

**SAVANNAH DISTRICT
2017 NATIONWIDE PERMIT REGIONAL CONDITIONS**

A. The Georgia Department of Natural Resources (Georgia DNR) issued a conditional Water Quality Certification and conditional concurrence with the federal consistency determination under the Coastal Zone Management Act for reauthorization of the use of Nationwide Permits (NWPs) to authorize impacts to waters of the U.S. in Georgia. **The conditions include a requirement that Georgia DNR be notified prior to beginning work on any and all NWP authorized projects.** Specifically, Georgia DNR requirements and notification procedures are set forth in Appendix A, which states that for uses of NWPs requiring submission of a Pre-Construction Notification (PCN) to the Savannah District prior to commencing work in waters of the U.S., a copy of the PCN with project plans must also be submitted to the Georgia DNR, Environmental Protection Division (Georgia EPD) and, where applicable, to the Georgia DNR, Coastal Resources Division (Georgia CRD). For NWP authorized projects that do not require submission of a PCN to the Savannah District, a complete Georgia DNR Notification Form that is in Appendix A must be submitted to Georgia EPD and, where applicable, to Georgia CRD, prior to commencing work. Refer to Appendix A for detailed instructions.

B. Pre-Construction Notification: (NOTE: PCN requirements below are specific to Georgia and in addition to those required under the Nationwide Permit Program, available at <http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/>).

1. A PCN is required for all uses of NWPs 11, 14, 15, 16, 23, 27, 32, 35, 36, 37, 43, and 48.

2. A PCN is required for all uses of NWP 13 in perennial streams. (NOTE: Unless a specific type of stream is identified in a RC, the term “stream” includes ephemeral, intermittent and perennial streams.)

3. A PCN is required for use of NWPs 3(a), 3(c), 5, 6, 13, 19, 33, and 41 for impacts to 0.1 acre or more of wetlands/open water and/or 100 linear feet or more of stream.

4. A PCN is required for all uses of NWPs within 2,000 feet of a National Wildlife Refuge, any National Park Service property, a National Estuarine Research Reserve, a Georgia State Park, or an approved mitigation bank.

C. The Following Information Must be Submitted for a PCN to be Considered Complete: (NOTE: The 45-day NWP process will not begin until a complete PCN is received by the Savannah District)

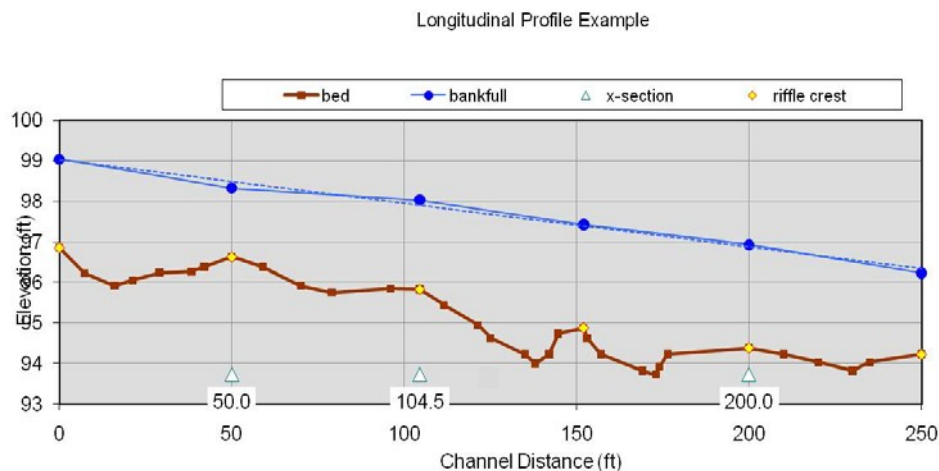
1. A complete PCN (Appendix B).

2. All information required at NWP General Condition (GC) 32(b), "Contents of a Pre- Construction Notification."

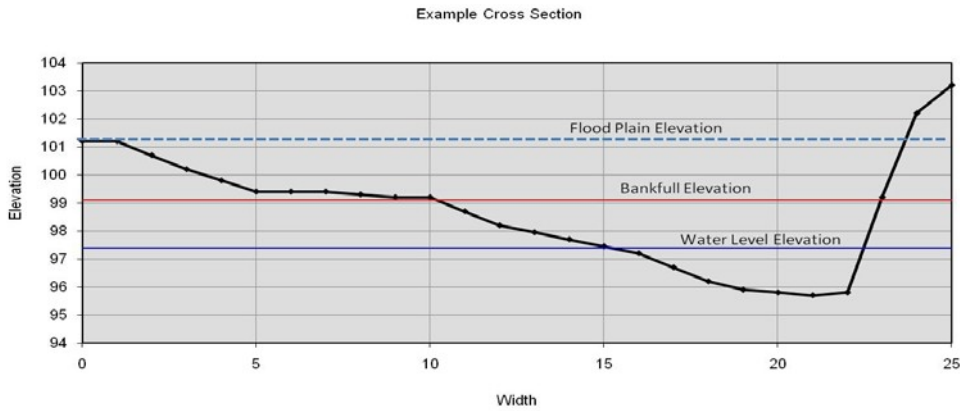
3. The U.S. Fish and Wildlife Service "Initial Project Scoping (IPaC)" printout identifying federally-listed threatened and endangered species that may occur in the vicinity of the project site. <http://ecos.fws.gov/ipac/>

4. All PCNs for projects with a culverted crossing of a perennial stream shall provide the following information: (NOTE: See Section E below for additional culvert design information.)

