

APPENDIX B
Resource Mapping



FIGURE 5

Map Scale: 1:416 if printed on A size (8.5" x 11") sheet.



Map Unit Legend

Burlington County, New Jersey (NJ005)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UddcB	Udorthents, dredged coarse materials, 0 to 8 percent slopes	0.8	100.0%
Totals for Area of Interest		0.8	100.0%

MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Soil Map Units		Wet Spot
	Blowout		Other
	Borrow Pit	Special Line Features	
	Clay Spot		Gully
	Closed Depression		Short Steep Slope
	Gravel Pit		Other
	Gravelly Spot	Political Features	
	Landfill		Cities
	Lava Flow	Water Features	
	Marsh or swamp		Oceans
	Mine or Quarry		Streams and Canals
	Miscellaneous Water	Transportation	
	Perennial Water		Rails
	Rock Outcrop		Interstate Highways
	Saline Spot		US Routes
	Sandy Spot		Major Roads
	Severely Eroded Spot		Local Roads
	Sinkhole		
	Slide or Slip		
	Sodic Spot		
	Spoil Area		
	Stony Spot		

MAP INFORMATION

Map Scale: 1:416 if printed on A size (8.5" x 11") sheet.
 The soil surveys that comprise your AOI were mapped at 1:24,000. Please rely on the bar scale on each map sheet for accurate map measurements.

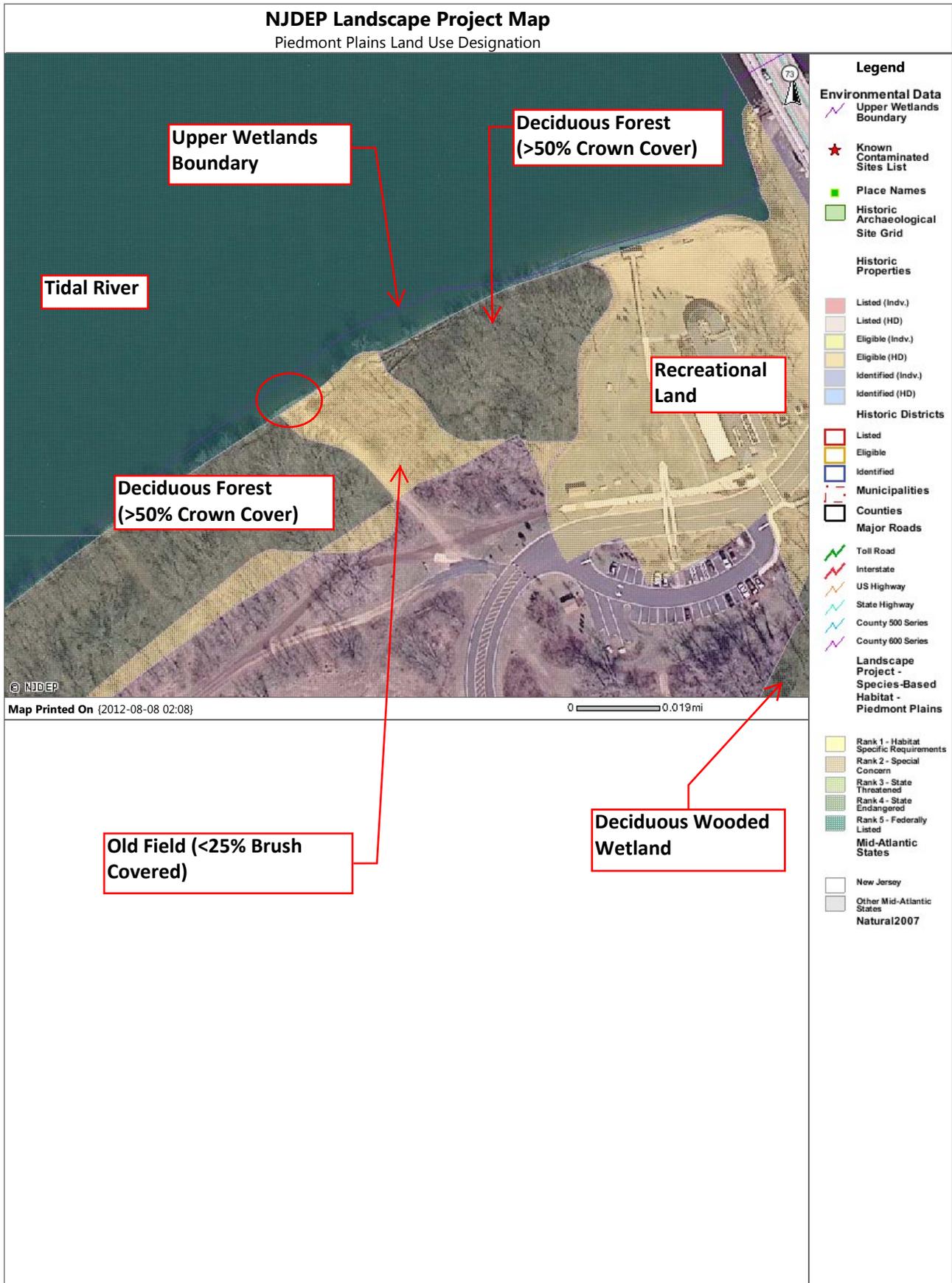
Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 18N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Burlington County, New Jersey
 Survey Area Data: Version 8, Aug 18, 2008
 Date(s) aerial images were photographed: 8/12/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

FIGURE 6



APPENDIX C
Correspondence



FEMA

May 16, 2011

Mr. J. Eric Davis Jr.
Field Supervisor
U.S. Fish and Wildlife Service
New Jersey Field Office
927 North Main Street, Building D
Pleasantville, New Jersey 08232

Dear Mr. Davis Jr.,

The Federal Emergency Management Agency is proposing to provide a grant in the amount of \$80,000 to the Burlington County Bridge Commission in Burlington County, New Jersey, for the purpose of constructing a new emergency access boat ramp and associated fishing piers in Palmyra, New Jersey. The boat ramp will be built in Palmyra Cove Nature Park on the banks of the Delaware River, just north of the confluence of Pennsauken Creek (Latitude: 40.003087, Longitude: -75.023550).

The project will be built over an unpaved road that is used for access to the river. Work will consist of "waterfront structures consisting of an 8' by 78' emergency boat ramp, constructed of open cell armorflex articulating concrete block mats and 4 fishing/observation piers: 1- 6' by 180', 1- 6' by 100', 1- b' by 140', and 1- 6' by 60'." (State of New Jersey Department of Environmental Protection Permit No. 0327-02-0002.2 WFD 060001, FWW 060001, CSW 060001) The project will entail ground disturbance of an area 100 by 30 feet, to a depth of eight feet. Maps and photographs of the project location are attached.

Pursuant to the Migratory Bird Treaty Act, and the Bald Eagle Protection Act FEMA has reviewed the project for potential impacts to species listed in the MBTA, or the habitat of listed species. FEMA has determined that the project, as constrained by the attached permit, will not impact any listed species. The project as proposed affects only 3,000 square feet and will only disturb a previously developed strip of land (the existing unpaved road).

