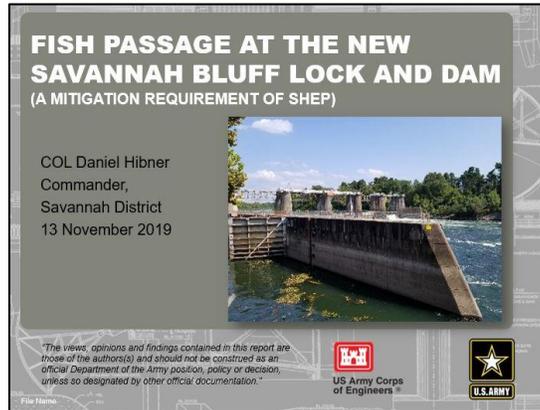


PRESENTATION NARRATIVE FOR FISH PASSAGE PUBLIC ENGAGEMENT

SLIDE 1 - Title slide



Good evening and thank you for taking time to meet with us tonight. I appreciate and understand what this project means to you and the concerns the local communities have in the outcome of the New Savannah Bluff Lock & Dam, as required by the Water Resources Development Act of 2016. The fish passage project is meant to mitigate environmental impacts to endangered species from two separate sources: ongoing construction of the Savannah Harbor Expansion Project as well as the existence of Lock and Dam itself.

Throughout this effort we've done our very best to remain open and accessible. We've conducted a thorough analysis of the alternatives, and we've identified the best outcome that satisfies WRDA and other applicable laws within the legally-imposed time constraints. Tonight, I will review the measures we have taken within our capabilities.

As a part of our transparent process, we've held multiple municipal and public engagements. At the request of members of the community we conducted a simulation of alternative 2-6D. At the request of municipality leaders we extended the public comment period, and answered more than 460 public comments. We've responded to letters from all stakeholders and answered Congressional inquiries so that everyone can understand the decision and to ensure a comprehensive analysis. I personally met with both the Governors of Georgia and South Carolina, your mayors on multiple occasions, and members of the Senate and Congress.

Now that the report is final, the State of South Carolina has filed a lawsuit which will provide further scrutiny of the project. As a result of this lawsuit and to not interfere with that process, I must maintain a narrative that has been checked with my staff to ensure what I am saying is consistent with our analysis and does not cause uncertainty in the upcoming legal process. The lawsuit is an important development in this project that changes the nature of what I intended for this meeting. Due to the ongoing litigation, and in accordance with advice from my attorney, I no longer have the liberty to take questions tonight, even though I had planned and prepared to do so.

I know this is disappointing to many of you, and I understand your frustration. Due to the lawsuit I now have an obligation to my command, to South Carolina and to you, to let this case play out in a courtroom, and not in the public square. This public venue is not the place for a trial, so I intend to carefully regulate the agenda tonight.

In a further effort of transparency, I made a commitment to this community in March that I would come back after the final report to personally speak to you about the decision. I'm here tonight for that reason and because I want to provide clarity on the project decision, how the Corps will move forward, and the opportunities for future modifications to the project.

Notwithstanding my limitations, I think I will be able to answer the majority of questions out there in my presentation tonight. Like you, my staff and I have been watching the news, we've read the commentaries and we've observed the conversations on social media. I've met with all your elected officials, industry leaders, and other stakeholders including many of you. I believe I've got a good understanding of the concerns and questions you've brought with you tonight. I doubt I will be able to foresee all questions, but I'll do my best to address as many as possible in my presentation.

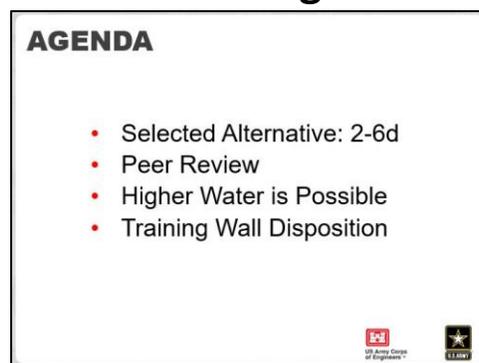
I'd also like to point out that the content I'll be presenting tonight is available in much greater detail in the final report and its annexes. These are all publically available online. You should have been handed a card like this one as you came in tonight *[hold up the card]*. If you don't have one my staff have more, see them or raise your hand and they get one to you. On this card is a link to the final report, its annexes, and links to all our published information on the project.