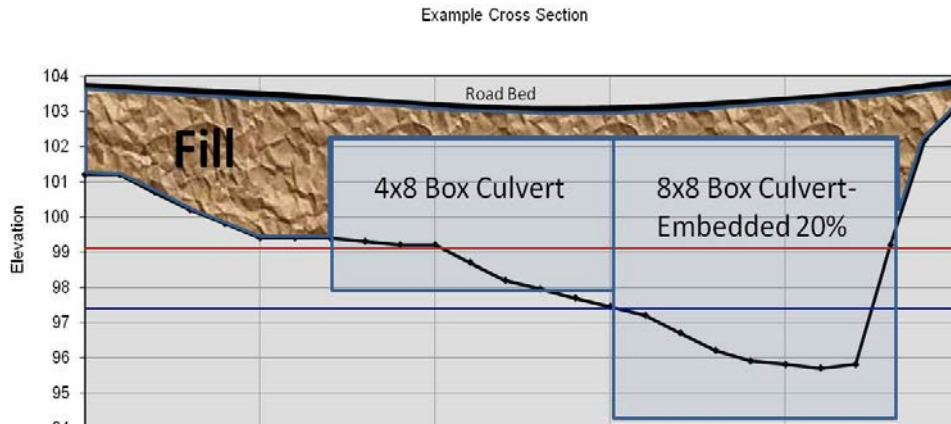
- a. Culvert type and size.
- b. Depth the culvert inlet and outlet culvert will be embedded in the stream bottom.
- c. Designed culvert slope along the stream channel.
- d. A profile of the stream bottom (longitudinal profile) beginning at least 50 feet upstream of the culvert inlet and continuing at least 50 feet downstream of the culvert outlet. Profile measurements shall begin at the head of a riffle and end at the head of a riffle. The change in elevation from head of riffle to head of riffle can be used for the designed slope.



e. One cross-sectional scale diagram of the stream channel and banks. For new culverts, the cross-section will be measured at the middle of the proposed culvert location. For culvert replacement or extensions, the cross-section will be measured approximately 100' upstream of the project site. The cross-sections shall depict the stream width and height at the current water elevation, bank-full elevation and flood-plain elevation. The X and Y axis on this diagram must be at the same scale.



f. A scale cross-sectional diagram showing proposed as-built conditions, including location of the culvert in the channel, channel bottom elevation, road surface and areas of cut and fill. This diagram shall represent the middle cross-section. The X and Y axis on this diagram must be at the same scale.



5. A PCN for a project that includes the construction of a stormwater detention/retention facility in waters of the U.S. must also include the following information:

- a. A clear statement of the basic (primary) purpose of the detention/retention facility.
- b. A description of the upland-based facility/system that will be utilized to pre-treat stormwater prior to discharge into the in-stream/wetland detention/retention facility.
- c. A detailed alternatives analysis pursuant to the Section 404(b)(1) Guidelines of the Clean Water Act. This analysis must demonstrate that all other available stormwater and sediment/erosion treatment controls will be implemented and that in-stream detention/retention is the only available practicable alternative that would meet the basic project purpose. This analysis shall also include all project site specific factors that may render other stormwater detention/retention measures impractical.

6. A PCN for a new utility line project or new linear transportation project must include the following information:

a. A map depicting all waters of the U.S. located in or directly adjacent to the right-of-way of the total linear project. (NOTE: The term total linear project is discussed in the NWP definition of “single and complete linear project.”)

b. A map depicting the location of each “single and complete linear project” and all other work occurring in waters of the U.S. along the right-of-way for the total linear project. This map shall clearly identify the type of work that would occur in waters of the U.S., including access roads and substations.

c. A description of all work and resulting losses of and impacts to waters of the U.S.

7. A PCN for use of NWPs 3(b), 16, 19 and 35 must include a “Tier I” evaluation, in accordance with the Inland Testing Manual. The “Tier I” evaluation must contain adequate information necessary to document whether there is “reason to believe” that the material to be dredged may be contaminated. If the Savannah District determines that “Tier II” testing is necessary, the PCN will not be considered complete until a “Tier II” testing report is submitted. The Inland Testing Manual is available at https://www.epa.gov/sites/production/files/2015-08/documents/inland_testing_manual_0.pdf

8. A PCN for use of NWP 43, for a new facility, must include a maintenance dredging plan.

9. The intent of the activity specific RCs listed below for culverts, utility lines, and roads is to ensure that NWP verifications result in minimal impacts to aquatic resources. In cases where a proposed project cannot be constructed as required by a RC, there may be an acceptable alternative construction technique that could be used to ensure impacts to aquatic resources remain minimal. In cases where use of an alternative technique is requested, the PCN must include the following information: (a) a detailed discussion of why the activity-specific RC cannot be met; and (b) adequate scientific or engineering information necessary to document that the proposed alternative construction technique would achieve equal or better aquatic resource impact avoidance as the RC. Based on information provided in the PCN, the Corps will determine whether or not the project would comply with the RC.

