

APPENDIX D

NAVIGATION

The training wall presents a man-made hazard to boat operators in the Augusta pool. Since 2010 Scott Hyatt, Operations Project Manager for the Savannah River Below Augusta Project, has received several notices of boaters striking the wall and damaging their boats, including one instance of the foot being torn from an outboard motor.

The development of marina facilities directly across the river and, since 2005, construction of several subdivisions with private boat docks behind and around the training wall, have both increased the amount of recreational boating occurring in the area, and reduced the amount of area available to avoid the wall.

At times the community has inquired about identifying a process to remove the wall, most recently in 2016 when the Augusta Port Authority sent an official inquiry requesting information on how to accomplish removal. At that time it was unclear who had responsibility for the training wall.

Removing the wall will have no impact on maintaining the Augusta Pool. Since there is no commercial navigation in the area, there are no expected impacts to commercial navigation users.

On 13 Jan 2020, Operations Project Manager Scott Hyatt interviewed Mr. Paul Muckenfuss, who assists boaters in distress in the Augusta Pool. Mr. Muckenfuss is a resident of Augusta and has lived on the Savannah River near Goodale Landing since 2000. He does not keep specific records, but since 2000 it is his estimate that he has assisted at least 20 boats that have been damaged after striking the wall. He recalled many propellers damaged from strikes, several bass boats striking the wall and damaging their hulls to the point that he supplied a pump to keep the boats from sinking while they were removed from the water, and he also assisted a large houseboat that struck the wall and did significant damage to both units on the vessel. There were no consistent river conditions that led to the strikes and he felt that higher water levels make it more likely that newer boaters to the area would strike the wall because there are fewer visual indicators that the wall is there.

No agency keeps records on strikes of the wall, and most likely go unreported. After making inquiries throughout the community, the Savannah Riverkeeper's office located the following individuals who volunteered information on striking the wall:

Ashley Willis 706-294-2650 her boyfriend Jim Campbell hit the wall.

Ryan Abel - that free fireworks show cost me \$4000

Ashley and Paige Day- Hit the wall with a boat full of people, hurt the foot and the prop

Michael Evans – I not only hit it, but also have a heck of a story of what happened next I had 4 teenagers in my boat who I was taking bowfishing. We'd already shot down river and was going to shoot in front of riverwalk for the finale. I drove upriver on the SC

side, but crossed over past the marina. Just below the 5th street bridge I hit that tallest pylon that was only about 6" underwater. It poked a hole in the back of my boat, but I was able to poke a shirt in the hole and the bilge pump kept the water out so we could keep shooting. About the time we got up around the amphitheater the propeller to my kicker motor fell off! Time to quit. Unfortunately when I tried to crank the big motor the bilge pump had run the battery down to the point it wouldn't crank. Well, after trying unsuccessfully to crank the big motor, now the battery was completely dead and the bilge pump stopped working. That's when the boat really started filling up with water. One of the kids grabbed my paddle, but it broke in half. The current was strong enough that it didn't take long to float on past the Gordon Hwy bridge, but the further we got down stream the higher the water got in my boat. What they didn't know was I had enough styrofoam sprayed under the deck and in every available space that there was no way that boat could sink... and I didn't tell them

By the time we finally got back to the ramp they were really freaking out. 3 of them were using their hands and one had that half a paddle doing everything they could to get back "before we died!"

Nicholas Reese - A high school classmate died the night of graduation after jumping off the railroad bridge with other grads. (It was apparently a rite of passage to jump off the bridge into the river on graduation night). It is believed he hit that rock wall underneath the water based on where they jumped. He never resurfaced and divers found his body late the following day. This was 1991

Christopher A. Hill - I know we've hit numerous times albeit only bent props during the years. We were with John Patterson and Mary on their house boat in 2004 (5) on the 4th when out of no where that wall got us. Had to be towed back to the docks due to a bent shaft/seal thus taking on water. John can enlighten you on the details.

