assistant Secretary.

GENERAL ROBERT GRIFFIN: To my Chairman, I was conferring with our Chick Lock experts there. And should the Board so choose, it could certainly be moved to a different category at this time with or without authorization. That was more of my own education there.

CHAIRMAN DANIEL MECKLENBORG: Okay. Thank you, General. At this point we're going to open the meeting to the public comment period, and we will go for probably 15 minutes or so on that. Do we have any comments?

Okay. I see Mr. Hommrich.

MR. RICHARD HOMMRICH: Richard Hommrich with Volunteer Barge & Transport. I am a member of the Tenn-Tom Waterway Council, and also, the Tennessee River Valley Association for 20 years. We appreciate the opportunity to participate in the tour and the meetings and commend

the Corps and the Users Board for their good work, and especially for the comments about our favorite lock that we have been talking about for 20 years.

We have dedicated ourselves to the inland waterways, and particularly the Tennessee and the Cumberland Rivers. And we hold to the principle that the development of our waterways was the most significant factor in the growth and prosperity of our country in world trade.

Our country is at a threshold now, deciding how we prosper in the future. We're now losing ground in the marketing of agriculture and the production and marketing of steel and other products. We need our waterways and no major waterway is expendable in our system. East Tennessee needs a lock and consumers and the entire region, extending through the Appalachian region, depend on it. With Tennessee River Valley Association and Tenn-Tom Waterway, we have dealt with this over 20 years, and now we see that it's finally gaining some recognition in view of the time limits.

We cannot sacrifice any part of our system if we wish to prosper in this great nation in the world and with the greatest transportation system in the world. Many foreign countries are devoting their resources and efforts, South America, Europe, and others, and we need to follow and devote just as much to ours.

We must and cannot -- unless we build Chickamauga Lock that is a true acceptable replacement for the old 1940 lock, not a one-barge lock, but a true 21st Century lock which will serve for the next generations. Thank you.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Rich. Yes, sir.

MR. DONALD WALDON: I'm Don Waldon. I'm here representing the Tennessee-Tombigbee Waterway Authority Development Authority, which is a four-state interstate compact, and also the Tenn-Tom Waterway Council, which has about 225, 230 members from 12 states.

We want to adjoin or have joined all of the waterway related interests in this entire region, including the Governor of Tennessee, Chairman of TVA, and endorsing, as Rich said, a standard size lock, 110 by 600 feet, to replace the old, outmoded, and structurally deteriorating lock at Chickamauga.

I won't go into the details why that should be done. You have had briefings. You're aware of the fact that it is economically feasible, and it certainly would be penny-wise and pound foolish to build a lock that we already know at this juncture that's substandard and would be outmoded even before it was completed.

I would like to recommend to this Board, I think it's important that you move this project from special considerations to PED because it was funded last year for PED, and it's in the President's budget for 2003, I think that would be very appropriate.

I also would recommend that this Board really go on record of also endorsing at the appropriate time the 110 by 600-foot lock. The appropriate time may very well be at this meeting,

or certainly at your next meeting, because as you learn, we're hopefully on a schedule that this project will be up for consideration and WRDA in 2002. So I think that if you're going to do that, obviously you have to do it pretty soon to be part of that decision-making process. So I would urge you to do that.

In the interest of time, let me also do this fairly briefly. I don't want to preclude somebody else from speaking. I have shared with you a letter that Governor Ronnie Musgrove has just recently sent to the Chief of Engineers. Governor Musgrove of Mississippi is this year's Chairman of the Authority, and it really concerns a lot of things that we keep talking about but don't seem to be able to come to grips with; and that is, how do we measure the worth and the performance of these individual waterways?

As you know, the Corps Waterborne Commerce Statistics really limits that data now to tonnage. It does not make any distinction between values of individual commodities and ton miles. And I think all of us continue to be concerned, if not dismayed, by the real lack of appreciation by the general public, and certainly our Washington decision-makers on the importance of water transportation. But it's no wonder, when we don't really give them, what I call, the kinds of information that John Q citizen can relate to.

What's now happened is that OMB, because of this limited data that's available to them, these measurements, they have now seized upon ton miles as kind of that standard of making allocations of O&M funds among the various competing projects. So I won't go into trying to explain why that's not appropriate.

