

Minutes
Inland Waterways Users Board
Meeting No. 58
July 31, 2008
Walla Walla, Washington

[Note: The following minutes of Inland Waterways Users Board meeting No. 58 were approved and adopted at Inland Waterways Users Board meeting No. 59 held on November 18, 2008 in Chicago, Illinois.]

The following proceedings are of the Inland Waterways Users Board meeting held on the 31st day of July, 2008, at the Marcus Whitman Hotel, Walla Walla, Washington, Mr. Royce Wilken, Chairman of the Inland Waterways Users Board presiding. Inland Waterways Users Board (Board) members present:

- Mr. Jerry Grossnickle, Bernert Barge Lines
- Mr. Rick Calhoun, Cargill Marine and Terminal
- Mr. Gerald Jenkins, Ursa Farmers Cooperative
- Mr. Stephen D. Little, Crouse Corporation
- Mr. Daniel T. Martin, Ingram Barge Co.
- Mr. W. Deane Orr, SearchLight Safety Services, LLC.
- Mr. William M. Woodruff, Kirby Corporation
- Mr. Royce C. Wilken, American River Transportation Company

Also attending was Ms. Susan Diehl, of the Holcim (US) Inc. who was substituting for Board member Mr. Jeff Brehmer who was unable to attend the meeting.

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

- Mr. John P. Woodley, Jr., Assistant Secretary of the Army (Civil Works),
- Mr. Alan Bunn, National Oceanic and Atmospheric Administration,

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

Major General Don T. Riley, Executive Director, Inland Waterways Users Board and Deputy Commanding General, U.S. Army Corps of Engineers

Mr. Mark Pointon, Executive Secretary, Inland Waterways Users Board,

Mr. Kenneth E. Lichtman, Executive Assistant, Inland Waterways Users Board

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

Mr. David V. Grier, Institute for Water Resources, U.S. Army Corps of Engineers

Ms. Mary Anne Schmid, Headquarters, U.S. Army Corps of Engineers

Program speakers in order of presentation were as follows:

Mr. David Grier, Institute for Water Resources

Ms. Mary Anne Schmid, Headquarters, Programs Integration Division, U.S. Army Corps of Engineers

Mr. William M. Woodruff, Kirby Corporation

Mr. Gary Loew, Headquarters, Programs Integration Division, U.S. Army Corps of Engineers

Mr. Alan Feistner, Walla Walla District, U.S. Army Corps of Engineers,

Mr. James Hannon, Headquarters, Operations and Regulatory Division, U.S. Army Corps of Engineers

A list of meeting attendees 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 the meeting.

UNKNOWN SPEAKER: Mr. Wilken, with your permission we'll start.

BRIGADIER GENERAL RAPP: Yes, sir. Good morning, and welcome to Walla Walla, Mr. Wilken, Mr. Woodley, Major General Riley, members of the Inland Waterways Users Board.

How very appropriate it is for us, whose livelihood, mission and stewardship, responsibilities, center on water resources, meet in a place that, loosely translated from the Indian, means many waters, Walla Walla.

In 1806 Lewis and Clark briefly stopped in the Walla Walla area on what they thought was a shortcut on the return trip back to St. Louis 200 years ago. They stopped here, even though the wine industry was not nearly as developed as it is today.

Although they saw this region as a potential shortcut, there are no shortcuts to solve the dilemmas that we're here to discuss; scarce resources, aging infrastructure, and competing demands. I believe the last time a Northwest Division commander had the privilege of addressing this group was eight years ago, when then the future chief of engineers, Brigadier General Carl Strock, briefed you on the Columbia River channel deepening, the Missouri River Master manual operations, ESA listings, and the Snake River operations.

Well, things have not gotten easier since that time. And, in fact, our nation faces water resource issues of a magnitude and complexity rarely seen before. The situation we face with our aging infrastructure reminds me of a story of a patient going into surgery and talking to his doctor, and he says, "Will I be okay in surgery? Will my brain still function? Will my heart still pump blood? Will my lungs still fill with oxygen? Will my kidneys and liver still function after the surgery?"

And the doctor said, "Well, of course. But if I run into trouble, could you please put those in priority order for me?"

As you know, we face the same problems in water resources. Each element plays a critical role in ensuring the smooth functioning and survivability of the whole system. Many of our northwest and Missouri River Basin projects; dams, locks, channels, jetties, and recreation facilities, were built in the '40s and '60s. A few, including three of our four nearby Snake River Dams and Dworshak, were constructed in the 1970s.

Collectively, their average age is well over 40 years. Middle-aged, like most of us, and requiring increased attention to keep operating as intended, leaving less money for routine operations. We've got an ongoing USACE-wide risk screening process underway to identify the highest risk dams in our national portfolio and prioritize repair actions.

In Northwest Division, more than 45 of our 82 locks and dams have been screened. Two of our locks at John Day and Willamette Falls have been placed in the highest risk category and considered extremely high risk. Another three flood control dams at Dworshak, Howard Hanson, and Cherry Creek, have been classified as very high risk. The good news is that based on this new risk-based system, funding has been provided by our headquarters to allow us to advance needed investigations, studies, and designs.

We've experienced several costly emergency failures in recent years at Fern Ridge, John Day, Lower Monumental projects. And while we're working hard to get permanent repair

solutions as quickly as possible, balancing investment decisions on routine operations, vice maintenance, remains a big challenge in this region.

Fortunately, we were able to take some heroic actions and prevent catastrophic losses in all three cases. And I can assure you that we will remain diligent to preclude future problems.

Some of you got an inkling of what's happening in this basin yesterday when Witt Anderson provided you an overview of Northwest Division's responsibilities and activities in the Columbia-Snake system. Witt also discussed the complexities of operating the system for its authorized multiple purposes and the need to simultaneously meet our Endangered Species Act and treaty requirements.

Lieutenant Colonel Farrell drilled down more specifically into the Snake River and Kristin Meira from PWNA gave great information on the regional and national economic significance of this waterway system. Kevin Bryce also briefed you on what's going on at John Day Lock, and you saw firsthand the problems and challenges at Lower Monumental.

Today you'll get a brief on the five-year plan being developed to assess and rank the condition of aging infrastructure elements in the Columbia-Snake River system, and prioritize programming to maintain those projects. You'll also hear from USACE headquarters, both Major General Riley and Gary Loew and others, about the national prospective and status of the Inland Waterways Trust Fund.

This is a truly wonderful forum to engage with each other. We've got a great opportunity to discuss how to enhance the river system and its infrastructure, balancing environmental considerations and economic development in the process. Clearly we must understand the upriver and downriver impacts of our work and the importance of developing sustainable solutions for the navigation system compatible here in the Northwest with our ESA responsibilities.

Your efforts have been important in bringing needed national attention to the aging infrastructure and launching the discussion about rethinking funding formula options.

Thank you for your help in telling the story about the value of efficient, reliable, safe, and environmentally sustainable water resource infrastructure and what that brings to the nation.

Thank you very much.

CHAIRMAN WILKEN: Thank you, General. Mark.

MR. POINTON: I'd like to welcome you to the 58th meeting of the Inland Waterway Users Board here in Walla Walla, Washington. I'd like to second the General's comments. I thought it was a fascinating tour of the Lower Monumental Lock and Dam yesterday.

My name is Mark Pointon, I am the Executive Secretary to the Inland Waterways Users Board, and I'm 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 the sponsor of the Board and provides the Executive Director, the Executive Secretary, and all normal support activities. This is a sunshine meeting; it is open to the public. All proceedings are being recorded and a transcript will be available shortly after the meeting.

Got a couple other comments. The announcement for a new membership in the Board is now open. It was published in the Federal Register a week or so ago. It's open until September 15th. I can get you a copy of that, anybody who's interested in that announcement. And we had a limited number of annual reports from the Board for 2008. They're on the registration desk out front.

If they're all gone and you want a copy, just give us your name. It's also available on the website, the Institute for Water Resources website, so just let us know and we can get you a copy of the annual report if you're interested in that document.

Mr. Chairman.

MR. WILKEN: Thank you, Mark. Major General Riley.

MAJOR GENERAL RILEY: Yes, Chairman Wilken and members of the Board, welcome, and thanks all of you for joining us at this important venue. I'd like to also recognize Susan Diehl with us today. Ms. Diehl is representing Holcim (US) Inc and Jeff Brehmer on the Board. So, Susan, thanks for joining us.

Also recognize Alan Bunn from NOAA. Alan, one of our federal observers, and the Honorable Mr. Woodley, Secretary Woodley, federal observer, as our Assistant Secretary of the Army for Civil Works. And I'll ask at the end if Alan or the Secretary would like to make any comments as well.

Also, let me introduce a few of our leadership leaders in the Corps that are here with us today. I see some district commanders in the crowd. Colonel Dana Hurst from our Huntington District. Dana, thank you. And Colonel Steve Miles from the Portland District, former commander of the Northwestern Division. We demoted him down to a district commander.

And then also we have with us our division commander from Lakes and Rivers Division, Colonel Jeff Smith. Jeff, thanks for joining us as well. And from our senior executive service, Mr. Witt Anderson, our director of programs from the Northwestern Division. Witt, great to have you with us, and thanks for your presentation and work yesterday.

And, as well, Mr. Gary Loew. Gary will speak to us later, and he'll be introduced as an important part of this report this morning.

Also, my thanks to the Walla Walla District, Colonel Mike Farrell and his great group of folks that has worked so diligently to put this meeting together, and then yesterday's inspection trip of the Lower Monumental Lock and Dam. We found that very, I think, insightful and helpful to the Board, and so we appreciate the good work you've done there.

And General Bill Rapp. Thanks, Bill, for your great work and leadership and assistance and help with all your people putting this together. Lastly, let me thank the Pacific Northwest Waterways Association represented here by -- and yesterday by Kristin Meira. I don't know if Kristin is back there, but thanks, Kristin.

And Glen Vanselow. Glen, of course, couldn't be with us. He's out of town. But that association is a tremendously important partner to the Corps and the whole waterways industry. And we thank you for your great work and yesterday on our trip out to the lock and dam, and as well for the wonderful reception that you hosted last night.

As I mentioned, Gary Loew has got a -- will have the substance or, I mean, the bulk of today's meeting agenda on the assessment report of taking a look introspective and very transparent and candid look at three projects going back from their inception in the Corps, taking a look at what went well and what didn't go so well.

So I expect a candid discussion, good question-and-answer period this morning. Because we do want to get to the point where we learn from all those lessons, whether they're internal or external to the Corps, and what can we do as a -- not in Corps, not only in Corps, but also a Users Board to effect change for the better.

So thanks a lot to everyone for joining us, for the work that's gone into this, and especially to the Board members for your input into our program.

Alan, would you like to -- care to say anything?

MR. BUNN: Sure. Appreciate it. Chairman, General, Secretary of the Board, NOAA greatly appreciates the opportunity to participate and serve as a partner with you on this effort. I'm disappointed I didn't make it for the tour and all yesterday, but I was doing the Texas Two-Step with a lady name Dolly down off the south coast of Texas, and turns out she was no lady at all.

So with the Corps of Engineers and contractors and NOAA coming together, we did some very quick work and surveying to open up those ports in short order. And pleased to say the GIWW, Gulf Intracoastal Waterway, is open and running again as well. We had quite a bit of ATON damage, as well as a missing shrimp boat in one of the channels, recreational boats that were found in the channels.

So there was quite a bit of interruption there to our waterways, but I'm pleased to say with that partnership and all of us coming together, we were able to get her open and running again.

MAJOR GENERAL RILEY: Thanks, Alan. Appreciate you joining us all the way across country for this Board meeting. Mr. Secretary.

MR. WOODLEY: Thank you, Don. It's great to be with you again. Royce, it's great to be with you again. I have really looked forward to coming out here because -- in part, because I have -- although Walla Walla is a district headquarters, it is, in fact, it is the smallest city in America to host a district headquarters, the Corps of Engineers as one of its distinctions.

But it has -- and although I've visited this district before, been to some of the projects as you had yesterday, I had never actually been to the city of Walla Walla to see where the headquarters is located. And it's getting difficult, after almost five years of service in this position, it's getting difficult to find a place I haven't already been.

So I'm delighted to join the Board here, as I have made a practice of joining the Board around the country, as you have met and deliberated on these extremely important matters for navigation in the United States.

The one thing we do have today that we didn't have at our last meeting is the response of our appropriations subcommittees, I believe, to the funding constraint that we're facing in the -- in our trust fund. And I think anyone, I would hope that all of you would take a look at that, if you have not already, and see that what -- the thing we've been talking about here among ourselves for some time is imminent, that we are going to face significant reductions in our ability to accomplish the construction mission that is required to modernize and improve our waterways in the immediate future.

And so that is something that we should all look at very carefully and work together and continue working together, as we have, and together with the leadership with our committees in Congress to find the right way forward in doing that. It's something that I will have great interest in, although, you know, my time in this capacity is really growing quite short.

But I certainly do want to encourage today and going forward, that we recognize that the time for a decision is at hand, and we should devote our efforts and energies toward arriving at an appropriate solution so that the scenario that is played out, if you look at the subcommittees' determination with respect to the 2009 program is, if not averted, at least minimized.

So thank you very, very much again for your hospitality and having me join you today. And I'm really looking forward to the presentations that you have for us this morning.

MAJOR GENERAL RILEY: Mr. Chairman.

MR. WILKEN: Thank you, General. Thank you, Board members, for making the trek to Walla Walla. And what a great community this is. We've had a tremendous two days, and I'm assuming the weather is always 85 and crystal clear every day?

