
ENVIRONMENTAL ASSESSMENT
of Modifications to the
RAW WATER STORAGE
IMPOUNDMENT
APPENDIX C: AGENCY COORDINATION
SAVANNAH HARBOR EXPANSION PROJECT
Chatham County, Georgia and Jasper County, South Carolina

September 2013



**US Army Corps
of Engineers**
*Savannah District
South Atlantic Division*

Appendix C

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MARK WILLIAMS
COMMISSIONER

DR. DAVID CRASS
DIVISION DIRECTOR

November 7, 2012

Mr. William Bailey
US Army Corps of Engineers
Savannah District
100 West Oglethorpe Avenue
Savannah, Georgia 31401-3640
Attn: Julie Morgan, julie.a.morgan@usace.army.mil

RE: Compliance with Programmatic Agreement
Savannah Harbor Navigation Channel Project
Chatham County, Georgia
HP-911120-001

Dear Mr. Bailey:

The Historic Preservation Division (HPD) has received the report entitled *Phase I Cultural Resources Assessment of the Proposed Raw Water Storage Impoundment Facility, Chatham County, Georgia* prepared by Southeastern Archaeological Research, Inc. and dated September 12, 2012. Our review is in accordance with the Programmatic Agreement (PA) for the above referenced undertaking, which we signed November 22, 2011.

Based on the information provided, HPD agrees with the US Army Corps of Engineers (USACE) that the construction of the raw water storage impoundment facility and associated access road as part of the Savannah Harbor Expansion project will have no effect to historic properties within its area of potential effects, as defined in 36 CFR Part 800.4(d)(1).

Please submit one electronic copy of the report to HPD. Please ensure the electronic copy is an optical character enabled .pdf. For your information, the electronic file will be sent to the Georgia Archaeological Site File at the University of Georgia, Athens for permanent retention.

If you have any questions, please feel free to contact me at 404-651-6624 or via email at elizabeth.shirk@dnr.state.ga.us.

Sincerely,

A handwritten signature in cursive script that reads "Elizabeth Shirk".

Elizabeth Shirk
Environmental Review Coordinator



Georgia Environmental Protection Division

Coastal District Office
400 Commerce Center Drive
Brunswick, Georgia 31523-8251
Judson H. Turner, Director
Phone: (912) 264-7284
Fax: (912) 262-3160

January 31, 2013

Department of the Army
Savannah District, Corps of Engineers
c/o Mr. William G. Bailey
100 West Oglethorpe Avenue
Savannah, GA 31401-3640

Re: Proposed Land Disturbing Activity
Raw Water Storage Impoundment (Savannah Harbor Expansion Project)
Chatham County, Georgia
File: SW-025-04-103

Dear Mr. Bailey:

In accordance with the General NPDES Permit No. GAR100001 for Storm Water Discharges Associated with Construction Activities for Stand Alone Construction Projects, issued by the Georgia Environmental Protection Division (EPD) in August 2008, this Project has been reviewed for deficiencies in the identification of waters of the state and stream buffer variance requirements.

Based upon this review, the EPD has determined the following:

- (1) The project does **not** have deficiencies in the identification of waters of the state.
- (2) The project will **not** require a stream buffer variance from the EPD.

However, the EPD reserves the right to change this determination if information that conflicts with the original submittal is obtained during a later site inspection.

Additionally, in accordance with the General NPDES Permit No. GAR100001, each Erosion, Sedimentation and Pollution Control Plan (ESPCP) submittal shall include a completed and applicable ESPCP Checklist established by the Georgia Soil and Water Conservation as of January 1 of the year in which the land-disturbing activity was permitted.

Raw Water Storage Impoundment (Savannah Harbor Expansion Project)

Page 2

A deficient ESPCP is a violation of the NPDES Permit. If violations occur on the proposed project site and enforcement actions become necessary, a deficient ESPCP may increase the fines incurred. The applicable Checklist as well as a guidance document are available on the Georgia EPD website @ www.gaepd.org.

Based upon this review, EPD has determined the following:

- (1) The ESPCP for this Project does **not** have deficiencies.

If additional information is required, please contact me at 912-554-3492.

Sincerely,



Shannon K. Winsness
Environmental Specialist

cc: Honorable Pete Liakakis
Chairman Chatham County
Board of Commissioners
124 Bull Street
Savannah, GA 31412

Alice Vick
EPD Coastal District Office
400 Commerce Center Drive
Brunswick, GA 31523-8251

GSWCC – Region 6
c/o Rahn Milligan
151 Langston Chapel Road
Suite 700
Statesboro, GA 30459

File: SW-025-04-103

**RESPONSE TO COMMENTS
FROM
GEORGIA DEPARTMENT OF NATURAL RESOURCES (GADNR)
ENVIRONMENTAL PROTECTION DIVISION (EPD)
COASTAL DISTRICT OFFICE
Letter Dated January 31, 2013**

USACE RESPONSE: USACE acknowledges and concurs with the Environmental Protection Division determination that the RWSI documents have (1) correctly identified waters of the U.S., (2) the project will not require a Stream Buffer Variance from EPD, and (3) the Erosion, Sedimentation, and Pollution Control Plan is sufficient.



DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT, CORPS OF ENGINEERS
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3640

REPLY TO
ATTENTION OF:

NOVEMBER 05 2012

Regulatory Division
SAS-2012-00749

Ms. Hope Moorer
Georgia Ports Authority
Post Office Box 2406
Savannah, Georgia 31402

Dear Ms. Moorer:

I refer to a letter dated August 16, 2012, submitted on your behalf by CDM Thompson Joint Venture requesting a jurisdictional determination for your 116.82 acre site located east of State Route 21, west of Interstate 95, in the City of Port Wentworth, Chatham County, Georgia (Latitude 32.2063, Longitude -81.1862). This project has been assigned number SAS-2012-00749 and it is important that you refer to this number in all communication concerning this matter.

We have completed a preliminary Jurisdictional Determination (JD) for the site pursuant to the March 4, 2009, Public Notice entitled, "Characterization of Jurisdictional Determinations: Purpose, Application and Documentation Requirements as Defined by the Savannah District, US Army Corps of Engineers." I have enclosed a "JD Check Sheet" that summarizes the JD, delineation verification and appeals process.

