

GDOT SR 38/US 84 SATILLA RIVER BRIDGE REPLACEMENTS

SAME Savannah Post
Luncheon
April 20, 2026





Who am I?

Josh Jamell with AtkinsRéalis. I'm an ecologist/NEPA practitioner with 25 years of experience in the environmental consulting world. I started at a small A/E firm in Atlanta, Rosser International, working in a civil/environmental group for around seven years before moving to CH2M for 10 years, as a field ecologist and NEPA practitioner. I am now the national lead for our EcoSciences team in our Environment and Sustainability Practice at AtkinsRéalis working with clients across the nation and with one of our strongest clients in Georgia, the GDOT. I'm also a GA bulldawg alumni and fan! In my spare time I try to spend much of my time outdoors with the family. I also love to play the keyboard and guitar.

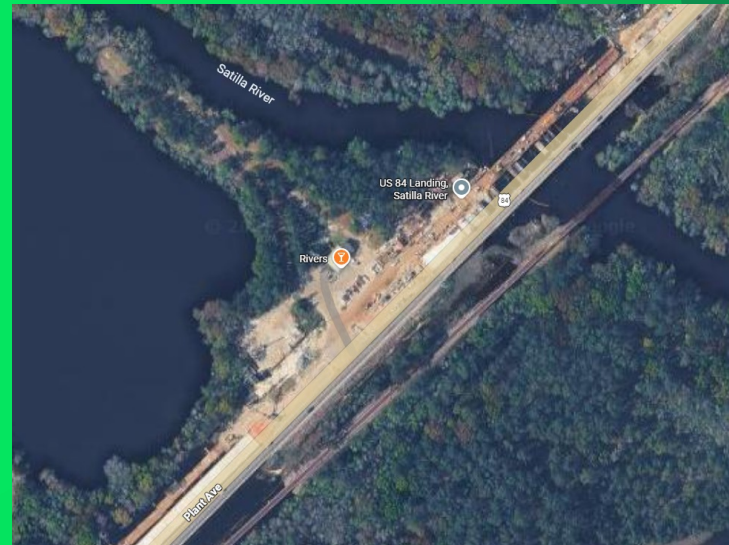
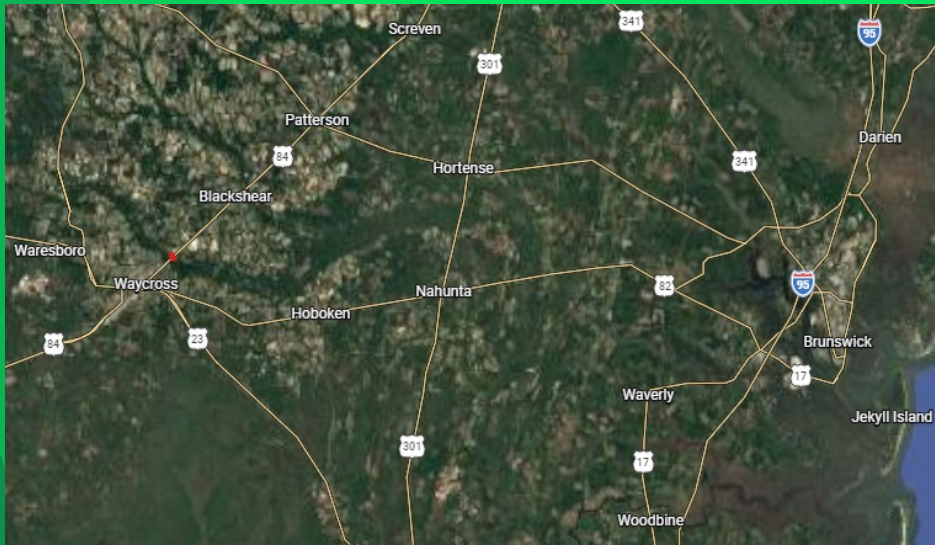
Threading the Needle



GDOT PI 0013605 – State Route 38/US Highway 84
Bridge Replacements at the Satilla River and Overflow

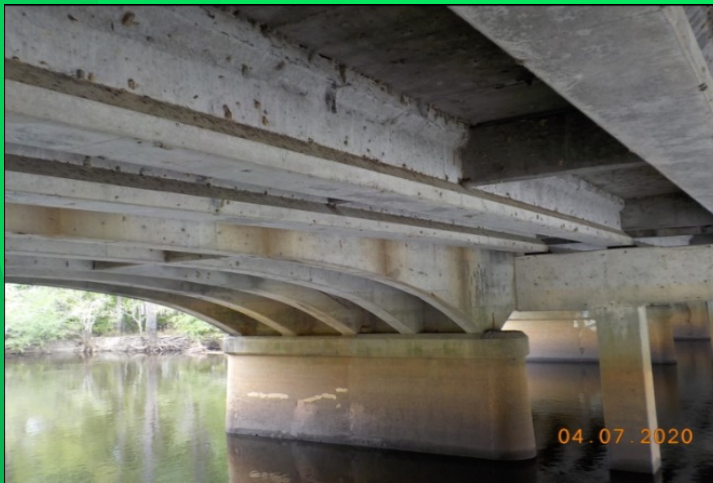
Where are we?

Just northeast of Waycross, GA on SR 38/US 84 (aka the Wiregrass Parkway) at the Satilla River and overflow.



Existing Bridge over Satilla River

Bridge over the Satilla River originally constructed in 1923 and widened in 1982. Bridge consists of 22 spans of Reinforced Concrete Deck Girders (RCDGs) with three intermediate spans of continuous concrete arched RCDGs in the original section and pre-stressed concrete beams in the widened section. The Georgia Historic Bridge Survey indicated the bridge was not eligible for inclusion in the National Register of Historic Places.