Thank you, General Rapp and Lieutenant Colonel Farrell and Witt Anderson, if you're in the audience, thank you very much for your presentations yesterday.

And I'd like to underscore something that General Rapp mentioned earlier about the system, about the operating waterway system in the Northwest. And I think it's underscored not only by the facts that we know that these are all linked, but the people that attended this event in the last two days, all the way from Lewiston to Portland, every port Commissioner, stakeholders were present, whether it's on the tour, at the social hour last night, which Kristin Meira, thank you and PNWA for sponsoring that.

But that also says something about the interlinkage of this system; the tow boat operators, the port commissioners, and all of the ports. So it truly is a system, and it was well represented here. And I want to thank you all for your hospitality, but also showing up and representing your interests and your constituents' interest, whether it be farmers, industrial folks, power people, environmentalists, etc. So thank you all again.

And I'd also like to thank Jerry Grossnickle, our vice chairman from the Portland area. Jerry, thank you for setting this up and suggesting this and inviting us out here. And also our -- what we call our friends, Secretary Woodley, thank you again for setting the standard of attending these. And, of course, General Riley, you as well. So thank you all.

And we'll move on to the next item. The next item of business is to approve the minutes from the meeting number 57. I believe this is the Baton Rouge meeting we had.

MR. POINTON: Yes.

MR. WILKEN: So, members, if you'd like to -- the notes are in your file. If you had an opportunity to read them, we'd like to move ahead and seek approval on these.

Do I have a motion?

MR. CALHOUN: So moved.

MR. WILKEN: Moved by Mr. Calhoun. A second?

MR. MARTIN: Second.

MR. WILKEN: Seconded by Mr. Martin. Thank you, Rick and Dan.

MR. POINTON: Got to vote on it.

MR. WILKEN: Oh, yes. We have to vote on it, don't we? All in favor?

(All responded affirmatively).

MR. WILKEN: Opposed?

(No response).

MR. WILKEN: Unanimous. Thank you.

We'll move on to the next item, and that's David Grier. Hi, David.

MR. GRIER: Good morning, Mr. Chairman. Thank you. I'm going to cover the status report on the Inland Waterways Trust Fund. It's under tab 3 in your notebooks. And today I will only be covering the status report, instead of giving the usual presentation on the trust fund model and outlook, as Gary Loew will be covering that in much more detail in his presentation to come.

In terms of the status report, does anyone need a copy? I've got extra copies here. Okay.

Regarding the situation in the prior year, 2007, we began the year with a balance of about 268 million, revenues came in at just over 91 million, interest was a little over nearly 10 1/2 million, and the transfers to the Corps for ongoing construction were almost 160 million, leaving an end-year balance of 209.4 million.

Revenues year-to-date through June came in at 59.6 million, with interest year-to-date at 4.1. And total receipts of 63.7 through June, which is a decline of about 8.2 million versus the same time last year. I understand Mary Anne recently had a conversation with the Bureau of Public Debt, and the revenues through July have now come in at about another 7.3 million, which has been roughly the monthly amounts throughout the year. The actual transfers to date through June again of 123.7, leaving a balance of 149.4.

However, the outstanding transfer authority from Treasury to the Corps for obligations that we have are 149.9 million. So we're actually already in a deficit for this year at this point. But with this new revenue through July, the balance has recovered to a robust 7.3 million.

One of the situations that we might want to consider in terms of the decline in revenues this year of roughly eight to nine million would be somewhat lower traffic patterns resulting from adverse weather conditions, high water closures, and so forth. I have a few statistics at the bottom of the page on what we've seen from October through June for the fiscal year traffic patterns.

Total traffic, according to our Waterborne Commerce Statistics Center is down a little over 9 percent, and most impacted has been the long haul farm products movements, nearly a 19 percent decline. And that again goes back to some of the adverse conditions on the upper Mississippi, the high grain prices that have impacted the export markets.

And you can see on the flip side of the page just a comparison of what Waterborne Commerce is showing for all commodities and for farm and food products and for Coal and Coke for the January to June period.

Any questions on the status report for the trust fund?

MR. WILKEN: Any questions for David?

MR. GRIER: Thank you, Mr. Chairman.

MR. WILKEN: Thank you. Mary Anne Schmid will talk to us about funding for the inland navigation projects and studies. Mary Anne.

MS. SCHMID: Thank you, Mr. Chairman. Good morning, General Riley, Secretary Woodley, members of the Board. I'm Mary Anne Schmid from Headquarters, the Programs Integration Division, and I'm here to present the appropriation data for the Inland Waterways Trust Fund.

If you go to tab 4 in the notebook, of course, the first page is the program and funding timetable. And then we can move on to the spreadsheets. And as you know and Secretary Woodley stated, we have received the House and Senate committee marks for FY '09, and I have included the columns for those on the spreadsheet so that you can make the comparison with our budgeted amounts.

On the first page, with general investigations, the studies potentially leading to the inland waterways, you can see that both the House and the Senate marked much higher than the Administration's budget. The next section is PED, and again the marks are higher than the budget, the Senate was much higher actually.

And the last, page 2 has the marks for PED potentially leading to non-inland waterway trust fund projects. Moving on to page 3, we begin with the construction projects, and you can see that both the House and the Senate have budgeted or have marked close to the President's budget.

We move down to the rehabilitations and, as I've stated before, most of them are budgeted in the O & M account by the Administration. So you have to turn to page 5 for those budget amounts. But essentially the marks from the House and Senate were the same as the budget request.

The major thing I guess to point out here, which I'm sure you already know, is that the -- both the House and the Senate for fiscal year '09 have declared that the major rehabs will not be cost shared in '09. It's their intention then, I believe, to bring it back in '010. So when you look at the totals, I took that into consideration and did not show cost sharing on all the construction. I excluded the rehabs.

And then if we move on through the rest of the presentation, we have the Users Board and then the non-IWTF construction projects. And, finally, the last page are all of the fuel tax waterway projects and their amounts.

That concludes my presentation. Are there any questions?

MR. WILKEN: Any questions for Mary Anne? Jerry.

MR. GROSSNICKLE: I noticed, since we're here in Walla Walla talking about the Lower Monumental major rehab, it appears that the House budgeted money for that, but the Senate did not?

MS. SCHMID: That's correct.

MR. GROSSNICKLE: Do you have an explanation for us?

MS. SCHMID: No, I'm not really sure. I do believe that, given the revenue situation, we probably, you know, it may not be part of -- partly be able to fund it in '09. I think Gary will be addressing more of the scenario coming up for next year, given the trust fund balance.

MR. GROSSNICKLE: In general, did the Senate agree with the House subcommittee about not cost share funding for '09?

MS. SCHMID: Yes, they did.

MR. GROSSNICKLE: But not for this money?

MS. SCHMID: I don't really have a good explanation for you, sir. Does anyone?

MR. GRIER: I believe the Senate report language indicated that because of the funding situation, they were not allowing any new starts.

MR. WILKEN: Thank you. Steve.

MR. LITTLE: Ms. Schmid, on page 3, I see the Lower Mon total estimated cost of \$750 million.

MS. SCHMID: Yes.

MR. LITTLE: Is that the best estimate.

MS. SCHMID: That's the best estimate I could find, yes. I believe it's -- I don't know if it's the most up-to-date estimate, but it was the latest information I had from --

MR. LITTLE: I thought we were higher than that. I thought we were at 1.2 billion.

MS. SCHMID: On Lower Mon?

MR. LITTLE: We aren't reflecting that here.

MAJOR GENERAL. RILEY: Do you understand the question?

MS. SCHMID: Yes, I understand the question.

MR. LITTLE: Isn't the most recent estimate of the Lower Mon more like 1.2 billion?

MS. SCHMID: You're talking about 2, 3, and 4?

MR. LITTLE: Yes. And I'm asking the question, is 750 million still the --

MS. HOEY: We're in the process of updating the estimate, and right now it is 1.2 billion, but we're doing a risk analysis that hasn't been officially submitted as an estimate yet.

MR. POINTON: Can you come up to the mic, go ahead and provide that answer for the record, please?

MS. HOEY: We're in the process of updating the Lower Mon estimate, and the current --

MR. WILKEN: Excuse me, can you identify yourself, please?

MS. HOEY: Oh, I'm sorry. My name is Jeanine Hoey. I'm from the Pittsburgh District Corps of Engineers, and I was the project manager for the Lower Mon project.

MR. WILKEN: Thank you.

MS. HOEY: We are in the process of updating that estimate, and the current estimate that we have right now is \$1.2 billion, but we are doing a risk analysis on that, so it has not been submitted as a -- an officially updated yet. But that is the estimate that we're carrying right now, is 1.2 billion.

MR. LITTLE: Right. Thank you.

MR. WILKEN: Any further questions for Mary Anne? Seeing none, Mr. Woodruff has a presentation for us today. Thank you, Matt.

MR. WOODRUFF: Mr. Chairman, Secretary Woodley, General Riley, General Rapp, fellow Board members, and guests, good morning, I'm Matt Woodruff, here today wearing the hat of the National Waterways Foundation, to share with you a study that was co-sponsored by the Foundation that -- next, please -- the details, a study performed by the Texas Transportation Institute, Center For Ports and Waterways.

Next, please. I tell you what, it might be easier if you could see me so I could kind of signal you on the slide changes. I think that would help because I want to keep this moving quickly.

The study was entitled "A Modal Comparison of Freight Transportation Effects on the General Public." And what this study attempted to do is go back and take another look at some

numbers and figures that we've all been using for many years that talk about the relative comparison between the barge industry, the trucking industry, and the rail industry, in terms of fuel efficiency, environmental consequences.

And so when we got to looking at those numbers and trying to determine the sources, we found out that really, nobody could identify the studies or who did them. And so we decided it was time that we took a fresh look at these different statistics. And so the Center for Ports and Waterways at the Texas Transportation Institute is affiliated with Texas A & M University. The TTI is the largest university-based transportation research center in the nation.

And so what they were asked to do is compare the various modes of transportation, in terms of safety, energy efficiency, environmental impacts, congestion. And they spent over a year looking at it. And one of the things that I think is particularly good about this study is that it is a peer-reviewed study, and that there were independent university-based experts in each of the disciplines, trucking, maritime, and rail, that looked at the work of TTI periodically through the course of the study and after the study was completed to make sure that everything in there was defensible.

The study, co-sponsored by the Maritime Administration and the National Waterways Foundation, the particular presentation you're seeing today was prepared by the Foundation as part of an outreach effort to share the results of the study with the general public. And so perhaps some of the slides will be a bit basic for the Board members today, but I think it's important to see what the public might be able to learn about the barge industry from this presentation.

Obviously we all know where the system is in this room, and how it essentially serves the heartland of the United States, plus the Pacific Northwest. I think most of us are familiar with the commodities that move. But really what our waterways excel at today is moving bulk materials, and especially our grain, our coal, our petroleum and chemical products, but also project cargo, things that just are too big to move by any other mode often find their way to the water.

And increasingly we're seeing intermodal containers as part of the traffic flow. More than 60 percent of our nation's grain exports, about 22 percent of our domestic petroleum, and 20 percent of the coal that we use to generate our electricity in this country move on our Inland Waterways.

624 million tons. That's 14 percent of the intercity freight, valued at nearly \$70 billion. You've heard these figures before, and you notice they change a little bit because obviously our transportation system changes over time and so these are some fairly updated numbers.

And I think the important thing to recognize in terms of what we do, is we are keeping 58 million truck trips off of our highways every year by providing the Inland Waterways alternative. If we were to take all the cargo that currently moves by barge in this nation and put it, distribute it evenly across the interstate system throughout the entire country, that's not just the interstates

along our waterways but includes every foot of interstate out in the middle of the deserts and everywhere else, we would double the truck traffic on our interstate highway system.

It would increase our rail tonnage by 25 percent, if we were to move the barge-carried cargo to these other modes. These modes simply could not accept the additional cargo and continue to function. So barge transportation is essential to moving the nation's freight.

We wanted to sort of illustrate that in a case study, so we asked the research team to look at St. Louis, as a river city, and we asked them to take the tonnage that currently moves by water along the Mississippi River, the Ohio, and the Missouri, and say what would happen if we had to move all of that cargo onto trucks moving through the interstate system in that city.

And, well, one thing is the cost of maintaining their highways would go from 345 million to 721 million, the truck traffic on their interstates would increase by 200 percent, traffic delays would increase by 500 percent. And the injuries and fatalities on their interstates would go up between 36 and 45 percent, depending upon what mitigating measures were taken in terms of road improvements.

And these numbers were all determined using the "HERS ST" modeling software that's used by the Federal Highway Administration to determine whether a road project is warranted. So this is a very complex modeling software that transportation planners use to determine whether they should build new freeways or not.

So what the research team did was took this nationally-accepted software model, and they plugged in that additional tonnage and asked it what would happen. And so maintenance costs would go up, almost double.

And the bottom line is that if we were to move the cargo off the water and put it through that city, it would have a dramatic negative impact, literally measurable in the lives that would be lost through the increased accidents on the highways due to the additional truck traffic that would be present. And so we don't normally think of the value of the waterways in terms of public lives, but it can be measured in those terms through this method.

We've seen through the years that barges are now carrying more than they used to. We're designing the barges a little bit differently. There's a little bit greater load. The team found that really 1750 is a good average capacity of a 200 by 35 foot dry cargo hopper barge. Rail car capacity has gone up somewhat too, so that one barge under the current analysis is about the same as 16 hopper type rail cars.