The wetlands/other waters on the subject property may be waters of the United States within the jurisdiction of Section 404 of the Clean Water Act (CWA) (33 United States Code 1344). The placement of dredged or fill material into any waterways and/or their adjacent wetlands or mechanized land clearing of those wetlands would require prior Department of the Army authorization pursuant to Section 404.

If you intend to sell property that is part of a project that requires Department of the Army Authorization, it may be subject to the Interstate Land Sales Full Disclosure Act. The Property Report required by Housing and Urban Development Regulation must state whether, or not a permit for the development has been applied for, issued or denied by the US Army Corps of Engineers (Part 320.3(h) of Title 33 of the Code of Federal Regulations).

This communication does not convey any property rights, either in real estate or material, or any exclusive privileges. It does not authorize any injury to property, invasion of rights, or any infringement of federal, state or local laws, or regulations. It does not obviate your requirement

- 2 -

to obtain state or local assent required by law for the development of this property. If the information you have submitted, and on which the US Army Corps of Engineers has based its determination is later found to be in error, this decision may be revoked.

Copies of this letter are being provided to the following parties: Mr. Shayne Wood, CDM Thompson Joint Venture, 8381 Dix Ellis Trail, Suite 400, Jacksonville, Florida 32256; and Mr. Ken Ceglady, Environmental Resource Solutions, 8711 Perimeter Park Boulevard, Suite 1, Jacksonville, Florida 32216.

Thank you in advance for completing our Customer Survey Form. This can be accomplished by visiting our web site at <http://per2.nwp.usace.army.mil/survey.html> and completing the survey on-line. We value your comments and appreciate your taking the time to complete a survey each time you interact with our office. If you have any questions, please call Shaun Blocker, Project Manager, Coastal Branch at 912-652-5086.

Sincerely,



Kelly C. Finch
Chief, Coastal Branch

Enclosures

Georgia Department of Natural Resources
Environmental Protection Division

2 Martin Luther King Jr. Dr., S.E., Suite 1152 East, Atlanta, Georgia 30334
Judson H. Turner, Director
(404) 656-4713

February 4, 2013

Mr. Daniel E. Johnson, P.E.
CDMthompson
8381 Dix Ellis Trail
Suit 400
Jacksonville, FL 32256

RE: **Plan Approval**
97 MG Savannah Raw Water Storage Impoundment
Addition of Powered Activated Carbon (PAC) System
48" DIP Raw Water Pipes, Transfer Pump Station
Augusta Road & Interstate 95
Savannah I & D Filtration Plant (WSID# 0510004)
Chatham, County, Georgia

Dear Mr. Johnson:

Plans and specifications for the above referenced project that were submitted by CDMthompson Consulting Engineers have been reviewed and are hereby approved by the Drinking Water Program of the Environmental Protection Division (EPD) contingent upon:

A. Raw Water Intake and Pump Station

The impoundment intake should be capable of withdrawing water from various levels and should prevent algae scum, trash, logs, or fish from the pump station. The raw water pump station structure must be constructed above 100-year flood plain elevation.

B. Powdered Activated Carbon (PAC) System

Powered activated carbon must be handled as a potentially combustible material. It should be stored in a building or compartment as nearly fireproof as possible. Other chemicals should not be stored in the same compartment. A separate room should be provided for carbon feed installations. Carbon feeder rooms should be equipped with explosion-proof electrical outlets, lights and motors.

C. Operations and Maintenance Plan

The City of Savannah shall develop Operations and Maintenance Plan (O & M Plan) and standard operating procedures for the new raw water impoundment and pump station. The plan must be prepared in accordance with the Georgia Rules for Safe Drinking Water Chapter 391-3-5.14 (12), "Operation and Maintenance Plan-Guidance Manual for Preparing Public Water Supply System O & M Plans" latest edition. The O & M Plan should include a raw water quality monitoring plan and algae-growth prevention plan.

D. Construction Inspection

The City of Savannah must contact the Drinking Water Program prior to operation of the new raw water impoundment and pumping station in order to schedule a final construction inspection.

E. Engineer's Certification

Upon completion of the raw water impoundment facility, the City of Savannah must send to the EPD Drinking Water Program, a statement from the engineer who prepared the plans and specifications that the new raw water impoundment facility was constructed in accordance with the approved plans and specifications, as required under the Georgia Rules for Safe Drinking Water Chapter 391-3-5-.05(6).

Please be reminded that all materials and products that come into contact with drinking water during its treatment, storage, transmission or distribution shall be certified for conformance with American National Standards Institute/National Sanitation Foundation Standard 61 (ANSI/NSF Standard 61) by an American National Standards Institute (ANSI) approved third-party certification program or laboratory. In addition, any pipe, solder, or flux which is used in the installation or repair of the public water distribution system shall be lead free with not more than 8.0% lead in pipes and fittings and not more than 0.2% lead in solders and flux. Finally, if applicable, a land disturbing activity permit must be obtained (either from local government or EPD) prior to the start of any construction. Depending on your site, you may also be required to file a Notice of Intent (NOI) with EPD to be covered under the General Permit for Stormwater Discharge Associated with Construction.

The Division's approval includes: a 97 MG raw water impoundment; PAC system; 48" DIP, four (4) vertical turbine transfer pumps and installation of related appurtenances.

The Division's approval is valid for one year from the date of this letter. If the construction has not begun by that date, the Division may choose to reevaluate the project with regard to the Rules and Regulations in effect at that time.

If you have any questions concerning this letter, please contact this office at the number below.