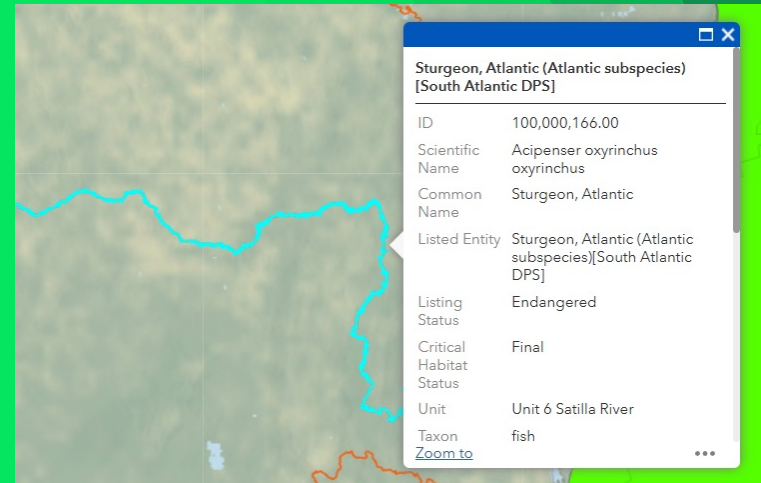


Need and Purpose

- Structural integrity in question
- Weight restrictions (i.e., below current design standards)
- Unknown foundation of the substrate (i.e., potential risk for scour)

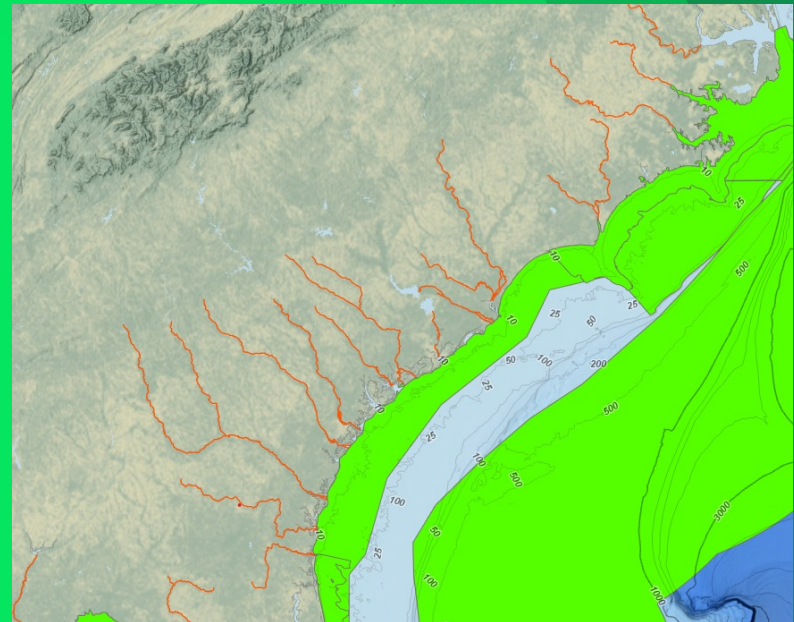
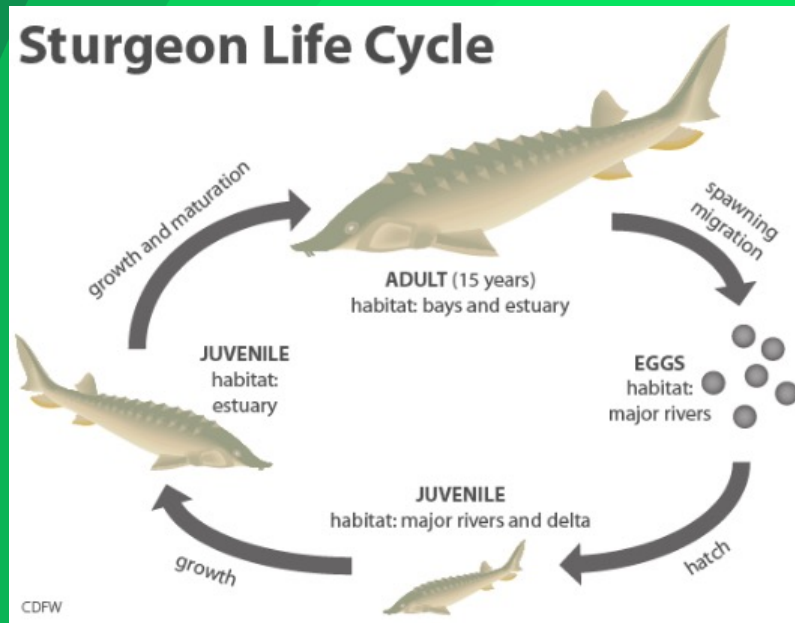


Just another bridge replacement project?



Not so much with designated critical habitat in the Satilla River for the Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*)!

A little bit about the Atlantic sturgeon:



Sturgeon are anadromous with spawning habitat stretching into the upper reaches of larger rivers with Atlantic sturgeon preferring gravelly substrate for spawning habitat.

Georgia Migration Patterns

Spawn mainly in spring with some spawning in fall, with two distinct migration patterns:

- A spring two-step migration:
 - Appear during spring
 - Also appear during early summer
- A fall one-step migration:
 - Enter in late summer and migrate directly to spawning habitat

Many northern rivers have been shown to only have a spring spawn.



Adam Fox releasing an adult Atlantic Sturgeon. Image credit: K. Morgan/UGA

What does all this mean?

National Marine Fisheries Services (NMFS; aka NOAA Fisheries) is the federal agency for sturgeon. The environmental Special Provision (SP) 107.23H for this project includes 47 conditions, mostly relating to sturgeon.

