UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

APR 16 2014

Randy L. Steffey
Project Manager, Southern Virginia Regulatory Section
Department of the Army
Corps of Engineers, Norfolk District
803 Front Street
Norfolk, VA 23510-1096

Re: NAO-2012-00080 Dominion Surry-Skiffes Creek-Whealton Transmission Line Project

Dear Mr. Steffey,

We have completed an Endangered Species Act (ESA) section 7 consultation in response to your letter of November 14, 2013, and additional information received on March 12, 2014. We concur with your determination that authorization of the project is not likely to adversely affect any species listed by us as threatened or endangered under the ESA of 1973, as amended. Our supporting analysis is provided below.

Proposed Action and Action Area
The Army Corps of Engineers, Norfolk District, has been identified as the lead federal agency for this action. The action includes the installation of an aerial transmission line across the James River that will require the placement of 17 in-stream towers and 4 fender protection systems. The site is located approximately 30 miles upstream from the confluence with Chesapeake Bay. The river is 2.84 miles (14,767 feet) wide at the crossing. Water depths range from 2 to 20 feet. The crossing will result in 1,142 square feet of direct impacts to subaqueous bottom. A total of 552 steel piles will be impact driven, ranging in diameter from 18 to 30 inches.

The towers will be constructed from barge work platforms. The foundation of each tower will consist of 20 18-inch steel piles (5 piles per leg) for each tower. Each pile will be impact driven into the river bottom and encased in a fiberglass sleeve that will be hand-jetted into the river bottom. The sleeve will be backfilled with grout poured from the surface. The sleeve will completely seal the pile and prevent the grout from being released into the water column. A concrete cap will be constructed on top of the piles approximately 6 feet above mean high water. The fender systems will consist of open piles (53 30-inch diameter fiber piles) driven into the river bottom on 10 foot centers for a length of 528 linear feet. All grout will be poured from the surface and will be contained within steel reinforcement plates fastened above mean high water.

Each tower is expected to take 6-7 weeks to complete. Work will be done year round to complete the project in a timely manner. The following table describes the proposed project phasing by tower pair, water depth, and estimated construction duration/time of year.

Tower Pairs	Estimated Water Depth (ft)	Estimated Construction Duration
582/12 – 582/13	2	June-July
582/14 – 582/15	2-3	July-August
582/16 – 582/17	2	September-October
582/18 – 582/19	2-3	October-November
582/20 – 582/21	6-12	December-January
582/22 – 582/23	8-18	January-February
582/24 – 582/25	12-18	March-April
582/26 – 582/27	10-20	April-May
582/28	3	June-July

NMFS listed species in Action Area

The action area is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50 CFR § 402.02). For this project, the action area includes the tower construction footprint as well as the underwater area where NMFS listed species may be exposed to the effects of the action (e.g., where increased noise levels occur, extent of increased turbidity, etc.).

Sea Turtles

Four species of ESA-listed threatened or endangered sea turtles under our jurisdiction may be found seasonally in the coastal waters of Virginia: federally threatened Northwest Atlantic Ocean distinct population segment (DPS) of loggerhead (*Caretta caretta*), and the federally endangered Kemp's ridley (*Lepidochelys kempi*), green (*Chelonia mydas*) and leatherback (*Dermochelys coriacea*) sea turtles, although the latter species tends to frequent offshore habitats. Sea turtles are expected to be in the Chesapeake Bay during warmer months. This typically equates to April through November in Virginia waters (Morreale 1999; Morreale 2003; Morreale and Standora 2005; Shoop and Kenney 1992).

Sea turtles may move into the lower James River near the confluence with the Chesapeake Bay to opportunistically forage in appropriate habitat. However, we do not expect them to move further upstream into the James River for a number of reasons including: 1) rapid reductions in salinity in the river with increasing distance from the confluence of the James River and the Chesapeake Bay, and 2) the consequent reduction in suitable sea turtle prey in these less saline habitats. As such, sea turtles are not expected to be present in the action area, which is located approximately 30 miles upstream of the confluence of the James River and the Chesapeake Bay. As such, no effects to sea turtles will occur and they will not be considered further in this consultation.