D. General Restrictions:

1. The use of proposed NWP 53 (Removal of Low Head Dams) is prohibited in the State of Georgia.

2. NWPs cannot be used to authorize a storm water detention/retention facility in a perennial stream. A Department of the Army standard permit application is required for these projects. NWPs cannot be used to authorize a storm water

detention/retention facility in a state designated trout stream or water. A Department of the Army standard permit application is required for these projects.

3. NWP's cannot be used to authorize projects that would impact compensatory mitigation sites or an approved compensatory mitigation bank, unless that project's purpose is to enhance the mitigation site or bank. A Department of the Army standard permit application is required for these projects.

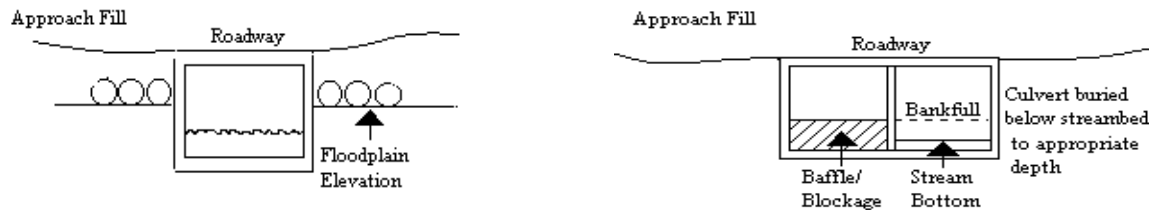
4. No work shall be conducted under any NWP that requires discharge of wet or otherwise uncured concrete below the ordinary high water mark, unless the concrete is contained within waterproof forms until the concrete cures.

5. Use of NWP's 12, 14, 23, 33, 43 and 44 is prohibited for any project in waters of the U.S. that support anadromous fish, or in those waters that previously supported such fish and where restoration of fish migrations and populations is possible. The established limits for these waters are listed in the attached Appendix C and include adjacent and tributary waters located within 1,000 feet of these identified waters. This prohibition does not apply to NWP 12 projects that would not involve a discharge of dredged or fill material or mechanized land clearing in waters (i.e. directional bore line installation and overhead utility crossings). A waiver from this condition will be considered on a case-by-case basis, in coordination with the National Marine Fisheries Service. A waiver may be granted when it is determined that the project would have minimal impact on anadromous fish or their restoration.

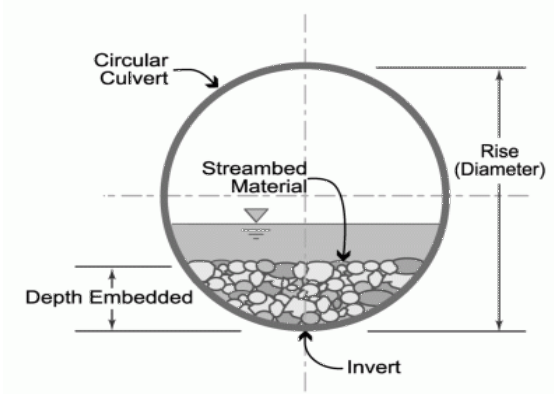
E. Culvert Restrictions for Perennial Streams:

1. The width of the base flow culvert(s) shall be approximately equal to the average channel width. Culvert(s) shall not permanently widen/constrict the channel or reduce/increase stream depth. Multiple pipe/culverts may not be used to receive base flows.

2. Bank-full flows shall be accommodated through maintenance of the existing bank-full cross-sectional area.



3. The upstream and downstream invert of culverts (except bottomless culverts) installed in perennial streams will be buried/embedded to a depth of 20% of the culvert height to allow natural substrate to colonize the structure's bottom and encourage fish movement.



4. Culvert slope shall be consistent with average stream segment slope, but shall not exceed 4 percent.

5. Culverts shall be of adequate size to accommodate flooding and sheet flow in a manner that does not cause flooding of associated uplands or disruption of hydrologic characteristics that support aquatic sites on either side of the culvert.

6. Where adjacent floodplain is available, flows exceeding bank-full shall be accommodated by installing an equalizer culvert at the floodplain elevation.

7. Unless specifically described in the PCN, use of undersized culvert to attain stormwater management or waste treatment is not authorized.

