

Appendix J

Draft Fish and Wildlife Coordination Act Report

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Fish and Wildlife Coordination

The Draft Coordination Act Report (DCAR) was provided by the USFWS dated March 13, 2014. USACE has considered the DCAR recommendations as indicated in the responses below.

USFWS Comment 1: This letter serves as the U.S. Fish and Wildlife Service (Service) Draft Fish and Wildlife Coordination Act Report of the Department of the Interior as required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. as amended; 16 U.S.C 661-667d) for the Wilmington Harbor Navigation Improvements Report Summary (Report) that you transmitted by e-mail to the Service on February 21, 2014. This letter also contains our recommendations to avoid any impact to the West Indian Manatee to be used during project construction pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C 1461 et seq.). The Service is the lead Federal agency responsible for the protection and recovery of the West Indian manatee under the Endangered Species Act. This letter informs you that the red knot is proposed for listing and may be listed before this project is constructed (<http://www.fws.gov/northeast/redknot/>). The Service will be the lead Federal agency for the protection and recovery of the red knot if and when that species is listed. The Service recommends pairing navigation and safety goals with the appropriate environmental goal or goals. This approach could result in greater agreement in interested parties, a quicker timeline for project development and a greater benefit to the public after project implementation.

USACE Response: The guide lines USACE routinely uses for the protection of manatees is included in this Appendix J with the Draft Coordination Act Report. Because the red knot is proposed for listed and may be listed before the proposed project construction, the red knot is discussed in sections 2.8 and 7.8 of the Draft Feasibility Report and EA. USACE always considers potential environmental effects of all aspects of proposed projects including navigation and safety goals.

USFWS Comment 2: The first navigational problem concerns the Wilmington Harbor entrance channel which is subject to rapid and persistent shoaling. Our August 8, 2012 scoping comments recommended this problem should be paired to the environmental goal of reducing beach erosion on South Beach on Bald Head Island. The Service is satisfied with Report Alignment 2 which moves the channel further away from Bald Head Island because it should reduce although not eliminate the problem of beach erosion on Baldhead Island. The Service appreciates any consideration given to our scoping comments in reaching that decision.

USACE Response: USACE concurs with the USFWS recommendation and USACE always fully evaluates USFWS recommendations.

USFWS Comment 3: The second navigational problem concerns the turn near Battery Island being too severe for some container vessels under certain conditions of wind and tide. The environmental goals in this area are to decrease the total acreage of river bottom used as navigational channel and position the channel further from the shoreline rock, oyster, and mud and marsh bottoms. Reducing curvature may make less channel

length/acreage footprint necessary and positioning the channel more toward the center of the river would alleviate impacts to shoreline rock, oyster, and mud and marsh bottoms. The Service appreciates the additional information that your office provided regarding the analysis that was conducted on ship induced waves in the area. The Service agrees that proposed Battery Island turn widening as described in the Report will not result in waves from ship traffic that will negatively impact adjacent intertidal habitat. The Service appreciates your consideration of our scoping comments and believes the proposed widening avoids impact to important fish and wildlife intertidal habitat adjacent to the turn.

USACE Response: USACE has optimized the curvature of the turn at Battery Island to facilitate ship traffic, and has minimized the area of river bottom dredged to the extent feasible. USACE always fully evaluates USFWS recommendations, strives to minimize environmental impacts and endeavors to provide USFWS with all information necessary to prepare a complete CAR.

USFWS Comment 4: If a significant amount of rock or cemented sand is contained within the sand dredged during the turn widening this material may be better used at the Wilmington Offshore Fish Enhancement Structure rather than the Offshore Marine Disposal Site. Sharing your agency desktop wave analysis with the Service was very helpful in our technical review. Without the analysis and a site inspection the Service would not have been comfortable that the proposed widening avoided impacting shoreline rock, oyster, mud and marsh bottom which is important fish and bird habitat. Sharing technical information between our agencies is an important aspect of collaborative problem solving.

USACE Response: USACE agrees that sharing technical information between our agencies is an important aspect of collaborative problem solving.