Atlantic sturgeon

Atlantic sturgeon originating from the New York Bight, Chesapeake Bay, South Atlantic and Carolina DPSs were listed under the ESA as endangered, while the Gulf of Maine DPS was

listed as threatened. The marine range of all five DPSs extends along the Atlantic coast from Canada to Cape Canaveral, Florida.

Atlantic sturgeon spawn in their natal river, with spawning migrations generally occurring during February-March in southern systems, April-May in Mid-Atlantic systems, and May-July in Canadian systems (Murawski and Pacheco 1977; Smith 1985; Bain 1997; Smith and Clugston 1997; Caron *et al.* 2002). Fall spawning on the James River is known to occur August-November (Balazik *et al.* 2012). Young remain in the river/estuary until approximately age two and at lengths of 30-36 inches before emigrating to open ocean as subadults (Holland and Yelverton 1973; Dovel and Berggen 1983; Dadswell 2006; ASSRT 2007). After emigration from the natal river/estuary, subadults and adult Atlantic sturgeon travel within the marine environment, typically in waters between 16 to 164 feet in depth, using coastal bays, sounds, and marine waters (Vladykov and Greeley 1963; Murawski and Pacheco 1977; Dovel and Berggren 1983; Smith 1985; Collins and Smith 1997; Welsh *et al.* 2002; Savoy and Pacileo 2003; Stein *et al.* 2004; Laney *et al.* 2007; Dunton *et al.* 2010; Erickson *et al.* 2011). Dadswell (1984) illustrates that shortnose sturgeon typically occur in waters no shallower than 3.3 feet (Dadswell, 1979; Dovel, 1981; Marchette and Smiley, 1982; McCleave *et al.*, 1977; Taubert, 1980; Buckley, 1982; and Squiers *et al.*, 1981). While no studies exist on the minimal depth preferences of Atlantic sturgeon, because of similar observed habitat requirements and biology between shortnose and Atlantic sturgeon, we determine this observation is accurate for both species. The distribution of Atlantic sturgeon is also strongly associated with prey availability, and as a result, Atlantic sturgeon may occur where suitable forage (e.g., benthic invertebrates such as mollusks and crustaceans) and appropriate habitat conditions are present (e.g., areas of submerged aquatic vegetation (SAV)).

Based on the best available information, Atlantic sturgeon originating from any of five DPSs could occur in the James River; however, the Chesapeake Bay DPS spawns in upstream reaches of the James River. Based on modeling work using features associated with spawning habitat (e.g., suitable substrate), Bushnoe *et al.* (2005) concluded that the Turkey Island oxbow and the James Neck oxbow (both above river mile 75) were potential spawning sites for Atlantic sturgeon in the James River. Environmental cues appear to play a strong role in use of the James River by adult, spring spawning, presumably Chesapeake Bay DPS, Atlantic sturgeon (Hager 2011). Adult sturgeon enter the river in spring when water temperatures are around 17° C, and occur from river mile 18 to river mile 67 before departing from the river in June when water temperatures are around 24° C (Hager 2011). Adult sturgeon appear to be absent from the James River for most of the summer until late August when tagged fish are detected in the river (Hager 2011). During the late summer-early fall spawning run (August-November), fish ascend the river rapidly and congregate in upriver sites between river mile 48 and the fall line near Richmond, VA; possibly in response to physiologically stressful conditions (e.g., low dissolved oxygen and elevated water temperature) in the lower James River and Chesapeake Bay (Hager 2011). As temperature declines in late September or early October, adults disperse through downriver sites and begin to move out of the river (Hager 2011). By November, adults occupy only lower river sites (Hager 2011). By December, adults are undetected on the tracking array, and thus, they are presumed to be out of the river (Hager 2011; Balazik *et al.* 2012). No early

life stages (ELS) are expected to be present in the action area due to its location in the lower James River with brackish water conditions. ELS cannot withstand exposure to salinity.

Effects of the Action

Acoustic Effects

The installation of piles via pile driving can produce underwater sound pressure waves that may affect aquatic species, including Atlantic sturgeon. Effects to fish can range from temporary avoidance of an area to death due to injury of internal organs, such as swim bladders. The type and size of pile, type of installation method *(i.e.*, vibratory vs. hammer), type and size of fish (smaller fish are more susceptible to effects), and distance from the sound source (*i.e.*, sound dissipates over distance so noise levels are greater closer to the source) all contribute to the likelihood of effects to an individual fish. Generally, the larger the pile and the closer a fish is to the pile, the greater the likelihood of effects.