Sincerely,



Peter C. Nwogu
Environmental Engineer
Drinking Water Permitting & Engineering Program
Phone: (404) 651- 8427

cc: Mr. John Sawyer, City of Savannah
File: WSID# 0510004



United States Department of the Interior

Fish and Wildlife Service

105 West Park Drive, Suite D
Athens, Georgia 30606
Phone: (706) 613-9493
Fax: (706) 613-6059

West Georgia Sub-Office
Post Office Box 52560
Fort Benning, Georgia 31995-2560
Phone: (706) 544-6428
Fax: (706) 544-6419

Coastal Sub-Office
4980 Wildlife Drive
Townsend, Georgia 31331
Phone: (912) 832-8739
Fax: (912) 832-8744

August 8, 2013

Colonel Thomas J. Tickner
U. S. Army Corps of Engineers
Planning Division
100 West Oglethorpe Avenue
Savannah, Georgia 31401-0889
Attention: Mr. William Bailey

Re: USFWS File Number 2013-0711

Dear Colonel Tickner:

The U. S. Fish and Wildlife Service (Service) has reviewed the U. S. Army Corps of Engineers (USACE) draft Environmental Assessment (EA) and draft Finding of No Significant Impacts (FONSI) for modifications to the Raw Water Storage Impoundment (RWSI) that is part of the Savannah Harbor Expansion Project (SHEP). The proposed action is located between Georgia Highway 21 and Interstate 95 in northern Chatham County, Georgia. The USACE requests comments on the EA and FONSI. We submit the following comments in accordance with provisions of the Endangered Species Act of 1973, as amended; (16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

Environmental studies concluded that the SHEP would increase chloride concentrations at the City of Savannah's water intake and a RWSI was included in SHEP to mitigate for those effects. After the approval of SHEP, the proposed location of the RWSI changed and the USACE has evaluated the modifications through the EA and FONSI. A parcel of land adjacent to the City's raw water pipeline would be acquired by the State of Georgia, the non-Federal sponsor for SHEP. The RWSI would occupy 33 acres of the property and

includes a high density polyethylene liner and an earthen dam up to 29 feet high. After completion, operation and maintenance of the facility would be turned over to the City of Savannah.

The USACE states a protected species survey was conducted in 2012 and concluded that no protected species are likely to be adversely affected by the proposed action. Based on the information provided, the proposed action is not expected to significantly impact fish and wildlife resources under the Service's jurisdiction. We have no other comment on the EA or FONSI.

We appreciate the opportunity to comment on this project. If you have any further questions, please contact our Coastal Georgia Sub Office staff biologist, Bill Wikoff, at 912-832-8739 extension 5.

Sincerely,



Strant T. Colwell
Coastal Georgia Supervisor

cc: Savannah NWR, USFWS, Hardeeville, South Carolina
Georgia Ecological Services, USFWS, Athens, Georgia
Kay Davy, NMFS, Fort Lauderdale, Florida
Pace Wilber, NMFS, Charleston, South Carolina
Brad Gane, GDNr, Brunswick, Georgia
Bob Perry, SCDNR, Columbia, South Carolina
Margarett McIntosh, USACE, Savannah, Georgia
Ellie Covington, USACE, Savannah, Georgia

**RESPONSE TO COMMENT
FROM
U.S. FISH AND WILDLIFE SERVICE
on Draft Environmental Assessment/FONSI Letter Dated August 8, 2013**

COMMENT: By letter dated August 8, 2013, USFWS concurred with our determination that the project is not expected to have adverse impacts on protected species under the Service's jurisdiction.

USACE RESPONSE: Comment noted. Section 7 consultation will be initiated in the event new information becomes available indicating that impacts to listed species or critical habitat could occur from the proposed action in a manner not previously considered; if the project is modified in manner not previously considered; or if new species or critical habitat becomes listed that could be affected by the proposed action.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
<http://sero.nmfs.noaa.gov>

August 9, 2013

F/SER47:JD/pw

(Sent via Electronic Mail)

Colonel Thomas J. Tickner, Commander
Savannah District Corps of Engineers
100 W. Oglethorpe Avenue
Savannah, Georgia 31402-0889

Attention: William Bailey

Dear Colonel Tickner:

NOAA's National Marine Fisheries Service (NMFS) reviewed the public notice, dated July 12, 2013, and the draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), dated July 2013, for modifications to the plan for the Raw Water Storage Impoundment (RWSI) already approved as part of the mitigation for the Savannah Harbor Expansion Project (SHEP). Environmental studies for SHEP show the expanded navigation channel will increase salinity and chloride levels in Abercorn Creek near the City of Savannah's raw water intake. The purpose of the RWSI is to provide a reservoir of low chloride water for use when higher chloride levels occur at the Abercorn Creek water intake. As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the following comments and recommendations are provided pursuant to authorities of the Fish and Wildlife Coordination Act.

The EA investigates additional site alternatives for the 33-acre RWSI that were not reviewed in the SHEP Environmental Impact Statement. No alternative involves impacts to tidally influenced waters or vegetation, including tidal freshwater vegetation in Black Creek; therefore, no essential fish habitat (EFH) would be impacted by the project. The EA focuses on two alternative locations.

Alternative Site 4: This area is adjacent to the raw water pipeline and 3.8 miles from the City's water plant. The RWSI would encroach on 13.5 acres of wetlands, 2.1 acres of which are protected under a restrictive covenant. Because of the covenant, the Savannah District would require triple-mitigation for the 2.1 acres of wetland impact. The total mitigation cost is estimated to be \$666,330.

Alternative Site 8: This area is immediately west of Site 4, and the RWSI would impact approximately 0.9 acres of wetlands. Like Site 4, this alternative places the RWSI adjacent to the raw water pipeline and 3.8 miles from the City's water plant. Site 8 is part of a planned subdivision that was never completed. Approximately 16 acres within the 33-acre RWSI footprint are filled wetlands from a 2005 authorization. The suitability of the soil in the filled area requires additional study, which would slow construction of the RWSI by eight months and add approximately \$1.0 to \$1.5 million of design costs, as compared to Alternative Site 4. However, construction could be approximately \$2.5 to \$4 million less for a net savings of \$1.5 to 2.5 million, and mitigation costs would be mostly eliminated. The total mitigation cost is estimated to be \$38,000.