John Patterson - I have a fundamental distrust of the COE since that disastrous experiment they performed on lowering the Savannah River level 15 or so years ago. I believe they still lust to get rid of the dam bringing ruin to so many properties that counted on the river level remaining where it is. I don't know how in good conscience they can maintain "Engineers" in their name when the damage they caused was so totally predictable to anyone with a modicum of hydraulics understanding. Having said that, I think our damage was about \$60000 for pulling the boat, replacing both outdrives, and repairing the damage caused by the flooding of the engine room.

Mr. Muckenfuss also verified Mr. Patterson's incident.

On 14 January 2016, Mr. Frank Carl, Augusta Port Authority Chairman, sent the following inquiry to the Savannah District through the Regulatory website:

As I understand the problem, there is a concrete/stone retention wall in the Savannah River running from the South Carolina shore from about 200 yards upstream of the CSX Railroad bridge at Sixth Street in Augusta and continuing about another 200 yards downstream from the bridge. That wall was apparently built to confine the water in the river at low flows so that the water would be deep enough so that barges could navigate in the area. The wall was built well before the construction of the New Savannah Bluffs Dam which I understand was completed in 1937. The construction of the dam flooded the area, but under normal flow conditions the top of the wall is only about two feet below the surface. This fact has created a boating hazard in the area. As recreational use of the impound increases, the probability for a serious accident increases. We are asking what are the steps that we would need to go through to remove this wall.

The Corps responded with the following:

"I apologize this response took longer than our normal turn-around, but it took some research on our part. Please see the response I received from our Planning Division chief, Mr. William Bailey. If you wish to get more details on his answer, please contact his office at 912-652-5272. He and members of his staff assist local and state governments on planning a variety of projects. The Planning Division web page: <http://www.sas.usace.army.mil/About/DivisionsandOffices/PlanningDivision.aspx> <<http://www.sas.usace.army.mil/About/DivisionsandOffices/PlanningDivision.aspx>> A: If an entity would like to perform construction in the Savannah River, including removing a retention wall, they would need permission from the owner, a Section 404 permit from the U.S. Army Corps of Engineers, and Water Quality Certification from the state. Identifying who constructed a given training wall or retention wall may be difficult if it was constructed many years ago and doesn't tie into high ground (where the land ownership is readily identifiable). Assuming the owner cannot be identified but the structure is located in Georgia, a non-federal entity could apply for a Section 404 permit from Savannah District and Water Quality Certification from the Environmental Protection Division of Georgia DNR.

If someone believes this retention wall is owned by the Corps of Engineers and would like the Corps to remove it, a different set of steps would need to be followed. First, the Corps would need to clarify that it constructed and is responsible for the structure. The Corps would not remove a structure for which it is not the owner unless it is adversely affecting a project that it manages. If Corps ownership or responsibility can be established, justification must be documented before funds could be obtained to remove the structure. More detailed information would likely be needed to identify the effects that the structure is presently producing. If safety concerns are identified, the Corps would perform a risk assessment and estimate the costs to remove the structure. If the removal is found to be warranted, the District would seek funds to remove the structure. Obtaining the needed funding could take several years.

Please note this last sentence. The process of obtaining funds for Corps of Engineers projects is long. As an example, I point out Congress authorized the Corps to

rehabilitate the New Savannah Bluff Lock & Dam, then turn it over to local authorities, more than a decade ago. Congress has not appropriated funds for the project, so the NSBL&D remains in caretaker status.

Since you have great concern for public safety, you may want to contact the U.S. Coast Guard to determine if they can or should mark the obstruction.”

On 23 August 2016, Mr. Carl sent a formal letter via email to the Savannah District Commander, Col. Marvin Griffin, requesting assistance:

Dear Col. Griffin:

The reason for this letter is to investigate the possibility for initiating a process to remove a boating hazard in the pool created by the New Savannah Bluffs Dam. The hazard is an old sea wall that was built to assure that water depths in the river were adequate to float the barges that were used as a major means of commerce for many years. The sea wall is located in the river from just above the railroad bridge across the river at Sixth Street in Augusta to just below that railroad bridge. Apparently the wall was about 1.5 mile long originally, but I doubt that all of it would need to be removed for boating safety. The wall begins and ends on the South Carolina shore, but in the middle of the wall near the railroad bridge, it is in the middle of the river.