In addition to the report and modeling, we have summarized the background and project through a dedicated webpage, we've regularly posted on our blog and continue to address comments and questions there.

We're active on social media and read your comments and address questions there as well. All this to say, tonight isn't your only chance to obtain information from us. And this card here has all the primary ways to obtain the material we've made available.

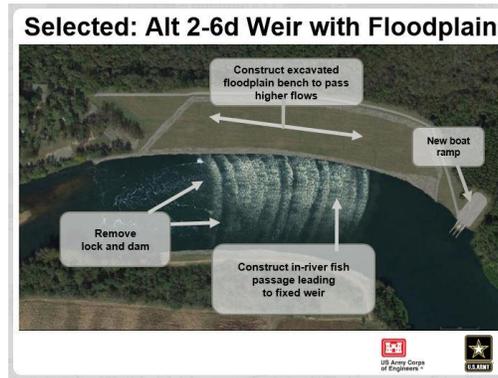
Now on to the presentation. Once I've finished my presentation my staff and I will remain for a bit as we gather our equipment and pack up. We'd are happy to engage in brief conversations, but we are very limited in our discussions for reasons connected to the litigation. I hope you understand.

SLIDE 2 – Agenda



Here are the main points I'll address tonight.

SLIDE 3 - Selected: Alt 2-6d



As you are already aware, the final report discloses Alternative 2-6d as our selected plan. Since the release of the draft report we made some modifications to this alternative based on a collection of bigger data sets and feedback from the peer review, but the essence of the alternative remains the same.

The plan involves construction of a number of river-width weirs that will hold the water above natural levels while allowing endangered fish to reach traditional spawning grounds. This plan also involves the removal of the de-authorized and deteriorating lock and dam.

The selected design is intended to mimic what sturgeon and other migratory fish would encounter in the wild. At a low-average flow of 5,000 cubic feet per second, this alternative is expected to decrease average water levels downtown by about 2 feet. There will be less of an impact with average and above average flows.

I acknowledge there are many in the community who expressed the preference for a solution that keeps water levels identical to elevations observed on December 16, 2016. Many interpret this as a requirement in WRDA 2016. But we arrived at the selected plan following a legal process that unfolded after the passing of WRDA 2016.

It's important to understand that we at the district level are given guidance based on the Army's interpretation of the legislation. The Army's implementation guidance is clear about how we are to proceed, and the guidance is publicly available on our website. This approved project design meets the legislative requirement which we have conferred with our chain of command and discussed with all of the leaders representing the public on this project. That implementation guidance directs that in building the fish passage, the project will maintain the **functionality** of the pool for the purposes of water supply, recreation, and navigation.

We understand there are those who disagree. I can only answer to one authority, and we are executing in a manner consistent with the direction of our higher commands.

Despite disagreement over the interpretation, a more formidable obstacle is before us. That is, with the introduction of any fish passage the river-system physics do not allow for water levels identical to conditions observed in December 2016. River conditions would lower even with the original fish passage design from 2014, which retained the entire lock and dam.

The point I'm trying to emphasize is, river physics make it impossible to construct a fish passage and maintain a water level of 114.5 in the project area. Given the physical nature of the river and the lock and dam structure, this is a mathematical impossibility.

Some of the other concerns we're hearing include flooding during high-rainfall events under the selected plan. It is suggested the lock and dam functions to mitigate for flooding in a way the selected plan cannot. But this isn't true. And it stands on the false premise that one of the purposes of the lock and dam is flood risk mitigation. The Lock and Dam holds back water for the single purpose of conducting lock operations to allow for commercial navigation upstream. The Lock and Dam has long been under review for modification due to safety concerns of the structure in its dilapidated state – not due to flood protection concerns. Please let me be clear – the Lock and Dam is not a flood mitigation structure.

The truth is, Augusta's flood risk mitigation comes from our hydroelectric dam, J. Strom Thurmond upstream. The lock and dam, on the other hand, is a pass-through structure. During high-flow events the gates can be lifted out of the water enabling maximum flow – but that is all.

The selected plan, alternative 2-6D, does have a feature enabling more water to pass during high flow events; instead of gates it includes a floodplain bench that functions to pass higher flows.

Others have understandably expressed concerns about the ability to hold recreational events such as the Ironman and rowing regattas. Although the river behavior and conditions are expected to change with the selected plan, we are confident the right conditions will still exist to enable these events.