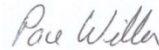
Alternative Site 8 provides the least amount of impact to freshwater wetlands, may be more cost efficient when considering net savings, and meets the project's purpose and need. The concern to using this site is flooding to a nearby residential development should the RWSI suffer a catastrophic failure, which is an



unlikely event and could be addressed by the RWSI design. There is no indication that proximity to the neighborhood would impact construction of the RWSI. NMFS recommends the RWSI be built at Site 8 since this location is the least environmental damaging practical alternative, eliminates the need to fill 13.5 acres of freshwater wetlands and uses previously impacted wetlands that are now isolated from the nearby creek.

We appreciate the opportunity to provide these comments. Please direct related correspondence to the attention of Ms. Jaclyn Daly-Fuchs at our Charleston Area Office. She may be reached at (843) 762-8610 or by e-mail at Jaclyn.Daly@noaa.gov.

Sincerely,



/ for

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

cc:

COE, CESAS-PD@usace.army.mil
GADNR CRD, Karl.Burgess@gadnr.org
GADNR EPD, Jennifer.Welte@dnr.state.ga.us
SAFMC, Roger.Pugliese@safmc.net
EPA, Somerville.Eric@epa.gov
FWS, Bill_Wikoff@fws.gov
F/SER4, David.Dale@noaa.gov
F/SER47, Jaclyn.Daly@noaa.gov

**RESPONSE TO COMMENTS
FROM
NATIONAL MARINE FISHERIES SERVICE (NMFS)
on Draft Environmental Assessment/FONSI Letter Dated August 9, 2013**

NMFS made the following comments/recommendations pursuant to authorities of the Fish and Wildlife Coordination Act.

COMMENT 1: None of the alternatives involve impacts to tidally influenced waters or vegetation, including tidal freshwater vegetation in Black Creek; therefore, no essential fish habitat (EFH) would be impacted by the project.

USACE RESPONSE TO COMMENT 1: USACE agrees that the proposed action would not impact tidal water or vegetation; and therefore would also not impact EFH.

COMMENT 2: NMFS recommends Alternative Site 8 due to 1) the lower impact to wetlands and subsequent reduced wetland mitigation costs, and 2) the reduced construction costs. “The concern to using this site is flooding to a nearby residential development should the RWSI suffer a catastrophic failure, which is an unlikely event and could be addressed by the RWSI design.”

USACE RESPONSE TO COMMENT 2: USACE factored in the lesser environmental impacts from implementation of Site 8 cited above, but also considered the additional adverse environmental impacts to 1) land use and zoning in the vicinity, 2) noise from RWSI day and night time operation, 3) human health and safety from the risk of flooding to adjacent residential neighborhood, and 4) visual impacts to the residents of the existing subdivision.

The NEPA evaluation concluded that the human health and safety concern was more significant than the additional wetland impacts from Site 4, since the wetland impacts would be offset by the proposed mitigation plan. USACE considered the risk of flooding due to a breach of the embankment during the design process. The current design incorporates those considerations, including not only siting but also embankment height, material, and construction of an emergency spillway.

Keith Golden, P.E., Commissioner



GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000

August 9, 2013

Ms. Mackie McIntosh
Planning Division
US Army Corps of Engineers
Savannah District
100 West Oglethorpe Avenue
Savannah, Georgia 31401

Dear Ms. McIntosh:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment to evaluate proposed modifications to the Raw Water Storage Impoundment (RWSI) for the Savannah Harbor Expansion Project (SHEP). This project will mitigate for potential chloride concentrations at the City of Savannah's water intake in Abercorn Creek.

We support moving the RWSI to the location identified as Site 4 in the EA as it is the best choice of the options considered. We also support the proposed Wildlife Hazard Management Plan that will monitor birds and other wildlife potentially attracted to the RWSI to verify this project does not lead to increased interactions between wildlife and planes using the nearby Savannah Hilton Head International Airport.

We disagree, however, with the requirement regarding the responsibility of the non-Federal sponsor to remove the restrictive covenant on 2.1 acres of forested wetland which will be impacted by the proposed project, as listed in Section 5.0 of the Wetland Mitigation Plan attached to the draft EA as Appendix G. Removal of this restrictive covenant is required as part of mitigation for the RWSI, which is an action required by SHEP, and thereby should be cost shared as a mitigation cost as outlined in the SHEP cost-share agreement.

Thank you once again for this opportunity to comment. If you have any questions, please feel free to contact David Griffin, P.E., Waterways Program Manager, at 404-631-1228.

Sincerely,

A handwritten signature in blue ink that reads "Carol L. Comer".

Carol L. Comer, Director
Division of Intermodal

CLC:NCC:dg

**RESPONSE TO COMMENTS
FROM
GEORGIA DEPARTMENT OF TRANSPORTATION
on Draft Environmental Assessment/FONSI Letter dated August 9, 2013**

COMMENT 1: by letter dated August 9, 2013, the GA DOT supported the location of the RWSI at Site 4, the preferred alternative.

COMMENT 2: by letter dated August 9, 2013, the GA DOT disagreed with the position that the non-Federal sponsor is required to remove the restrictive covenant on 2.1 acres of forested wetland that would be impacted by the proposed project, as stated in Section 5.0 of the Wetland Mitigation Plan (Appendix G). GA DOT stated that since removal of the restrictive covenant is mitigation required by SHEP, then the cost of restrictive covenant removal should be cost shared as outlined in the SHEP cost-share agreement.

USACE RESPONSE: Some of GA DOT's comments do not directly affect the primary decision under consideration of whether to proceed with the current site and design. The cost sharing issue raised in GA DOT's letter will be considered as the project moves forward into construction phase. As stated in Section 101 of the Water Resources Development Act of 1986 and as described in Section 15.4 of the Final GRR that the Georgia DOT approved, "the chloride mitigation lands will be acquired in fee simple by the non-Federal Project Sponsor and deeded to the City of Savannah after construction for operation and maintenance by the City. Section 15.5 of the GRR states, "The non-Federal sponsor would be responsible for the following actions: Provide all LERRs and perform or ensure the performance of all relocations and deep-draft utility relocations determined by the Federal Government to be necessary for the construction, operation, maintenance, repair, replacement, and rehabilitation of the general navigation features (including all lands, easements, and rights of way, relocations, and deep-draft utility relocations necessary for the dredged material disposal facilities)." The raw water storage impoundment is considered a general navigation feature for cost sharing purposes. As such, the non-Federal Sponsor is responsible for providing lands deemed acceptable to the Federal government as referenced above.