An interagency work group, including the U.S. Fish and Wildlife Service (USFWS) and NMFS, has reviewed the best available scientific information and developed criteria for assessing the potential of pile driving activities to cause injury to fish (Fisheries Hydroacoustic Working Group (FHWG) 2008). The workgroup established dual sound criteria for injury, measured 10 meters away from the pile, of 206 dB_{Peak} (re 1 µPa) and 187 dB accumulated sound exposure level (dBcSEL; re: $1\mu Pa^2 \cdot sec$) (183 dB accumulated SEL for fish less than 2 grams). While this work group is based on the U.S. West coast, species similar to Atlantic sturgeon were considered in developing this guidance (green sturgeon). As this species is biologically similar to the species being considered herein, it is reasonable to use the criteria developed by the FHWG.

In addition, for purposes of assessing behavioral effects of pile driving at several West Coast projects, NMFS has employed a 150 dB re 1 μPa_{RMS} sound pressure level criterion at several sites, including the San Francisco-Oakland Bay Bridge and the Columbia River Crossings. As we are not aware of any studies that have considered the behavior of Atlantic sturgeon in response to pile driving noise, given the available information from studies on other fish species (i.e., Anderson *et al.* 2007; Purser and Radford 2011; Wysocki *et al.* 2007), we consider 150 dB re 1 μPa_{RMS} to be a reasonable estimate of the noise level at which exposure may result in behavioral modifications. As such, for the purposes of this consultation, we will use 150 dB re 1 μPa_{RMS} as a conservative indicator of the noise level at which there is the potential for behavioral effects. That is not to say that exposure to noise levels of 150 dB re 1 μPa_{RMS} will always result in behavioral modifications, but that there is the potential, upon exposure to noise at this level, to experience some behavioral response (e.g., temporary startle to avoidance of an ensonified area).

Table 2. Accepted Noise Criteria for Atlantic Sturgeon

Organism	Injury*	Behavioral Modification
Sturgeon	206 dB_{Peak} and 187 dB_{cSEL}	150 dB_{RMS}

*Dual Criteria

Based on the available literature (i.e., Illingworth and Rodkin, Inc. and Jones and Stoke 2009), the table below (Table 3) describes the estimated average underwater noise levels produced by the driving of the types of piles associated with this action. The estimated underwater noise levels are taken from a distance of 10 meters from the pile being driven.

Table 3. Estimated average underwater noise levels produced by the driving of piles

Type Pile	Hammer Type	Estimated Peak Noise Level (dB_{Peak}) [1]	Estimated Pressure Level (dB_{RMS})[2]	Estimated cumulative sound exposure level (dBcSEL)[3]
Fiber Pile (30" diameter)	Impact	~180	~158	~151
Steel Pipe (12" -24" diameter)	Impact	~207	~194	~178

These levels are dependent not only on the pile and hammer characteristics, but also on the geometry and boundaries of the surrounding underwater and benthic environment. As the distance from the source increases, underwater sound levels produced by pile driving are known to dissipate rapidly.

Using data from Illingworth and Rodkin, Inc. and Jones and Stoke (2009) underwater noise levels produced from the driving of steel and concrete, or other aggregate materials such as fiber, piles will attenuate approximately 5 dB every 10 meters. These values are based on a conservative estimate of attenuation rates for the driving of timber piles (Illingworth and Rodkin, Inc. and Jones and Stoke 2009). Based on attenuation rates, underwater noise levels are expected to be below 150 dB_{RMS} at the following distances from each pile driven with an impact hammer:

Table 4. Attenuation distances at which noise levels are expected to be below 150 dB re 1 μPa_{RMS}

Type Pile	Hammer Type	Distance from pile at which noise levels will be below 150 dB_{RMS}
Fiber Pile (30" diameter)	Impact	> 20 meters (66 feet)
Steel Pipe (12" -24" diameter)	Impact	> 80 meters (262 feet)

[1] Peak sound pressure level is the largest absolute value of the instantaneous sound pressure and is expressed as dB re: 1 µPa.

[2] Root Mean Square (RMS) pressure is the square root of the time average of the squared pressure and is expressed as dB re: 1 µPa. Current thresholds for determining impacts to sea turtles typically center around RMS.