There are concerns for municipal and industry water intake users. All our data - every last bit of data we have from modelling to real-world observation demonstrates that the full range of water levels under the selected alternative still provides the depth needed to support existing water intakes. We coordinated very closely with the major users throughout the study phase, and we also sent our engineers out on site to verify conditions and assess any impacts during the 2-6D simulation event.

There is also a notion that with this project brings the destruction of the New Savannah Bluff Lock and Dam Park. In reality, while we will take approximately 16 acres of property for the floodplain bench, we also plan to expand the park 16 acres and also make facility improvements to include a road and a new boat ramp. The facilities at the park will not be destroyed or removed, and upon completion of the project the park will be conveyed to the City of Augusta.

I'm going to shift gears now and talk about the Independent External Peer Review. I expect there are questions on this since this was reported in the news when we were unable to provide input. We'd like to offer clarity by completing the picture with our responses.

SLIDE 4 - Independent External Peer Review



First, it's important to point out that the review panel we hired is a group of peers, as suggested in the title shown here that says Peer Review. The nature of this process is not like that of a student-teacher relationship – where we are the student and the peer review panel is the teacher. Nor is the panel considered a group of consultants. They are peers. The Peer Review process is a colleague-to-colleague interaction – a teacher to teacher relationship – where we aim to get an independent, second set of eyes on our work.

Nonetheless, much of what I've heard in the news about the peer review panel roundly rejecting our work isn't true. Let me illustrate:

CLICK----> text appears stating “Of the 21 comments we concurred with 19”

The report we received from the peer review contained 21 comments on the draft report. We concurred with 19 of those comments.

Each of those 21 comments came with one or more recommendations.

SLIDE 5 - Independent External Peer Review cont.



In this case there were a total of 45 recommendations. And of those 45 we adopted or satisfied 42 recommendations. Note that we didn't adopt all 42 recommendations – some we satisfied our peers by providing more information. This highlights the peer-like nature of the review process. On some of these recommendations, we replied providing more data, or pointing out circumstances that weren't considered in the report. Or we explained why the adoption wasn't necessary. Satisfied with our responses, the panel concurred and agreed adoption wasn't necessary.

I'll provide just a few examples of the recommendations we adopted. One of the comments claimed several design features of the weir would pose potential risk to sturgeons traveling back downstream due to head-on strikes and stranding.

The recommendation to solve this issue involved including further analysis on sturgeon encounters with barriers at certain angles. We agreed. So we're working to evaluate the curve of the fish passage in the design phase to determine the ability for the fish to maneuver over the weir.

As the project moves into the more detailed design phase, we'll make the design adjustments necessary to avoid injury to sturgeon. The panel agreed with this approach.

Another recommendation included adjusting the design so that the openings or notches at the weir crest were of 4 to 5 feet wide to ensure safe upstream passage of sturgeon.

We agreed to evaluate these design recommendations as the project moves into the detailed design phase and review the model for adding notches. But we also pointed out to the panel that the expected flows over the weir would provide greater water-column depth over the crest, and that notches may not be needed. The panel concurred with our response.

An example of a recommendation we did not adopt, but satisfied the panel with our response, included a suggestion to review and discuss in the report all types of fishways that are known to be effective at providing safe passage for sturgeon and other migratory fish.

We didn't adopt the recommendation, explaining that we already did this. The analysis of various fishways were evaluated and documented as part of the 2012 Environmental Impact Statement. And we pointed the panel to the appropriate appendix. The panel concurred and was satisfied with our response.

There are many other examples like this and we've made this information and our responses available on the final report's page, if you'd like to see more.

SLIDE 6 - Independent External Peer Review cont.

Independent External Peer Review

We did not concur on

2

Comments

and the associated

3

Recommendations

Why?

US Army Corps of Engineers
USACE

So now I need to address the two comments and the three recommendations we did not concur with. Why did we not concur?

SLIDE 7 - Independent External Peer Review cont.



Here are the reasons.

CLICK ----> text appears *“Contradicted Legislation”*

One of the comments and its recommendations contradicted the WRDA 2016 legislation by suggesting an out-of-channel fish by-pass, or modification of the structure by removing portions of the lock. The legislation is clear that the fish passage should be constructed in channel. As for removing a portion of the lock, not only did this suggestion contradict legislation, we analyzed it and concluded there would be adverse impacts to the structural integrity of the dam. This would require construction to create a new foundation for the dam for stability. It would also be cost prohibitive. But even if this were feasible, it would increase erosion at the base of the dam, and undermine the integrity of the structure over time.