To protect the Atlantic sturgeon (and shortnose sturgeon) there are two restricted periods for construction:

- January 16 through April 15 (89 days)
- August 1 through December 1 (122 days)
 - (was September 1 through November 1 initially)

During these periods:

- No in-water work except within dewatered cofferdams and from shore or work bridge
- No blasting

Only 154 days outside the restricted periods but many of the SP 107.23H conditions still apply.

**Programmatic Biological Evaluation (NLAA) on the Effects of
Transportation Activities and Projects Regularly Undertaken in
North Carolina, South Carolina, and Georgia**

Prepared in Collaboration through an Interagency Agreement by:

National Marine Fisheries Service, Southeast Regional Office
263 13th Avenue South, St. Petersburg, Florida 33701

With and for:

Federal Highway Administration, Office of Project Development and Environmental Review
1200 New Jersey Avenue SE, Washington, DC 20590

Assisted by:

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55 Broadway, Kendall Square, Cambridge, MA 02142

September 2018

Noise Mitigation for Pile Installation

This table shows the requirements for installing piles and means to mitigate effects from noise.

P.I. No. 0013605, Ware & Pierce Counties Section 107—Legal Regulations and Responsibility to the Public			
Table 2. Impact Hammer Sound Source Levels and Impact Radius Distances			
	Source Level (dB re 1 µPa1)	Radius for Fish less than 2 grams	Radius for Fish over 2 grams
Physical Injury (peak pressure)	195 dB Peak	0 m (1 ft)	0 m (1 ft)
Physical Injury (Cumulative exposure)	cumulative	1 pile = 4 m (12 ft) 5 piles = 11 m (36 ft) 10 piles = 17 m (56 ft)	1 pile = 2 m (7 ft) 5 piles = 6 m (19 ft) 10 piles = 9 m (30 ft)
Behavior (Root Mean Square [RMS])	185 dB RMS	215 m (705 ft)	215 m (705 ft)
Physical Injury (peak pressure)	200 dB Peak	0 m (1 ft)	0 m (1 ft)
Physical Injury (Cumulative exposure)	cumulative	1 pile = 9 m (28 ft) 5 piles = 25 m (83 ft) 10 piles = 40 m (131 ft)	1 pile = 5 m (15 ft) 5 piles = 14 m (50 ft) 10 piles = 22 m (71 ft)
Behavior (RMS)	185 dB	215 m (705 ft)	215 m (705 ft)
Physical Injury (peak pressure)	220 dB Peak	9 m (30 ft)	9 m (30 ft)
Physical Injury (Cumulative exposure)	cumulative	1 pile = 410 m (1,345 ft) 10 piles = 858 m (2,815 ft)	1 pile = 223 m (731 ft) 10 piles = 858 m (2,815 ft)
Behavior (RMS)	204 dB RMS	858 m (2,815 ft)	858 m (2,815 ft)
Table 3. Vibratory Hammer Sound Source Levels and Impact Radius Distances			
	Source Level (dB re 1 µPa)	Radius for Fish over 2 grams	
Physical Injury (peak pressure)	186 dB Peak	0 m (0 ft)	
Physical Injury (Cumulative exposure)	cumulative	0 m (0 ft)	
Behavior (RMS)	170 dB RMS	22 m (72 ft)	
Physical Injury (peak pressure)	192 dB Peak	0 m (0 ft)	
Physical Injury (Cumulative exposure)	cumulative	0 m (0 ft)	
Behavior (RMS)	178 dB RMS	74 m (243 ft)	
We do not consider the noise effects of small fish for vibratory hammer, because the noise calculations are based on fish less than 0.6 grams and none of the ESA-listed fish in our action area are that small.			

Section 107—Legal Regulations and Responsibility to the Public

Table 1. Requirements for In-Water Noise from Pile and Sheet Pile Installation

Confined Space: We consider the confined space to be any area that has a solid object (e.g., shorelines or seawalls) within 150 ft. of the pile installation site.				
	Pilot hole (auger or drop punch)	Jetting	Vibratory	Impact hammer
Wood pile 14-in diameter or less	A	A	A	B
Concrete pile 24-in diameter/width or less (5 piles or less installed/day)	A	A	A	C
Concrete pile 24-in diameter/width or less (6-10 piles installed/day)	A	A	A	D
Steel H-pile 18-in square or less	A	A	A	D
Metal pipe pile 24-in diameter or less	A	A	A	D
Metal sheet pile - any size	A	A	A	Not allowed

A. The activities identified as **A** above must comply with PDCs identified in this consultation. Specific requirements related to noise include:

1. All work must occur during daylight hours only.
2. All construction personnel are responsible for observing water-related activities to detect the presence of Atlantic sturgeon and shortnose sturgeon and avoid them.

B. The activities identified as **B** above must follow all of the conditions under A, above, **AND** also must limit the maximum number of piles installed per day to no more than 10 piles per day.

C. The activities identified as **C** above must follow all of the conditions under A, above, **AND** also must limit the maximum number of piles installed per day to no more than 5 piles per day.