We appreciate your continued cooperation in review of the disaster recovery projects. Please forward your response to the following address within thirty (30) days.

FEMA Environmental Team
Attention: Jacob Levine
290 Broadway, 29th Floor
New York, NY 10

If practicable, we would greatly appreciate an email copy of the concurrence be emailed to my attention (jacob.levine@fema.gov) to expedite grant processing. If you have any questions please contact me at 212-680-8811 or at the above-referenced email address.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jacob L.", with a horizontal line extending to the right.

Jacob Levine
Environmental Specialist
FEMA Region II
290 Broadway, 29th Floor
New York, NY 10007



FEMA

May 16, 2011

Mr. Ron Popowski
U.S. Fish and Wildlife Service
New Jersey Field Office
927 North Main Street
Heritage Square, Building D
Pleasantville, New Jersey 08232

Re: Construction of new emergency boat ramp in Delaware River at Palmyra, NJ, and Determination of No Endangered Species Present

Dear Mr. Popowski,

The Federal Emergency Management Agency is proposing to provide a grant in the amount of \$80,000 to the Burlington County Bridge Commission in Burlington County, New Jersey, for the purpose of constructing a new emergency access boat ramp and associated fishing piers in Palmyra, New Jersey. The boat ramp will be built in Palmyra Cove Nature Park on the banks of the Delaware River, just north of the confluence of Pennsauken Creek (Latitude: 40.003087, Longitude: -75.023550).

The project will be built over an unpaved road that is used for access to the river. Work will consist of "waterfront structures consisting of an 8' by 78' emergency boat ramp, constructed of open cell armorflex articulating concrete block mats and 4 fishing/observation piers: 1- 6' by 180', 1- 6' by 100', 1- b' by 140', and 1- 6' by 60'." (State of New Jersey Department of Environmental Protection Permit No. 0327-02-0002.2 WFD 060001, FWW 060001, CSW 060001) The project will entail ground disturbance of an area 100 by 30 feet, to a depth of eight feet. Maps and photographs of the project location are attached.

Pursuant to Section 7 of the Endangered Species Act, FEMA has determined that there are no endangered species present in the project area, and no endangered species will be affected by the project. The determination was made using information from the USFWS New Jersey Field Office website, including the table "Federally Listed and Candidate Species Occurrences in New Jersey by County and Municipality."

We appreciate your continued cooperation in review of the disaster recovery projects. Please forward your response to the following address within thirty (30) days.

FEMA Environmental Team
Attention: Jacob Levine
290 Broadway, 29th Floor
New York, NY 10

If practicable, we would greatly appreciate an email copy of the concurrence be emailed to my attention (Jacob.levine@fema.gov) to expedite grant processing. If you have any questions please contact meat (212) 680-8811 or the above-referenced email address.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jacob L.", with a long horizontal flourish extending to the right.

Jacob Levine

Environmental Specialist

Federal Emergency Management Agency- Region II

290 Broadway, 29th Floor

New York, NY 10007



United States Department of the Interior

FISH AND WILDLIFE SERVICE

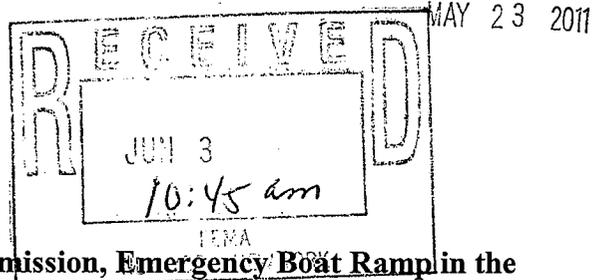
New Jersey Field Office
927 North Main Street, Building D
Pleasantville, New Jersey 08232
Tel: 609-646-9310 Fax: 609-646-0352
<http://www.fws.gov/northeast/njfieldoffice>

Megan



IN REPLY REFER TO:
11-CPA-0194

Mr. Jacob Levine
FEMA Environmental Team
290 Broadway, 29th Floor
New York, New York 10278



Reference: Burlington County Bridge Commission, Emergency Boat Ramp in the Delaware River at Palmyra, Burlington County, New Jersey

The U.S. Fish and Wildlife Service (Service) has reviewed the above-referenced proposed project pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed endangered and threatened species. The following comments do not address all Service concerns for fish and wildlife resources and do not preclude separate review and comment by the Service as afforded by other applicable environmental legislation.

No federally listed or proposed threatened or endangered flora or fauna under Service jurisdiction are known to occur within the proposed project's impact area. Therefore, no further consultation pursuant the ESA is required. If additional information on federally listed species becomes available, or if project plans change, this determination may be reconsidered.

The Service concurs with the seasonal restrictions provided for anadromous and warm water fish in the New Jersey Department of Environmental Protection permit no. 0327-02-0002.2 dated January 10, 2007.

Please refer to this office's web site at <http://www.fws.gov/northeast/njfieldoffice/Endangered/> for further information including federally listed and candidate species lists, procedures for requesting ESA review, the National Bald Eagle Management Guidelines, and contacts for obtaining information from the New Jersey Natural Heritage and Endangered and Nongame Species Programs regarding State-listed and other species of concern.

Reviewing Biologist: *[Signature]*
Carlo Popolizio

Authorizing Supervisor: *[Signature]*
Ron Popowski



FEMA

August 3, 2012

Ms. Julie Crocker
Protected Resources Division
National Marine Fisheries Service/Northeast Regional Office
55 Great Republic Drive
Gloucester, MA 01930

Re: Section 7 ESA & MMPA Consultation
DHS-FEMA Port Security Grant Program
Grant # Reference: 2009-PU-T9-K005 IJ#2 (01)
Construction of Emergency First Responder Boat Ramp
Burlington County Bridge Commission
Site Location: 1300 Route 73, Palmyra, Burlington County, New Jersey

Dear Ms. Crocker:

The Department of Homeland Security-Federal Emergency Management Agency (DHS-FEMA) is proposing to provide Port Security Grant Program (PSGP) federal grant funding to the Burlington County Bridge Commission (grantee) for construction of an Emergency First Responder Boat Ramp at 1300 Route 73, Palmyra, Burlington County, New Jersey. The PSGP grant number is 2009-PU-T9-K005 IJ#1 (01). The proposed project is located on the water's edge and within the waters and vegetated intertidal and subtidal shallows of the Delaware River adjacent to the Tacony-Palmyra Bridge (*See enclosed figures*).