There may be some rock and cemented sand in the dredged material from the Battery Island turn, but it is anticipated that material will be a minor fraction of the sand and silty material removed from the Battery Island Turn. That mix of material would not be compatible with the predominantly rocky material at the Wilmington Offshore Fish Enhancement Structure.

USFWS Comment 5: Battery Island is currently experiencing shoreline erosion and our observations made during this review and our conversations with the Audubon Society that manages the island both indicate that the impact from ship traffic is part of a larger problem that involves large fast boat traffic with the most serious problem coming from the Bald Head Ferry. Erosion is not new to Battery Island. Only remnants of the geotextile tubes that previously provided erosion control remain. The Service will attempt to partner with the NC Coastal Federation and NC Audubon to establish an oyster shell bag erosion control similar to the one established at Springer's Point on Ocracoke Island. It will likely be several years before this erosion control can be implemented. The Service asks that you make the ship pilots aware of this erosion problem and ask them to consider reducing their speed in the vicinity of Battery Island when possible. The Service realizes that in some instances a reduction in speed may diminish steerage and relies on the pilots to use their experience on when and if a speed reduction is practical.

USACE Response: Please keep USACE informed on any actions related to the potential oyster shell bag erosion control action. Several of the District's staff are willing to volunteer to help in that action. USACE has discussed USFWS's concern about speed in the turn with Mr. Tommy Brendle, President of the Wilmington/Cape Fear Pilots Association. He understands and is sympathetic with USFWS's concern. However, a ship normally approaching the turn will be doing 11-12 knots but will slow by 3-5 knots to make the turn. Any speeds slower than that can effect steerage which could be hazardous to the operation of the vessels.

USFWS Comment 6: Battery Island is globally significant for white ibis. From 2001-2007, an average of 13,581 pairs of white ibis have nested on it which represents 84% of the state's population. It is also an important nesting site for herons and egrets with nine species nesting there (spreadsheet attached). Wading birds nest in the shrub thickets and trees primarily on the south end of the island (map attached). In addition there are 15 shore and marsh-affiliated species that nest on the island. Another island nesting bird census will be taken this summer. American oystercatchers nest on the sand berms and shell rakes on Battery Island and are suffering poor success due to washover from ferry, ship and large boat wakes. Reducing ship speed in this vicinity when practical would be helpful to American oystercatcher nesting success on Battery Island sand berms as well as reduce shoreline erosion. Battery Island nesting season extends from April thru August.

USACE Response: As indicated for comment 5 above, USACE has discussed USFWS's concern about speed in the turn with Mr. Tommy Brendle, President of the Wilmington/Cape Fear Pilots Association. He understands and is sympathetic with USFWS's concern. However, a ship normally approaching the turn will be doing 11-12 knots but will slow by 3-5 knots to make the turn. Any speeds slower than that can effect steerage which could be hazardous to the operation of the vessels.

USFWS Comment 7: The inadequate size of the turning basin constitutes the third navigational problem. Any increase in turning basin size will likely result in unavoidable impacts. There may also be unavoidable impacts in solving the turning problem near Battery Island even after considering the environmental goals in that area. In the case of unavoidable impacts the Service recommends these impacts are mitigated by constructing rock weirs at one or both of the remaining Lock and Dams. The Service understands that the work at the turning basin has been shelved because of an unacceptable cost benefit ratio but we offer the comments if that situation changes over time.

USACE Response: Increasing the size of the turning basin is no longer a part of the proposed project and as such USACE does not anticipate any impacts requiring mitigation. However USFWS's comment about rock weirs will be evaluated if such mitigation is required.

USFWS Comment 8: To avoid impact to the West Indian manatee during construction the following are required. 1) The project manager will ensure that construction personnel know the general appearance of the species and their habit of moving slowly about completely or partially submerged. Construction personnel will be informed that

they are responsible for watching for manatees. 2) If a manatee is seen within ten miles of the active construction and/or dredging operation or vessel movement, the Service Raleigh Field Office (Mike Wicker, if possible) must be contacted. Blasting must be suspended if any manatee is sighted within one mile of the work area. Dredging must halt if a manatee approaches within 500 yards of the area. Activities will not resume until the manatee has departed the project area on its own (i.e., it may not be herded or harassed from the area). It is very unlikely that manatees will be in the area during construction and even more unlikely if they were that they would stay for long.