But trucks are weight limited to about 25 tons of cargo to stay on the highway. And so where you see now, we used to use a different number, but the proper number to compare the number of trucks that can be replaced by one standard inland hopper barge is about 70 trucks. And just to give you a comparison, that one barge can carry enough wheat to make about two and a half million loaves of bread. That's about a loaf of bread for everybody in Kansas is in one barge.

To look at the petroleum example, the standard barge, 300 by 54 foot petroleum barge, carries about 27,500 barrels. That is equivalent to about 144 trucks, 46 tanker cars on the rail side. And that's enough gasoline in that one barge to keep about 2500 cars running for an entire year.

We've all seen this slide before in various different forms, but it's changed. That 15-barge tow compares now to two unit trains, 216 rail cars, and six locomotives. We used to say that it was 870 trucks. Well, under the new calculation, 1,050 trucks would be put on our highways for every 15-barge tow that we remove from the waterways.

On the fuel side, again the numbers have changed. Trucks and trains have become more efficient. We can now get a ton of cargo 155 miles on a gallon of fuel with a truck. Rail, they can move that ton of cargo 413 miles on that same gallon of fuel. But by moving it by barge, we're getting that ton of cargo 576 miles and, quite frankly, that number is increasing every year as the industry is increasingly adopting more fuel-efficient engine technology for the tow boats.

This slide's a little bit busy, and I won't try to read to you all the fine print on it, but the bottom line is that when you look at the emissions per ton mile, nothing compares to Inland Waterways, whether you're looking at particulate matter, hydrocarbons, nitrogen oxides, or carbon monoxide. On a ton-mile basis, barges are the cleanest mode of surface transportation.

If you look on the spill side, and it was difficult for the team to really come up with a comparative number. This is in terms of spills of more than a thousand gallons. When there's a spill from a barge of a cup of oil or a chemical into the water, that's a reportable quantity and it goes into the database. But when a cup of gasoline gets spilled out of a tanker truck at a gas station, that doesn't see anybody's police blotter normally.

So to get an apples to apples comparison, they looked at only spills greater than a 1,000 gallons, but you can still see that on the per million ton mile basis, that water has the least spills compared to the other modes.

This is a very striking figure to me. The team looked on a per-ton-mile-move basis the injuries affecting members of the general public comparing the modes. And what they found out is that for every one citizen who was injured in an accident with a barge, that 125 are injured in rail accidents, and 2,175 were injured in trucking-related accidents.

And so -- and that was also borne out in the, you know, this is a historical analytical look at accident statistics, but if you look at the modeling that was done for the case study in St. Louis, it also showed that there is a substantial savings in injuries to the public by keeping cargo on the water.

If you look at fatalities, you get similar numbers. For every member of the public who dies in a barge-related accident, 22 die in rail-related accident, and 155 die in trucking-related accidents. And again, that statistic is adjusted for ton miles, it's on a per-ton-mile-move basis, so you simply cannot explain that by the fact that trucks move more cargo than do barges.

The good news about the waterways is that we have capacity. We can handle the cargo that we're moving today, primarily bulk cargos. We can also accommodate the future growth in those cargos. And, I think this is the key point, is that we have the capacity to accept cargoes from our overcrowded highways and railways, and help take some of the strain off the nation's transportation infrastructure by finding some of the cargos that are currently moving by those other modes that could move by our modes.

Now, that's not to say we'll ever replace trucks or trains. I like to say that I've never seen a barge docked at the back of a grocery store. We'll need to have trucks, we'll need to have trains. But where appropriate, the smartest choice for those that can move by water is moving those cargos by water.

If you look, this is a slide that was developed for the Department of Transportation by the Battelle Institute. The green lines that are kind of hard to see are fairly low volume truck routes. The blue lines are heavier volume, I believe 5,000 to 10,000 trucks a day, and then the red lines are those in excess of 10,000 trucks a day. That's 1998.

If we fast forward to 2020, you can see where the projected increased congestion is on our nation's highways. Well, what I think is significant is if you now overlay our waterway system over those most crowded highway segments, you see that our nation's waterways are pretty well positioned to help take some of the strain off of our highway system that's going to be increasingly crowded in the future.

And so we think that that makes the waterways a very important piece of the nation's transportation future and part of the solution to the transportation problems that we'll be facing.

Now, if this has sort of gotten your appetite up to learn more about the study, you can go to the website of the National Waterways Foundation. That's www.nationalwaterwaysfoundation.org, if you all can't see that in the back, and you can get the entire study. It's about, I think, a 50 or so page study. And it will give you all the facts and details that I've just sort of glossed over today.

There's an executive summary that you can download as well. And I want to mention, I said the name of the National Waterways Foundation several times; for those of you who may not be familiar with the Foundation, the Foundation is a tax-exempt charitable organization, and its mission is to develop the intellectual and factual arguments for an efficient, well-funded, secure inland waterway system.

And the Foundation felt that this was a very important piece of research to look at. One of the things that has been raised since the project has been finished is a topical issue of a carbon footprint. And someone has asked us, what is the difference in the carbon footprint between the modes of transportation.

The short answer to that is carbon footprint is pretty much proportional to fuel consumption, what goes in must come out. But there are perhaps a few subtleties and nuances, and so the Foundation has gone back to the Texas Transportation Institute and asked them for a

proposal to go back and reopen the study and add the modal comparison in carbon footprint, because that is very relevant to a lot of people today, and so we think that that might be part of the discussion for the future.

The Foundation believes that it's not important simply to do these studies and to come to groups like this and talk about studies, but it's really perhaps most important that the general public understand the information that's put together. So that's one reason that this slide presentation was put together by the Foundation. The Foundation has also summarized the study in this brochure.

And with your permission, Mr. Chairman, I'd like to distribute to the Board members a copy of the brochure. We also have additional copies for those in the audience who might like to have them. And with your permission, perhaps we could append a copy of this to the minutes of the meeting for reference.

But the challenge that I would like to give to everyone sitting around the table and, quite frankly, everyone in the audience, because we're all probably believers in the waterways or we wouldn't be here today, is to take this information, this slide show is being prepared by the Foundation on a disk, with speaker notes, with a script for those who want it. We have thousands of copies of this brochure.

The challenge that I would like to issue to each of you in the room is to get a copy of this, the Foundation will make it available to you, and go to an organization that you're a part of that's not affiliated with the waterways. You know, there's all sorts of organizations out there who have a program chair who's just dying to find something to talk about as the subject for their next meeting.

Take this, we'll give you the tools, and tell somebody you know in your community about the waterways and what they're doing for the nation. And if each of us talks to 25 or 30 or 40 people, that is how we multiply the number of people who understand the importance of the waterways and who will support meeting the needs of the waterways.

And I think we get sometimes too focused. We have great needs to maintain and improve our waterways, but sometimes we don't step back and recognize how strong and resilient they are, notwithstanding the challenges that we have, and how the nation with a relatively small investment, compared to the other investments we make as a country, could have this system in really fine shape.

And if we could tell the story more effectively to more people, perhaps we will get the support we need to make the investments as a nation in having the first-class waterway system that will serve our nation well into the future.

And so with that, I'll conclude my remarks, and if you wish for me to take questions, I'd be happy to do so.

MR. WILKEN: Are there any questions or comments for Mr. Woodruff? Great job, Matt. Thank you very much.

Okay. We'll bring the lights up, and we will then focus on our next presenter, Mr. Gary Loew. Mr. Loew will talk about the Inland Waterways Trust Fund Assessment. Gary.

MR. LOEW: Thank you, Mr. Chairman.

Chairman Wilken, Secretary Woodley, General Riley, members of the Board, thank you for the opportunity to be here today to talk about, I think, the meat of what the Board is about, which is really a retrospective look at where we've been in the past, what we can learn from how we've managed projects in the past, and then also to transition to a look forward and say where do we go from here and really begin to seek the Board's recommendations on next steps for the Corps of Engineers as we plan our project, construction, and rehabilitations out into the future.

I'm going to talk about three topics here, fundamentally. I only have about 16, 17 slides, I won't talk too long. And it's really designed to stimulate your thinking. So as we go along, please, if anyone has any questions or wants clarification on the material that I've presented, please, please stop me as we go along and we'll deal with those as we move.

But the basic three things I'm going to talk about are revenue projections, where we are in the trust fund today, and what that looks like out into the future. I'm then going to talk about the comparative case studies reports that were provided to the Board members I think about two weeks ago. And we'll talk about lessons learned from that, how we apply those to the future.

And then we'll really get to, I think, the meat of how we move forward, which is which of these paths can we expect to follow. We have really three choices that we've outlined here. Of course there's more than three, but three of them sort of bracket the range of options available.

One is the income stays as it is today out into the foreseeable future. The second is that the income is modified in the future the way the Congress modified it for fiscal year '09. Now, as has been said, the Congress said we're going to do this one year only in '09, but, of course, every year, every appropriation year is a new year, so we don't really know about that.

And then the last would be if we had what we considered to be an optimal revenue choice, what would our income look like and what projects would be built in that case.

Now, this is just a reminder. As I prepared myself for this presentation, I really went back and looked at what's the purpose of the Board. So you all know this better than I do, but I'm focusing here on the fact that the Board makes recommendations to the Secretary, that would be Secretary Woodley sitting right there, regarding construction and rehab priorities and spending levels on commercial navigation features.

And that's where I think we're at a turning point with regard to dealing with current trust fund revenues out into the future or not. And so that's really what I'm focused on in the long term.

Where we are today. Again, this is just a reminder. It goes back to WRDA '86, which established current cost-sharing levels. And the -- our situation is that we have available as revenue 20 cents a gallon for fuel use on the Inland Waterways, all specifically designated in law, and the fact that we can -- we have basically matching funds.

So for every dollar of revenue that we collect, we get matching funds out of the general appropriation, one for one. So we have 50/50 cost sharing there for new construction only.

Of course, we're not talking about anything classified as maintenance, so the operations and maintenance comes fully out of the fund, and we're only focusing on what do we need for new construction and the very major rehabs.

This is what the trust fund looks like now. I had to work with David and Mary Anne a couple of times to get them to dumb down this slide so I could understand it. So we now have only three lines here, and I think there's a little story in those three lines.

And I'm going to go over that for just a minute, because it shows how quickly we can get in trouble or out of trouble if we're not doing long-term capital planning. And in my view, long-term capital planning means that we and you, the Board, or we the Corps of Engineers and you the Board, ought to be planning projects for the next 20 years.

And we ought to be focusing on when those new start decisions are made. So that once we've made, undertaken the responsibility to take on a new major construction program, because as you've seen, these can vary from 400 million to \$750 million, and that's of course if we build them at what we projected, so they're very, very expensive investments, and we need to be assured the day that we make that investment decision that we have projected the funds to be used to build those projects sufficiently throughout the life the project.

And they shouldn't be incrementally year-to-year decisions about how much the project is going to get.

What this will show you is if you look at the green line there, which is revenues in the trust fund, and the blue line, which is work allowance, what we've spent out, you can see that between '95 and roughly 2003 and 2004, there were slight -- we were spending slightly less than we were taking in, and that causes the red line to incrementally grow over those about eight years up to a substantial balance of 400 million a year, so -- or \$400 million.

So that was a substantial balance that the Board, I think, expected the Corps of Engineers to address back in that time frame, and began to accelerate spending on projects.

The next lesson is, it only took four years to spend that balance down. So we're talking about how we use funds over four years, but how we use them against projects that have project construction lives of eight to twelve years. And so -- one lesson in retrospect is, maybe, did we really think through how we were using that money and did we use it on the right projects and the right number of projects.

As you can see, the line drops down to where we are today in 2009, and levels out there. So our expected work allowances and our expected revenues are right at about \$90 million a year out in the foreseeable future.

This is the same information in tabular form looking out into the future from next fiscal year out five years into fiscal year '13. And a couple of pieces of information in this slide here. The first is that you can see that the top line and the bottom line, we're scheduling to carry out at the end of each year about 14 million, and that would be our starting point for the next fiscal year.

Now, there is some logic behind that \$14 million. And that really is that revenues are down in the first quarter of the incoming future year. They're less than normal. So we have to retain some extra money to manage the projects through the first quarter. And then also, we've allowed about 4 million of that 14 million is money that comes in at the end of the year that we don't have access to until the beginning of the next year.

And then we've allowed about \$6 million for basically projects that have unexpected needs. So we're really carrying about a \$6 million balance for unanticipated needs during the year.

Now, the other item, I guess, about this table that's a little different, as we manage forward into the future, is that in the past when an appropriation was passed, we had all the appropriation revenues and all of the trust fund revenues available to us upfront because we could draw on that -- on the surplus sitting in the trust fund.

We are now, at the end of this year, down to basically where we are working at the margin. And so my staff has worked with Treasury to basically get access to those funds as quickly as possible. Because we can only spend them as we receive them. So when we get an appropriation, the general funds will be available to us, but the trust fund will only be available to us as we collect the revenues throughout the year.

And so Treasury has been very cooperative with us, and we'll have access to them roughly every two weeks. So we'll have access to all the revenues except for that one in the last two weeks of the last quarter, probably. But that will mean that we will have to sort of manage the cash in the future as we plan the projects and the use of the revenues.

Any questions about that before we move on? Okay. Yes, sir.

MR. WILKEN: Question for you. How do we, as industry, plan on a long-term revenue plan when our projections are wide in terms of -- or missing the mark in terms of the initial cost of the project?