D. The activities identified as **D** above must follow all of the conditions under A and B, above, **AND** also must abide by one of the noise abatement measures below, as chosen by the applicant:

1. Bubble curtain: The bubble curtain design must adhere to the guidelines for unconfined and confined bubble curtains described in Appendix A.
2. Temporary noise attenuation pile (TNAP) also known as a pile isolation casing: The TNAP design must be constructed of a double-walled tubular casing (a casing within a larger casing), with at least a 5-in-wide area between the casings that is dewatered to create a hollow space or 5-in wide area between the casings completely filled with closed-cell foam or other noise dampening material between the walls. The TNAP must be long enough to be seated firmly on the sea bottom, fit over the pile being driven, and extend at least 3 ft above the surface of the water.
3. Ramp up* method (i.e., pile driving starts at a very low force and gradually builds up to full force).*
4. "Dry firing" method (i.e., operating the pile hammer by dropping the hammer with no compression).*
5. "Soft start" method (i.e., noise from hammers is initiated for 15 seconds, followed by a 1-minute waiting period – this sequence is repeated multiple times).*

*These procedures will be used for a minimum of 15 minutes prior to full-force pile driving. Any break in pile driving hammer usage for greater than one (1) hour will require an additional use of ramp up, dry firing, or soft start measure for at least 15 minutes before proceeding.

Special Provision 107.23H

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DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

SPECIAL PROVISION Ware & Pierce Counties P.I. No. 0013605

Section 107— Legal Regulations and Responsibility to the Public

Add the following to Subsection 107.23:

H. Protection of Ecological Resources

The following conditions are intended as a minimum to protect these species and their habitat during any activities that are in close proximity to the known location(s) of these species.

1. All Project personnel shall be advised about the potential presence and appearance of state/federal protected eastern indigo snake (*Drymarchon couperi*), shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), spotted turtle (*Clemmys guttata*), and round tailed muskrat (*Neofiber alleni*). Suitable habitat is present for eastern indigo snake within Wetland (WL) 4, WL 5, and WL 7; for sturgeon within the Satilla River (Perennial Stream [PS] 6); and for spotted turtle and round-tailed muskrat within WL 2 and WL 4. Pictures and habitat information shall be posted in a conspicuous location in the Project field office until such time that Project construction activities have been completed and time charges have stopped. In addition, the Contractor shall be responsible for maintaining one set of pictures and habitat information on the Project site that is easily accessible at all times. If a Project field office is not present, a copy of the pictures and habitat information shall be supplied to the Project personnel to be kept on the Project during construction activities. All personnel shall be advised that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting of the above species in knowing violation of the Endangered Species Act of 1973 and the Georgia Endangered Wildlife Act of 1973.
2. Each day, prior to the commencement of construction, maintenance, and/or demolition activities, the Contractor shall perform a thorough inspection of all worksite equipment. If an eastern indigo snake is sighted within worksite equipment and/or within 100 feet of equipment, all activity except for traffic control and erosion control shall not begin or shall cease within a 100-yard radius of the sighting until the eastern indigo snake has moved outside of that area of its own volition. The eastern indigo snake shall not be touched, moved, or harassed.
3. Any sighting of the eastern indigo snake shall immediately be reported by the Contractor to the Engineer who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services (GDOT OES), via the Ecology Submittals Inbox (Ecology_Submittals@dot.ga.gov). The State Environmental Administrator in turn will notify the U.S. Fish and Wildlife Service (USFWS), Georgia Department of Natural Resources Wildlife Resources Division (GDNR), and the lead Federal Agency.

The following conditions apply to all work within the Satilla River (PS 6)

4. If at any time, construction materials, waste, litter, debris, tools, or other materials accidentally fall into the Satilla River (PS 6), other than demolition debris from blasting activities conducted during the allowed periods for blasting (see #6 below), the Engineer shall be immediately notified, who in turn shall notify the State Environmental Administrator, GDOT OES at (404) 631-1100. With the exception of necessary traffic control and erosion control activities, all activity shall cease pending consultation by the Department with National Oceanic Atmospheric Administration Fisheries (NOAA) and the lead Federal Agency.
5. If a dead sturgeon is observed on the Project, the carcass shall be secured to an object to prevent it from being swept away by water currents, if practicable. If the carcass is unable to be secured, photographs of the carcass shall be collected. The Contractor shall report the findings immediately to the Engineer who in turn shall notify the State Environmental Administrator, GDOT OES at (404) 631-1100, who in turn shall notify NOAA and the

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Lead Federal Agency. Dead sturgeon should also be reported to NOAA at (844) 788-7491 or via email (nmfs.ser.sturgeonnetwork@noaa.gov).