And probably one of the best examples, I think, where we really lose the importance of these waterways, and you may think this is an absurd example, and it may very well be, but I think it makes a good argument. Next month the Boeing Company will begin to ship rocket components from Decatur, Alabama on the Tennessee, down the Tenn-Tom and Warrior TomBigbee and eventually on the same vessel to Cape Canaveral and to Vandenburg Air Force Base. Next month's shipment will not be a full shipment, but it will be a center core booster that will weigh 60,000 pounds, about 30 tons, but the pay load value of that is $38 million.

That won't even register -- the Corps won't have -- No. 1, they don't have a category to put that in. And secondly, because of the low amount of tonnage, it won't even register. But if you take the $38 million, the value of that commodity, and convert that into equivalent value of coal, you're looking at 1.2 million tons of coal. What we're trying to stress is that until the Corps comes up with a more sophisticated way of measuring the real benefits of these projects, we need to at least include the value of the commodities and also the employment impacts.

That can be, I think, done very easily using industry-wide averages on commodity values and certainly on productivity rates. I'm sure the steel industry knows how many manhours it takes to make a ton of coil steel, but until we get that kind of information out to the general public and also to the decision-makers, then we shouldn't expect any better treatment than water transportation is getting.

So I would urge you to put that as one of your top priorities because, you know, we can go through all of this, talking about these projects, but if we don't get the money to build them and get, I think, a better public acceptance of the importance of the water transportation, then we're going to fall short all the time. Thank you.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Don. We're back in business here. Any other comments? Yes, I see Jan.

MS. JAN JONES: I am going to be very brief. I think I ran my mouth enough yesterday. However, I just would like to, again, welcome the Board to Chattanooga and express our appreciation to, especially the Nashville District Corps, on the excellent study that it has done on Chickamauga Lock and ditto some of the sentiments expressed by Don Waldon and encourage this Board, if at all possible, to move Chickamauga Lock from the special considerations category at least into PED. I think that would go along with what the President's budget has so that we can at least get that much of a category change.

This project is extremely important to the economy of more than just the Tennessee Valley, and we're not asking for this project simply because, you know, we feel that it's important. We're going to lose this lock, and we're on a fast track, and it can mean a lot of jobs to a lot of people. So anything that this Board can do to move that project forward, we will be certainly most grateful. Thank you very much.

CHAIRMAN DANIEL MECKLENBORG: Thank you, Jan. Any other comments from the floor at this point?

MR. LESTER SUTTON: I have one comment, and it's really a question on Don Waldon's part. David, do you have those values for all segments of the waterways that you have been giving me?

MR. DAVID GRIER: We have some system-wide averages for values by commodity group, and TVA has been very helpful in supplying those. We don't have discrete values by waterway segment, but we could certainly calculate that with TVA's help, if there are differences among the regions. If it's acceptable to use national averages, we could do that very quickly.

MR. LESTER SUTTON: Yeah. I just wanted Don to be aware that those were available because David has given me the values. Well, first we used them for Olmsted Lock. And in fact, I expect that's another thing we thank Dan Steiner for, is having those values.

But I have very effectively used the fact that $25 billion worth of commodities move in and out of Texas by the inland waterways and they save shippers one and a half billion dollars of freight and they are just good numbers. They are better than tons.

MR. DAVID GRIER: I just might add that TVA does work on those numbers each year and we should have updates for the most recent year available shortly.

CHAIRMAN DANIEL MECKLENBORG: Okay. I am going to at this point ask for a motion from the Board relative to the working group recommendations regarding prioritization, and to do

that in the context of the draft report that we have circulated and reviewed, along with the additions that Larry Daily prepared relative to the Upper Miss PED recommendation and also the study's segment of the report. And in addition to that, the motion would consider the suggestion that we move the Chick Lock from the special considerations section to the PED section.

Do we have a motion?

MR. MARK KNOY: (Raised hand.)

CHAIRMAN DANIEL MECKLENBORG: Mark Knoy.

MR. LOOMAN STINGO: Seconded.

CHAIRMAN DANIEL MECKLENBORG: So moved. Could I have those in favor?

BOARD MEMBERS: Aye.

CHAIRMAN DANIEL MECKLENBORG: Any opposed? The motion passes. With that, we will proceed to closing comments General Griffin.