Georgia Department of Natural Resources
Environmental Protection Division

Watershed Protection Branch
4220 International Pkwy, Suite 101; Atlanta, Georgia 30354
(404) 675-6232

August 19, 2013

Mr. William G. Bailey
Chief, Planning Division
Savannah District
U.S. Army Corps of Engineers
100 W. Oglethorpe Ave.
Savannah, GA 31402-0889

Re: Georgia EPD Comments on Draft EA and FONSI for the Savannah Harbor
Expansion Project, Raw Water Storage Impoundment

Dear Mr. Bailey:

The Georgia Environmental Protection Division (EPD) has had the opportunity to review the Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Savannah Harbor Expansion Project (SHEP), modifications to the Raw Water Storage Impoundment (RWSI). As stated in the Draft EA/FONSI document, the RWSI was identified as the selected mitigation remedy designed to address potential impacts to the Savannah Industrial and Domestic Water Treatment Plant caused by increased salinity at the City of Savannah's Abercorn Creek raw water intake. Condition 3 of the SHEP 401 water quality certification issued by EPD on February 16, 2011 addresses the increased salinity concern relative to elevated chlorides at this intake.

Condition 3 contemplated additional study regarding the potential effects of elevated chloride levels in the Final EIS, and subsequent selection and design of a mitigation remedy to address elevated chloride levels. The condition also specifies that the mitigation remedy is to be based on a treatment plant design capacity of 62.5 MGD, and that compliance with all drinking water regulations must be addressed. Appendix C of the Final EIS identified the RWSI as the selected mitigation remedy, considering a maximum treatment plan capacity of 62.5 MGD. The Draft EA/FONSI addresses modifications to the location and design of the RWSI, but the design still conforms to the requirements of the 401 water quality certification. Accordingly, the 401 water quality certification still applies to the RWSI as addressed in the Draft EA/FONSI. At this time, EPD will not be issuing a separate 401 water quality certification for the RWSI.

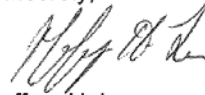
To date, the Corps has engaged the Drinking Water and Safe Dams Programs of EPD regarding the design and permitting review of the RWSI. In accordance with condition 3 of the 401 water quality certification issued on February 16, 2011, the issues associated with increased chlorides at the Abercorn Creek drinking water intake will be carefully reviewed on an ongoing basis throughout the life of the Savannah Harbor Expansion Project.

Georgia Department of Natural Resources
Environmental Protection Division

Watershed Protection Branch
4220 International Pkwy, Suite 101; Atlanta, Georgia 30354
(404) 675-6232

If you have any questions or concerns regarding these comments, please contact me at (404) 675-1664, or Ms. Jennifer Welte at (404) 675-1752.

Sincerely,



Jeffrey H. Larson
Assistant Branch Chief

cc: Ms. Margaret McIntosh, Corps
Ms. Jennifer Welte, GaEPD
Ms. Kelie Moore, GaCRD
Mr. John Biagi, GaWRD
Mr. Tim Barrett, GaWRD
Ms. Jennifer Derby, USEPA
Mr. Strant Colwell, USFWS

**RESPONSE TO COMMENT
FROM
GEORGIA DEPARTMENT OF NATURAL RESOURCES (GADNR)
ENVIRONMENTAL PROTECTION DIVISION (EPD)
Watershed Protection Branch
on Draft Environmental Assessment/FONSI Letter Dated August 19, 2013**

COMMENT 1: The draft EA/FONSI addresses modifications to the location and design of the RWSI, but the design still conforms to the requirements of the 401 water quality certification issued by EPD on February 16, 2011 for SHEP. Accordingly, the 401 water quality certification issued for SHEP still applies to the RWSI as addressed in the Draft EA/FONSI.

USACE RESPONSE: USACE agrees the SHEP water quality certification applies to the RWSI project and no further certification is required.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Atlanta Airports District Office

1701 Columbia Ave., Campus Bldg.
Atlanta, GA 30337-2747
P: (404) 305-7150 F: (404) 305-7155

August 19, 2013

Ms. Mackie McIntosh
Environmental Resources Branch
US Army Corps of Engineers, Savannah District
100 West Oglethorpe Avenue
Savannah, Georgia 31401-0889

Dear Ms. McIntosh:

Federal Aviation Administration, Atlanta Airports District Office (FAA ATL-
ADO) Comments: Draft Environmental Assessment (EA) – of Modifications to the Raw Water
Storage Impoundment (RWSI), Savannah Harbor Expansion Project (SHEP), Chatham County,
Georgia and Jasper County, South Carolina, July 2013

We appreciate the US Army Corps of Engineers (USACE), Savannah District for coordinating with FAA
on this proposed project.

The FAA understands that the coastal biome is by default attractive to wildlife, and especially so to birds.
We also realize that the proposed RWSI is located in an area dominated by extensive wetted areas that
are designated conservation areas and managed specifically to attract and provide habitat for wildlife.

The FAA cannot change the coastal biome, nor can we alter decisions of the past. It is our responsibility
to do everything we can to ensure new proposed actions with known potential to become hazardous
wildlife attractants are sited in accordance with our agency recommendations identified in AC 150/5200-
33.

As previously indicated, the proposed project involves a land-use identified in FAA's Advisory Circular
(AC) 150/5200-33 as having the potential to attract hazardous wildlife. The FAA recommends siting land-
uses of this type beyond 5-miles of the nearest airport air operations area (AOA) to protect the approach,
departure and circling airspace from hazardous wildlife.

The closest airport AOA to the RWSI is the runway safety area (RSA) of Runway (RWY) 01/19 at
Savannah/Hilton Head International Airport (SAV). Using Google Earth, the closest straight-line distance
from the designated RSA endpoint to the RWSI is approximately 3.77 nautical miles, inside FAA's
recommended 5-mile separation distance (Encl).