6. Blasting shall not take place during the following restricted periods: January 16 through April 15 and August 1 through December 1. Outside of these restricted periods, blasting may occur provided that:
 - a. Prior to any blasting, the Contractor shall submit a detailed blast plan, including a wildlife watch plan (see #6b below), to NOAA via email (nmfs.ser.esa.consultations@noaa.gov). NOAA shall have five (5) business days to review the blast plan and provide comments to the Contractor. The Contractor shall then have five (5) business days to provide a revised blast plan to NOAA, after which NOAA shall have five (5) business days to provide final approval of the blast plan. Blasting will not proceed until NOAA's approval has been obtained. A pre-blast meeting shall be held to discuss all requirements and safety procedures. Participants of the pre-blast meeting shall include the Contractor, the blasting contractor, monitoring personnel per wildlife watch plan, GDOT personnel, and applicable state and federal agencies at their discretion including NOAA, GDNR, FHWA, and the U.S. Army Corps of Engineers.
 - b. The Contractor shall hire qualified personnel who in turn will develop a wildlife watch plan and conduct associated monitoring activities. The monitoring team's lead shall hold a current Section 10 permit for capturing shortnose sturgeon and Atlantic sturgeon for scientific or research purposes. The wildlife watch plan shall include pre-blast and post-blast monitoring of the Danger Zone for sturgeon.
 - c. The Contractor shall notify the Engineer fourteen (14) days prior to the proposed blast date.
 - d. Only confined blasts with stemmed charges will be used; blast mats will be employed to contain "fly rock".
 - e. Time delays that turn the overall blast into a series of lesser-charged explosions will be used; the minimum delay between individual charges will be at least 9 milliseconds to minimize hydroacoustic impacts to ESA-listed species.
 - f. The maximum sized charge will be 5 lbs.
 - g. A Danger Zone around the blast area will be determined based on the maximum explosive weight per delay. A buffer zone beyond the zone of influence will also be used (as a "heads-up" zone).
7. The Contractor shall conduct a pre-construction and post-construction survey of the channel bed and substrate to ensure the maintenance of the channel bed to pre-construction condition. Any debris resulting from the demolition of the existing bridge shall be removed from the Satilla River (PS 6) prior to the start of the next restricted period (i.e., prior to January 16 or August 1).
8. The Project shall not result in noise excess of the established thresholds for physical injury or behavioral modification (single strike and cumulative exposure) for sturgeon listed in Table 2 (i.e., Impact Hammer Sound Source Levels and Impact Radius Distances) and Table 3 (i.e., Vibratory Hammer Sound Source Levels and Impact Radius Distances). The Contractor will ensure all pile installation activities do not exceed these thresholds and may accomplish this by using relative best management practices and installing piles utilizing activities labeled "A, B, C, and D" in Table 1 (i.e., Requirements for In-Water Noise from Pile and Sheet Pile Installation) to avoid and minimize hydroacoustic impacts.
9. During the restricted periods (i.e., January 16 through April 15 and August 1 through December 1), the installation and removal of piles within the Satilla River (PS 6) is limited to those activities labeled "A" in Table 1 unless performed within dewatered cofferdams.
10. During the restricted periods (i.e., January 16 through April 15 and August 1 through December 1), construction and demolition activities may take place above the water surface of the Satilla River (PS 6) from temporary work platforms (aka work bridges). During the restricted periods, construction and demolition activities may take place below the water surface of the Satilla River (PS 6) only within dewatered cofferdams.
11. All in-water work in the Satilla River (PS 6) shall be restricted to the daytime only. In addition, if a sturgeon is observed within 50 feet of active in-water work, in-water work shall cease. All construction personnel are responsible for observing water-related activities to detect the presence of sturgeon and avoid them. The Contractor shall resume in-water work only once the sturgeon has not been observed within 50 feet of the in-water work area for at least 30 minutes.
12. Extreme care shall be taken in lowering equipment or materials, including, but not limited to piles, sheet piles, casings for drilled shaft construction, spuds, pile templates, etc., below the water surface and into the riverbed,



Special Provision 107.23H, cont.

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- taking precaution not the harm sturgeon that may have entered the construction area undetected. The maximum speed at which these items can be lowered shall be 10 feet per minute.
13. No equipment or construction materials of any type shall be allowed to fall or be placed in the river during the restricted periods (i.e., January 16 through April 15 and August 1 through December 1) except for construction and/or demolition activities expressly allowed in this special provision.
 14. The power (or fuel setting) of the hammer shall be reduced to the minimum energy level required as determined by the operator to drive the piles, thus reducing the amount of noise produced in the aquatic environment.
 15. Temporary dewatered cofferdams and pile placement for temporary work platforms (aka work bridges) in the Satilla River (PS 6) are limited to no more than 33% of the width of the river (combined or continuous width of piles/sheet piles may not exceed 33%).
 16. Water jetting will be avoided in areas with fine sediments to reduce turbidity plumes and the release of nutrients and contaminants. If jetting is necessary, silt curtains will be used.
 17. All holes left by removed piles will be filled with clean, native sediments.
 18. The use of barges is prohibited due to the shallow depth and narrow width of the Satilla River (PS 6).
 19. All over-water structures will incorporate measures to increase ambient light transmission and reduce shading. Such measures include, but are not limited to, maximizing the height of the structure and minimizing the width of the structure, minimizing the number of in-stream pilings/piers, and using grated decking material. The optimal height-width (HW) ratio of newly constructed (new or replacement) bridges, piers, multi-use paths, or docks is 0.7 or greater. This ratio is also recommended for temporary work structures such as trestle systems/work bridges.
 20. Silt/turbidity curtains will extend only waterward into depths no greater than 1.1 meters (3.6 ft.) in main river channels; curtains will not impede/obstruct movement of sturgeon.
 21. Turbidity curtains and other in-water equipment shall be placed in a manner that does not entrap species within the construction area or block access for them to navigate around the construction area.
 22. Entanglement: all turbidity curtains and other in-water equipment shall be properly secured with materials that reduce the risk of entanglement of marine species (described below). Turbidity curtains likewise shall be made of materials that reduce the risk of entanglement of marine species.
 23. In-water lines (rope, chain, and cable, including the lines to secure turbidity curtains) shall be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, shall be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line shall be allowed in the water.

The following conditions apply to temporary work platforms (aka work bridges) and dewatered cofferdams within the Satilla River (PS 6):

24. Temporary work platforms and dewatered cofferdams will be installed/constructed according to Table 1.
25. Temporary structures within the Satilla River (PS 6) are limited to work platforms and dewatered cofferdams, and the total combined footprint of temporary platform pilings and cofferdams within the Satilla River (PS 6) at any given time must be 0.5 acre or less. Of this maximum 0.5-acre combined footprint, the maximum footprints for temporary work platform pilings and cofferdams are as follows:
 - a. Temporary work platforms are limited to those with total piling footprints equaling less than 500 ft² (0.011 acre).
 - b. Individual dewatered cofferdams are limited to:
 - (1) 750 ft² (0.017 acre) or less in size and a maximum of 2 dewatered cofferdams (not to exceed dimensions of 48 ft long or 18 ft wide) may be installed/in place at any given time; a maximum of 8 dewatered cofferdams (regardless of size) may be installed for a single, complete Project stage (Stage 1 or Stage 2).