CLICK ----> text appears *“Policy Compliance”*

One of the comments suggests the evaluation criteria are not sufficient to support the selected plan, and the panel gave two recommendations: to discuss in the report more detail on the criteria used and explain why these criteria are adequate for evaluation.

Although we adopted the recommendations and added more detail in the report for clarity, the panel did not agree the responses mitigated the original comment.

Nevertheless, the criteria and methods we used to evaluate the alternatives are based on a policy-compliant matrix that is consistent with Corps civil works projects. The criteria was also specific to the WRDA 2016 legislation and designed to meet the objectives of the approving official. In other words, the criteria we used was based on direction from legislation, established policy and direction from the approving official. Furthermore, it was also not part of the scope of the panel review. The criteria we used is a mandated process.

CLICK ----> text appears *“Contrary to NOAA Bi-Op”*

This last one suggested we didn’t consider enough fishway options and recommended a smaller fish passage either around the structure or through a portion of the lock chamber. Allow me to go into this one in more detail on the next slide.

SLIDE 8 - Panel didn't consider SHEP EIS

Panel Scope didn't Include SHEP EIS

Smaller passage?

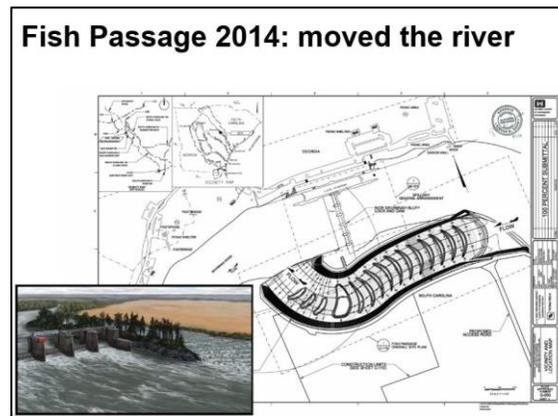
We originally proposed
the same concept in 2011

But the EIS concluded fishway
accommodate 100% flow

One of the lessons we learned years ago working with NOAA's fish biologist and fish-passage engineers is that shortnose sturgeon must have a full-river width fish passage in order to meet the passing requirements of the biological opinion.

It was determined in 2012 that 100-percent river flow fish passage provides a higher likelihood of passing endangered Atlantic and shortnose sturgeon without delay. A full-river fish passage eliminates the potential for poor fishway entrance siting and false attraction. A fishway spanning the entire width of the river makes entrance location irrelevant, minimizes attraction delay, and maximizes attraction efficiency. It also passes all river flows during non-flood conditions.

SLIDE 10 – Fish Passage 2014: moved the river



The rejection of a smaller passage is how we ended up with the design approved in WRDA 2014, as shown here. As you can see this first approved design effectively redirected the entire river around the lock and dam. Just like our peers from the panel, we first recommended a smaller fish passage and found this wasn't an acceptable option, even before WRDA 2016 de-authorized the structure. That is why the 2014 fish passage moved the entire river.

You can find more details about the peer review and our responses in the report.

So let me shift gears away from the past at this point and talk about options in the future.

SLIDE 11 - The Design can be modified *[Have the poster ready]*

The Design can be modified

- Alt 2-6d can be raised higher
- Before construction: local pref. plan
- After Construction: thru 408
- Additional funds: non-federal source
- Flooding impacts require easements



Our selected plan remains Alternative 2-6d, and we knew this would be disagreeable. But this doesn't mean you won't be able to obtain higher water levels.

While the final report selects Alternative 2-6d, there is always the option to increase the weir height, even after construction is complete.

This means the community can opt for a higher weir, such as the alternative identified as 2-6a. A modification of this kind would increase the weir height by another foot and a half at the project location.

[REFERENCE POSTER]

I brought in this poster to demonstrate visually how close this will get you to Alternative 1-1. This poster shows the actual to scale depth differences between these alternatives. Notice that compared to the preferred Alternative 1-1 – we're talking about a depth difference that is about the length this pen. It gets you really close to what most folks wanted.

This modification would require some cooperation between a few agencies, but it's not at all out of reach.

Here's how it works: Changing to a higher weir alternative **before** construction needs Georgia and South Carolina to work in concert with the project's non-federal sponsor to form a locally preferred plan, or LPP.