USACE Response: The manatee guidelines included in Appendix xx are used for all USACE projects where manatees may be present. Those guidelines was also be used during construction of the proposed project. No manatees are anticipated in the project area during the construction and maintenance period of December 1 through March 31 due to cold water temperatures. Even if construction and maintenance was extended into to May due to unexpected delays, manatees are not anticipated due to cold water temperatures. No blasting in proposed; therefore, that is not a concern related to manatees or any other species.

USFWS Comment 9: Focusing on collaborative problem solving using a technical approach that facilitates communication between professional disciplines such as biology and engineering and recognizes different skill sets can eliminate much debate, save time and serve a broad public interest. Both of our agencies have both biologists and engineers. The use of a technical collaborative approach where environmental and construction agencies work as partners in project development will better serve the public interests of North Carolina and the nation. Please contact Mike Wicker at 919-856-4520 ext 22 or by e-mail at [mike_wicker @fws.gov](mailto:mike_wicker@fws.gov) with any questions or with any requests for technical information.

USACE Response: Agreed.

Draft Fish and Wildlife Coordination Act Report - March 13, 2014



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh ES Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

March 13, 2014

Mr. Frank Yelverton
Environmental Resources Section
U.S. Army Corps of Engineers
69 Darlington Avenue
Wilmington, N.C. 28403

Dear Mr. Yelverton:

This letter serves as the U.S. Fish and Wildlife Service (Service) Draft Fish and Wildlife Coordination Act Report of the Department of the Interior as required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. as amended; 16 U.S.C 661-667d) for the Wilmington Harbor Navigation Improvements Report Summary (Report) that you transmitted by e-mail to the Service on February 21, 2014. This letter also contains our recommendations to avoid any impact to the West Indian Manatee to be used during project construction pursuant to the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C 1461 et seq.). The Service is the lead Federal agency responsible for the protection and recovery of the West Indian manatee under the Endangered Species Act. This letter informs you that the red knot is proposed for listing and may be listed before this project is constructed (<http://www.fws.gov/northeast/redknot/>). The Service will be the lead Federal agency for the protection and recovery of the red knot if and when that species is listed. The Service recommends pairing navigation and safety goals with the appropriate environmental goal or goals. This approach could result in greater agreement in interested parties, a quicker timeline for project development and a greater benefit to the public after project implementation.

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from ship traffic that will negatively impact adjacent intertidal habitat. The Service appreciates your consideration of our scoping comments and believes the proposed widening avoids impact to important fish and wildlife intertidal habitat adjacent to the turn. If a significant amount of rock or cemented sand is contained within the sand dredged during the turn widening this material may be better used at the Wilmington Offshore Fish Enhancement Structure rather than the Offshore Marine Disposal Site. Sharing your agency desktop wave analysis with the Service was very helpful in our technical review. Without the analysis and a site inspection the Service would not have been comfortable that the proposed widening avoided impacting shoreline rock, oyster, mud and marsh bottom which is important fish and bird habitat. Sharing technical information between our agencies is an important aspect of collaborative problem solving.

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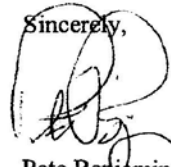
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To avoid impact to the West Indian manatee during construction the following are required. 1) The project manager will ensure that construction personnel know the general appearance of the species and their habit of moving slowly about completely or partially submerged. Construction personnel will be informed that they are responsible for watching for manatees. 2) If a manatee is seen within ten miles of the active construction and/or dredging operation or vessel movement, the Service Raleigh Field Office (Mike Wicker, if possible) must be contacted. Blasting must be suspended if any manatee is sighted within one mile of the work area. Dredging must halt if a manatee approaches within 500 yards of the area. Activities will not resume until the manatee has