DHS-FEMA is initiating informal consultation with your office in accordance with Section 7 of the Endangered Species Act (ESA) of (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) due to the federal listing of the Atlantic Sturgeon, *Acipenser oxyrinchus oxyrinchus*, as an endangered species, effective April 6, 2012. The proposed project was previously reviewed by a federal permitting agency, U.S. Army Corps of Engineers-Philadelphia District (USACE), prior to federal listing of the Atlantic sturgeon (*See permit enclosures*). FEMA assumes that USACE completed all required consultations previously with your office for protection of the endangered Shortnose sturgeon, *Acipenser brevirostrum*, in accordance with ESA and any rare presence of marine mammals, in accordance with the Marine Mammal Protection Act of 1972. However, DHS-FEMA, as the federal funding agency, requests that the National Marine Fisheries Service (NMFS) provide any comments and conservation measures or recommendations and concurrence with agency findings for all listed species under NMFS jurisdiction in response to this correspondence.

Proposed Project Design:

The proposed project would involve installation of one 8' x 100' x 30' boat ramp on State of New Jersey property that is managed by the Burlington County Bridge Commission. The project scope of work would include soil erosion and sediment control, site dewatering, excavation and disposal, 4-5 inches of stone rip rap at a one-inch depth, crushed stone at the top of ramp, and site restoration (*See design plan figure*). While not funded by the federal grant, the applicant has plans to construct three fishing/observation piers in the proposed project area as part of the Palmyra Cove Nature Park.

Existing Permits:

The proposed project was permitted by USACE in June 2007, with a permit extension granted by USACE August 11, 2010. Reference Permit No. CENAP-OP-R-200601190-46(IP). The USACE permit expires December 31, 2012. The proposed project was permitted by the New Jersey Department of Environmental Protection (NJDEP) in January 2007. Reference Permit No. 0327-02-002.2. The grantee is responsible for securing a permit extension/modification from the NJDEP, if not done so already. The NJDEP permit requires a timing restriction of March 15 through June 30 and September 30 through November 30th for necessary protection of anadromous fish and warm water fish during migration and/or spawning from any turbidity generating activity (*See permit enclosure*). The NJDEP permit and USACE permit both include conditions for construction best management practices and requirements for submerged aquatic vegetation survey and/or limitations on wetland disturbance.

Species Impact Assessment, Conservation Measures, and Federal Agency Finding

DHS-FEMA anticipates that the proposed action may cause turbidity and will permanently displace a wetland area (per wetland definition at 44CFRPart§9.4) less than one half-acre in size. The project will adversely eliminate or adversely impact the area's existing fisheries habitat, potentially submerged aquatic vegetation, and aquatic invertebrate habitat within the project footprint. The project area is not known to be critical habitat or primary spawning habitat of the Atlantic or shortnose sturgeon. The depth of the waters at the project area from mean high water to less than 2 meters deep is not anticipated to support primary habitat for the Atlantic sturgeon. Spawning habitat for the shortnose sturgeon is expected to be further north in freshwater, non-tidal portions of the Delaware River². The soils of the area are classified as Udorthents, dredged coarse materials, with 0 to 8 percent slopes. The bordering riparian buffer is forested cover with exception to the dirt access road. The grantee will be requested to schedule construction activities to avoid the April to May¹ upriver migration of spawning adults of the Atlantic sturgeon, and the estimated spawning period of the Atlantic sturgeon from mid-June to late-June³.

¹ USACE Philadelphia District. 2011. A Supplemental Biological Assessment for Potential Impacts to the New York Bight Distinct Population Segment of Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*) which is Proposed for Federal Endangered Species Listing Resulting from the Delaware River Main Stem and Channel Deepening Project. www.nap.usace.army.mil/cenap-pa/spotlight/docs/DRMCD%20Supplemental%20Biological%20Assessment%20-%20March%202011.pdf

² NOAA-NMFS. 2010. Species of Concern Atlantic Sturgeon Fact Sheet. www.nmfs.noaa.gov/pr/pdfs/species/atlanticsturgeon_detailed.pdf

³ Simpson, P.C. and D. Fox. 2008. Atlantic Sturgeon in the Delaware River: contemporary population status and identification of spawning areas. www.nero.noaa.gov/statefedoff/grantfactsheets/DE/FINAL%20REPORTS/FINAL%20NA05NMF4051093.pdf

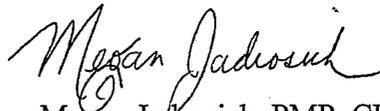
DHS-FEMA proposes the following grant conditions as conservation measures to avoid and/or minimize adverse effects to these listed endangered fish species:

- 1) The grantee shall adhere to all USACE & NJDEP permit conditions.
- 2) Any scope of work change shall be coordinated with DHS-FEMA, USACE and NJDEP prior to construction implementation.
- 3) The grantee shall adhere to a construction timing restriction from **March 15th through April 1st** and **September 30th-November 30th** for necessary protection of anadromous fish and warm water fish during migration and/or spawning from any turbidity generating activity.

DHS-FEMA finds that the proposed action may affect, but would not likely to adversely affect the Atlantic and Shortnose sturgeon with incorporation of the above listed conservation measure grant conditions. DHS-FEMA finds that the proposed action would have no effect on Marine Mammals due to no presence in the project area. DHS-FEMA requests NMFS concurrence with our agency findings. DHS-FEMA would appreciate any expert guidance NMFS could provide regarding adequate timing restrictions that would accommodate reasonable construction period(s) for this important homeland security project, while upholding federal agency responsibility to stewardship of listed species during both spring and reverse fall migrations and spawning period for the Atlantic sturgeon, and that would also limit disturbance to other important state fisheries resources.

As the upcoming fall construction window for this project is fast approaching, DHS-FEMA would greatly appreciate NMFS' expedited review of the proposed project to facilitate construction to proceed as soon as practicable. We look forward to your comments and concurrence within 30 days of receipt. If DHS-FEMA does not receive comments from NMFS within 30 days of NMFS receipt of this Section 7/MMPA consultation package, DHS-FEMA will assume concurrence to proceed with grant obligation. We would appreciate an email copy of the concurrence be sent to my attention to expedite grant processing. If you have any questions please contact me at 212-680-3635, 212-680-3602 (fax) or Megan.Jadrosich@fema.dhs.gov.

Sincerely,



Megan Jadrosich, PMP, CFM
Regional Environmental Officer

cc: Ms. Danielle Palmer, NMFS/NERO
DHS-FEMA Grants Program Directorate

Enclosures: Figures, Photos & Design Plan Sheet
USACE Permit & Extension Letter
NJDEP Permit



FEMA

August 24, 2012

Ms. Mary Colligan
Assistant Regional Administrator
Protected Resources Division
National Marine Fisheries Service/Northeast Regional Office
55 Great Republic Drive
Gloucester, MA 01930

Re: Section 7 ESA & MMPA Informal Consultation
DHS-FEMA Port Security Grant Program
Grant # Reference: 2009-PU-T9-K005 IJ#2 (01)
Construction of Emergency First Responder Boat Ramp
Burlington County Bridge Commission
Site Location: 1300 Route 73, Palmyra, Burlington County, New Jersey

Dear Ms. Colligan:

The Department of Homeland Security-Federal Emergency Management Agency (DHS-FEMA) is proposing to provide Port Security Grant Program (PSGP) federal grant funding to the Burlington County Bridge Commission (grantee) for construction of an Emergency First Responder Boat Ramp at 1300 Route 73, Palmyra, Burlington County, New Jersey. The PSGP grant number is 2009-PU-T9-K005 IJ#1 (01). The proposed project is located on the water's edge and within the waters and vegetated intertidal and subtidal shallows of the Delaware River adjacent to the Tacony-Palmyra Bridge (*See enclosed figures*). DHS-FEMA is initiating informal consultation with your office in accordance with Section 7 of the Endangered Species Act (ESA) of (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) due to the federal listing of the Atlantic Sturgeon, *Acipenser oxyrinchus oxyrinchus*, as an endangered species, effective April 6, 2012.