MR. LOEW: I will begin to address that a little later in the presentation, but I guess to give you an initial answer, you can't. I mean, none of us can, unless we have good projections at

the outset of the project. So I think that we, the Corps of Engineers, have to do a better job of that in the future, about projecting what a project is going to cost.

And one of the related issues associated with that is when do we want that number. Right now there is an initial estimate that's made at the completion of the feasibility study for a major project. But then when we're ready to project that to go forward to construction, which may be a number of years later, we'll go into the engineering phase and do a more detailed cost estimate.

And so one question, I'll sort of leave it with the Board to think about, is that at what point do you want that number? Because we could do more in feasibility. It would cost more and take more time to do it. And, of course, at that stage of the project, if you do a proper risk-based cost estimate for all of the unknowns associated with that, you're going to put contingencies in that cost estimate to make sure it's correct.

And so at the feasibility stage, we would probably be putting a lot of contingencies into that that would either be proven out or narrowed down, I guess, when we went into detailed engineering. So very good question, and part of my eventual response is, when do you want to see the numbers?

MR. WILKEN: Okay. Thank you.

MR. LOEW: Okay. Next slide. There's two revenue projections on this slide. They are independent. The bottom line, the blue line, is the revenue that we get with the current tax. It's roughly the \$90 million that you see there, that you saw on the previous table, and then projected to increase roughly to 100 million out into the future because we do expect traffic to grow on the Inland Waterways, and we would expect the use of fuel to increase accordingly.

As we know, that hasn't always been the case in the past because you all have been developing more efficient boats, and so there has not been a linear relationship between the increase in traffic and the increase in the fuel tax revenue. It's a flat 20 cents per gallon.

The second line that you see there is the Administration's proposal that was submitted with the budget, the green line. That's a net, so it includes both the amount of revenue that would be received if the barge user fee were implemented and the fuel tax were netted out.

And that's why you see the curve slowly decrease as you go further up, and that's just the effect of the fuel tax being eliminated as you move forward, 10 cents a gallon, then 5 cents, and then to zero for those three years there.

For my purposes, since I'm concerned with how do we fund these projects that need to be done, the message in that slide is that an optimal revenue estimate is about \$250 million a year, as opposed to the roughly \$100 million a year in the lower line.

Next slide. Now -- so that's -- that's sort of the end of the discussion of revenues. I think most of it is pretty self-evident, most of it you anticipated. And now I'd like to move in to talking about the comparative study that we have prepared. And --

MAJOR GENERAL RILEY: Gary, if I could, on the last -- go back to the last slide. You said optimal at 250. How did you come to that conclusion that that would be optimal?

MR. LOEW: That is an initial -- our first look at capital planning, sir. We're not quite at the point yet where we're ready to have a full 20- to 30-year capital program recommended. And, of course, what we recommend will depend somewhat on this Board's recommendations, the secretary's decisions, and what income we have to work with.

But our initial look, if we said optimally what projects would we replace and when, and also accounting for major rehabs, or rehabilitation projects along the way, the revenue that we would like to have is about 250 million a year to do that optimal level of work, and then with the matching funds from the general appropriations would give us about \$500 million a year to work with.

So it's a very initial look and think about capital planning out into the future.

MAJOR GENERAL RILEY: Okay. Thank you.

MR. LOEW: I've got a couple of summary slides here for those of you who have not had an opportunity to read the report, that sort of summarizes the findings. And I'll work through just a couple of these slides and then move on to lessons learned. This first one here just shows what the cost increases have been on the slides.

Now, there has been some confusion about exactly how much this has been in the past, and I believe that's come about from comparing uninflated numbers to inflated numbers. So some of the initial looks at how much these projects increased looked at a 1992 number and compared it with a 2007 number, and just did the subtraction without making the inflation adjustment.

So if we adjust all of these to 2007 prices, then the -- for Marmet, just to take one of them, the authorized inflation-adjusted starting price is 360 million, the current estimate to complete is 426 million, the difference is 67 million, and the increase in that project is 18 percent.

For Lower Monumental, you can see that the same adjustments have been made and they have a 43 percent increase and a 59 percent increase. And as Chairman Wilken mentioned earlier, pretty hard to plan out into the future how much money you're going to need if, in fact, on these really expensive major projects your initial starting cost estimate is off by a half or more.

And, believe me, I would simply like to reinforce his comment for the Board. As you all know, we get down to very specific numbers project by project taken out of the trust fund, out of the revenues, and everything fitting inside our budget ceiling. And if you've made a 5 or 10 or \$15 million mistake in a single year, it's a big problem to try to deal with that, specifically now

with our -- even less authority than we had in the past with regard to reprogramming, we really do need to be right on with our total estimates, and we need to be right on year by year.

And we can talk a little about it later, but we've made a number of changes inside the Corps of Engineers to -- so that we can assure that we are creating better cost estimates and that our divisions and districts are executing those on the schedule that they've expressed they can accommodate.

Next slide. This is a summary of a lot of information in the report. And I don't mean to not deal with all the details in the report, but as we looked at it and discussed what does this mean to us; that is, we the Corps of Engineers staff, and where should we apply our efforts in the future to make the kinds of corrections we need to, what are the real lessons out of it, and, again, how do we allocate our time and staff time to deal with them, and in those cases where we need to change our processes and policies, where we need to focus.

And I've sort of summed these into two categories here. You can see that there's a top category that's mostly funding changes. And that accounts for about a third of the cost increases on the projects. What funding changes means fundamentally is that the project was not funded efficiently at the outset, and so districts had to adjust their contracts, their acquisition strategies, in order to build these projects, that that drug out the time that it would take to finish it, and so you see increased costs associated with the time.

Not stated on this slide but stated in the report is that as you draw out the time, of course, you also lose the benefits. Each of these projects when undertaken is expected to get benefits, and if you don't achieve those for five or ten years later than you expected, you're losing a lot of benefits at the same time.

The one labeled CCC means continuing contract clause. One of the changes in the 2006 legislation required that we change the administration of continuing contracts. These are contracts that we have an authority to award that allow us to actually award a contract for more money than we have in hand at the time.

So it could be, say, a \$200 million contract, and we incur these contracts generally when we move into the water. When we move off of the ground and into the water and we have to a build a coffer dam, dry a site out, place it, or in the case of Braddock Dam, for instance, build the stuff and float it down, you have to move forward with a single contractor for a very large piece of work.

And these contracts, it's not unusual for them to exceed 100, \$200 million. Well, the Congress allows us to award those contracts, even though we only have 20, \$30 million in the bank. In the past, we were able to let contracts, if we misestimated during the year, the contractor could move forward, and we could pay the contractor back with interest in the subsequent year when we got the next appropriation.

In the current rules, we cannot do that anymore. We have inserted a clause in the contract that says if there's not enough money and you run out in the contract, you have to be

prepared to terminate. This requires the contractor to include termination money in his bid. When we renegotiated those contracts on Marmet, we had an increased cost due to that special clause.

And while we were thinking that that would be a onetime problem associated with that clause, we do, in fact, have another contract ongoing today where the -- it's a dam safety project, but the nature of the work is such that the contract really can't pace himself throughout 12 months. There's some cost increases. He may have to terminate in August, and so we will end up paying some termination costs and some restart costs.

So it's possible that we could have those kinds of costs out into the future, although with good management, they ought to be minimal at best.

Now, the third group of cost increases that you see down there are called changes during construction, differing site conditions, and omissions, meaning that we just didn't think about them when we put the estimate together originally. And in total, those are about two-thirds -- are accountable for about two-thirds of the cost increases.

And so changing those kinds of things has everything to do with getting a proper estimate at the outset and getting retrospect. As I look back at some of those, I think the original feasibility estimate was the problem. It's not that we didn't -- that it's costing more than it should to build the projects, it's really that the initial estimate was probably an issue.

The others, of course, some of them you are simply going to encounter on any project, such as differing site conditions. But there are two -- again, two-thirds of the problems there, and that has everything to do with coming up with good estimates at the outset and then having a good risk management plan and implementing that during your construction period and holding your feet to the fire; that is, holding our district's feet to the fire if you will, to see that they deliver on time and within budget and that they pay attention to spot these problems earlier, anticipate them, and manage them within the costs available.

Next slide. So we have some lessons here, I'll summarize these, and at least as we perceive them, but then I think we'd really be happy with the Board's comments on your perception of what the lessons for this ought to be as well.

The first are really just, I think, two major lessons associated with the major reasons for the cost increases as we look back on them. One is, at the outset, use risk-based activity analysis, cost analysis, and schedule analysis when you develop your initial estimate, and then use -- follow your risk management plan during construction.

Now, we have over the past couple of years moved in that direction very strongly. It starts with basic education and training of our work force. We have three years ago developed a career development plan for all of our program and project management staff. That plan requires, among other things, certification, internal certification, and we encourage professional certification as well.

Risk management is one of the skill areas that our project managers are required to learn as part of this. The last year, actually ending June the 30th, we had a year when we encouraged everybody to get initially certified, and we've really been quite successful, the field has done a great job.

We have over 1100 people internally certified during the last year, and about 500 of those, a little more than 500 actually have professional project management certification, which is not a Corps certification, it's a universal certification, actually world-wide certification process. So we are confident that our PMs are getting this kind of training, we will continue to push that out in the future.

And then in addition, we've done quite a bit of work on how we go about creating cost estimates initially. We now require an independent technical review on all of our large projects' cost estimates. And, in fact, right here in Walla Walla is our cost estimate center of expertise.

And one example General Riley mentioned earlier this morning was their cost estimate for the work we did to improve the levee system and upgrade it to its new standards in New Orleans. That was a huge cost estimate. We put a lot of time and money into that. And Walla Walla was the independent technical review on that group.

And one interesting outcome -- there are two interesting outcomes I'll just mention, because they relate to, I think, where we're trying to go here. We, of course, had to present that estimate to Secretary Woodley. He had to go on and present it through the Administration to OMB and the Hill. We had to defend it.

And often in that process in the past, our friends at OMB have found reasons to reduce our cost estimate because they weren't well defended. In the case of this estimate, which was a large one, it was seven and a half billion dollars, work to take place over four years, they didn't take a nickel off of it. That is, the professional quality of the estimate stood on its merits.

And the second was, when asked, as Congress is often apt to ask us during a professional hearing, can you guarantee that the cost of this estimate is accurate. The answer is, we can tell you with 95 percent confidence that we will complete this project in 2011, and that we will bring it in at this amount.

And so, of course, they asked how much more would it cost for you to guarantee it, and the answer was, a lot of money. Because that's an asymptotic curve and, of course, to get a hundred percent guarantee you'd have to add a lot more to it. So I guess my point is that we appreciate this problem; we're learning how to get very, very good at it.

The districts are all incorporating risk-based analysis into their cost estimate now. And I think, again, the substantial issue here is at what point do we want it. Do we want it really at the end of the feasibility, or do we want to take our feasibility as it is and prepare an update at the point that we're ready to ask for the money for construction.

The second lesson there is to improve project management during design and construction. One more example, I would leave you there, then; in the estimate the Task Force HOPE did on New Orleans, one big uncertain area was the cost of borrow. The amount of borrow materials can be so huge to rebuild those levees.

They knew that they could have a market problem right down there trying to get all this soil from a very small area. And so as part of their risk management plan, there was so much money involved, that they actually created a separate group, a separate borrow management group, and began looking on our own ahead of time. Ordinarily we would just tell the contractors to go out and get the borrow and take their bids.

But in this case, we started identifying borrow sites, looking at the rules associated with those borrow sites, considering government leasing of the sites and providing, all to keep costs down. So, again, the second lesson is that you don't just finish this process with the cost estimate.

Once you have a cost estimate in hand and you see where your uncertainty is and your problems may be in the future, then you actively manage those early on. And if you do that well, you can, in fact, control your costs out into the future.

Next slide. Now, funding lessons learned. The lessons I just talked to you about, the E & C lessons, there's people in the Corps of Engineers that that can be much more articulate about those than I can. Where I focus my time, of course, is on getting adequate funds for the projects that we have and making sure they're planned well.

And that has everything to do with what projects could we start and how do we fund them out into the future. And I think that we have a lot of choices to make. And I think that this Board has a lot of choices to make out into the future. Because if you're really planning a project over 20 years and estimating your income over that 20 years, we have assumed, for instance, that continuing contracts are the best way to manage these very large projects.

I don't know that that's necessarily a good assumption. We had a really good experience with a very large project down in New Orleans recently awarded, the Inner Harbor Navigation Canal, where we used a design construct contract, where we started out with a number of firms, eventually narrowed it down, but the whole point was, if you give a contractor freedom, can you get a better price than you thought you could get.

And they got a price that was a couple of hundred million dollars under their estimate. And hopefully it will come out at something like that.

And I guess, again, my observation is it's not out of the realm of possibility, if we plan our financing appropriately, to think of a fully-funded 200, \$250 million contract. I don't think -- it just means that for that year you don't do much else, but then, of course, you don't have to fund it in the future year.

So I think that as we do our own financial planning out into the future, and you are our partners in that, it is -- we should sort of open up that box and look at all the possibilities. We don't have to consider, to decide upfront that incremental funding and continuing contracts are the only way to do these projects.

Second lesson there, the acquisition plan should be based on efficient project funding. We do cause our districts problems when they are uncertain about how much money they're going to get from year to year. And from time to time, particularly using performance-based budget processes in the past, we have changed their expectations.