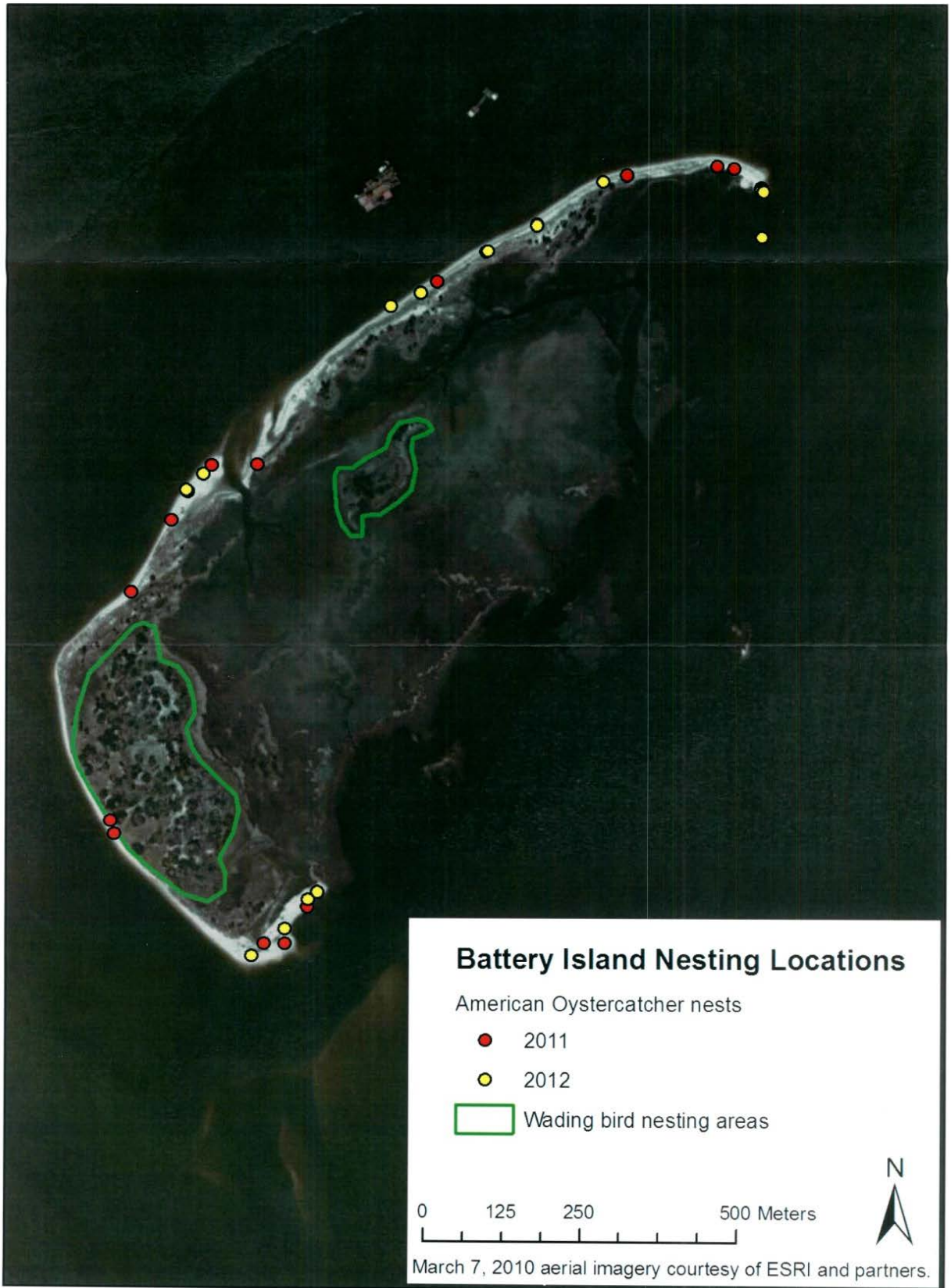
departed the project area on its own (i.e., it may not be herded or harassed from the area). It is very unlikely that manatees will be in the area during construction and even more unlikely if they were that they would stay for long.