The proposed project was previously reviewed by a federal permitting agency, U.S. Army Corps of Engineers-Philadelphia District (USACE), prior to federal listing of the Atlantic sturgeon (*See permit enclosures*). FEMA assumes that USACE completed all required consultations previously with your office for protection of the endangered Shortnose sturgeon, *Acipenser brevirostrum*, in accordance with ESA and any rare presence of marine mammals, in accordance with the Marine Mammal Protection Act of 1972. However, DHS-FEMA, as the federal funding agency, requests that the National Marine Fisheries Service (NMFS) provide any comments and conservation measures or recommendations and concurrence with agency findings for all listed species under NMFS jurisdiction in response to this correspondence.

Proposed Project Design:

The proposed project would consist of installation of one emergency boat ramp on State of New Jersey property that is managed by the Burlington County Bridge Commission. The boat ramp would be for emergency and maintenance purposes by the Commission. The boat ramp would also be used by local and regional law enforcement and emergency response teams as needed. The boat ramp would not be open to the public for recreational purposes. The project scope of work would include soil erosion and sediment control, site dewatering, excavation and disposal of soils, and site restoration. The construction site area would be limited to approximately 2,400 square feet.

The boat ramp would be comprised of 8' wide (Armorflex or approved equal) concrete matting placed on top of a 12' x 67' stone bed base (with stones of 4-5" nominal dimension) and a concrete apron at the top of the ramp. The weight of the concrete map keeps this structure in place without any special anchoring devices. The concrete apron would have a trapezoid plan view layout that would be 18' wide at its landward width scaling to 12' wide at its western river side. The side length of the concrete apron would be 10' and depth of the apron would be 6" (*See enclosed design drawing*). A backhoe would be used for the minimal site excavation required, and to place the stone and concrete materials. Any soils to be transported off-site would be hauled by licensed haulers, and disposed of at permitted landfills or other processing/recycling centers. The excavation is predominantly limited to that needed to place the stone bed base (> 6").

It is not anticipated that the existing access road would need to be modified for facility use. It is anticipated that temporary construction staging of equipment and materials will be situated on existing impervious cover or disturbed portions of the property to avoid disturbance to floodplain habitats.

Site dewatering would be accomplished through placement of a rubberized membrane at the waterside perimeter and use of pump to pump out water as needed to work in the dry within the coffered area.

The site was selected by the Commission due to property availability; the site's proximity to the Tacony-Palmyra Bridge; the site's existing cleared sandy access road, which is connected to the paved side roads by a crushed stone trail; as well as, proximity to an existing parking lot and building at the nature park on the property. No other site alternatives were considered by the Commission for the proposed action. While not funded by the federal grant, the applicant recently constructed three fishing/observation piers in the proposed project area as part of the Palmyra Cove Nature Park.

Existing Permits:

The proposed project was permitted by USACE in June 2007, with a permit extension granted by USACE August 11, 2010. Reference Permit No. CENAP-OP-R-200601190-46(IP). The USACE permit expires December 31, 2012. The proposed project was permitted by the New Jersey Department of Environmental Protection (NJDEP) in January 2007. Reference Permit No. 0327-02-002.2. The grantee is responsible for

securing a permit extension/modification from the NJDEP, if not done so already. The NJDEP permit requires a timing restriction of March 15 through June 30 and September 30 through November 30th for necessary protection of anadromous fish and warm water fish during migration and/or spawning from any turbidity generating activity (*See permit enclosure*). The NJDEP permit and USACE permit both include conditions for construction best management practices and requirements for submerged aquatic vegetation survey and/or limitations on wetland disturbance.

Species Impact Assessment, Conservation Measures, and Federal Agency Finding

DHS-FEMA anticipates that the proposed action may cause turbidity and will permanently displace a wetland area (per wetland definition at 44CFRPart§9.4) less than 1,000 square feet in size. The project will adversely eliminate or adversely impact the area's existing fisheries habitat, potentially submerged aquatic vegetation, and aquatic invertebrate habitat within the project footprint. It is anticipated that pelagic fish will continue to use the water column above the boat ramp post-construction. It is also anticipated that the concrete matting will infill with sediment, and potentially aquatic plants, over time. The project area is not known to be critical habitat or primary spawning habitat of the Atlantic or shortnose sturgeon. The depth of the waters at the project area from mean high water to less than 2 meters deep is not anticipated to support primary habitat for the Atlantic sturgeon. Spawning habitat for the shortnose sturgeon is expected to be further north in freshwater, non-tidal portions of the Delaware River². The soils of the area are classified as Udorthents, dredged coarse materials, with 0 to 8 percent slopes. The bordering riparian buffer is forested cover with exception to the dirt access road. The grantee will be requested to schedule construction activities to avoid the April to May¹ upriver migration of spawning adults of the Atlantic sturgeon, and the estimated spawning period of the Atlantic sturgeon from mid-June to late-June³.

DHS-FEMA proposes the following grant conditions as conservation measures to avoid and/or minimize adverse effects to these listed endangered fish species:

- 1) The grantee shall adhere to all USACE & NJDEP permit conditions.
- 2) Any scope of work change shall be coordinated with DHS-FEMA, USACE and NJDEP prior to construction implementation.
- 3) The grantee shall adhere to a construction timing restriction from **March 15th through June 30th** and **September 1st-November 30th** for necessary protection of anadromous fish and warm water fish during migration and/or spawning from any turbidity generating activity.

¹ USACE Philadelphia District. 2011. A Supplemental Biological Assessment for Potential Impacts to the New York Bight Distinct Population Segment of Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*) which is Proposed for Federal Endangered Species Listing Resulting from the Delaware River Main Stem and Channel Deepening Project. www.nap.usace.army.mil/cenap-pa/spotlight/docs/DRMCD%20Supplemental%20Biological%20Assessment%20-%20March%202011.pdf

² NOAA-NMFS. 2010. Species of Concern Atlantic Sturgeon Fact Sheet. www.nmfs.noaa.gov/pr/pdfs/species/atlanticsturgeon_detailed.pdf.