So they thought they were going to get 60, 70 million a year for three years, and we've said no, it's going to be 50 million a year for three years. It causes them to have to rethink their acquisition plan in the middle of jobs. That is just bad behavior on our part, and we need to stop doing that.

And again, I think the answer is for us to make those decisions early on in the capital planning process, and then work very carefully through the Administration and through the Congress to get their buy-in on the funding streams for those projects. And that way, it doesn't become a separate decision and a separate defense job every year.

If it's going to be a four- or five-year job, make that decision once at the beginning of the job and then it's done, we don't keep rethinking those. And then again, the districts and our contractors that we're partnering with, with that kind of certainty, I am convinced can do better, more efficient work in the future.

And the last one I talked about again is risk-based estimates. And that is so important. It is not that we do not know what these risks are, but as you all know, when planning big jobs like that, you're able to decrease the number of risks as you get farther into the job.

But a good engineer, an experienced engineer going into these jobs will know what he knows or what she knows or what they don't know and where to accommodate that estimate with contingencies for those.

Next. Okay, I guess before we move to the third and final topic, any more discussion we'd like to have on the reasons for these cost increases and what we might do about them in the future? Yes.

MR. WILKEN: Mr. Martin.

MR. MARTIN: Gary, thank you very much for the work you and your group put into this report. I've been through it once, and intend to spend a lot more time with it, and I'm sure the other Board members plan to do that and certainly have a dialogue about what's in there.

But the one thing that I'm curious about, which I didn't see anywhere, I'm just wondering if you can offer a perspective on this, I looked back on the history of major lock and dam projects that were completed during the decade of the '80s and the '90s. There were very good

estimates put forward, they were funded and completed reasonably within the initial cost estimates.

And so my question, what I'm concerned, is what has changed to the current situation that we seem to be in where the estimates that were put together for the projects that are underway seem to be invalid? I'm wondering if during the process whether you've looked back at what was happening during those earlier decades compared to where we are now?

MR. LOEW: Sure. Good question. I've wondered the same thing myself. And I do not have an analytic answer for you, so I can't really answer your question.

But my sense is that the principal difference was back in those days, there was plenty of money. And so we weren't so cost constrained. We weren't trying to manage a limited budget and we had a great deal of contract flexibility, we had a full continuing contract authority, we had full reprogramming authority, and the districts were not concerned when they developed their feasibility estimates about the benefit cost ratios, as well, because most new starts were being funded.

Now, as you know, if your benefit cost ratio doesn't reach a certain level, you may not get the funding. And so I think the incentive was to get the price right. And if you did, and it got started, you would be funded efficiently to do it. And that isn't our current environment.

Our current environment is if you don't get the price right, you may not get the project. It may take you years to get the Congress or Administration to allow a new start, and then if you do, you're going to be cost constrained throughout the whole thing.

So, again, I think it's the difference between managing under a very constrained fiscal situation is just different than it was back then.

MR. MARTIN: Early on when the tax was at four cents and it graduated up to the current 20 cents, weren't we in a constrained environment during that time period? I'm having trouble understanding.

MR. LOEW: No, sir, because most of those, when it was initially started, most of those projects were being, prior to tax and cost sharing, prior to '86, were being fully funded out of the general fund. And that continued as those projects were grandfathered through.

So no, they were not limited by the tax back in those days. And, in fact, it's a good observation, because the projects that we have under construction now are the first of the group that are, in fact, constrained by the new -- by the limits of the trust fund.

MR. WILKEN: Mr. Woodruff.

MR. WOODRUFF: Couple of questions. One is a follow-up to something that you just said, and maybe I'm putting in a little bit less nuance than you did, but is one potential explanation for why the projects are -- were coming in on closer to budget in the past than they

are today that the estimates upon which today's projects were based were adjusted somehow to make the numbers work better to get the projects authorized?

I think what I heard you say is that in the old days, we weren't constrained in funding and people weren't having to look at the benefit cost ratios, so that to get these new projects approved, they had to make the numbers work, which weren't necessarily the accurate numbers for the cost of construction.

MR. LOEW: I wouldn't put it exactly like that, but I do think that, again, there are a couple of things that are different. One is I think that one of the points you're making is true; that is, the incentive is to not look to make the cost estimates high. So I think they are still incentivised to do a decent cost estimate, but they weren't really looking at all the potential risks that early in the feasibility stage.

So there was -- and there are two reasons for that. One is, of course, as you point out, it could change the benefit cost ratio. But the other is that you're less certain about when the project is going to start. And so if there's going to be years between the completion of the feasibility study and the start of construction, then the tendency would be to not put all that effort to really develop a better cost estimate, wait until you start the engineering just prior to cost estimate.

So the other option would be to, at the point you're going to ask for construction funds, you're going to insert that into your capital budget, if you will, that would be the time to go back to engineering and do a more thorough cost estimate and tell the Congress and the Administration at that time, this is what we think our current cost estimate is.

If there's going to be a short delay between feasibility and start of construction, then I would say go ahead and do it by the feasibility.

MR. WOODRUFF: The second question I had, and you'll have to forgive me for not being an economist; you have, for purposes of this report, adjusted the numbers for inflation. It seems to me that by adjusting the number for inflation, it tends to mask the effects of delay in completing the project.

If you didn't adjust for inflation, you would see that because of the time increases on some of these projects, the costs have gone up quite substantially. Had we done them earlier, it would have cost a lot less.

Am I misreading that, or is that not a result of the adjustment of those numbers for inflation?

MR. LOEW: I guess I'm not sure exactly, I'll try to clarify. If you want to say what was the original cost estimate and what's the current cost estimate, you have to put those two numbers in same year dollars. That's all. So you can't take an uninflated 1990 number and compare it with an inflated 2007 number.

So you can adjust the new number down to the old dollars or the old dollars up to the new number to get accurate. So in terms of the cost, I think it's right. Now, what I wasn't sure about is if you were referring to the benefits. The -- I didn't deal with the benefits here, but there are substantial losses due to unrealized benefits by not keeping -- not completing those on time. And that's not reflected in anything that I showed you.

MR. WOODRUFF: So I guess if you're just trying to see how accurate was my estimate, then it makes sense to adjust for inflation, because that allows you an apples to apples comparison. But if you're asking what did it cost the nation if we had gotten it done in the first place when we figured out that we needed this project and it was authorized, as opposed to what is it costing the nation because of the delays in getting it finished, then it may not be as accurate to adjust for inflation.

MR. LOEW: Well, they're two different numbers, but I think that the benefits losses are not included in these. Did I -- am I right about that?

MR. WILLIAM HARDER: Benefits losses are included in the report.

MR. LOEW: They are included?

MR. WILLIAM HARDER: The NED benefits. And they're in the summary as well.

MR. LOEW: Thanks, Bill. So I misstated that. The benefits are --

MAJOR GENERAL RILEY: And, Gary, I think Matt had a good point there, that when you do compare apples to apples, it does mask a little bit, the hypothetical situation, if you had completed it earlier than in 2005, let's say, then you would have compared the 2005 real dollars to the original, the original estimate would have been lower.

So there is a little bit, I guess, if you looked at it in that sense --

MR. WOODRUFF: If you had gotten the money -- I guess my question is, if you had gotten the money when you needed it, it would have been finished a whole lot earlier for a whole lot less --

MAJOR GENERAL RILEY: Right.

MR. WOODRUFF: -- is my gut impression, but, like I said, I may not be articulating --

MAJOR GENERAL RILEY: Right. And then once you get one delay that happened during that period and other costs, so multiple effect of any one delay, and then it just multiplies after that.

MR. WILKEN: Any further questions, Matt?

MR. WOODRUFF: No.

MR. WILKEN: Ms. Diehl.

MS. DIEHL: Yeah. Gary, my question relates to the benefits foregone. Because in looking at Appendix B, they seem to be quite staggering. And I'm wondering if you could comment on whether or not when you assess the projects, you impose the benefits foregone to see how the original cost benefit estimate was impacted.

Because I'm presuming in most if not all of these cases, due to the delays, that the project payback was negative potentially at the end of the project.

MR. LOEW: We did not do the analysis that you just suggested. But I don't know that it would impact the delays. That is, basically when the projects are completed, then you will gain the benefits for the next 50 years from that project whenever it starts. So the period that you lose the benefits is that period when you should have completed it and when you did finally complete it, which you'll just start them later and run them longer.

MS. DIEHL: But that presumes you wouldn't get to further life if you were to start it earlier, that you could capture the ability to get those benefits. Because under your analysis, you're basically saying it doesn't really matter if you have project delays.

And in private sector terms, that wouldn't make sense to me, because you would always want to try to get those project benefits as quickly as you could, if the cost benefit analysis was done and said if we do it by this date, we're going to derive these benefits.

MR. LOEW: I'm not sure I understand exactly what you're saying, but I think the answer, if I do understand you, is yes. I mean, the project benefits assume that it's going to cost this much and it's going to finish on this date. And so you can look at it as lost benefits to the nation, you can look at it as lost business opportunity, there's clearly a loss in there.

MS. DIEHL: The second question that I have has to do with on the estimators, you have said that you send people through project management training and also that you revamp the way you do the risk-based estimates. And you also talked about incentives to people in terms of how they create those estimates.

Are you not only changing the way that the estimates are done, but the incentive structure and the accountability structure around the credibility of those estimates when they're prepared?

MR. LOEW: Yes. We are in, I guess, in the process of changing all of that. And the one sort of policy issue that we haven't dealt with yet, I mean, we simply haven't decided how we're going to deal with it, run it up the chain, but is at what point do we really want that, the best estimate.

We could do it at the feasibility stage, but at that stage there's limited engineering. And so the outcome would be to probably inflate, the tendency would be to inflate the cost maybe above by the time you put contingencies for unknown. Or, alternatively, we could do more

engineering at the feasibility stage. It would take longer, it would cost more, we would get that better estimate at that stage.

And that makes a lot of sense if you're going to move forward to construction in a very short time. But if you're not going to move forward to construction for 10 years, then maybe it doesn't make the same sense there.

MR. WILKEN: On a follow-up to that, I'm sorry.

MS. DIEHL: Go ahead.

MR. WILKEN: On a follow-up to that, with these people who have been trained, have you given any thought to re-evaluating existing ongoing projects to see how those are -- on maybe a short-term look back on how that analysis applies to them, or is that ongoing, or is that more of a look back after the project is finished, or any thought process along that way?

MR. LOEW: What we are doing now is basically advising the districts, from this point on, you are being held to your estimates and to your schedules. So we have not gone back and done a retrospective on other projects like we have on these three.

MR. WILKEN: Okay.

MR. LOEW: But we have been -- it goes from the training to the monthly executions we do in our districts and our divisions and the headquarters, we are reviewing project costs and schedule month by month throughout the year now. Very similar to, I might add, the way our military programs has done work for years. Because they do get one number appropriated upfront that they have to live with.

And so we have really borrowed from them in terms of how we're doing our execution analysis as well.

MR. WILKEN: So in the past you haven't done that look back or haven't implemented that; now here comes the training with all the folks and your accountability model is getting in place?

MR. LOEW: We have not. But we -- what they do have to do is, if -- now that they understand the seriousness with which we're looking at costs and schedules and they pay attention to that, if they do come up with changes as a result of that, then they're required to let us know as we budget out into the future. So we are simply picking those up as we go along. But again, we haven't done a retrospective.

MR. WILKEN: Thank you. Mr. Little.

MR. LITTLE: Mr. Loew, thank you for being here today. We appreciate your presentation.

I want to go back for a second to the point that Mr. Woodruff was making on the chart on the authorized numbers. You've adjusted the authorized numbers for projects up to 2007.

MR. LOEW: Right.

MR. LITTLE: So if we went back and looked at the original authorized cost, it would be something less, and you brought it up to 2007 dollars. Because a dollar back then isn't worth as much as a dollar in 2007 to get it on an equivalent basis.

MR. LOEW: Right.

MR. LITTLE: Correct? Okay. And the index you used is in the -- is referred to in the case studies. Is that a Corps of Engineers index?

MR. LOEW: No, sir. It's an OMB, it's an Administration index that we're provided every year.

MR. LITTLE: Okay. Good. So -- and that was used uniformly in the three projects?

MR. LOEW: Yes.

MR. LITTLE: Okay. So the trust fund dollars, surplus dollars, in the 1990s up through about the year 2004, in your earlier chart, were worth more then than they are today?

MR. LOEW: Yes.

MR. LITTLE: So if those dollars had been spent then, presumably we would have got more bang for the buck than we would today?

MR. LOEW: I think so, yeah.

MR. LITTLE: I think that's reasonable to assume.

MR. LOEW: I'm not an economist here, so --

MR. LITTLE: Yeah. Especially given the fact with the 2004 run up we saw in steel and cement and everything else, we saw more than just the normal, what we would call normal inflationary effects.

MR. LOEW: That's right.

MR. LITTLE: We saw a much more pronounced effect. So I just want to make sure I was on the same page there. Obviously we would have got more bang for the buck when we had that surplus in the trust fund in those earlier years, and we would have been able to progress these projects at a much more rapid pace than spending them after '04 and seeing the effects of the trust fund.

Do you agree with that?

MR. LOEW: Yes, I do. In fact, the point is well taken, I think, because the inflation index that we use is an average sort of market price index. And the cost of construction in recent years has been going up faster than the normal rate of inflation. So to the extent that that -- there's a difference there that understates the effect. That's right.

MR. LITTLE: Okay. Thank you.

MR. WILKEN: Any further questions or comments? Go ahead, Jerry.