8. See Appendix D for additional culvert design information.

F. Utility Line Activity Regional Conditions:

1. For the purpose of calculating cumulative loss of waters of the U.S. that would result from the construction of access roads, pump-stations and substations associated with a total linear project authorized by a NWP, the geographic area of consideration is an individual “State of Georgia Hydrologic Map Cataloging Unit (8-Digit HUC).” A total linear project includes all individual single and complete crossings of Waters of the U.S. and associated access roads, pump-stations, and substations. A total linear project includes the main line located between the beginning and end of a proposed aerial or buried utility line project, as well as all lateral lines to be connected to the main line. Cumulative loss of waters of the U.S. includes all utility line access/maintenance roads associated with the total linear project within an 8-Digit HUC, and cannot exceed the loss of 10 acres of wetlands and/or 1500 linear feet of stream. For cumulative loss calculations, the acreage of stream loss is not included in the 10 acre wetland limit.

2. Wetland/stream crossings must be located and aligned to minimize the length of crossings, and/or to minimize impacts to wetlands/streams.

3. For buried utility lines subject to Federal Energy Regulatory Commission (FERC) standards, the right-of-way corridor (i.e., impact area) cannot exceed the width as required by FERC standards. For all other buried utility lines, the width of the right-of-way corridor (i.e., impact area) cannot exceed 50 feet in wetlands.

4. Construction of individual pump stations that are associated with utility lines are limited to 0.1 acre of wetland impact; substations cannot be constructed within the banks of a stream.

5. Excavated material that is temporarily side-cast in waters of the U.S. shall be returned to the trench or removed within 60 days, unless a 30-day extension is requested and approved by the Corps.

6. Anti-seep collars, or other structures designed to prevent under-draining, will be installed on all buried utility lines in wetlands. If no anti-seep/drain device(s) is proposed, the applicant must provide information documenting why such a device is not required to prevent wetland drainage.

7. Isolation methods will be used to install utility lines in perennial streams. Isolation methods shall be done in stages, so that downstream reaches are not dewatered. Pumped diversion shall not be used where there are fish passage concerns; before pumping water from the work area, fish shall be salvaged from the isolated area and returned safely to the downstream portion of the watercourse. The area where the pump discharges shall be lined with clean rock to prevent erosion and release of suspended sediments downstream. Streambanks shall be stabilized with geotextile fabric, at a minimum, before the isolation methods are removed.

G. Road Crossing Regional Conditions:

1. The cumulative loss of waters of the U.S. that would result from construction of the total linear road project in a "State of Georgia Hydrologic Map Cataloging Unit (8-Digit HUC) cannot exceed 10 acres of wetlands and/or 1,500 linear feet of stream. For interstate highways, state highways, county roads, urban and suburban roads, and other similar road projects, the total linear project includes all individual single and complete crossings of waters of the U.S. that are located between the beginning and end of the proposed road. For subdivisions, industrial parks and other similar developments, a total linear project includes all individual single and complete crossing of waters of the U.S. that are located within the development. For cumulative loss calculations, the acreage of stream loss is not included in the 10-acre wetland cumulative loss limit.

2. An individual road crossing cannot result in the loss of more than 300 linear feet of perennial stream.

3. An individual road crossing must begin on an existing natural high ground area (upland) and end on existing natural high ground.

4. Road-side ditches and medians associated with construction of an overall linear transportation project must be designed to prevent drainage of wetlands, and finished road elevations cannot be lower than surrounding wetlands.

H. Mitigation:

1. The Corps has discretion to determine the loss in aquatic function that would occur because of regulated activities authorized by NWP, and the type and amount of compensatory mitigation needed to offset this loss. A compensatory mitigation plan is required for NWP projects that result in an adverse impact to 0.1 acre or more of wetlands and/or 100 linear feet or more of non- tidal stream. For a total linear project, if the sum of impacts from all individual single and complete projects meets or exceeds 0.1 acre of wetland and/or 100 linear feet of stream, mitigation is required for all impacts that would result from construction of the total linear project.

2. The preferred form of compensatory mitigation for NWP authorized projects is the purchase of stream and/or wetland credits from a Corps' approved commercial mitigation bank. The mitigation bank(s) proposed for a NWP authorized project must comply with Savannah District's most recent credit purchase guidance. Credits purchased prior to Corps approval may not be accepted.

3. The amount and type of compensatory mitigation proposed for NWP authorized projects must comply with General Condition 23 (Mitigation) of the NWP Program; Savannah District's most recent guidance on compensatory mitigation requirements; and the 2008 Final Compensatory Mitigation Rule (33 CFR Parts 325 and 332).

4. All impacts to wetlands must be calculated and reported in acres. Stream impacts must be calculated separately and reported in both linear feet and acres.

I. NWP Specific Regional Conditions:

1. NWP 4. Use of mechanized harvesting devices is prohibited.

2. NWP 7. Associated intake structures must employ the best practicable means to minimize entrainment or impingement of fish and other aquatic life, and the inflow velocity of intake structures is limited to not more than 0.5 foot per second.