During previous coordination efforts regarding the RWSI project, the FAA requested the USDA perform a
site visit to the proposed RWSI location to inform our evaluation of its potential to attract hazardous
wildlife. Initial feedback from the USDA did not identify particular concerns because at that time, they
believed the facility was beyond the FAA's recommended separation distances.

Through previous communications and during our last telecom meeting on 02/06/13, we confirmed that
the RWSI site does not meet FAA's recommended 5-mile separation distance. Further, we expressed
concerns regarding the proximity of the RWSI to the Runway 19 approach path. The largest percentage

of bird strikes occur during the approach phase of flight. At the TOSEA waypoint, air craft would be at approximately 2,000' on continual descent to landing. We estimate that aircraft flying in proximity to the RWSI would be at an altitude of approximately 1,438'.

Much of our discussion on 02/26/13 revolved around consideration of potential mitigation for incorporation into the RWSI design and in development of an operational management, and monitoring plan for the RWSI. By addressing mitigation in both the design and on-going operations of the RWSI, the risk of it becoming a hazard attractant would be reduced and ensure that if a wildlife hazard presented itself, the City of Savannah, a Federally obligated airport sponsor, would have a plan in place to take immediate action to remove it.

Per your request not only have we reviewed the RWSI Draft EA, we also requested the USDA provide their thoughts as well. It is clear that you have modified the design of the RWSI in an effort to reduce its potential to be attractive to hazardous wildlife. Generally we feel there may be some more effective design elements that could be incorporated to reduce the attractiveness of the RWSI to wildlife. Our consolidated comments are below:

Draft EA, Appendix D – Wildlife Hazard Management Plan-

- 1) Page 6, Issues of Concern: The impoundment could be particularly attractive to Canada Geese and Seagulls that may start loafing or feeding at the reservoir. In addition to vultures, Seagulls are also known to catch thermals and soar.
- 2) Page 9, 2.: We do not feel that a guardrail will deter waterfowl from using the reservoir.
- 3) Page 9, 3.: Having a well mowed bank of Bermuda could be attractive to geese as they like to graze in well mowed grass like Bermuda. Planting a tall fescue and actually letting it grow up may be a better option.
- 4) Page 9, 4.: While we recognize the value of such devices, it is our opinion that two circulators in a 40-acre impoundment will not create enough current to deter waterfowl.
- 5) Page 11, 7.: Although this measure is helpful in deterring cormorants, herons and other fish eating bird species; waterfowl, do not eat fish.
- 6) Page 11, 1.: The issue at hand is not just the "potential interactions of wildlife with aircraft passing >1,500 feet overhead." The primary issue is: will this impoundment serve as an attractant for bird species that might potentially cause issues at 1,500 feet?
- 7) Page 11, 2.: A key and fundamental element of all wildlife hazard management plans is a plan to deal with hazards when they arise. Every potential wildlife hazard attractant cannot be foreseen, and because this will be a constantly changing and developing area, some affects may not be realized or may not materialize for many years. Therefore, there must be some sort of monitoring and management plan in place that includes not only on-going maintenance and operations, but action. The final wildlife hazard management plan should outline how the RWSI will be monitored, who will do it, what actions will be taken, and by whom. The plan should require acquisition and maintenance of a depredation permit to allow for immediate eradication of hazards where possible, if and when they present themselves. In fact, we recommend that depredation permits be applied for early enough to ensure any hazards created during construction can be dealt with swiftly. Acquiring these permits takes time which is why they should be acquired and kept current so immediate action can be taken. Additionally, the plan should outline a communications protocol between the responsible City of Savannah RWSI management office (and until transfer of responsibility, the USCAE) and the SAV airport air traffic control tower as well as the airport management staff so that pilots may be alerted of observed hazards and so that if pilots observe hazards, the RWSI management staff can be notified to take action.
- 8) Page 11, 3. Acoustic and visual deterrents should absolutely be a part of this plan. Some components necessary for the function of the impoundment are seemingly presented as mitigation measures incorporated to deter wildlife. As noted above, we do not feel that some of these measures will deter wildlife.
- 9) Page 12, 4.: We are not comfortable with this conclusion. While we do not think the RWSI will create an additional hazard, we can't conclude that it won't. Our experience shows that these types of facilities are known to be wildlife attractants, as indicated by their inclusion in our AC 150/5200-33,

Wildlife Hazard Attractants on or Near Airports. If we could draw the conclusion that the RWSI will not be a wildlife attractant, we would not be requesting that mitigation measures be incorporated into the design and that a Wildlife Hazard Management Plan be developed. While you expect the city of Savannah to be proactive in monitoring the site and deterring substantial wildlife use of the structure, is there any recorded commitment between your agencies to assure this? If no written assurance currently exists, we recommend USACE require it prior to transfer of the facility.

- 10) Page 12, 1.: We do not feel that monitoring for one day per season would be sufficient to prepare a report with recommendations.
- 11) Page 12, 2.: This effort should be completed as part of this wildlife hazard management plan (WHMP) development effort since it is a key component to all wildlife management plans. This should be much more than a list of rapid response contacts (See previous comment on this issue.).

Draft EA, Appendix G – Wetland Mitigation Plan-

- 1) General Comment: Per FAA AC 150/5200-33, because of hazardous wildlife attractant concerns, we recommend wetland mitigation projects, including credit purchases be made from banks beyond five miles of an airport.

The FAA and the GA USDA-APHIS-WS stand ready to work with you collaboratively to make improvements to the draft WHMP and to discuss any further detailed design modifications for the RWSI that may be easily incorporated. We look forward to our continued coordination on this project and others. Please contact me at dana.perkins@faa.gov or (404) 305-7152 if our comments require discussion or if I may be of further assistance.