MR. GROSSNICKLE: You may be addressing this a little later, Gary, but I appreciate your analysis, it's very informative. One thing that strikes me, as a person who doesn't understand the economic system all that well, but it's quite amazing to me that we don't recognize right off that a large project can sometimes have an incredibly distorted effect on the trust fund balance.

If you just look at the raw numbers, the numbers that we bring in with the project length of just Olmsted, that's now a \$2 billion project, how long does it take the trust fund to get \$2 billion, or one billion for the cost share? It takes 10, 11 years. Have we considered the effects of these large projects on the overall efficiency of how we allocate spending?

MR. LOEW: I would answer that by saying I think we can do a much better job in the future. And so when I talk about long-term capital plan, that is exactly one of the kinds of considerations that needs to be in there. So if you agree to start that and fund it efficiently, you need to understand how much of that trust fund it's going to use.

And, in fact, to be constructed efficiently, Olmsted could have probably used every dollar in there without any other project. So we need to think that through at the date that we undertake it. Absolutely.

MR. WILKEN: Steve, did you have another one?

MR. LITTLE: Yes. Just another question, Mr. Loew. Given the findings and the case studies, significant inefficiencies that were revealed, and the steps that the Corps has taken to improve the process, foster discussions toward that end, would it be safe to assume you feel like this was a worthy effort, the case study?

MR. LOEW: Absolutely, I do.

MR. LITTLE: Is this one the Corps would have taken upon itself on its own initiative?

MR. LOEW: Not in this way probably, no. I think for the Corps of Engineers, our introspective look at these kinds of problems and issues started in 2006, when we got some

strong Congressional direction to do things differently. And at the same time, the Congress promised to do things differently on their part, as well.

They quit, for instance, allocating funds with savings and slippage attached to them and so forth. And to the extent that we might take a long time or a short time to fix some of these problems, they took some of our options away when they took reprogramming authority away, for instance.

And so they forced -- I mean, I believe that these were good reforms and that -- and I like the way that the Congress is dealing with the appropriations now better than in the past.

I think that it's -- it is simply a healthier business practice, healthier set of processes, if we are simply managing our civil works program like anybody would manage a good business, and in terms of planning our funding more appropriately, funding more projects upfront, and so forth.

So it was really in 2006 that not just for Inland Waterways Trust Fund projects, but for all projects, we began some extensive changes that included a change in how we budget. For instance, our budget process now advises the district for anything 20 million or less, budget to have it fully funded.

So that we budgeted for it, the Congress worked with us to appropriate those amounts, so that, again, for at least for projects in that range and below, which is the great majority of them, I might add, we know that we can work them more efficiently. And at the same time we began to put in practices to ensure that we were doing what we said we were going to do.

I mean, that was really the Chief's command, do what you say you're going to do. And that meant that we project a cost, we give you all, we give the Congress a schedule and a cost, then we're going to meet that cost and schedule. And so we began implementing these on all this.

But I think the study, I guess, helps to reinforce, refresh, and again call more attention to how important these changes that we've undertaken are. And in addition, I think that the study for me certainly, frankly, I didn't pay all that much attention to trust fund projects, because I figured you all were doing it.

And the -- but it really forced me to take a look at it, and say, how can my office serve better. And, certainly, the big issue, since these are such huge projects that comes out of that, is proper capital planning. And that's an area where I think we can improve.

And I would think in the future, what we would be presenting to the Board would be long-term 20-year capital plans, and giving recommendations on what projects we would start when, when they would finish them, and how long it takes. Then I think we can address your issue, which is are we undertaking a project which again really distorts how the trust fund is going to be used, and if we are, do we want to do that or not.

MR. LITTLE: Okay.

MR. WILKEN: How about one more question, and then we'll take a break?

MR. LITTLE: Okay. Throughout the report, there's reference to, and I may not have the terminology exactly right, Mr. Loew, but something to the effect about in a constrained spending environment, these projects are analyzed. Certainly we went through a period where that was the case, but the trust fund throughout much of that period was not constrained, it had a surplus.

So it was on the appropriations side where the constraints came into play. But on the trust fund side, there was no such constraints, in fact, there was a surplus. And in one of your earlier drafts on the revenue question, you had plugged in the Administration's revenue proposal, and we saw the line going up fairly dramatically. Obviously that would mean a tax of some sort, whether you call it a fee or a tax, which would be statutory and which we all would have to pay.

But what would prevent us in that kind of situation from entering into another era somewhere down the road where we had another constrained appropriation process we were looking at and we ended up with another surplus in the trust fund?

MR. LOEW: Well, I think if the -- that's a complex question. Let me -- there are two or three parts to it, so let me try to deal with one part first, which is back when we had the \$500 million surplus, what did we do about it.

I think a good retrospective question for the Board to ask itself and for all of us to ask ourselves, is since the benefits to completing Olmsted were so great and it cost so much, why didn't we allocate all of that \$500 million to that one project? Why did we have six or seven going at that time? Interesting question.

Now, with regard to the future, of course, one of my other motives was to get to this unconstrained future. And, I mean, it will never be unconstrained, but less constrained. And I'm assuming that if the trust fund were to have more income coming into it, that the Congress would continue to do what it has in the past, which is to provide the matching funds, and so we wouldn't be constrained.

Now, that is a bit of an assumption that we all need to be aware of. But if we did have that situation and we are doing, again, proper 20-year planning, we can lay this out not just a year or two or five years ahead of time, but we can lay it out way ahead of time.

And if there were any new legislation that dealt with that, it ought to be similar, it ought to have one feature of the Administration's legislation, which is if the balance gets above a certain amount, then pay less. So it ought to have an automatic adjustment feature into it, I believe.

MR. WILKEN: Gary, we've been going for about an hour. Why don't we just take a little break, grab some water, and everyone reconvene around 11. That's about 15 minutes.

(Short recess).

MR. WILKEN: Okay. Thank you, everyone. Okay. I believe, Matt Woodruff, you had a comment or some questions? Thank you.

MR. WOODRUFF: Actually, a question and perhaps an observation. If I understood from the slides, even adjusted for inflation, funding vagaries accounted for a third of the cost increases in these projects, even after adjusting for inflation.

If Congress had chosen to give the Corps a different funding stream, let's say that the mil con model had been used for these projects, where Congress funded the entirety of the project from the outset, would that have enabled the Corps, based on your study, to have reduced the cost of these projects to the nation by a third?

MR. LOEW: Yes. Am I on here at the mic?

AUDIOGRAPHER: You're on, sir.

MR. LOEW: Okay. My answer is yes, that I believe that those delays due to funding would have gone to zero if we were able to allocate all the project funds upfront, or even just the funds for the major contracts upfront.

Now, before I leave that thought, Matt, it's also true that I think that that option is possible in the future, even under current policies and processes within the Administration and Congress.

MR. WOODRUFF: Well, that sort of takes me to my next point. You know, we've talked about the fact that the revenues that are currently available in the Inland Waterway Trust Fund wouldn't support the level of funding that would be efficient. But I have a concern, and my concern's based on what I see with the harbor maintenance trust fund.

We have a trust fund there that has a surplus and a growing surplus, yet we have needs that we all can see and acknowledge in terms of the maintenance of our deep draft waterways that isn't being done. And so my concern is simply collecting more money doesn't necessarily equate to spending money where it's desperately needed.

And so I think that's a concern I have, and the thought that, you know, raise the taxes and the problem's solved. It takes the will of the Congress and the Administration to spend the money where it needs to be spent to ensure that the problems get solved.

MR. LOEW: Yes, I think that's a legitimate concern. And way above my paygrade.

MR. WILKEN: Anyone else? Mr. Orr.

MR. ORR: I'd like to thank you for coming also, and also to your whole team that worked so diligently to put together a great report. And your report answers a lot of questions for myself and for the rest of us on the Board. And when we were thirsty to have a report similar

to that, and we requested it and were looking forward to what came out and so forth. Now we have a tool. Now we have a good starting point.

And I think that there's some changes that you all have recognized that you're moving toward, improvements and so forth. In a logical, sensible, cooperative spirit, I think that we should begin to work together more closely and maybe have a little more detail on each of the locks and so forth and, you know, what should we expect to accomplish with this amount of money and work together a little bit more.

I think that we need to formalize that, and I would like to see at least the Board take that in to consideration.

MR. LOEW: Thank you.

MR. ORR: I do have one other question. When you do feasibility studies, the cost benefit ratios are driven by what you estimate the cost of the project is gonna be.

Recognizing that maybe we weren't perfect at how we did it in the past and, you know, anxious to get things authorized and so forth led our thinking, but if we have a more definite number and then we approach OMB with it, I think that we're going to have to do that almost at the same time as the feasibility study or you're going to have to complete a lot of your work or have a terrific way of estimating things a lot more precisely than we ever did in the past.

Because if we approach OMB about long-term funding and staying with each project and funding each project at the efficient level through the life of the construction expectation, then at that point, when we approach them, that's going to be the number they're looking for. And that's going to be the number this Board is looking for, and that's going to be the number that your groups are looking for, and we're going to try to meet the goal of getting this done.

I think it would be unreasonable to think in an \$800 million project that you're going to come in on time, on budget, you know, perfectly. You know, there's going to be a little learning curve in here. But I think that this Board needs to be involved in the whole process, working cooperatively as partners and working together to improve what we're doing right now.

And I think that this that you provided, this report, is the foundation for where we need to begin to move forward.

MR. LOEW: Thank you. I appreciate that. And I guess just to follow on your comment a little bit, I think that the Board should have some expectations of the Corps of Engineers. And one of those ought to be similar to one of our best practices now that I talked about, the New Orleans estimate.

That is, you ought to be able to expect us to come to you and say, yes, we have 90 percent confidence that we will bring this \$800 million project in at this cost and this schedule, as long as we're funded efficiently. So I think you ought to be able to expect that of us.

MR. ORR: Thank you very much.

MR. LOEW: And regarding your other comment about how we move forward in the future, we have taken the beginning of another step in headquarters that I didn't mention, but we are reorganizing ourselves internally a little bit to -- so that we have created a team that services this Board better and with more strategic thinking about the future.

That is so we can stay focused with you from meeting to meeting, as we go forward, that this is what we're getting from the Board in terms of directions, these are our long-term goals, these are our long-term capital goals, so are we presenting you the right kinds of information and analysis meeting after meeting, that keeps drawing us towards that goal.

MR. ORR: I think that that would go a long way toward tracking and understanding, and there would be no surprises at the end.

MR. LOEW: Okay.

MR. ORR: That's all I have. Thank you.

MR. WILKEN: Thank you. Any further comments or questions? Yes.

MR. GROSSNICKLE: Just a comment to follow up on what Matt said a few minutes ago. I did a quick calculation based on the analysis that we were given about the cost associated with less-than-optimal funding. And on just two projects, Lower Mon and Olmsted, it amounted to \$342 million. This is a huge amount, when we look at the amount that's in -- that we raised.

Seems to me we ought to have a good discussion with our Congressional subcommittees about this problem. I don't know if you want to address that or not.

MR. LOEW: The -- I'm not sure what I would say about that. I mean, it's a legitimate observation. I guess my reaction, and this would just be a personal reaction, is that I simply tend to move forward, right. We are where we are, and now where's the place we want to be to move forward, as we move forward. And so I would encourage any discussions that would cause us to move forward in a positive way.

MAJOR GENERAL RILEY: That goes on, your next slides are the discussion of the path forward.

MR. LOEW: Yes, sir. To move forward. As we talk about the path forward -- go back to the last slide, please, just a second. There are three uncertainties that I've listed here, and they'll make a little more sense as we move to the next slides.

But one uncertainty, of course, is revenues; how much and when. And so I've accommodated that in the path by choosing three possible paths with three different revenue amounts. And I'll explain those.

Future cost sharing treatment of rehab projects. I mentioned that, it has specifically to do with the second scenario, or path two, because of the wording in the House and Senate reports this year that said basically we will fully fund the rehabs out of the general account this year, the general fund, and not cost share them, but this is a one-year-thing only.

And so scenario one says we take them at their word. We figure we'll get the fully-funded rehabs this year, and then we don't have it available to us in future years. Scenario two says, well, the Congress is really pleased at the way that we are looking towards enhancing revenues in the future, and so they decide to give us a break in future years. So that's what that second uncertainty is, how we dealt with that.

The third is the ability to award continuing contracts. As you know, right now we can only award a continuing contract with a special clause. We know that under certain circumstances that costs us money.

I sense that perhaps, if Congress can redevelop some trust in our ability to manage these contracts properly and buy into our concept of future capital planning and thinking these through ahead of time, even though they will constantly reinforce, no Congress can commit a future Congress, and so they will say that over and over again.

But for a certain number, a select group of continuing contracts, they might be willing to restore that authority. So even though we can't do that now, it's in law that we can't, it's possible that it might be under some select circumstances restored.

Okay. These are the three paths. I'm going to put numbers against each path there, and we do have -- I simplified this information for purposes of presentation, but we do have tables with projects listed that Mary Anne will pass out when we're done that will show you what makes up these numbers.

So the first path is, as is, current revenue stream, one year of non-cost shared rehabs only, and what will that buy us. Second year is path two, same as the first path, no change in the revenue stream, but Congress gives us a break on the rehabs in future years.

And then the third path is, and this is the case where I just said, optimal schedules, what would we like to have, what would be a -- so if we really didn't put any constraints on ourselves, and it came out, to answer General Riley's earlier question, of about 500 million a year, 250 million from the trust fund and 250 million from the general revenues.