[3] Sound Exposure Level (SEL) is defined as that level which, lasting for one second, has the same acoustic energy as the transient and is expressed as dB re: 1μPa^2•sec. Accumulative or cumulative SEL (cSEL) is calculated as SELcumulative = SELsingle strike + 10 log (# of pile strikes).

Based on the best available information, peak pressure levels and cSEL levels produced by the driving of fiber piles described in Table 2 will produce underwater noise levels below 206 dB_{Peak} and 187 cSEL within 10 meters of the pile being driven, and thus are extremely unlikely to cause injury to Atlantic sturgeon. As pile driving operations will produce underwater noise levels above 150 dB_{RMS} within a certain distance from the pile being driven (see Table 3) it is likely that, if present in this ensonified area, Atlantic sturgeon will be able to detect these elevated levels of underwater noise, resulting in possible behavioral modification. However, within 20 meters (66 feet) of the fender installation with fiber piles, noise levels will be below 150 dB_{RMS} in a stretch of river that is approximately 14,767 feet wide. If any minor movements away from the area where piles are being installed do occur, it is extremely unlikely that these movements will cause substantial changes to essential Atlantic sturgeon behaviors (e.g., reproduction, foraging, resting, and migration). Additionally, the extent of underwater noise is not likely to present a barrier to Atlantic sturgeon movements because only 0.9 % of the river width will be ensonified above 150 dB_{RMS} at any given time, thus preserving the majority of the river for essential behaviors. Fender installation will occur on the towers within the deep water channels (towers 582/21, 582/22, 582/25, and 582/26). Deep channel habitat is important to Atlantic sturgeon, and approximately 5,000 feet of the width of the James River in the action area is deep water (10-20 feet). Only 2.6% of this deep water habitat will be ensonified at levels above the 150 dB_{RMS} threshold at any given time, preserving adequate deep water habitat for the upstream and downstream movement of Atlantic sturgeon. As such, if individuals are present within the vicinity of the action area, they are likely to avoid the pile driving sites and continue normal behaviors (e.g., feeding, resting, and migrating) in other portions of the action area.

Impact driving of steel piles may produce peak noise levels slightly above the accepted injury threshold of 206 dB_{Peak} (steel piles are predicted to create a decibel level of 207 dB_{Peak}) but below the 187 cSEL threshold, with 178 cSEL predicted for impact driving of steel piles in the size range proposed for the project. Within approximately 80 meters (262 feet) of a pile being driven we expect noise levels to be below 150 dB_{RMS}. Based on the project phasing information in Table 1, tower pairs 582/12 – 582/13, 582/14 – 582/15, 582/16 – 582/17, 582/18 – 582/19, and tower 582/28 will be constructed in waters ranging from 2-3 feet during the months of the year adult sturgeon are likely present within the action area (June through November). Atlantic sturgeon are not known to move into waters shallower than 3.3 feet. Based on the map and depth profiles you provided us, the shortest distance from any tower proposed in the 2-3 foot depth range to waters greater than 3 feet is approximately 500 feet. So, exposure to the pile driving noise above the 150 dB_{RMS} threshold (within 262 feet radius of steel piles being driven) is not likely to occur based on the presence of unsuitable depths for adult and subadult sturgeon in the portion of the action area where the previously mentioned towers will be constructed. For the remainder of the piles, impact driving will occur in deeper waters where sturgeon may migrate or rest. Towers 582/20, 582/21, 582/22, and 582/23 will all be constructed during months when Atlantic sturgeon are not known to be present within the action area (December-February). However, towers 582/24, 582/25, 582/26, and 582/27 will be constructed in water depths where sturgeon may occur and during months we expect them to be present within the action area (March-May). As mentioned previously, deep channel habitat is important to Atlantic sturgeon, and approximately 5,000 feet of the width of the James River in the action area is deep water (10-20 feet). Based on the distance from a driven steel pile to the point where noise levels are

below the behavioral modification threshold of 150 dB_{RMS} (radius: 262 feet; diameter: 524), approximately 10% of deep water habitat will be ensonifed above the behavioral modification level at any given time, leaving the other 90% of deep water habitat (approximately 4,476 feet) free for passage. Similar to the driving of fiber piles, if individuals are present within the vicinity of impact pile driving of the steel tower piles, they are likely to be able to avoid pile driving sites and continue normal behaviors (e.g., feeding, resting, and migrating) in other portions of the action area without any substantial modification to their essential behaviors. Based on this analysis, and the best available information, we conclude that pile driving noise is not likely to cause significant behavior modification to Atlantic sturgeon, and all effects will be insignificant.