³ Simpson, P.C. and D. Fox. 2008. Atlantic Sturgeon in the Delaware River: contemporary population status and identification of spawning areas. www.nero.noaa.gov/statefedoff/grantfactsheets/DE/FINAL%20REPORTS/FINAL%20NA05NMF4051093.pdf.

DHS-FEMA finds that the proposed action *may affect, but would not likely adversely affect* the Atlantic and Shortnose sturgeon with incorporation of the above listed conservation measure grant conditions. DHS-FEMA finds that the proposed action would have *no effect* on Marine Mammals due to no presence in the project area. DHS-FEMA requests NMFS concurrence with our agency findings.

As the upcoming construction window for this project is fast approaching, DHS-FEMA would greatly appreciate NMFS' expedited review of the proposed project to facilitate construction to proceed as soon as practicable. We look forward to your comments and concurrence within 30 days of receipt. If DHS-FEMA does not receive comments from NMFS within 30 days of NMFS receipt of this Section 7/MMPA consultation package, DHS-FEMA will assume concurrence to proceed with grant obligation. We would appreciate an email copy of the concurrence be sent to my attention to expedite grant processing. If you have any questions please contact me at 212-680-3635, 212-680-3602 (fax) or Megan.Jadrosich@fema.dhs.gov.

Sincerely,



Megan Jadrosich, PMP, CFM
Regional Environmental Officer

cc: Ms. Danielle Palmer, NMFS/NERO
Ms. Julie Crocker, NMFS/NERO
DHS-FEMA Grant Programs Directorate

Enclosures: Figures, Photos & Design Plan Sheet
USACE Permit & Extension Letter
NJDEP Permit



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

SEP 12 2012

Megan Jadrosich
U.S. Department of Homeland Security
FEMA
Region II
Jacob K. Javits Federal Building
Mitigation Division
13th Floor, 26 Federal Plaza
New York, New York 10278-0002

RE: Emergency First Responder Boat Ramp

Dear Ms. Jadrosich,

On August 3, 2012, we received your initial request for consultation pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended, regarding your proposal to provide Port Security Grant Program federal grant funding to the Burlington County Bridge Commission for construction of an Emergency First Responder Boat Ramp within the Delaware River, Burlington County, New Jersey. On August 10, 2012, a coordination call was held between both our offices to provide additional project details. As a follow up to our coordination call, on August 10, 2012, NOAA's National Marine Fisheries Service (NMFS) requested additional information on the project. On August 24, 2012, we were provided the requested information, as well as a new request for consultation as it was indicated to us that errors were found in the August 3, 2012, letter we originally received. The August 24, 2012, letter serves as your request for consultation. Within this letter, you have made the preliminary determination the proposed action is not likely to adversely affect any species listed by NMFS and have requested our concurrence with this determination. We agree that all effects to listed species will be insignificant and discountable, and the proposed action is not likely to adversely affect any NMFS listed species. The justification for our determination is provided below.

Proposed Project

The proposed action is located in the Delaware River near the Tacony-Palmyra Bridge, approximately 10 miles upstream from Philadelphia (i.e., approximately river mile 109). The boat ramp will be composed of 8-foot wide concrete matting placed on top of a 12-foot by 67-foot stone bed base (stone approximately 4 to 5-inches in diameter). At the top of the ramp, a trapezoidal shaped concrete apron will be placed.



To construct the ramp, a land-based excavator will be used to remove no more than 1,000 cubic yards (cy) of material, to a depth of 1-foot below the plane of mean low water, from the area where the ramp will be installed. Once excavation is complete, the stone bed base will be placed followed by the placement of the concrete matting. No additional structures will be needed to secure the concrete matting to the benthos as the weight of the matting is heavy enough to keep the matting in place. Once installation of the ramp is complete, approximately 500 cy of stone rip-rap (stone approximately 4 to 5-inches in diameter) will be placed in a two-foot wide strip around the perimeter of the ramp.

The proposed project is expected to begin December 1, 2012, with completion of all work within one to two months of this date. Throughout all phases of construction, sediment and erosion control structures (i.e., a water filled rubber bladder) will be installed around the perimeter of the work area.

NMFS Listed Species in the 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 project footprint as well as the underwater area where effects of excavation and the placement of stone rip-rap and concrete matting (e.g., habitat alteration, increase in suspended sediment) will be experienced. This area is expected to encompass all of the direct and indirect effects of the proposed action.

Shortnose Sturgeon

The federally endangered shortnose sturgeon occurs in the Delaware River from the lower Bay upstream to at least Lambertville, New Jersey (river mile 148). Tagging studies by O’Herron *et al.* (1993) found that the most heavily used portion of the river appears to be between river mile 118 below Burlington Island and river mile 137 at the Trenton Rapids. In the Delaware River, movement to the spawning grounds occurs in early spring, typically in late March, with spawning occurring through early May. The concentrated use of the Scudders Falls region in the spring by large numbers of mature male and female shortnose sturgeon indicate that the area between Scudders Falls and the Trenton rapids (river mile 133-139) is a major spawning area.

No studies have been conducted on juveniles in the Delaware River. As shortnose sturgeon demonstrate nearly identical migration patterns in all rivers, it is likely that juveniles in the Delaware River exhibit similar migration patterns to sturgeon in other river systems. As such, it is likely that yearlings are concentrated in the upper Delaware River above Philadelphia. Sub-adults are typically described as age one or older and occupy similar spatio-temporal patterns and habitat-use as adults (Kynard 1997). In these systems, juveniles moved back and forth in the low salinity portion of the salt wedge during summer. In the Delaware River, the oligohaline/fresh interface can range from as far south as Wilmington, Delaware, north to Philadelphia, Pennsylvania, depending upon meteorological conditions such as excessive rainfall or drought. As a result, it is possible that in the Delaware River, juveniles could range from Artificial Island (river mile 54) to the Schuylkill River (river mile 92) (O’Herron 2000, pers. comm.). Research in other river systems indicates that juveniles are typically found over silt and sand/mud substrates

in deep water of 10-20 meters. Juveniles feed indiscriminately, typical prey items found in stomach contents include aquatic insects, isopods, and amphipods along with large amounts of mud, stones, and plant material (Dadswell 1979, Carlson and Simpson 1987, Bain 1997). Juvenile sturgeon primarily feed in 10 to 20 meter deep river channels, over sand-mud or gravel-mud bottoms (Pottle and Dadswell 1979). However, little is known about the specific feeding habits of juvenile shortnose sturgeon in the Delaware River.

As noted above, after spawning, adult shortnose sturgeon migrate rapidly downstream to the Philadelphia area (river mile 100). After adult sturgeon migrate to the area around Philadelphia, many adults return upriver to between river mile 127 and 134 within a few weeks, while others gradually move to the same area over the course of the summer (O'Herron 1993). By the time water temperatures have reached 10°C, typically by mid-November, adult sturgeon have returned to the overwintering grounds in the Roebling (river mile 124), Bordentown (river mile 129), or Trenton reaches (river mile 133).