3. NWP 37. All projects authorized under NWP 37 must be under construction or under contract for construction within 2 year of authorization. This NWP cannot be used for projects that involve removal of debris other than in the immediate up and downstream reaches (300 feet) adjacent to bridges and other stream crossings; bank clearing which involves complete removal of trees and/or removal of logs/dead trees which are buried in the bank; channel deepening beyond original bottom; and/or levee construction.

4. NWP 41.

a. Use of NWP 41 is prohibited for projects that would cause or perpetuate drainage of wetlands or other waters of the U.S., and/or result in the removal or modification of riparian vegetation that provides shade, bank stabilization, nutrients, cover, or other features that are beneficial to fish and wildlife.

b. This NWP does not authorize work in natural streams that have been subjected to some previous channelization.

c. Excavated materials shall be removed from the site. However, excavated materials may be placed on existing adjacent berms or on other previously used disposal sites, provided no additional wetlands are impacted and the material is stabilized to prevent erosion.

5. NWP 43. A stormwater management facility cannot result in the loss of more than 1/3 acre of wetlands. Cumulative project-related wetland impacts, including permanent, temporary, and/or secondary impacts (e.g., temporary storm water retention) are limited to 1 acre of wetlands. Impacts that result in the conversion of forested wetlands to a scrub shrub, emergent or some other shallow water wetland community are not considered temporary and/or secondary.

6. NWP 45. All work verified under this NWP must be completed within two years of the storm, flood, fire or other discrete event. If after two years from the discrete event, the authorized activities have not been completed, the permittee must submit a PCN requesting authorization under a new NWP. This NWP only authorizes activities within two years of the discrete event.

7. NWP 54.

a. The primary purpose for the living shoreline must be for erosion control on adjacent uplands.

b. Groins, submerged breakwaters, and sills are not authorized in tidal waters.

c. Structures and fill areas in tidal waters cannot extend more than 5 feet past mean low water (MLW).

d. Oyster shell must be cured (air dried) a minimum of 6 months and be free from oyster flesh.

e. Signs indicating that the project area is closed to shellfish harvesting must be posted in accordance with Georgia DNR/CRD specifications as described in Appendix E.

Appendices:

- A. Georgia DNR Requirements and Notification Procedures
- B. Pre-Construction Notification
- C. Anadromous Fish Waters in Georgia
- D. USFWS Culvert Design Information
- E. Georgia DNR Shellfish Harvest Prohibited Area Sign Specifications

Useful Websites:

<http://npgallery.nps.gov/nrhp>

<http://ecos.fws.gov/ipac/>

<http://www.habitat.noaa.gov/protection/efh/>

www.gaswcc.org

www.fema.gov/

<http://crd.dnr.state.ga.us/>

<http://cfpub.epa.gov/surf/locate/index.cfm>

www.dnr.state.ga.us

<http://gcmap.maps.arcgis.com/apps/webappviewer/index.html?id=56c7508c53ad4839852edd3f4dbb47db>

<http://gcmap.maps.arcgis.com/apps/webappviewer/index.html?id=56c7508c53ad4839852edd3f4dbb47db>

<http://gcmap.maps.arcgis.com/apps/webappviewer/index.html?id=56c7508c53ad4839852edd3f4dbb47db>

**Georgia Department of Natural Resources
Requirements and Notification Procedures
Nationwide Permit Projects**

State of Georgia Buffer Requirements. Nationwide Permit (NWP) authorized projects may require a variance from the Georgia Environmental Protection Division (EPD) prior to conducting land disturbing activities or placement of materials within the State-mandated buffer (O.C.G.A. 12-7-6(b)(15) of “The Erosion and Sedimentation Act of 1975”). Please visit Georgia EPD’s website (<http://www.epd.georgia.gov>), or contact Georgia EPD at (404) 675-6240 or (912) 264-7284 (Coastal District), for further guidance on buffer determinations and variances. If Georgia EPD or the appropriate Local Issuing Authority (LIA) has determined that a buffer variance is required for the NWP project, provide the Georgia EPD assigned buffer variance application file number with your notification to Georgia EPD. If Georgia EPD or the appropriate LIA has determined that a buffer variance is not required for the NWP project, submit the determination letter or record of correspondence received from the Georgia EPD or LIA with your notification to Georgia EPD.

Notification Requirements. For uses of NWPs requiring submission of a Pre-Construction Notification (PCN) to the Savannah District prior to commencing work in waters of the United States (US), a copy of the PCN with project plans must also be submitted to the Georgia Department of Natural Resources (DNR), Environmental Protection Division (EPD) and, where applicable, to the Georgia DNR, Coastal Resources Division (CRD). For NWP authorized projects that do not require submission of a PCN to the Savannah District, a completed copy of the attached “Georgia Department of Natural Resources Notification Form” must be submitted to Georgia EPD and, where applicable, to Georgia CRD, prior to commencing work.