Sincerely,



Dana L. Perkins
Environmental Program Manager

cc w/ encl:

US Army Corps of Engineers, Savannah District, ATTN: William Bailey (Planning Division)/Mackie McIntosh (Environmental Resources Branch)
Savannah Airport Commission, ATTN: Greg Kelly
Georgia Department of Transportation, ATTN: Carol Comer (Division of Intermodal)/David Griffin (Waterways Programs)/ Peter Cevallos (Aviation Programs)
US Department of Agriculture, Animal and Plant Health Inspection Service - Wildlife Services, ATTN: Steve Smith/Jonathan Smith
Federal Aviation Administration, Southern Region, ATTN: Bonnie Baskin (Air Traffic Organization Eastern Service Area, Operational Support Group)
Federal Aviation Administration HQ, ATTN: John Weller/Amy Anderson (Office of Airport Safety & Standards)

** Original mailed via USPS to addressee and e-mailed to addressee and all cc recipients for expediency.*

**RESPONSE TO COMMENTS
FROM
FEDERAL AVIATION ADMINISTRATION (FAA)
on Draft Environmental Assessment/FONSI Appendix D (Wildlife Hazard Management
Plan) Letter Dated August 19, 2013**

FAA made the following comments/recommendations pursuant to authorities of Advisory Circular (AC) 150/5200-33

Comments on Draft EA/FONSI, Appendix D - Wildlife Hazard Management Plan (WHMP)

1) Page 6, Issues of Concern: The impoundment could be particularly attractive to Canada Geese and Seagulls that may start loafing or feeding at the reservoir. In addition, to vultures, Seagulls are also known to catch thermals and soar.

USACE Response: Concur. The following language has been integrated into this section: “The impoundment could be attractive to Canada Geese and Seagulls that may start loafing or feeding at the impoundment. In addition, vultures and Seagulls are known to catch thermals and soar at high altitudes.”

2) Page 9; # 2: We do not feel that a guardrail will deter waterfowl from using the reservoir.

USACE Response: Concur. The reference to a guardrail will be deleted from the WHMP.

3) Page 9; # 3: Having a well mowed bank of Bermuda could be attractive to geese as they like to graze in well mowed grass like Bermuda. Planting a tall fescue and actually letting it grow up may be a better option.

USACE Response: Concur that a well mowed bank of Bermuda could be attractive to geese. Therefore, wording in WHMP will be changed to state that “...outside slope of the impoundment will be planted with a type of low lying grass less attractive to geese than Bermuda.” Allowing the grass on the slope of the embankment to grow up high would not be desirable from an engineering perspective.

4) Page 9; # 4: While we recognize the value of such devices, it is our opinion that two circulators in a 40-acre impoundment will not create enough current to deter waterfowl.

USACE Response: Concur. The draft WHMP used the wording that such devices “**may have the potential** to detract waterfowl from gathering on the water surface” and did not make a definitive statement. USACE believes it is best to leave this statement in the WHMP. USACE also added the following sentence to clarify this position: “These features may deter wildlife, but they are included in the RWSI design for purposes other than wildlife mitigation.”

5) Page 11; # 7: Although this measure is helpful in deterring cormorants, herons and other fish eating bird species; waterfowl do not eat fish.

USACE Response: Concur. Wording in WHMP will be changed from "...as a food source for waterfowl to "...as a food source for fish eating birds".

6) Page 11; # 1: the issue at hand is not just the "potential interactions of wildlife with aircraft passing >1500 feet overhead." The primary issue is: will this impoundment serve as an attractant for bird species that might potentially cause issues at 1,500 feet?

USACE Response: Concur. Last sentence in the paragraph will be revised to state "...observers could also identify and document birds attracted to the impoundment that have the potential to interact with aircraft at 1,500 feet."

7) Page 11; # 2: The final wildlife hazard management plan should outline how the RWSI will be monitored, who will do it, what actions will be taken, and by whom. The plan should include acquisition of a wildlife depredation permit. A communications protocol between the City of Savannah and Savannah airport traffic control tower and airport management staff so that notification of observed hazards may be conveyed is necessary.

USACE Response: Concur. This response is partly addressed in the response to comment # 9. The final WHMP will provide more detail in the section titled "Potential Additional Measures #4" and the section titled "Additional Measures That Will Be Taken #2". These sections discuss interagency communication protocols, emergency contacts, Operations and Maintenance (O&M), and acquisition/maintenance of depredation permits.

8) Page 11; # 3: Acoustic and visual deterrents should absolutely be a part of this plan. Some components necessary for the function of the impoundment are seemingly presented as mitigation measures incorporated to deter wildlife.

USACE Response: This is partially addressed in response to comments #2 and 4 above. If post-construction monitoring identifies potential problems with wildlife use of the RWSI, additional acoustic and visual deterrents will be measures that could be employed to reduce those concerns to acceptable levels.

9) Page 12; 4 (part 1): We are not comfortable with this conclusion. While we do not think the RWSI will create an additional hazard, we can't conclude that it won't. Our experience shows that these types of facilities are known to be wildlife attractants, as indicated by their inclusion in our AC 150/5200-33 Wildlife Hazard Attractants on or Near Airports. If we could draw the conclusion that the RWSI will not be a wildlife attractant, we would not be requesting that mitigation measures be incorporated into the design and that a Wildlife Hazard Management Plan be developed.

USACE Response: Concur. USACE will re-word the paragraph to state that the Corps believes the design, siting, and wildlife deterrent measures incorporated will prevent the RWSI from serving as a wildlife attractant.

Page 12; # 4 (part 2): While you expect the city of Savannah to be proactive in monitoring the site and deterring substantial wildlife use of the structure, is there any recorded commitment between your agencies to assure this? If no written assurance currently exists, we recommend USACE require it prior to transfer of the facility.

USACE Response: Concur. Prior to transfer of the RWSI to the City, written agreements would be part of an Operations and Maintenance (O&M) manual that the City of Savannah would receive from USACE. The O&M manual would outline all City requirements including details on monitoring, grass/grounds maintenance, wildlife acoustic/visual deterrents, etc. The FAA will be provided with a copy of the letter agreement.

10) Page 12; # 1: We do not feel that monitoring for one day per season would be sufficient to prepare a report with recommendations.

USACE Response: Concur. The wording in WHMP will be changed to "...USACE will monitor by on-site inspection bird use of the site one day in each of the first four seasons at the facility and cameras will monitor bird activity on the RWSI one day each month."