Based on the best available scientific information, the action area is likely to be used primarily as a migratory corridor. Due to the distance from the spawning grounds (i.e., greater than 24 miles upstream of the action area), shortnose sturgeon eggs or larvae, whose occurrence is limited to the waters near the spawning grounds, and young of the year (YOY) whose occurrence is restricted to areas of low salinity, are not likely to occur in the action area. The action area is also not a known overwintering area, and thus, shortnose sturgeon are not expected to occur in the action area during the timeframe of the proposed action (i.e., December 1, 2012 through approximately February 2013); however, indirect effects of the proposed action (e.g., alteration of habitat) will be incurred outside of this timeframe and thus, may effect shortnose sturgeon during other times of year when they are migrating to and from spawning, foraging, or overwintering grounds.

Atlantic sturgeon

On February 6, 2012, we published two final rules listing five DPSs of Atlantic sturgeon. Atlantic sturgeon originating from the New York Bight, Chesapeake Bay, South Atlantic and Carolina DPSs were listed as endangered, while the Gulf of Maine DPS was listed as threatened (77 FR 5880; 77 FR 5914). The marine range of all five DPSs extends along the Atlantic coast from Canada to Cape Canaveral, Florida. The effective date of these listing rules was April 6, 2012.

In the Delaware River and Estuary, Atlantic sturgeon occur from the mouth of the Delaware Bay to the fall line near Trenton, NJ, a distance of 137 miles (NMFS and USFWS, 1998; Simpson, 2008). Historical records from the 1830's indicate Atlantic sturgeon may have spawned as far north as Bordentown, just below Trenton, NJ (Pennsylvania Commission of Fisheries, 1897). Cobb (1899) and Borden (1925) reported spawning occurring between river mile 48 and 81 (Delaware City, DE to Chester City, PA). Based on recent tagging and tracking studies carried out from 2009-2011, Breece (2011) reports likely spawning locations at river mile 75-93 and river mile 106-118. Mature adults have been tracked in these areas at the time of year when spawning is expected to occur and movements have been consistent with what would be expected from spawning adults. To date, eggs and larvae have not been documented to confirm

that actual spawning is occurring in these areas. However, as noted below, the presence of YOY in the Delaware River provides confirmation that spawning is still occurring in this river.

Sampling in 2009 that targeted YOY resulted in the capture of more than 60 YOY in the Marcus Hook anchorage (river mile 79) area during late October-late November 2009 (Fisher, 2009; Calvo *et al.*, 2010). Twenty of the YOY from one study and six from the second study received acoustic tags that provided information on habitat use by this early life stage (Calvo *et al.*, 2010; Fisher, 2011). YOY used several areas from Deepwater (river mile 65) to Roebling (river mile 124) during late fall to early spring. Some remained in the Marcus Hook area while others moved upstream, exhibiting migrations in and out of the area during winter months (Calvo *et al.*, 2010; Fisher, 2011).

The Delaware Estuary is known to be a congregation area for sturgeon from multiple DPSs. Generally, non-natal late stage juveniles (sometimes also referred to as subadults) immigrate into the estuary in spring, establish home range in the summer months in the river, and emigrate from the estuary in the fall (Fisher, 2011). Subadults tagged and tracked by Simpson (2008) entered the lower Delaware Estuary as early as mid-March but, more typically, from mid-April through May. Tracked sturgeon remained in the Delaware Estuary through the late fall departing in November (Simpson, 2008). Previous studies have found a similar movement pattern of upstream movement in the spring-summer and downstream movement to overwintering areas in the lower estuary or nearshore ocean in the fall-winter (Brundage and Meadows, 1982; Lazzari *et al.*, 1986; Shirey *et al.*, 1997; 1999; Brundage and O'Herron, 2009; Brundage and O'Herron in Calvo *et al.*, 2010).

Adult Atlantic sturgeon captured in marine waters off Delaware Bay in the spring were tracked in an attempt to locate spawning areas in the Delaware River, (Fox and Breece, 2010). Over the period of two sampling seasons (2009-2010) four of the tagged sturgeon were detected in the Delaware River. The earliest detection was in mid-April while the latest departure occurred in mid-June (Fox and Breece, 2010). The sturgeon spent relatively little time in the river each year, generally about 4 weeks, and used the area from New Castle, DE (river mile 62) to Marcus Hook (river mile 81) (Fox and Breece, 2010). A fifth sturgeon tagged in a separate study was also tracked and followed a similar timing pattern but traveled farther upstream (to river mile 103) before exiting the river in early June (Fox and Breece, 2010).

Based on the best available scientific information, the action area is likely to be used primarily as a migratory corridor. Although the action area (i.e., river mile 109) is within the river reaches believed to be used by spawning Atlantic sturgeon (i.e., river mile 106-118), the habitat characteristics of the action area (e.g., shallow waters, muddy substrate) are unsuitable for

spawning Atlantic sturgeon.¹ As such, the action area is not believed to be a spawning ground for Atlantic sturgeon and thus, will not modify the habitat in any manner that will eliminate or modify spawning habitat. In addition, due to the timeframe of work (i.e., December 1, 2012 through approximately February 2013), eggs or larvae will not be present in the vicinity of the action area. In addition, the action area is also not believed to be an overwintering area, and thus, Atlantic sturgeon are not expected to occur in the action area during the timeframe of the proposed action (i.e., December 1, 2012 through approximately February 2013); however, indirect effects of the proposed action (e.g., alteration of habitat) will be incurred outside of this timeframe and thus, may effect Atlantic sturgeon during other times of year when they are migrating to and from spawning, foraging, or overwintering grounds.

Effects of the Action

As explained above, due to the time of year work will be undertaken, Atlantic and shortnose sturgeon are not expected to occur in the action area and thus, no interactions with an excavator and an Atlantic or shortnose sturgeon will occur, and no sturgeon species will be exposed to elevated levels of suspended sediment resulting from the proposed action. However, indirect effects of the proposed action on listed species in the action area may occur due to the alteration of benthic habitat (e.g., prey removal) that will result from the installation of the boat ramp.