Georgia DNR, Environmental Protection Division. For projects located in Georgia EPD’s 24-County Coastal District (Appling, Atkinson, Bacon, Brantley, Bryan, Bulloch, Camden, Candler, Charlton, Chatham, Clinch, Coffee, Effingham, Evans, Glynn, Jeff Davis, Liberty, Long, McIntosh, Pierce, Tattnall, Toombs, Ware and Wayne County), send PCNs and project plans or Notification Forms to: Georgia DNR Environmental Protection Division, Coastal District, Attention: Wetland Management Unit, 400 Commerce Center Drive, Brunswick, GA 31523-8251, Phone: (912) 264-7284, Fax: (912) 262-3160.

For projects in all other counties, send PCNs and project plans or Notification Forms to: Georgia DNR Environmental Protection Division, Attention: Wetland Management Unit 7 Martin Luther King, Jr. Drive, Suite 450, Atlanta, Georgia 30334, Phone: (404) 651-8459.

Georgia DNR, Coastal Resources Division. For projects located in the 11-County Coastal Area (Bryan, Brantley, Camden, Charlton, Chatham, Effingham, Glynn, Liberty, Long, McIntosh and Wayne Counties), send PCNs and project plans or Notification Forms to: Georgia DNR Coastal Resources Division, Attention: Habitat Management Program Manager, One Conservation Way, Brunswick, Georgia 31520-8686, Phone: (912) 264-7218, Fax: (912) 262-3131.

**GEORGIA DEPARTMENT OF NATURAL RESOURCES NOTIFICATION FORM
FOR USE OF NATIONWIDE PERMIT(S) IN GEORGIA THAT DO NOT REQUIRE
PRE-CONSTRUCTION NOTIFICATION TO THE US ARMY CORPS OF ENGINEERS**

This form must be completed and mailed, faxed or hand-delivered to the Georgia Department of Natural Resources ("GADNR") Environmental Protection Division prior to starting construction under a Nationwide Permit. For projects occurring in Bryan, Brantley, Camden, Charlton, Chatham, Effingham, Glynn, Liberty, Long, McIntosh or Wayne counties, this form must also be mailed, faxed or hand-delivered to the GADNR Coastal Resources Division prior to starting construction under a Nationwide Permit. The Coastal Resources Division will contact you within 10 business days to inform you whether coastal permits or permissions are required. Issuance of any required coastal permits for work in tidally-influenced marshes or water bottoms will take longer, so you are urged to submit this form early in the planning stages of your project. Do not begin work until you receive confirmation that no coastal permit is required or you are issued a coastal permit.

USE OF NATIONWIDE PERMIT NUMBER(s): _____

APPLICANT/OWNER _____ Date _____

Phone (hm/bus) _____ FAX _____ E-Mail _____

Address _____ City _____ State _____ Zip Code _____

AGENT/CONSULTANT _____

Phone (hm/bus) _____ FAX _____ E-Mail _____

Address _____ City _____ State _____ Zip Code _____

PROJECT LOCATION/ADDRESS: _____

City _____ County _____ Subdivision _____ Lot _____

Latitude/Longitude (if known): _____ Project Impacts (ft²) _____ (acres) _____

Stream Impacts (LF) _____ Wetland Impacts (acres) _____

Type of Wetland: [] freshwater [] tidal marsh or saltwater [] unknown

Nearest Named Stream, River or Other Waterbody: _____

This activity may require a variance from Georgia EPD prior to conducting land disturbance activities or placing materials within the State-mandated buffer [see O.C.G.A. § 12-7-6(b)(15,16 and 17) of "The Erosion and Sedimentation Act of 1975," and visit www.epd.georgia.gov for more information]. Has Georgia EPD or the appropriate Local Issuing Authority (LIA) determined whether or not a buffer variance is required? Yes _____ No _____

If Georgia EPD or the appropriate Local Issuing Authority (LIA) has determined that a buffer variance is NOT required for this project, please attach a determination letter or record of correspondence from Georgia EPD or the LIA to this form. If a buffer variance is required, please provide the buffer variance file number: _____

PROJECT DESCRIPTION _____

**U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
2017 PRE-CONSTRUCTION NOTIFICATION (PCN)
FOR USE OF CERTAIN NATIONWIDE PERMITS (NWP)**

USE OF NWP NUMBER _____ **Date** _____

APPLICANT/PROPERTY OWNER _____

Phone(hm/bus) _____ FAX _____ E-Mail _____

Address _____ City _____ State _____ Zip Code _____

AGENT/CONSULTANT _____

Phone(hm/bus) _____ FAX _____ E-Mail _____

Address _____ City _____ State _____ Zip Code _____

PROJECT LOCATION/ADDRESS _____

City _____ County _____ Subdivision _____ Lot _____

Latitude _____ Longitude _____ Hydrologic Map Cataloging Unit _____

Nearest Named Stream, River or Other Waterbody _____

EXISTING SITE CONDITIONS _____

PROJECT DESCRIPTION _____

MEASURES TAKEN TO AVOIDANCE/MINIMIZE IMPACTS TO WATER OF U.S.