This is what path one looks like now. And I've divided it into major projects, major rehabs, and project closeouts, or small projects. Because this is the way I think about it. Again, the major rehabs are not things that we have to do the really long-term capital planning on. They are often more in response to problems that come up on projects or rehabs that we look to extend project lives.

But the major replacements, of course, are the really expensive ones. And in this case, we have about 90 million from the trust fund, so the numbers you're looking at are the total

project costs, which is the way that I look, regardless of the revenue source, what's the total going to cost us. And so the numbers that you see are trust fund plus general fund amounts together.

And if you look at the top line, you can see that in roughly FY '10 and beyond, we have about 155, 160 million available to us to spend on major replacement projects. And the spreadsheet at the end will sort of show you how those drag out at that. But an outcome is, of course, that we slow down some projects, focus on others. So we've delayed some, focused on others.

And the total we have available, you can see at the bottom, again, in '10 is where it really hits us, and we're limited to about 150, 180 million -- actually, 180 million a year, '10 and beyond, is available to us to work on everything that we have to do.

Okay. Next slide. This slide, again same scenario, but the main difference you can see here is that we have more funds to apply to the major rehabs, and we have slightly higher bottom lines. So here we have the amount of money applied to rehabs goes up to 50 to 70 million a year, basically, whereas the top line, the amount that we have available to spend on major projects, doesn't really change under this scenario. But again, we have more funds available to take care of some rehabilitation jobs.

Third slide, next slide. And this is path three, enhanced revenue. Now, this assumes about 250 million a year, and it doesn't start to kick in until fiscal year '11. So it assumes that a law would pass sometime in fiscal year '09 or '10, and the revenues would start to kick in fiscal year '11. So you can see it doesn't affect much through fiscal year '10, but in fiscal year '11, '12, and '13, it starts to pick up, and we can start applying more money to the major projects, a little more money to the major rehab projects.

Next slide. So implications, we really don't move forward at the rate we need. I'll sort of summarize that on the next slide. Path two, I mentioned more funds for rehabs, but no change to the top line for the major projects.

And then path three is advance enhanced revenue. And this is the beginning of capital planning thinking, in the sense that we think that we would have most of our major -- I shouldn't say most. Our major projects that need it would be rehabilitated, recapitalized for an efficient system in about 20 years. So it looks at roughly a 20-year period to build out most of what we need to build out now.

I hasten to add that is very preliminary thinking. We have not worked with our districts on this. We have done some gross estimates at headquarters. Okay. Next slide.

Okay. The difference between scenario one and three we have run out here, so you can get a sense of when these projects would complete under the two different scenarios. And you can see that your gains are on Chickamauga and Lower Mon 2, 3, and 4. A little bit of gain on Kentucky. But the -- again, keeping in mind that the revenue doesn't kick in until about 2011, those are the gains that -- those are the principal benefits you would see from these.

And scenario one says 2020 plus, because we really couldn't exactly predict those. So you get a sense of what would be completed and what would not be completed under those two basic scenario changes. Any questions about that?

Okay. Last slide, I think. This is a period, Mr. Chairman, really reserved for the Board to discuss it. I'll make a personal, uncleared comment here. I think that the next step really is for the Board to start considering what it might recommend in terms of how we would get to an increased revenue scenario.

And one way that you all might approach that is by asking us to begin to look at different funding scenarios; that is, fuel taxes. We already have an Administration proposed barge user fee which gets to that level, but suppose it was an increase to a fuel tax, an indexed increase, some combination of the two.

You could ask us at this point to begin to do an analysis to say what would be some different ways to move out into the future in terms of actually getting those revenues.

MR. WILKEN: Thank you, Gary. Any thoughts on the cost side, as far as the Board, how we could collaborate with you, in terms of the cost management, project management side, or just strictly a funding side is what you're looking for from us?

MR. LOEW: In terms of the cost side?

MR. WILKEN: Sure.

MR. LOEW: Really, whatever you would like. I mean, we're open. And we certainly don't have to wait until the next board meeting. So if you would like to schedule another meeting or give us a direction, we'd certainly be happy to work with you on that.

MR. WILKEN: I think we're very interested in that.

MR. LOEW: Sure.

MR. WILKEN: Any other comments for Gary? Gary, thanks a lot.

MR. LOEW: Thanks very much.

MR. WILKEN: You did a tremendous job. Next we'll hear from --

MR. POINTON: Alan Feistner.

MR. WILKEN: Yes. Alan. The status of the Northwest Division's navigation.

MR. FEISTNER: Good morning, Mr. Chairman and distinguished board members. My name is Alan Feistner. I'm the deputy for programs and project management for the Walla Walla District.

I put together this brief for the Columbia/Snake River, our systems approach. I want to quickly introduce my fellow DPM at the Portland District, Mr. Kevin Bryce. He's standing here. And so we put this together, and I'm fortunate to be the one to be able to brief it today, so I appreciate that opportunity.

For those of you who may have read some of Mr. James Michener's books, he has a book on the Chesapeake Bay that he wrote, and in that he describes a scenario in the early 18 -- or, I'm sorry, late 18th or early 19th century about a sailboat that's stuck in the bay. And the keel is deep in the mud. A lot of rescuers had come by to try to help them, but they can't find any boats big enough to tow them out.

And a little boat comes up with the rescuer on board, and he says, I'll be happy to pull you out of there, get you out. And the crew, unbelieving it, agrees to pay him \$50 if he can get them out. And so the rescuer climbs up to the top, ties the rope up to the top of the mast, and using leverages -- leverage, he tips the boat sideways and the suction is released and the sailboat, he's able to get it out relatively easy, to the surprise of everybody.

And when it came time for the captain who was stuck to hand over the \$50, one of his crew members murmurs to him, boy, that's a lot of money for about six minutes of work. And the rescuer says, you're right, but that's \$5 for doin' and \$45 for knowin'.

So the -- I'll come back to that, but I've been in this position for roughly a year, after having spent two years in Asia with the Installation Management Command. That was my second two-year tour in Asia in the last 18 years. And the improvements that I've seen in the transportation and commerce systems in Asia in that time have actually been phenomenal.

And as you know, the attention and interest that they're applying overseas to many of their systems impacts our competitiveness here also in the United States. One of the things I do want to acknowledge and just make sure that you all, particularly those of you who were on the tour yesterday realize that a lot of the successes we have are based on the great employees that we have here in the Walla Walla District and the Northwestern Division.

And many of you got a chance to see some of them yesterday in action. So they're folks that help us with our competitive side. But they rely on us with our corporate knowing, or knowin', as I mentioned from that example of Michener's book, so that they can get on with the business of doin'. And that's part of our responsibility, to help all of us understand what we can do to help us with our competitiveness.

When you depart Walla Walla, I hope that you've seen enough of our missions to comprehend that we do take collaborative and system-wide approaches to deal with our challenges in our exciting mission of dealing with fish, hydropower, and of course navigation. I

sincerely appreciate this opportunity to exchange ideas with many of you yesterday and as well today and on some of these breaks. So I appreciate this opportunity.

Next slide, please. As has been mentioned many times today, we've got aging infrastructure that -- where our needs are expanding beyond our normal appropriations and funding, but we're continually evaluating our processes to provide reliable and dependable and cost-efficient navigation services.

Next slide. Our goal here is to work a prioritized system approach. And in the past, many of our approaches have been district-centric, so we look at a problem really from just a district point of view. And what we are doing here is looking at things from a system approach. And Mr. Orr brought up some of those issues today, hey, we need to look at this as a system approach.

And the previous speaker in our -- our COP, we call it our COP, but our area of responsibility, in last summer, he mentioned at our community of practice that he wants us to look at a systems approach. So Gary Loew has already got us focusing in that direction, and we're moving in that direction. What I'm going to propose here is refining and improving our process that we've been doing here in the last year or two.

So we're going to integrate the processes, again, the Walla Walla District and the Portland Districts are going to look at our processes as a system, as opposed to an individual district, and then prioritize those needs in the same process, evaluate the risk while optimizing system reliability.

Now, reliability, of course, is important because, as all of you know, when you pick up your telephone, you want to have service every time you pick it up. Well, business is no different with our systems. They want to know that when they're going to take grain down the river or fuel up the river, that it's always available, that our locks and dams are always available and always functioning. We've got to keep that in mind and work that -- keep that in mind as we work through these processes.

We also, as we evaluate our needs, we've got to take the emotion out of the issue and look at things from a technical and more of a scientific manner so that our estimates are reliable and dependable. And what we've -- what we're doing here recently, and I don't know how long we'll continue it, but we're using some the dam safety criteria that has proven very well in the past to evaluate our locks and dams as we look at the criteria to compare the systems against each other.

Now, all of this, USACE already does have some processes in place, so what we're proposing here in the Northwest Division is really just a refinement to a process that is already in place, but to improve it, as Mr. Orr mentioned in some of his questions to Mr. Loew in the previous briefing.

Then, also, as Mr. Orr mentioned, we've got to work closer with our stakeholders. And that's what this process implies here, is getting closer to some of our stakeholders. We've got

about 84 commercial interests that include everything from grain growers to local communities. And we can do better -- we can do better at working with them and some of our partners, like the Pacific Northwest Waterways Association, so that we're providing the information you and they need to provide the best solutions.

And we have had some successes with this system-wide approach that we've done in the last year or two. Two examples would be, of course, we hope the Lower Monumental rehabilitation, which many of you visited yesterday, it's at your level of visibility, which is important to us and our customers, and then, of course, the channel deepening efforts that the Portland District has done and continues to do.

Next slide, please. In the last two years we've put together a document that's 29 pages that evaluates non-routine navigation requirements at each of our facilities. And it looks at things from -- it looks at the needs from a technical point of view. It takes the emotion out of the issues and it uses dam safety, some of that criteria, to evaluate the different needs.

And then it categorizes those needs into four different categories, and then what it doesn't do is rank order the requirements, and that's what we're proposing refining to do in the future, and then program the requirements. In this case, this advocates programming the requirements in an unconstrained manner. We're probably going to have to go to more of a constrained manner because that's more realistic.

Next slide. I'll go through just a couple of needs, and as you'll see, I'll move up the river system. But you can see the Portland District has requirements at the mouth of the Columbia River, the jetties, some major rehabilitations, and so on. Next slide. Kevin Bryce talked about those a little bit yesterday on the bus ride.

You've also got some Columbia River channel improvements to increase or give the ability for larger ocean-moving vessels to move up to Portland.

Next slide. John Day, another one of the projects in the Portland District, major rehabilitation and some of the other needs you see here on the slide.

Next slide. McNary, now in the Walla Walla District, has other needs. Derrick crane repair. We're also working a major maintenance report, which again looks at some of the needs from a more technical view.

Next slide. Lower Monumental, a project we talked about and many of you visited yesterday.

Next slide. Lower Granite, farther up the system, has a need for a programmatic sediment management plan, we call it PSMP. And it's a court agreement -- or an agreement we made with the courts before we do any more dredging.

Next slide. So this process here, essentially we go into a logic chart, and we look at the need for that -- or that project, and we determine if it has an inefficient safety rating based on

poor reliability. So you can see the first one, if it's a safety issue, yes, then it determines whether it can possibly be urgent and compelling.

If it closes navigation, then it would be in that category, and so on and so forth. But basically lump our needs into those four categories.

What we have not done in the past, and if you look at that document that I referenced earlier, which I forgot to mention is on the CD that I provided many of you, if you want to look at that document in all of its context, but put it into those four categories.

What I'm proposing then in the future is that we rank order them, essentially one to n. And, you know, I think we do do -- they do do that at headquarters UASACE level. We provide them the information. I don't know that we work it as well, at least in my realm, as we could, and that's what I'd like to improve on.

Next slide. These are not rank ordered, but these are essentially the urgent and compelling projects that we've identified in the last two years. And in many cases, we use, again, major maintenance reports to really put a good study together to evaluate the needs for each project.

So -- and, again, as I mentioned, we use the dam safety criteria to evaluate these needs, and then we categorize it into one of four categories. And in the future here, we're going to start rank ordering them.

Next slide. This essentially shows some of the capabilities that we would have over the next five years. And this is for both districts combined. As you can see in the maroon or the red areas here, those are the urgent and compelling, and this is as of right now, or as of about six months ago, when we don't get funding for some of these things.

So for example, the Walla Walla District received about half the funding that it needed last year to work some of these areas. And that red just continues to move right and it tends to get bigger. Now, in this case we're showing it get smaller because it assumes an unconstrained environment where we would get, you know, all the funding that we want. And, of course, that be would a dream that's not going to happen at this point.

Next slide. Again, I talked about evaluating the requirements from a technical point of view, taking the emotion out of the argument; and then using the dam safety criteria, which is a, you know, a proven method for evaluating, you know, I guess the risk associated with a project; categorizing into four categories, urgent compelling, critical, moderate, or minor; and then rank order the requirements.

The program -- then we would program these in a constrained environment as opposed to an unconstrained environment, as we've tried to do in the past. Of course, we're always going to tell you what our needs are, we're not going to hide something, but realizing we're not going to get unlimited funding as perhaps we'd hoped here in the past. And, of course, this process will have to compliment any existing or current USACE budgeting or programming process.

Talk about the Inland Marine Transportation System Improvement Report, and I think many of you may have not seen that. I understand it's still in the draft form. But that essentially looks at the system from a human capital point of view, the operations point of view, and a system availability point of view.

So I'm looking at, what I've been focused on here is the systems availability part of that. But any guidance that comes from headquarters, we of course would follow and seek to support.