Water Quality Effects

The tower and fender system construction may cause a temporary increase in the amount of turbidity in the action area; however, suspended sediment is expected to settle out of the water column within a few hours and any increase in turbidity will be short term.

Studies of the effects of turbid waters on fish suggest that concentrations of suspended solids can reach thousands of milligrams per liter before an acute toxic reaction is expected (Burton 1993). The studies reviewed by Burton demonstrated lethal effects to fish at concentrations of 580.0 mg/L to 700,000.0 mg/L depending on species. Studies with striped bass adults showed that pre-spawners did not avoid concentrations of 954.0 to 1,920.0 mg/L to reach spawning sites (Summerfelt and Moiser 1976 and Combs 1979 in Burton, 1993). While there have been no directed studies on the effects of total suspended solids (TSS) on Atlantic sturgeon, sturgeon sub-adults and adults are often documented in turbid water and Dadswell (1984) reports that sturgeon are more active under lowered light conditions, such as those in turbid waters. Additionally, Atlantic sturgeon tend to frequent the salt fronts of rivers where turbidity is higher than other portions of the waterbody. As such, Atlantic sturgeon are assumed to be as least as tolerant to suspended sediment as shortnose sturgeon and other estuarine fish such as striped bass. Early life stages are not present in or near the action area. Based on the life history of Atlantic sturgeon, best available information, and the fact that turbidity is expected to be minor and temporary, any effects of increased turbidity resulting from the action will be discountable. Additionally, grout pouring will be done in a controlled manner and contained within steel reinforcement plates fastened above mean high water. As such, this activity will have no effect on water quality in the action area.

Habitat Effects

The tower and fender system piles will permanently alter portions of the substrate in the action area. The action area is not known to contain preferred Atlantic sturgeon foraging habitat (*i.e.*, shellfish beds, seagrass beds, etc.); however, Atlantic sturgeon may forage opportunistically in the action area where appropriate habitat is available. Although some benthic habitat will be altered, only 1,142 square feet of substrate within the 14,767 feet of the linear project crossing will be modified (7.7%). If Atlantic sturgeon were to pass through the action area, the action will not substantially reduce their ability to opportunistically forage. As such, all effects will be insignificant.

Vessel Interactions

While the exact number of Atlantic sturgeon killed as a result of being struck by boat hulls or propellers is unknown, it is a concern in some areas. During project construction, small incremental increases in vessel traffic in the James River may occur (*i.e.*, barges, support vessels, etc.). Regardless of the number of barges and trips used for the proposed project, there is still the potential that Atlantic sturgeon could be struck by a barge during its transit to and from action area. However, we know that Atlantic sturgeon are more vulnerable to being struck by faster, deep-draft moving vessels. Typically barges and other vehicles associated with the construction process move at slow speeds (i.e., less than 10 knots) and have very shallow drafts. As such, it is extremely unlikely for Atlantic sturgeon to be struck by vessels project construction if they are present in the action area. Based on the best available information, we are able to concur that the interaction between Atlantic sturgeon and vessels is discountable.

Conclusions

Based on the analysis that any effects to ESA-listed species will be insignificant or discountable, we are able to concur with your determination that the proposed action is not likely to adversely affect any listed species under NMFS jurisdiction. Therefore, no further consultation pursuant to section 7 of the ESA is required. Reinitiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the consultation; or (c) if a new species is listed or critical habitat designated that may be affected by the identified action. No take is anticipated or exempted. If there is any incidental take of a listed species, reinitiation would be required. Should you have any questions about this correspondence, please contact Chris Vaccaro at (978) 281-9167 or by e-mail (Christine.Vaccaro@noaa.gov).