Atlantic and shortnose sturgeon are bottom feeders, foraging on a variety of benthic and epibenthic invertebrates including mollusks, crustaceans (amphipods, chironomids, isopods), and oligochaete worms and, mainly over soft sediment; however, foraging also often occurs at, or near, areas with submerged aquatic vegetation. According to information provided by FEMA, the action area consists of muddy substrate with submerged aquatic vegetation and thus, is likely to contain some suitable forage for Atlantic or shortnose sturgeon. Although the installation of the boat ramp will remove potential forage from the Delaware River, the area affected is small (i.e., approximately 0.023 acres) and the action will result in the loss of only a portion of the possible available forage within the Delaware River (i.e., less than 1 acre affected out of the 9,036,800 total acres of the Delaware River). Additionally, although the initial installation of the ramp will remove any potential forage from the area, the installation of the boat ramp may have a beneficial effect on Atlantic or shortnose sturgeon that are in the Delaware River by causing an increase in available prey items that are likely to grow on the stone rip-rap placed around the ramp. On a small scale, it has been found that larger diameter stone used for rip-rap or fill is correlated with an increase in invertebrate taxa found within the area of stone placement and that riprap areas have an increase in species richness and density when compared to natural banks or sand-bed systems (Shields et al. 1995), as these areas create new microhabitats and large annual spaces previously not available. The placement of boat ramp also is not likely to alter the habitat in any way that prevents Atlantic or shortnose sturgeon from using the action area as a migratory pathway to other areas of the river that are more suitable for foraging and

¹ Spawning is believed to occur in flowing water between the salt front of estuaries and the fall line of large rivers, when and where optimal flows are 46-76 cm/s and depths are 3-27 meters (Crance 1987; Shirey *et al.* 1999; Bain *et al.* 2000; Collins *et al.* 2000; Caron *et al.* 2002; Hatin *et al.* 2002; ASMFC, 2009). Sturgeon eggs are deposited on hard bottom substrate such as cobble, coarse sand, and bedrock (Smith and Clugston 1997; Collins *et al.* 2000; Caron *et al.* 2002; Hatin *et al.* 2002; Mohler 2003; ASMFC 2009), and become adhesive shortly after fertilization (Murawski and Pacheco 1977; Van den Avyle 1983; Mohler, 2003).

therefore, there would not be any disruption of essential behaviors such as migrating or foraging. Based on this information, the effects of installing the boat ramp within the Delaware River on Atlantic or shortnose sturgeon migration and foraging will be insignificant.

Conclusion

Based on the analysis that any effects to listed species of Atlantic sturgeon or sea turtles will be insignificant, we are able to concur with your determination that the proposed project 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 Danielle Palmer at (978) 282-8468 or by e-mail (Danielle.Palmer@noaa.gov).

Sincerely,



fo John K. Bullard
Regional Administrator

References

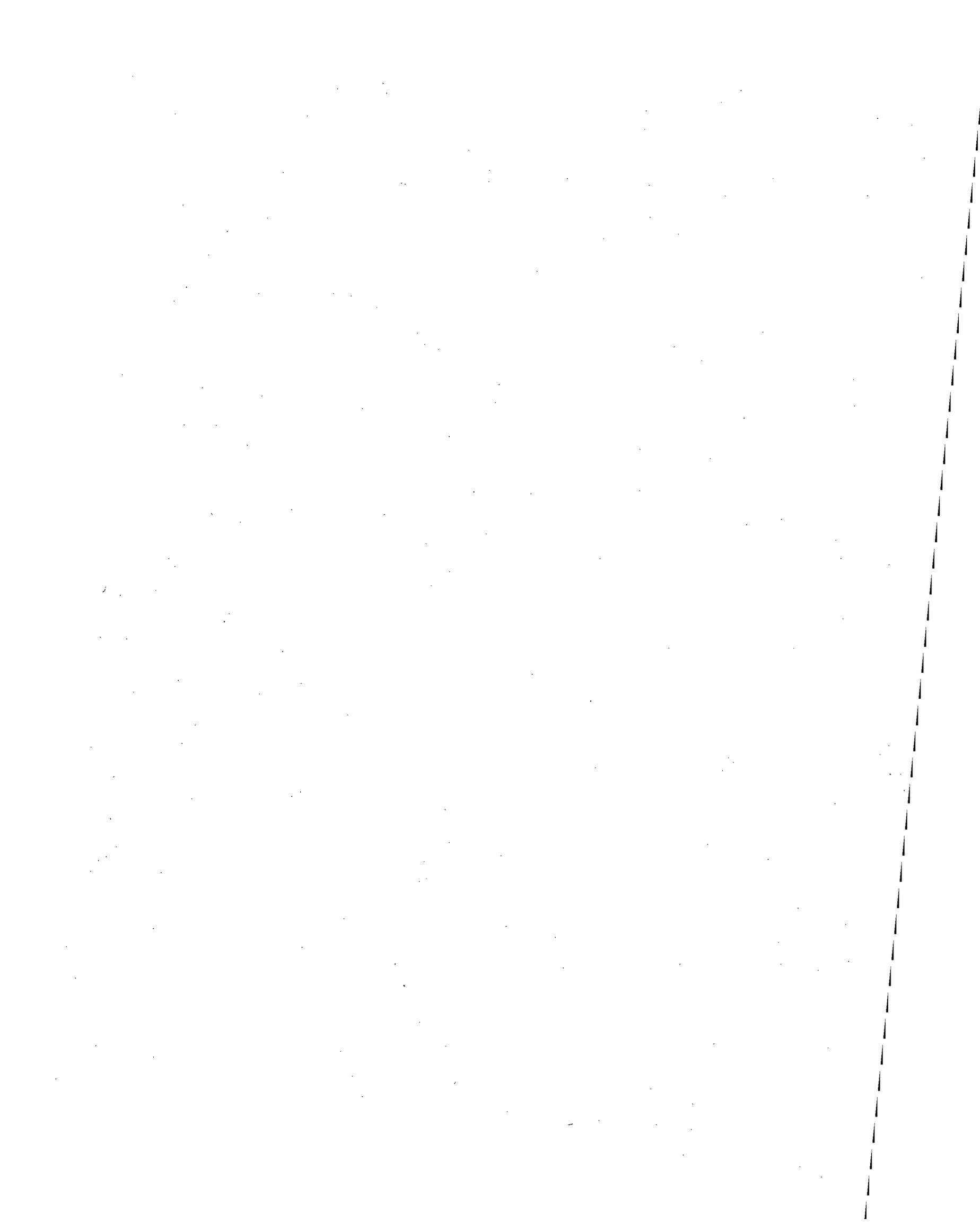
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EC: Palmer, NMFS/NER/PRD
Greene, NMFS/NER/HCD
Jadrosich, FEMA

File Code: Sec 7 FEMA Emergency First Responder Boat Ramp
PCTS I/NER/2012/03648

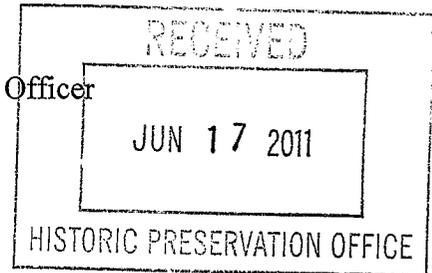




FEMA

June 16, 2011

Mr. Daniel Saunders
Acting Administrator and Deputy State Historic Preservation Officer
New Jersey Department of Environmental Protection
Historic Preservation Office
Mail-code 501-04B
P.O. Box 420
Trenton, NJ 08625-0404



11-1315-1 vjm.
HPO-62011-035

Re: Section 106 Consultation for Department of Homeland Security, FEMA
Burlington County, Palmyra, NJ
PSGP-2009-NJ-Boat Ramp

Dear Mr. Saunders:

The Federal Emergency Management Agency (FEMA) has proposed to provide grant funding from the Port Security Grant Program, to the Township of Palmyra in Burlington County, New Jersey for the installation of one boat access ramp. The property is located at 1300 Route 73 North, Palmyra, New Jersey (Figures 1-2).