PROJECT AREA AND IMPACT INFORMATION

| | PROJECT AREA | | IMPACTS TO US WATERS | |
|----------------------------|--------------|-------------|----------------------|-------------|
| | ACRES | LINEAR FEET | ACRES | LINEAR FEET |
| TOTAL PROJECT AREA | | N/A | N/A | N/A |
| UPLAND | | N/A | N/A | N/A |
| WETLAND | | N/A | | N/A |
| OPEN WATER | | N/A | | N/A |
| PERENNIAL STREAM | | | | |
| INTERMITTENT STREAM | | | | |
| EPHEMERAL STREAM | | | | |
| MAN-MADE DITCHES | | | | |

MAPS, DRAWINGS AND OTHER INFORMATION. Include information to address answers provided.

1. PCN submitted to the Georgia EPD? (RC A and Appendix A) Yes ___ No ___
2. PCN submitted to the Georgia CRD? (RC A and Appendix A) Yes ___ No ___
3. Is the project on or adjacent to a state water, where buffer variance is required? Yes ___ No ___
4. Is the project within 10 miles of a 303(d) listed stream? Yes ___ No ___
5. Is the project located in or adjacent to a trout stream? Yes ___ No ___
6. Is there a water quality management plan for the project site? Yes ___ No ___
7. Is a copy of the FWS Initial Project Scoping (IPaC) attached to the PCN? (GC 18) Yes ___ No ___
<http://ecos.fws.gov/ipac/>
8. Are oysters located within the project area? Yes ___ No ___
9. Are cultural resources located on or near the project site? (GC 20(c)) Yes ___ No ___
<http://www.nr.nps.gov/>
10. Is compensatory mitigation required? (GC 32(b)(6), GC 23 & RCs H.1–H.5) Yes ___ No ___
11. Are culverts proposed in streams or wetlands? (RC C.4 and E.1-8) Yes ___ No ___
12. Is in-stream/wetland storm water management proposed? (RC C.5) Yes ___ No ___
13. Is the project phased, with future wetland/stream impacts planned? Yes ___ No ___
14. Have authorized wetland/stream impacts occurred on the project site? Yes ___ No ___
15. Have unauthorized wetland/stream impacts occurred on the project site? Yes ___ No ___
16. Is the project located within 5 miles of an airport? Yes ___ No ___

IMPORTANT NOTES:

1. For a PCN to be complete for processing, information required at NWP General Condition (GC) 32(b) and Savannah District 2017 NWP Regional Conditions C must be included.
2. All maps and drawings that are attached to this PCN must be submitted on 8 ½ X 11-inch paper. Supplemental maps and drawings larger than 8 ½ X 11 may also be submitted for clarity.

Anadromous Fish Waters in Georgia

1. **Savannah River** from the Atlantic Ocean to the Augusta Diversion Dam, including portions of Ebenezer (GA 119) and Brier (GA 121/US 25) Creeks. Anadromous fish restoration is in progress on the Savannah River and the limit of anadromous fish waters may be extended to include Stevens Creek and the Savannah River to Thurmond Dam. Currently there is limited upstream passage through the lock chamber at New Savannah Bluff Lock and Dam.

2. **Ogeechee River** from Ossabaw Sound to the GA 402/I-20/Carl Sanders Hwy Bridge, including portions of Black (GA 404/US 16/Jim Gillis Historic Savannah Pkwy), Mill (GA 24), Ogeechee (GA 17/Scarboro Hwy), Horse (GA 21/Millen Hwy), Williamson Swamp (GA 4-BUS/US 1-BUS/S Main St.) and Rocky Comfort (GA 88/Ferns Bridge Rd.) Creeks.

3. **Canoochee River** from its confluence with the Ogeechee River and its upper branches, including Lotts (GA 73/US 25/US 301) and Little Lotts (GA 46) Creeks above the I-16 Bridge.

4. **Altamaha River** from the Atlantic Ocean to its confluence with the Oconee and Ocmulgee Rivers, including portions of Doctor (GA 57), Penholoway (GA 27/US 25/US 341/Golden Isles Pkwy), Beards (GA 196/Baxter-Durrence Rd.; Halls Bridge), Ten Mile (Ten Mile Rd.) and Cobb (GA 147; Perrys Mill Bridge) Creeks.

5. **Ohoopsee River** from its confluence with the Altamaha River to the GA 31/US 319/Carter Rd. bridge near Wrightsville, including portions of Rocky (GA 178/Sid Newton Rd.) and Pendleton (GA 86/Earl Kemp Rd.) Creeks, and Little Ohoopsee River to the GA 78/US 319/Elm St. Bridge.

6. **Oconee River** from its confluence with the Altamaha River to the Lake Sinclair Dam, including portions of Turkey (GA 31/US 319/US 441; Claxton Memorial Bridge), Big Sandy (GA 112/Nickelsville Toombsboro Rd.), Commissioner (GA 112/Main St.) and Buffalo (GA 24/W Church St.) Creeks.