GENERAL ROBERT GRIFFIN: Well, first, Mr. Waldon, in his comment section, one of the other things I thought about, and I'm sure Mr. Shaver may have thought about this as well, I harken back to my days on the Columbia where we were moving decommissioned nuclear submarine reactors up the Columbia River. They can move no other way, and I'm not so sure we capture those, and that's just my own personal experience. It's just one more indicator of maybe we don't have this measure right, and so we certainly will look at that as we move forward.

I look forward to working with this new Board. I think it's been a great first meeting. I appreciate the work of Colonel Gay and the Nashville District. I think you have just done a wonderful job, as well as the court recorder (sic) and others. It is tough trying to keep up with names and comments, and I know that's tough and we appreciate it.

I commend the Board for their site selection. You have heard that from Jan and others. I certainly think this has been a great experience, a learning experience. I also commend the Board for developing the project priority list, and such time as it may be used as the Hill and Administration go through the '03 budget deliberations, I think you have moved it to a very timely spot. And again, I look forward to working with this Board in the coming year. Thank you very much.

CHAIRMAN DANIEL MECKLENBORG: Thank you, General. And I would -- on behalf of the Board second, again, all of the thank you's relative to the Nashville District, Jan Jones, David Griggs on the Tennessee River Valley Association, TVA, all of the sponsors relative to the boat ride and the reception. I think we all worked together as a team on this one and that the results show that.

Also, just a couple of items. We have been having kind of an ongoing discussion relative to the definition of major rehab and the issue relative to that definition and how it's being applied by the Corps.

And some Board members had suggested that perhaps we set up a subcommittee to look at that further and also to help look at existing areas or potential projects that might properly fall under that type of heading and be able to be moved along as a result. So in that vein, I would like to – I know Norb Whitlock has been kind enough to volunteer to participate on that and he would work with Mike Kidby on that, and I believe Ron Stovash is also willing to participate.

Would anyone else want to join that effort in -- it's really something that maybe Norb can further elaborate on the -- kind of the scope.

MR. NORB WHITLOCK: Well, I think from the major rehab, it really surfaced at a meeting that we had in Davenport last year, and when we had an opportunity to review the projects at Lock 14, and I think 12 and 15. And at one of the projects they were doing some work there, the scope of which included electrical hydraulic and resurfacing the lock walls among other things, and the resurfacing portion was not being funded out of major rehab.

And I guess what struck me is with all the work going on, I raised the question, why was that not covered under the major rehab scenario, because when the language was developed that defined what was applicable for major rehab in 1992, I was one of the people in the industry that was working with the Corps to agree on the language that eventually went into the legislation. And my understanding and what I was drafting back in '92, in my mind that would have been major rehab.

I will say that the Corps has been very diligent all of these years in making sure that what is truly rehab is really rehab work. The big fear that the industry had was that the Trust Fund would quickly be used up doing routine maintenance or major maintenance and those kinds of things.

So I think it's just a process that we need to talk through. We need to talk about the benefit costs. The particular feature has to pass a benefit cost type, it's not an elaborate study, it has to go through that. So I think we just need to sit down and talk about it. I think the way the language is written; I don't think that really needs to be changed a whole lot, if any. I think it's just the one aspect of the benefit cost to resurfacing the lock wall.

So one of the things we're going to be addressing is what is the benefit cost analysis that they used or the process in determining that it wasn't justified, therefore, that particular feature of the rehab was not included at 14. And we're just focusing on 14 because that happened to be a place where it first came up.

CHAIRMAN DANIEL MECKLENBORG: Okay. As I said, if anyone would like to join that group, we're certainly willing to expand it, and perhaps maybe for the next meeting we could get, you know, a additional report on your efforts.

Finally, just some thoughts on the site for the next meeting. As you know, we generally have three meetings a year. We would be planning to hold a summer meeting, and I know from the Board's standpoint it's something that we want to talk with General Griffin and Norm Edwards on the specific site, but we're thinking a location on the Upper Miss would be appropriate and timely.

And so with that kind of general statement, we probably will recommend a location, you know, either on the Upper Miss or Illinois River and try to hold that in mid to late July. That's about as far as we are at this point, but we will be getting that out to the members and notify the general public as soon as possible. Really, that's all I have.

Does anyone have any further comments? Okay. With that do I have a motion to adjourn?

MR. LESTER SUTTON: So moved.

CHAIRMAN DANIEL MECKLENBORG: Second?

MR. RONALD STOVASH: (Raised hand.)

CHAIRMAN DANIEL MECKLENBORG: Thank you. We're adjourned.

END OF MEETING