Changing to a higher weir alternative **after** construction is also possible, but we'd have to go about it differently. A non-federal entity would need to pursue modification through a permit under Section 408 of the Rivers and Harbors Act.

Now, it is true that modifications to increase weir height would also increase nuisance flooding frequency. Therefore, increasing the weir height would also require the non-federal interest group to secure flowage easements for affected properties.

And of course, per the WRDA 2016 language, the federal funding is capped, so any modification before or after construction would require a non-federal funding source for the difference in cost of the change.

SLIDE 12 - Separate: Training Wall Removal



Finally, I'd like to address the training wall and our disposition study for potential removal. It's critical I point out up front this is a completely separate initiative from the Fish Passage. The study is separate – the funding would be separate. And that is a good thing because it means if the study recommends removal of the wall, and is subsequently approved, it would occur at full federal expense.

But let me back up and provide context on the training wall.

As you can see from this image, this is an underwater wall constructed with rock and pilings that runs from just downstream of Eighth Street and ends 1,800 feet downstream from where we are now – a little more than a mile and a half. It was constructed in the early twentieth century to aid commercial shipping by keeping the navigation channel deep for the port in Augusta on the Georgia side of the river. As you can see from the image, the structure created conditions that bottlenecked the flow for about a mile and a half, resulting in swifter currents on this side.

With the swifter currents scouring the river bottom on the Augusta side, the North Augusta side silted in. Some even believe much of the shallow area behind the wall is a result of dumping dredge material from the Augusta side, long ago.

Today there is no commercial port in Augusta; therefore, the training wall no longer serves a federal purpose. In fact, as many of you would agree, it can be an impediment to boaters and a problem for dock owners. Its presence increases the risks to water-borne activities for its entire length through Augusta's downtown area.

Although there's no longer a port in Augusta, the wall still performs as intended, which creates unwanted conditions today. That is, in keeping the Georgia side deep, the slower-moving water on the South Carolina side sustains a buildup of sediment behind the wall, which has accumulated over the years. This has gradually made the now-developed North Augusta side of the river very, very shallow even with today's river levels.

Now that we've established there's no federal interest in this training wall, our study is looking at a range of possible outcomes: On the one hand, we may recommend no action at all; and on the other hand we could recommend not only removal of the wall, but also the dredging and silted-in material behind it.

The training wall is to blame for more than a mile of shallow shoreline along the North Augusta side of the river. In fact, nearly all the ugly photos we saw from the

simulation in February came from this area behind the training wall, on the North Augusta side of the river.

Removal of this wall would eliminate a nuisance the community has tolerated for decades and alleviate much of the concerns with changing water levels.

Because removal of the wall could also lead to removal of the sediment along the North Augusta side of the river, we're now collecting and studying soil samples to determine the best way to dispose of the sediments with the least impact to the environment.

Of course we are still in the study phase, so I'm sure you want to know the timeline on this initiative.

The disposition study was approved and funded in July. We began research and taking soil samples in August through October. Soil collection will give us data that will help us determine the cost for removing the training wall. Depending on results of our geotechnical and archeological research, we will shape our conceptual design for removal, and submit a draft recommendation for review in January. We plan to have a final report to our headquarters this spring.

The best way to keep up to date with this effort is to subscribe to our water-management blog, available on the card we handed out when you came in. If you subscribe, you'll get an email for each update.

SLIDE 13 - Resources Always Available

Resources Always Available

Final Report: <https://go.usa.gov/xpbr3>

Project Webpage: <https://go.usa.gov/xpbrx>

Find us on Social Media [@SavannahCorps](#)

Facebook, Twitter, Flickr, YouTube, WordPress, US Army Corps of Engineers, U.S. Army

As I pointed out at the start of this presentation, I had planned to take your questions tonight before we received the lawsuit. But due to the litigation and in accordance with advice from my attorney, I no longer have that liberty.

We've done our best to make everything available to the public: the final report, the annexes, our responses to the peer review, and all our responses to all the public comments. It's all online at this top link here.

We're also available on social media. Even on social media we are limited to answering some questions while under litigation, but don't let that stop you from asking questions. We'll let you know if we can't answer for reasons connected to litigation. But if we can answer – you have my word – we will. And of course, you may just want to offer feedback, and tell us what you think. You are free to provide that on any of our platforms, or through email as well.

With that I'll bring the presentation to a close. Thank you for your time this evening. Goodnight.