7. **Ocmulgee River** from its confluence with the Altamaha and Oconee rivers to the East Juliette hydropower dam, including portions of Horse (GA 117), House (GA 11/US 129/Bowens Mill Hwy), Cedar (GA 11/US 129), Bluff (GA 11/US 129/Abbeville Hwy), Big (GA 11/GA 112/US 129/Abbeville Hwy), Big Indian (GA 247/US 129), Echeconnee (GA 11/Houston Rd.) and Tobesofkee (GA 11/GA 49/GA 247/US 41/US 129) Creeks.

8. **Little Ocmulgee River** from its confluence with the Ocmulgee River to the dam at Little Ocmulgee Lake in McRae, including portions of Alligator Creek (CR 197/GA 134).
9. **Satilla River** from St. Andrew Sound to the GA 158/Old Coffee Rd. Bridge west of Douglas, including portions the Alabama River (GA 38/US 84) and Buffalo (GA 23/US 301), Big Satilla (GA 15/GA 121/Blackshear Hwy SE), Little Satilla (Nine Run Rd.), Colemans (Stanfield Rd.), and Pudding (Old Douglas Rd.) Creeks.
10. **Little Satilla River** from Jekyll Sound to the GA 25/US 17/Ocean Hwy bridge.
11. **St. Marys River** from the Atlantic Ocean to near the Florida/Georgia border at the CR 2/GA 94/Moniac Rd. Bridge.
12. **Chattahoochee River** from Lake Seminole to George W. Andrews Lock and Dam.
13. **Flint River** from Lake Seminole to the Flint River Dam.



Culvert Designs that Restrict Movement of Fish and other Aquatics

There are three common culvert design flaws that create migration barriers for fish and other aquatic species:

- Perched culverts with excess drop at the outlet;
- Poorly-sized or installed culverts that create high water velocity, turbulence, and/or inadequate water depths within the culvert; and
- Debris accumulation at the culvert inlet.

Perched Culverts: A perched culvert's downstream end hangs above the level of the stream bottom, so that water leaving the culvert forms a waterfall at the culvert lip. Perching can occur when culverts are installed directly on the stream bottom, rather than being sunk into the bed, or from years of channel scour caused by an undersized culvert.



Poorly-sized or Installed Culverts: Undersized culverts restrict natural stream flows, particularly during floods. Water exits the structure at a high velocity, causing channel and bank erosion. Overly-wide culverts spread a stream's flow out over a wide area, so water depths are too shallow for many fish and other aquatic organisms to swim or move through.



Multiple Pipe Culverts: Culverts designed with two or more widely-spaced pipes to move a stream's flow are prone to clogging, which may inhibit the movement of animals through the crossing and increase water velocity in the remaining pipes. Clogging can cause flooding into roadside ditches, resulting in problems for roadways and hazardous conditions for motorists. Clogged entries sometimes cause water to scour the channel banks, causing bank erosion and often increased maintenance costs. Many multiple pipe culverts are undersized to carry normal or flood flows.



Aquatic-Passage Friendly Culvert Designs

In general, bridges have less impact than culverts on aquatic species movement, because they typically do not constrict a stream channel to as great a degree as culverts and usually allow for vertical movement of the streambed. Bottomless culverts may be a good alternative for fish passage where foundation conditions allow their construction and width criteria can be met. All culverts should be designed to meet appropriate hydraulic capacity and structural integrity criteria.

Several methods exist for designing culverts for fish passage, including methods that focus on hydraulic design and stream simulation. The recommendations below borrow from, but do not replace, these more rigorous culvert design protocols.

The Fish and Wildlife Service recommends that culverts designed to facilitate movement of aquatic species should:

- Have a width equal to or slightly greater than the average streambed width
- Be installed at a relatively flat gradient
- Be countersunk (embedded) below the channel bed at least 20% of the culvert's diameter or rise
- Provide adequate flood capacity with extra culverts at bankfull elevation or in the floodplain.





These bottomless or embedded culverts were sized so they are wide enough to carry base flows without altering stream depth (i.e., width equal to or slightly greater than the average channel width).



The culvert is installed at a relatively flat gradient to allow substrate to colonize the culvert's

interior and maintain natural flow velocity. Culverts, set at bankfull elevation (top) or with baffles constructed at bankfull height carry flood waters but do not overwiden the channel at baseflow.

**Nationwide Permit Regional Conditions Appendix E:
Georgia DNR Shellfish Harvest Prohibited Area Sign Specifications**

In order to protect human health from potential shellfish consumption hazards, no harvesting of shellfish of any kind is allowed outside of approved areas. Waters associated with Living Shorelines will not be tested by Georgia DNR for human health hazards and these shellfish are not approved for human consumption.

A white metal 12" x 18" sign with red lettering stating AREA CLOSED TO HARVEST OF OYSTERS AND CLAMS (O.C.G.A. 27-4-195) as shown below must be erected on a 12' post driven approximately 7' into the ground at both ends of a Living Shoreline at the top of the intertidal slope (high water line). Signs should be posted such that visitors to the site, by water or land, are able to easily view them.