And then, finally, I haven't talked a whole lot about it, but again, we have to work better with our stakeholders, and that includes PNWA, many of you in the room, to improve our communication, our voice, so that we're talking collaboratively to the elected officials who provide the appropriations.

Next slide. Again, as NWD or the Northwestern Division focuses on these two days, you know, I hope you see we've got some exciting efforts out here with fish and hydropower and, of course, just as importantly, if not more importantly, navigation.

And we're working to identify and support those requirements using the Snake and Columbia River as a system, as opposed to just looking at it from the Walla Walla District point of view or the Portland point of view.

And so we're committed to refining and improving our processes to help those with the position of knowin', and that's all of us here, so that our staff that are out in the projects can get going on the doin' part of keeping our projects working.

So, again, I thank you for your time, and look forward to working with you all in the future as we continue to refine our processes. Thank you.

I'll open it up for questions, if you have any. Yes, sir.

MAJOR GENERAL RILEY: Back to our earlier discussion Alan, on your bar chart on your cost estimates, I assume they're today's dollars, but if you're realistically constrained in your funding, you may get funding, some of it, through '09, '10, '11, '12, '13, '14 on the urgent and compelling ones, thus your cost will increase because later year dollars and you'll experience escalation of cost.

So -- and if you gave that to our stakeholders and said we need argument for this money, it won't be enough, to get a realistic over-time funding stream. So how do you deal with that?

MR. FEISTNER: Well, and particularly if you're looking for some measure of, as Mr. Loew mentions, some measure of, you know, certainty that it's going to be within a certain bandwidth, you know, I don't know that I have an answer for you. I mean, it's a challenge we're struggling with on all of these.

But particularly today, as we're looking at more inflation or measures for some of the cost of materials, and we also have challenges in some of these remote locations, some of the industry is opting to say we prefer, we'd rather not compete for some of these things. So, you know, that's a challenge we've all got, and I don't know that I have a specific answer to that.

But we'd have to probably provide some assumptions with our estimates so that at least folks know what our assumptions are. And if those aren't met, then they know that they can be reasonably assured that there would be a cost increase or a decrease perhaps.

MAJOR GENERAL RILEY: You might have to take a scenario approach where you have assumptions made. And then if that's your scenario and if it's all funded early on in accordance with your needs; if it's funded later, here's the cost of it. And the second scenario, a different funding scenario.

So I think that probably would be a helpful approach for stakeholders also, for us to work as an administration, explain the cost and take it to the Congress and say, if this is funded later, it's going to be a different figure, here's the figure.

MR. FEISTNER: Yes sir.

MR. WILKEN: Any further questions?

MR. FEISTNER: Thank you.

MR. WILKEN: Mr. Hannon. Jim is going to be speaking on a navigation lock study.

MR. HANNON: Good morning. I think I'm the last person speaking between this and lunch, so my presentation will be brief. Mr. Chairman, General Riley, members of the Board, appreciate being here today. And, actually, Alan really led into a good segue into what I want to talk about today as Mark is pulling it up.

What I do want to present to you is where we are right now with our Inland Marine Transportation System Improvement Report. Now, you may recall in past briefings and updates it being called an Nav Locks HPO Study. Where we are is a new name, and I'll show you at the end of the presentation where you can find this report.

As Alan mentioned, it is a draft report still, but we have launched the report and are ready for public comment. I'll just keep on going. They can catch up. A little bit of background. Initially it started, you know, as a public -- slated for public-private competition. We got approval to go to a high performing organization review.

As we were looking at this, we realized HPO kind of takes the connotation of a structural change, organizational change. And really this was about looking at our business processes. That fits right with what we've been talking about; that Gary talked about today, Alan talked about as well, as we're looking at our business processes, and this has become been a business process review.

Next slide. Now, the goal and objectives very simply is to improve the reliability of our system. Looking at these objectives, you know, we're looking at best practices, and we solicited information, of course, from not only across our own organization, but we solicited information and received information from our navigation team members, our other partners in navigation as we were going through this process.

And one of the things that we heard a lot from the navigation industry was, you know, we need consistency; why is it different when I come into this lock on this system or this river, versus this lock and this system and river. So that was very important to get that information.

So our objectives with what we're doing is to establish some standards and establish some consistency as to how we operate our systems. Improving communication, of course, is definitely one.

And then the last piece here, planning our maintenance. And not just planning, but planning and prioritizing and executing our maintenance. Our non-routine approach to maintaining our systems from a regional and system-wide basis is another key part of what you will see as you go through looking at this report.

Next slide. Of course, the study highlights, you know, the emphasis is on the marine highway and its economic impact to the nation. You'll see that in the report. It kind of plugs in what Matt Woodruff talked about some this morning, some emphasis there, the importance and the return on the investment that we have.

It focuses on the Inland Marine Transportation System, so it is specific to the Inland Marine Transportation System, thereby IMTS Improvement Report.

The key part is that we've identified 25 major business processes and over a hundred other specific areas. I think it's 115 exactly. But the 25 business processes was exactly what Alan talked about, the human capital, the systems, the operational side that we've identified. And there are, you will be able to see these 25 draft processes and look at them and see what's been developed at this point in time, and be able to make comment to those.

So the entire report, it's five chapters, or five volumes with four appendices, so it's a rather large report. And again, there may be some of those there that may not be pertinent to what you want to comment on, but, you know, please, we would ask you to take a look at it. And those areas that are extremely important to wherever your lane is, we ask that you provide comments to those.

Next slide, please. This is the bottom line right here, the take away. And it's the schedule. We did post it to the web site last week. Comment period closes 31 August. And our intent was to put it out for 30 days, so we're going to keep it out to 31 August. And it's open for everyone. We're looking for stakeholder, public review, our internal reviews from our folks.

And this is the web site here. And we'll make sure that we get that out, as well, to the Board and others. But if you go to this navlocks – very simply, navlocks.usace.army.mil/study.htm. It's a mouthful. You know, you'll go to that web site, it pops up, you'll be able to click either in the upper left-hand corner to get to the report, or there's also a note there that says posted 23 of July, click on that, then you can click on the report and look at it.

And then there's an automatic site that you can click that you can post comments. As you get your comments and you collect your comments, then you can click on, and then just type out and e-mail your comments, you know, it pops back to the folks, the team that's working this.

So that's where we are with it. We finally got it out there. We're really soliciting feedback so that the team that's been working this can then take it and really begin to turn these comments and plug them back into the report.

So any questions? Subject to your questions, really what I wanted to do is let you know that it's there and solicit your input.

MAJOR GENERAL RILEY: Just one comment to add on to Jim, I think what enamored me so much to this effort was two things; one, I think in government we have a tendency to, when we have a problem, to reorganize and fix the problem. In this case, we said let's put reorganization aside, let's look at how we're doing it and what we need to do to fix the process of the work.

So it's a process-oriented, not an organization-oriented look. And then, secondly, it wasn't a top-down approach, it was bottom up, where we got the lock operators and the lock masters and the chief of operations, and said you get together and you tell us what needs to be fixed to do it right. And so that's what you'll see in this report.

Some of them are very, very simple, like training or leadership. But others are significant process improvements. And, I guess, the third major point is it will be consistent across the Corps. What you find now is a district-by-district approach or -- and we're moving towards -- and each region has regional approaches, now this will be a Corps-wide consistent approach, which of course will take time to produce over time these process improvements, but I think the beauty of the report is its simplicity and who produced it and the way they went about it.

Thanks.

MR. HANNON: One of the -- just an example, one of the business processes that is very pertinent to what we've been talking about this morning is the systems approach to developing a prioritized maintenance and budgeting for non-routine maintenance, I mean, very specifically to that point.

And there's others, you know, that talk about levels of service and how we're doing things. And as General Riley said, I believe I'm right in saying I think we made it, our team did,

our members of our team, to every lock in the Corps to solicit that input and understanding, and then again from the industry as well.

So with that, please take the time to look at those areas that you're most interested in and provide those comments.

MR. WILKEN: Any comments, further comments or questions for Mr. Hannon? Seeing none, thank you, Jim. Good job.

As in any meeting we have, we have a public comment period. We would invite anyone that wishes to make a comment, a public comment, to step up. I would, if you do so, please state your name, your affiliation, that sort of thing, so we have that for the record. Any comments?

Seeing none, we'll move on to final comments and close for the meeting. General Riley.

MAJOR GENERAL RILEY: Well, thanks again to everybody who participated and who supported this meeting. I think it's been very helpful. And all those who put work into the reports that went into this meeting, thank you, as well.

The Board, you've got our commitment, Gary showed the charter of the Board, and the charter is fairly limited, but that doesn't mean that -- I mean, you are -- you represent our major navigation stakeholders. And we -- we're committed to all of our stakeholders to working closely with you and making you part of the process early on, not prepare a report and throw it over the transom and ask for your comment.

So our commitment to you is to bring you in early on in the process in whatever venue we can figure out to do that on any of the projects underway or those upcoming, so that we get your input into how we go about doing it, and that you're part owners of the product. I mean, I think that's the best way to approach it from our venue. So you've got our commitment to do that. Thank you for your willingness and desire to do it, as well.

Mr. Secretary, did you have any closing thoughts at all.

MR. WOODLEY: I do, very briefly. I think there's one thing that's been a common theme in everything we've talked about today is the work that has been done and that I've seen progress enormously during the time I've been in office to make the Corps of Engineers a much more uniform and coherent organization.

Because it has a great history and, for many good reasons in the past, of having a lot of fragmentation, a lot of things of every district having to be a standalone organization. And that's a concept that was very -- was good for its time, I'm sure, I'm not criticizing any prior management, but it's not good for the 21st century, and it's not good for getting the most bang for the taxpayer's buck in the ways that we know how to do today.

So again and again, you've heard the idea of crossing district lines, crossing division lines, looking at things in a much broader way. And I think that will -- I fully expect that that will continue, especially with the encouragement we're receiving from the Board.

Another thing that needs to be -- that I think needs to be looked at or we need to be interested in when we talk about the funding streams and the funding mechanisms, and that is that, you know, the way we fund the projects, I think essentially, as I may have said to everyone here more than once, the thing you have to recognize about it is no one in the world uses the process we use to fund capital improvement projects, of all kinds. Not just limited to -- it's not just limited to inland waterways.

All of the funds in terms of projects, no one else uses, even within the federal governments, the mention was made of the military construction model, which is fully funding upfront, only the civil works within the federal government uses it.

And to think about it and benchmark yourself against everybody else, and you're the only person doing -- the only business doing something the way you're doing it, now it's true that there is more than one way -- more than one right answer to a lot of things, but if you're the only one in a planet of six to eight billion people doing the same thing doing it this way, you've got to wonder, are they all wrong?

You know, or have I found my different drummer, you know, that I should follow? And I think the answer is no. Those other entities, state governments, local governments, foreign governments, the rest of the United States government, every business entity, and every private person does it the other way because, you know, it's the right way. But the way we do it is more or less the wrong way.

So let's start talking to people that way. It's going to be tough because of two things. Two things are going to happen. That decision is going to be bind -- is going to have to be regarded on binding on future Congresses in a way that they don't like to do. Well, they do that in mil con, what's the problem?

The other thing is, here they'll have to appropriate money and find a way to carry it forward. And right now, we have a period, we went through a period where there was a large carry forward in the program. They were -- if you go back and read the Congressional reports from that year, and I'm the only person in the world who ever has, so, you know, I'm not suggesting that you should, but if you do, you will find that the committee people at that time were very concerned about the carry forward.

And they were very anxious that the Corps use every tool at its disposal to move things that were not being -- progressing, not progressing into things that could go, so that at the end of the day, they end up they spent the appropriation. In fact, when I started, a district engineer was rated and the chief of engineers received monthly reports of how much of his appropriation he had spent. And if you weren't in the high 90s, you had a serious issue.

Okay. And then the -- so we spent it down, super, that's great. It was very low at one point. And then the virtues of never having -- of not reprogramming money became suddenly evident, and if you -- well, they even went to the extent of sending a group from the General Accounting Office out to say -- to find out that the Corps of Engineers was reprogramming a lot of money, which I could have told them if they called me on the telephone, you know, I could have told them, and that this was now bad.

Okay. So it's good, now it's bad, someday it will be good again, okay, I'm not cynical or anything. But the point is, we need to tell them with one voice that the time has come to seek a better way of making these decisions. The decision to build a half million dollar project over 10 years is not 10 \$500 million decisions year after year after year.

Gee, I don't know, here's this year's money. Yeah, but we're planning way ahead, we're looking at 20 years. How about like next year? Oh, I don't know, don't talk to me then, there may not be anything in the -- in the bucket then. Okay. Forget it. You know, let's get -- let's start asking ourselves a question. Why does the rest of the world think we're so foolish, okay. And the reason is we're acting foolish.

Okay. So, anyway, you can tell by those comments I'm about to leave office. But it's been a real privilege working on this, and I think I will be with you for one more meeting, I'm not yet completely done. But I'm very, very proud of the presentation we had today.

I think the presentation we had today would not have been possible five years ago when I started attending these meetings. We would not have come to the same level of understanding of what the program needs and where it's going.

So I'm extremely proud of what the Board has accomplished in that period of time. And I thank you very much for your service.

MR. WILKEN: Thank you, Mr. Secretary. We'll look for more to follow. Thanks, everyone for your sponsorships and/or your tours that you provided, your hosts, we greatly appreciate it. Board members, observers, thank you as well for attending.

This meeting will be adjourned.

(Meeting adjourned at 12:15 p.m.)