11) Page 12; # 2: This effort should be completed as part of this wildlife hazard management plan development effort since it is a key component to all wildlife management plans. This should be much more than a list of rapid response contacts.

USACE Response: Concur. The WHMP will be revised to include an Emergency Response Plan, a communication protocol, and emergency response contacts.

Comment on Draft EA, Appendix G - Wetland Mitigation Plan

1) General Comment: Per FAA AC 150/5200-33, because of hazardous wildlife attractant concerns, we recommend wetland mitigation projects, including credit purchases be made from banks beyond five miles from an airport.

USACE Response: Concur. USACE Regulatory procedures require use of a mitigation bank within the primary service area for the project. Currently, only one wetland mitigation bank within the project's primary service area (AA Shaw) has sufficient wetland credits available to cover the needs of the RWSI mitigation plan. The AA Shaw mitigation bank is not within 5 miles of the Savannah International Airport.



MARK WILLIAMS
COMMISSIONER

A.G. 'SPUD' WOODWARD
DIRECTOR

August 21, 2013

USACE Savannah District
Attn: Mr. William Bailey (PD)
100 West Oglethorpe Avenue
Savannah, Georgia 31402-0889

RE: CZM Consistency Determination: Concurrence for SHEP RWSI Modification

Dear Mr. Bailey:

Staff of the Coastal Management Program has reviewed the July 12, 2013 Joint Public Notice regarding the availability of a draft environmental assessment and draft findings of no significant impact for a modification to the raw water storage impoundment (RWSI) as part of the Savannah Harbor Expansion Project (SHEP). An RWSI was included in the approved SHEP to mitigate for increased chloride levels in Abercorn Creek at the City of Savannah's water intake on Parcel 3 of Georgia Port Authority's Savannah International Trade Park near Mulburry Grove. Subsequent engineering and environmental design studies indicate that an alternate location, Site 4 in the DEA located between the City's raw water pumping station and its Industrial and Domestic Water Treatment Plant in Port Wentworth, would minimize environmental effects and maximize the efficiency.

An above-ground RWSI would be constructed on approximately 33 acres of this 117-acre site and a 1.7-acre access road would be located on top of the existing raw water pipeline. The earthen dike surrounding the impoundment would be approximately 3,400 feet long and up to 29 feet high. Associated mechanical equipment, buildings, and fencing would also be constructed. The completed RWSI and associated features will be turned over to the City of Savannah for operation and maintenance.

The Program concurs with your consistency determination. This determination ensures that the proposed project has been designed to comply to the maximum extent practicable with the applicable enforceable policies of the Georgia Coastal Management Program. Please feel free to contact Kelie Moore or me if we can be of further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to be "CW" or similar initials, followed by a long horizontal stroke.

A.G. "Spud" Woodward
Director

SW/km

**RESPONSE TO COMMENT
FROM
GEORGIA DEPARTMENT OF NATURAL RESOURCES (GADNR)
ENVIRONMENTAL PROTECTION DIVISION (EPD)
COASTAL RESOURCES DIVISION (CRD)
on Draft Environmental Assessment/FONSI Letter Dated August 21, 2013**

COMMENT: The CRD concurs with the USACE CZM consistency determination that the proposed project has been designed to comply to the maximum extent practicable with the applicable enforceable policies of the Georgia Coastal Management Program.

USACE RESPONSE: USACE acknowledges and concurs with the Coastal Resource Division determination that the RWSI has been designed to comply to the maximum extent practicable with the policies of the Georgia Coastal Management Program.

From: [Bailey, William G SAS](#)
To: [Walker, David A SAS](#)
Subject: Fw: [EXTERNAL] RE: EA for Modifications to the RWSI - SHEP (UNCLASSIFIED)
Date: Thursday, August 22, 2013 2:23:06 PM

Message sent via my BlackBerry Wireless Device

From: Holliman, Daniel [<mailto:Holliman.Daniel@epa.gov>]
Sent: Thursday, August 22, 2013 01:10 PM Central Standard Time
To: Bailey, William G SAS
Cc: Mueller, Heinz <Mueller.Heinz@epa.gov>; McIntosh, Margaret (Mackie) SAS; Somerville, Eric <Somerville.Eric@epa.gov>
Subject: [EXTERNAL] RE: EA for Modifications to the RWSI - SHEP (UNCLASSIFIED)

Bill,

Based on our review of the above referenced EA, we have no comments on the proposed action. We also agree with the level of NEPA used to address the modifications to the RWSI from the originally proposed footprint presented in the SHEP EIS.

Thanks for providing additional time for us to review.

-Dan

Dan Holliman

EPA Region 4 - NEPA Program Office

tel 404.562.9531 | holliman.daniel@epa.gov

From: Bailey, William G SAS [<mailto:William.G.Bailey@usace.army.mil>]
Sent: Friday, August 09, 2013 4:05 PM
To: Holliman, Daniel
Cc: Mueller, Heinz; McIntosh, Margaret (Mackie) SAS
Subject: RE: EA for Modifications to the RWSI - SHEP (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Yes, your comments by August 19 will work.

Bill Bailey
Chief, Planning Division

From: Holliman, Daniel [<mailto:Holliman.Daniel@epa.gov>]
Sent: Friday, August 09, 2013 11:14 AM
To: Bailey, William G SAS
Cc: Mueller, Heinz
Subject: EA for Modifications to the RWSI - SHEP

Bill,

We are looking over the draft EA for the proposed modifications to the RWSI. Heinz should be able to provide some initial comments we may have verbally when you meet on Tuesday 8/13. I would like to request additional time to provide formal comments on the DEA. I know Monday 8/12 is the deadline for comment. I think we should be able to provide our written comments by Monday 8/19.

Thanks,
Dan

Dan Holliman
USEPA Region 4 | NEPA Program Office
61 Forsyth Street SW | Atlanta, GA 30303

tel 404.562.9531 | holliman.daniel@epa.gov

Region 4 NEPA: <http://www.epa.gov/region4/opm/nepa/index.html>

Classification: UNCLASSIFIED
Caveats: NONE