Sincerely,

for John K. Bullard
Regional Administrator

PCTS: NER-2014-10875
File Code: H:\Section 7 Team\Section 7\Non-Fisheries\ACOE\Informal\2014\Norfolk District\Dominion Surry-Skiffes Creek

Ec: O'Brien, NMFS/HCD
Vaccaro, NMFS/NER

Selected References

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DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1096

Reply to
Attention of

NOVEMBER 14, 2013

Southern Virginia Regulatory Section
NAO-2012-00080 / 13-V0408 (James River)

Ms. Christine Vaccaro
Protected Resources Division
National Marine Fisheries Service / Northeast Regional Office
55 Great Republic Drive
Gloucester, Massachusetts 01930-2276

Dear Ms. Vaccaro:

In order to comply with Section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.),* all major Federal actions that may affect listed species or species proposed to be listed must consult with the National Marine Fisheries Service (NMFS). The NMFS has listed the Chesapeake Bay distinct population segment (DPS) of the Atlantic sturgeon *(Acipenser oxyrinchus oxyrinchus)* as an endangered species. The final listing determination for the Chesapeake Bay DPS of Atlantic sturgeon was published in the Federal Register on February 6, 2012. I am requesting an informal Section 7 consultation to evaluate potential impacts from construction activities associated with Dominion Virginia Power's proposed Surry-Skiffes Creek-Whealton aerial transmission line project on the Chesapeake Bay DPS of the Atlantic sturgeon.

The aerial transmission line project will begin in Surry County at the Surry Nuclear Power Plant, cross the James River to a point near Skiffes Creek in James City County, and continue through Newport News, York County, and Hampton to the existing Whealton Substation. The project is located within the Lower James and Lynnhaven-Poquoson watersheds, (Hydrologic Unit Codes 02080206 and 02080108). The proposed project consists of both a river crossing and land based segment. For the purpose of this coordination we are only coordinating the Surry – Skiffes Creek 500kV power line segment at the point at which is crosses the James River.

The crossing will consist of a single circuit overhead line requiring the placement of 17 in-stream towers and 4 fender protection systems within the James River. This crossing will result in 1142 square feet of direct impacts to subaqueous bottom. The proposed crossing will affect both shallow & deep water habitats. A total of 552 pilings ranging in diameter from 18 inches to 30 inches will be driven into the river bottom for tower foundations and fender protection systems. All work will be completed as depicted in the attached drawings, which have been reduced to only show the James River segment. A full set of plans along with our August 28, 2013 Public Notice can be accessed online at the following link: http://www.nao.usace.army.mil/Media/PublicNotices.aspx .

Construction activities will include:

I. Tower Construction: All towers are expected to be constructed from atop barge work platforms. The foundation system for each structure will consist of approximately 20 steel piles (approximately 5 piles per leg) for each tower. The 18-inch diameter piles will be driven into the river bottom and encased with a 2 piece fiberglass sleeve that will be hand-jetted into the river bottom. The sleeve will be backfilled with grout poured from the surface. The fiberglass sleeve will completely seal the pile and prevent the grout from being released into the water column. A concrete cap will then be constructed on top of the piles approximately 6 feet above mean high water.

II. Fender Construction: Each open pile fender system will consist of 53 fiberpiles, 30-inches in diameter, driven into the river bottom on 10 foot centers for a length of 528 linear feet. All grout will be poured from the surface and remain above the water column and contained within steel reinforcement plates that are fastened above mean high water. FRPoly wales will be installed at MHW and MLW elevations to tie the structure together, via an open-pile design.

Known spawning areas of this anadromous species have been documented in the upstream reaches of the James River, but these areas are located well upstream of the project area, which is located between river miles 18 and 19. No suitable or known spawning areas within the vicinity of the project have been identified. Adults and sub-adults may transit the project area during migration or to forage while traveling to or from the Atlantic Ocean. Therefore noise, vibrations, and increases in turbidity resulting from construction activities have the potential to affect the species. Due to a strict construction timeline which requires the entire project to be complete and operational by June 2015, the applicant is requesting in-stream construction activities be authorized without Time of Year Restriction. Despite the absence of a TOYR, the effects of construction in this area would be temporary in nature and are not likely to adversely affect the Atlantic sturgeon. We are requesting your concurrence.

Should you have any questions or require further information on this submittal, please do not hesitate to contact me at (757) 201-7579 or via email at randy.l.steffey@usace.army.mil . Thank you for your assistance.

Sincerely,

Randy L. Steffey
Project Manager, Southern Virginia
Regulatory Section

Enclosure(s)

cc: Dave O'Brien; NOAA