OR

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- (2) 1500 ft² (0.034 ac) or less in size and a maximum of 1 dewatered cofferdam (regardless of size) may be installed/in place at any given time; a maximum of 4 dewatered cofferdams (regardless of size) may be installed for a single, complete Project stage (Stage 1 or Stage 2).
 26. The navigability of the waterway will remain uninterrupted and freely open for species movement in/out of the area.
 27. All temporary structures placed within the Satilla River (PS 6) shall be removed in their entirety as soon as possible after the work requiring the structures is complete. The affected areas shall be returned to pre-construction conditions/elevations.
 28. Appropriate measures will be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work and discharges, including dewatered cofferdams, are necessary for construction activities.
- The following conditions apply to work within the entirety of the Project limits:**
29. Temporary erosion, turbidity, and sediment control devices are required on all Project related areas, including off-site use areas, staging areas, and in/around temporary access roads and other areas. Installation of silt/turbidity curtains shall be shore-parallel (anchored on the shore at both ends) and shall not exceed 550 feet in length; curtains must be securely anchored and shall not impede or obstruct movement of listed species. Silt/turbidity curtains shall not extend more than 10 feet waterward from the shoreline.
 30. Temporary erosion, turbidity, and sediment control devices are required to be installed prior to any clearing and grubbing activities, to the maximum extent practicable. In areas where clearing and grubbing is necessary to provide access and area for the installation of temporary erosion, turbidity, and sediment control devices, those devices will be installed immediately following the minimal amount of clearing and grubbing that is necessary.
 31. Surface water runoff from undisturbed areas shall be diverted to prevent flow across disturbed areas. This may be accomplished through the use of permanent pipes, temporary pipes, or slope drains. The Contractor may propose alternate methods provided prior approval of the Engineer is obtained.
 32. Erodible stockpiled materials and excavation spoil should be placed at least 200 feet away from streams, wetlands, and open waters, if feasible. All disturbed soil located within 200 feet of a stream, wetland, or open water shall be mulched daily or covered with erosion control mats until work in such areas has been completed. If mulch is necessary, mulch with tackifiers or soil stabilizers that are anionic and non-oil based (e.g., granular PAM) shall be used to reduce turbidity and increase longevity. Erosion and sediment control devices (e.g., compost filter socks or silt fence) shall be installed around erodible stockpiles and excavation spoils within 200 feet of a stream, wetland, or open water.
 33. For erosion control devices within 200 feet of WL 2, WL 4, WL 5, the Satilla River (PS 6), or WL 7, when one half of the capacity of any device has been reached, the device shall be immediately cleaned out.
 34. The Engineer shall be notified immediately in the event an erosion control failure allows discharge of sediment into the Satilla River (PS 6). The Engineer in turn shall notify the State Environmental Administrator, GDOT OES at (404) 631-1100. With the exception of traffic control and erosion control, all activity shall cease pending consultation by the Department with the USFWS, NOAA, and the lead Federal agency.
 35. No uncured concrete or water used to facilitate curing should be discharged directly into WL 4 or the Satilla River (PS 6); curing water should be pumped into filter bags (i.e., "dirt bags") or detention basins before dewatered cofferdams are dismantled. These measures will help protect water quality in the vicinity of the bridge crossing as well as downstream.
 36. Equipment staging areas and equipment maintenance areas (particularly for oil changes) shall be located at least 250 feet from any water body and be outside of active stream channels and away from ditches or channels that enter flowing waters. Designated refueling sites in upland areas at least 250 feet away from receiving waters are preferred. Refueling of boats and heavy machinery such as cranes positioned atop temporary work platforms (aka work bridges) over the water will take all relevant precautions to avoid spills into waterbodies. To the maximum extent practicable, concrete washout pits/pans/pools will be located at least 500 feet from any water body and be outside of active stream channels, and away from ditches or channels that enter flowing waters. Designated sites in upland areas at least 500 feet away from receiving waters are preferred. A Spill Plan will be created, and the plan and all materials necessary to implement the plan shall be accessible on site.



Special Provision 107.23H, cont...

These SP 107.23H conditions include legal regulations and responsibilities to the public.

Major component includes blasting plan and meeting with NMFS prior to blasting (i.e., to work out the details with the contractor).

Work can occur in dewatered cofferdams or work bridges as long as constructed outside of the restrictive periods.

Specification of rigging used to avoid ensnaring sturgeon (i.e., taut, rigid lines).

Setting slow speed for lowering equipment/materials into the water.