Proposed Project Design:

The proposed undertaking plans to install one 8' x 100' x 30' boat ramp on State of New Jersey property that is managed by the Burlington County Bridge Commission. The site is located adjacent to the Tacony-Palmyra Bridge, in Palmyra, New Jersey (see figures 1-2, and Figure 3). The project scope of work includes soil erosion and sediment control, site dewatering, excavation and disposal, four to five inches of stone rip rap at a one-inch depth, crushed stone at the top of ramp, and site restoration (Figure 4).

The Area of Potential Effects is 1300 Route 73 North, Palmyra, New Jersey 08065 (see figures 1-3).

Due to proposed ground disturbance, DHS-FEMA is initiating Section 106 consultation for the proposed enhancements per 36 CFR Part 800.

Resources Consulted:

Online resources such as NJGEO-web, USFW National Wetlands Inventory, USDA Soil Survey, ArcGIS Explorer, David Rumsey Historical Map Collection, Historic Map Works as well as online topographic and location maps were referenced.

Archaeological findings:

An archaeological assessment was conducted to determine the APE's sensitivity to below ground archaeological resources. To determine the sensitivity, several aspects of the project were analyzed such as the project's proximity to known archeological resources, waterways, historic properties, the site's environmental characteristics such as soil analysis and the APE's previous ground disturbance activities. Based on the above information and predictive modeling analyses, an assessment can determine if the site has a high, moderate or low sensitivity to both historical and prehistoric archaeological resources.

Proximity to ^{NJ}Known Archaeological Resources:

According to ^{NJ}NY SHPO GIS website, the APE is not located within an archaeological sensitive area (Figure 5). In addition, it is not located in a historic or State Register of Historic Places historic district.

Proximity to Waterways:

According to topographic maps and the NJ-GEOweb website, the closest waterway or feature, is the Delaware River which abuts the project location (see figures 1 and 5). In addition, the APE is approximately 610 feet southwest of a small creek that runs into the Delaware River and approximately 650 feet northwest of a wetland. Predicative modeling analysis has shown that well-drained areas near wetlands and/or waterways are conducive to pre-contact and historic groups. While the APE is in direct proximity with the Delaware River, as illustrated below, the area has been highly disturbed and has a low sensitivity to archaeological resources.

Environmental Factors:

According to the NJ GEO-web database, the general area of the APE is located within Udorthents, dredged, coarse materials, 0-8 percent slopes soils (UddcB) with medium potential for runoff (see figure 5). These soils are from dredging episodes and are thereby disturbed soils, and are have a low sensitivity for archaeological resources.

In addition, the APE is located within the 500-year floodplain as indicated as Zone X on the Flood Insurance Rate Maps (FIRM) (Figure 6).

Historic Property Research:

As stated above, according to the NJ GEO-web database, there are no properties listed on the National or State Register of Historic Places within one-half mile of the APE.

In addition, cursory historic map research of nineteenth and early twentieth-century maps indicated that there were no historic properties within the APE. According to Cook's

1888 map *A Topographical Map of the Vicinity of Camden, Burlington, Winslow, Elmer and Swedesboro* the area of the APE seems to be have been a wetland historically and was became built fill land after 1888. The soils to build were probably located from dredging activities as indicated in the soil survey (Figure 7).

Current and previous Ground Disturbance Activities:

Previous ground disturbing activities within the APE are associated with the dredging and filling episodes that appear to have happened after 1888. The soils indicated that they come from previous dredging episodes. In addition, the area currently has a made dirt road as seen in figures 1-5.

Historic Structures Research:

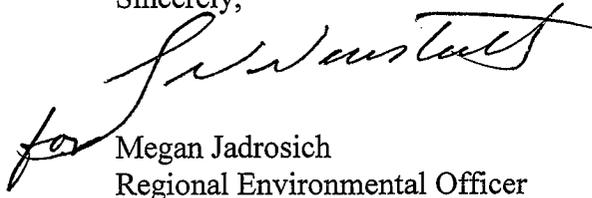
There are no historic properties within the project area. Therefore No Historic Properties are Affected.

Determination:

DHS-FEMA's finding is that there are No Historic Properties Affected by the proposed undertaking and no conditions are required. The area has been previously disturbed and there is a low sensitivity for archaeological resources.

We look forward to your response within 30 days of receipt of this correspondence. If you have any questions, please contact me at 212-680-3635 or via email at Megan.Jadrosich@dhs.gov.

Sincerely,


for Megan Jadrosich
Regional Environmental Officer

Enclosures: Maps and photos by applicant

I concur with your finding that there are no historic properties affected within the project's area of potential effects. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

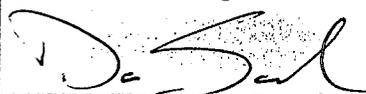
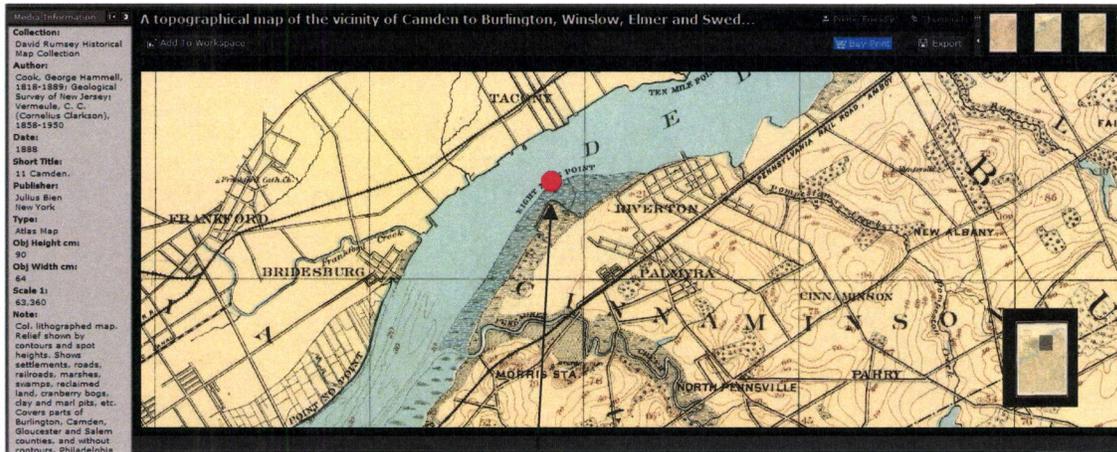
 7/7/11
DANIEL D. SAUNDERS Date
Deputy State Historic Preservation Officer NP

Figure 6: 1888 Cook, George Hammell, *A Topographical Map of the Vicinity of Camden to Burlington, Winslow, Elmer, and Swedesboro*. Published by Julien Bien, New York.



Approximate area of APE