At normal river levels the tops of the posts of the wall are two to three feet under water. For most boats at low speeds that depth is adequate for clearance, but during droughts when the flows are down or when the river is lowered for special activities, the tops of some of the posts are just below the surface. I have enclosed two pictures of the wall that were taken during the 1990 purposeful lowering of the river. They demonstrate the potential of the wall for causing boating problems. The pictures are taken from the upper end of the Augusta Riverwalk Marina, one looking at the wall just below the railroad bridge and one looking under the bridge at the wall upstream from the bridge.

The wall was built well before the construction of the New Savannah Bluffs Dam which was finished in 1937. Unfortunately the water levels normally maintained behind the New Savannah Bluffs Dam leave the tops of the posts uncomfortably near the water's surface.

I would appreciate guidance through the system of acquiring the appropriate permits and funding to remove this boating hazard.

Frank Carl, Chair
Augusta Port Authority
706-364-5253
frankcarl@knology.net



Photos provided as attachments to Mr. Carl's letter of 23 August 2016 showing the training wall in the 1990 drawdown.

The Corps responded with the following letter:

Dear Mr. Carl:

I am responding to your letter and email from August 2016, regarding a wall built in the Savannah River in the vicinity of the railroad bridge at Sixth Street in Augusta, Georgia that you view as a boating hazard. You specifically requested information about acquiring the appropriate permits and funding to remove this boating hazard. We have not been able to determine whether the structure is owned by the U.S. Army Corps of Engineers (Corps). It is difficult to outline the specific process for removal without knowing the ownership of the structure, but I am providing the following information for your consideration.

If the wall is found to be owned by the Corps and you want the Corps to remove it, there are several steps required for us to obtain funding and remove the wall. Engineering and analysis will need to be accomplished that would survey the structures length, composition, and condition to better determine removal costs. A separate study would also need to be performed to determine what potential impacts could result, if any, from removal of the wall. Coordination with the State Historic Preservation Officer (SHPO) would be required since the structure is at least 80 years old, possibly older, and therefore potentially eligible for listing as an historic structure. In order to obtain funding for the above actions and for removal of the structure, there would need to be strong justification for removal. It would be necessary to document why continuing to mark the structure with buoys by the U.S. Coast Guard or others is not adequate. Based on today's budget climate and our understanding of the structure, it is not optimistic that it would prioritize highly and compete for near term funding. Currently, Savannah District has over \$50 M in unfunded civil works projects.

If the wall is owned by the Corps and you or another entity wish to remove it using your own funds, you would need to obtain approval from the Corps to modify/remove that structure. We would evaluate the impacts of the proposed removal. Section 14 of the Rivers and Harbors Act of 1899 and codified in 33 USC 408 (commonly referred to as "Section 408") authorizes the Secretary of the Army, on the recommendation of the Corps, to grant permission for the alteration, occupation, or use of a Corps civil works project if the activity will not be injurious to the public interest and will not impair the

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usefulness of the project. Part of our evaluation would again require coordination with the SHPO.

If you propose to undertake the work yourself, a Department of the Army Regulatory permit will also be required along with the Section 408 permission referenced above. The type of permit will depend on the scope and scale of the project, and will involve coordination with interested Federal and state agencies to include, but not limited to, compliance with Section 7 of the Endangered Species Act and Section 106 of the

Historic Preservation Act. My Regulatory Division will work with you throughout the process and we highly encourage you to engage an environmental consultant to assist you as well. For additional information, please visit our website at <http://www.sas.usace.army.mil/Missions/Regulatory.aspx>.

It is my understanding that the U.S. Coast Guard marks the wall with buoys. Continuing this practice is much more cost effective than removal. Since you have great concern for public safety, you may want to contact the U.S. Coast Guard to determine if additional buoys or markings are warranted. They can be contacted at USCG Station Tybee at 912-786-5791.

I hope this information gives you a better understanding of the process for removal of the wall. If you need additional information please contact Mr. William Bailey, Planning Division Chief at 912-652-5272 or if you need additional information regarding the regulatory permitting process, Mr. David Lekson, Regulatory Division Chief at 912-652-5047.

Sincerely,

Marvin L. Griffin, P.E.
Colonel, U.S. Army
Commanding