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37. All equipment will be checked daily for leaks; at a minimum, one (1) spill kit shall be readily available at all times.
38. Equipment will not be used until leaks, or other maintenance issues, are repaired or new equipment is brought in for replacement.
39. The Engineer shall be immediately notified of any circumstances that may cause or allow pollutants from the worksite to enter WL 2, WL 4, WL 5, the Satilla River (PS 6), or WL 7 or damage the habitat; the Contractor shall modify the erosion control plan only as directed by the Engineer.
40. Pesticides or herbicides shall not be used within 200 feet of WL 2, WL 4, WL 5, the Satilla River (PS 6), or WL 7. Fertilizer shall be used only while grassing graded areas to achieve site stabilization. Fertilizers shall be applied in accordance with product labeling instructions to ensure that excess fertilizer does not run-off into nearby wetlands.
41. Omit the application of lime and fertilizer within 200 feet of the Satilla River (PS 6).
42. Heavy equipment such as excavators, cranes, and bulldozers shall not be located in the water to conduct work, unless contained within a dewatered cofferdam; buckets or extensions may be reached into the water from atop the bank/platform/trestle to conduct work.
43. Drilling equipment, such as low ground bearing pressure tracked rigs, may be used in-water, but not in the main channel of streams, creeks, or rivers, and must be in-water for the least amount of time necessary to complete work.
44. A stable work area shall be provided that does not cause degradation or destabilization to the stream banks of the Satilla River (PS 6). If a temporary work platform (aka work bridge), stone ramp, or haul road is used, a stable work area shall be provided to allow access to and from these structures.
45. In the event any incident occurs that causes injury to the above species along the Project corridor, the Contractor shall report the incident immediately to the Engineer who in turn will notify the State Environmental Administrator, GDOT OES at (404) 631-1100. With the exception of traffic control and erosion control, all activity shall cease pending consultation by the Department with the USFWS, NOAA, GDNr, and the lead Federal agency.
46. The Contractor shall keep a log detailing any incidents that cause harm or injury to the above species on or adjacent to the Project until such time that Project construction has been completed and time charges have stopped. Following Project completion, the log and a report summarizing any incidents that caused harm to these species shall be submitted by the Contractor to the Engineer, and via email to the GDOT Office of Environmental Services (ecology_submittals@dot.ga.gov) with the PI number in the subject line of the email. GDOT in turn will provide copies of the report to the USFWS, NOAA, GDNr and the lead Federal Agency.
47. All costs pertaining to any requirement contained herein shall be included in the overall bid submitted unless such requirement is designated as a separate Pay Item in the Proposal.

How did we get here?

Starts with avoidance and minimization meetings between design team and ecology and cultural teams.

Includes input from the constructability team at GDOT from bridge design and district construction representatives.

Other environmental coordination with GDOT and NMFS.

Includes multiple reviews of plans and SP conditions to determine feasibility of construction with restrictions.

Preliminary and Final Field Plan Reviews.

GDOT strives to minimize contractor limitations while also meeting agency requirements.



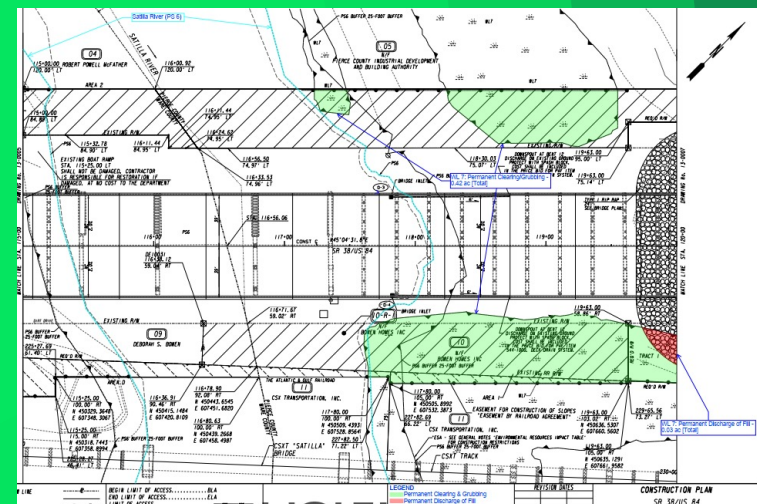
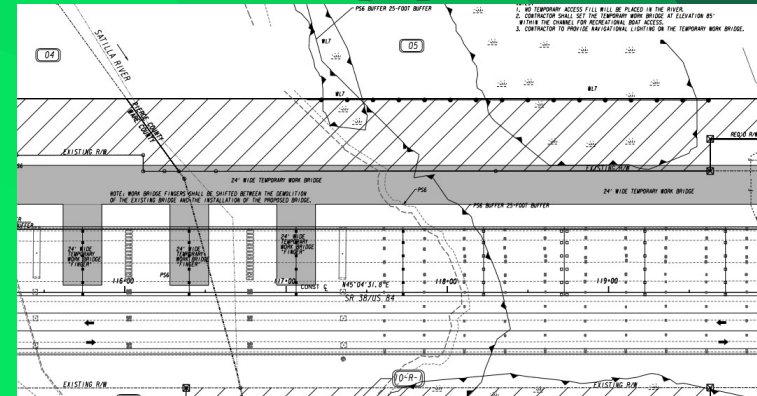
Permitting

USACE Regional Permit 32 for 470 linear feet of permanent fill impacts to intermittent streams and 2.07 acres of permanent clearing and grubbing and fill impacts to wetlands. Note, no Section 404 impacts to the Satilla River.

May Affect, Not Likely to Adversely Affect (MANLAA) determination from NMFS for impacts to sturgeon. Informal Section 7 consultation originally completed on March 23, 2021 (with preliminary plans) and re-initiation completed on May 4, 2023 (with final plans).

Notice to Proceed issued April 2024 with scheduled completion date of August 2027.

20 series Staging Plans



13 series Construction Plans

Tools to Assist with Coordination

GDOT NMFS Coordination Tools

Application Introduction

Welcome to the Georgia Department of Transportation (GDOT) National Marine Fisheries Service (NMFS) consultation tools.

The purpose of these tools is to assist ecologists with identifying which NMFS resources may be of concern and identify best management practices for potential implementation on GDOT projects, regardless of funding source.

It is imperative for ecologists to coordinate with the assigned GDOT ecologist, project manager, designers, and any subject matter expert (SME) needed while working through these NMFS Programmatic Agreements. This may include: roadway SME, structural SME, erosion and control SME, bridge hydraulics SME, construction SME, geotech SME, and any other SME contributing to the project.

Open Project

Start New Project >

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GDOT developed an application to assist with populating conditions for a project's SP 107.23H when NMFS species are involved and to ensure compliance with NMFS Programmatic Agreements.

Blasting			
A8.1	Only confined blasts with stemmed charges will be used; blast mats will be employed to contain "fly rock."	SP 107.23H	
A8.2	Time delays that turn the overall blast into a series of lesser-charged explosions will be used; the minimum delay between individual charges will be at least 9 milliseconds to minimize hydroacoustic impacts to ESA-listed species.	SP 107.23H	
A8.3	The maximum sized charge will be 5 lbs.	SP 107.23H	
A8.4	Danger Zone around the blast area will be determined based on the maximum explosive weight per delay. A buffer zone beyond the zone of influence will also be used (as a "heads-up" zone).	SP 107.23H	
A8.5	Pre-blast meetings will be held to discuss all requirements, concerns, and procedures prior to the commencement of blasting activities. Blasting plans will be submitted to NMFS.	SP 107.23H	
A8.6	Blasting is not authorized if ESA-listed species are present.	SP 107.23H	
A8.6.1	Blasting will only occur during times of the year when species are absent from the project site; or:	SP 107.23H	

The application uses the project location and answers to a series of questions to determine which conditions may be necessary and whether they may be utilized on GDOT projects.

Lessons Learned/Keys to Success

Start coordination early!

Utilize existing guidance materials.

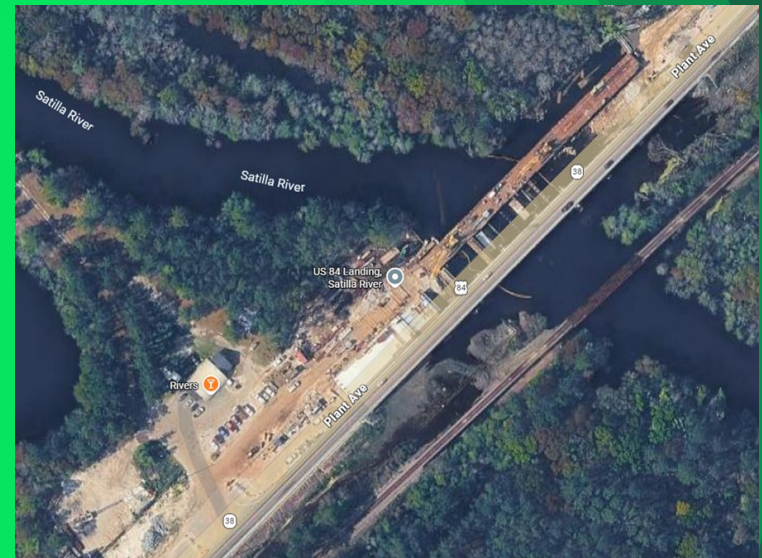
Engage available resources/people.

Constructability teams should push back if expectations are overly onerous.

Be realistic and use common sense.

More restrictions can often extend the time of construction.

Leverage beneficial impacts.



3/25/25

Construction Progress Updates

No blasting was needed.

No sturgeon have been spotted.



Stage One Demolition

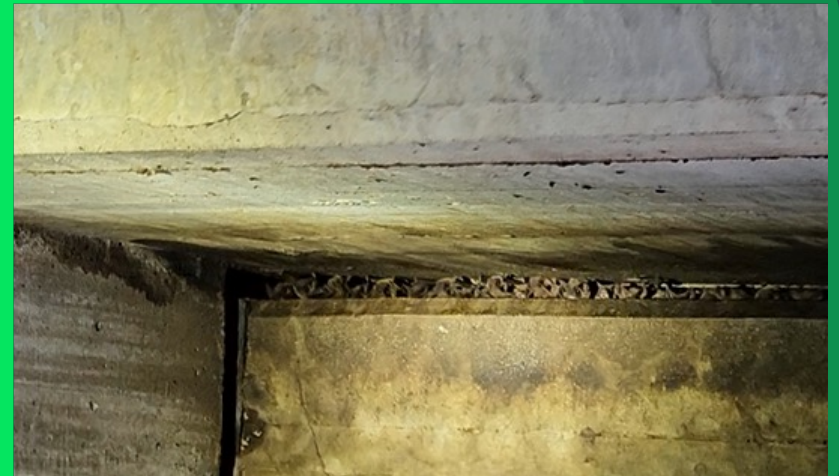
Construction Progress Updates, cont.

Overall, project is slightly ahead of schedule with completion date expected prior to August 2027 despite.....



Construction Progress Updates, cont.

A large bat roosting colony was identified during construction.



What we do

We deliver integrated environmental and sustainability solutions that help clients plan, design, permit, and operate resilient, low-carbon infrastructure, providing environmental advisory services throughout your project lifecycle. We partner with public and private owners to protect ecosystems through avoidance and minimization, comply with regulations, reduce whole-life carbon, and create social value leveraging close collaboration with our in-house engineering team. This approach advances preferred, sustainable outcomes across every project and decision.



Siting, Planning and
Advisory



Regulatory Support,
Permitting and
Compliance



Natural & Cultural
Resources



Historic & Cultural
Documentation and
Consulting



Mitigation and
Monitoring



GIS and Data
Development and
Analysis



Project and Program
Management



Stakeholder Engagement
& Communication



Sustainability and
Innovation



Resiliency



Noise, Traffic and other
specialized studies



Remedial Solutions

Environmental Services

Air Quality Services

Stormwater management and resiliency

Resiliency and Floodplain Management

Coastal Engineering

Clean Water Act Permitting (Sections 401, 404, 408)

Construction monitoring

Cultural Resources

- Archaeological and Historic
- Section 106 compliance
- Native American coordination

Due Diligence (Phase I and II Environmental Site Assessments)

ENVISION and sustainability studies

Endangered and other protected species

Noise impact assessment

Public outreach

Remediation and Radioactive Management – AtkinsRéalis Nuclear

Water Quality

Waters of the US delineations and compensatory mitigation

Visual impact



thank you

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