Focusing on collaborative problem solving using a technical approach that facilitates communication between professional disciplines such as biology and engineering and recognizes different skill sets can eliminate much debate, save time and serve a broad public interest. Both of our agencies have both biologists and engineers. The use of a technical collaborative approach where environmental and construction agencies work as partners in project development will better serve the public interests of North Carolina and the nation. Please contact Mike Wicker at 919-856-4520 ext 22 or by e-mail at mike_wicker@fws.gov with any questions or with any requests for technical information.

Sincerely,

A handwritten signature in black ink, appearing to read "Pete Benjamin", written over a circular stamp or seal.

Pete Benjamin
Field Supervisor



White Ibis on Battery Island		1975	1976	1977	1983	1988	1993	1995	1997	1999	2001	2004	2007	2011
State total		1579		3157	3825	6332	10455	9428	9446	8711	17043	14392	16962	11176
Battery Island total		1513		3105	3737	6072	9690	8793	8889	7704	15493	11504	13749	0
Percent state population		0.96		0.98	0.98	0.96	0.93	0.93	0.94	0.88	0.91	0.80	0.81	0.00

Numbers collected on NCFWRC-coordinated statewide censuses.

Species on Battery Island	Conservation Status	Average % State Population 2001-2007
American Oystercatcher	State species of special concern	3.0
Black-crowned Night-Heron	State species of special concern	11.2
Cattle Egret	State species of special concern	>2.0
Clapper Rail	State species of special concern	unknown, species not censused
Glossy Ibis	State species of special concern	>1.0
Great Egret	State species of special concern	7.9
Green Heron	State species of special concern	10.0
Little Blue Heron	State species of special concern	unknown, species breeds inland as well as coastally so entire population is not censused
Marsh Wren	State species of special concern	unknown, species not censused
Seaside Sparrow	State species of special concern	unknown, species not censused
Snowy Egret	State species of special concern	1.7
Tricolored Heron	State species of special concern	21.5
White Ibis	State species of special concern	84.2
Willet	State species of special concern	unknown, species not censused
Yellow-crowned Night-Heron	State species of special concern	0.0

Guidelines for Avoiding Impacts to the West Indian Manatee



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Raleigh Field Office
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GUIDELINES FOR AVOIDING IMPACTS TO THE WEST INDIAN MANATEE Precautionary Measures for Construction Activities in North Carolina Waters

The West Indian manatee (*Trichechus manatus*), also known as the Florida manatee, is a Federally-listed endangered aquatic mammal protected under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C 1461 *et seq.*). The manatee is also listed as endangered under the North Carolina Endangered Species Act of 1987 (Article 25 of Chapter 113 of the General Statutes). The U.S. Fish and Wildlife Service (Service) is the lead Federal agency responsible for the protection and recovery of the West Indian manatee under the provisions of the Endangered Species Act.

Adult manatees average 10 feet long and weigh about 2,200 pounds, although some individuals have been recorded at lengths greater than 13 feet and weighing as much as 3,500 pounds. Manatees are commonly found in fresh, brackish, or marine water habitats, including shallow coastal bays, lagoons, estuaries, and inland rivers of varying salinity extremes. Manatees spend much of their time underwater or partly submerged, making them difficult to detect even in shallow water. While the manatee's principal stronghold in the United States is Florida, the species is considered a seasonal inhabitant of North Carolina with most occurrences reported from June through October.

To protect manatees in North Carolina, the Service's Raleigh Field Office has prepared precautionary measures for general construction activities in waters used by the species. Implementation of these measure will allow in-water projects which do not require blasting to proceed without adverse impacts to manatees. In addition, inclusion of these guidelines as conservation measures in a Biological Assessment or Biological Evaluation, or as part of the determination of impacts on the manatee in an environmental document prepared pursuant to the National Environmental Policy Act, will expedite the Service's review of the document for the fulfillment of requirements under Section 7 of the Endangered Species Act. These measures include:

1. The project manager and/or contractor will inform all personnel associated with the project that manatees may be present in the project area, and the need to avoid any harm to these endangered mammals. The project manager will ensure that all construction personnel know the general appearance of the species and their habit of moving about completely or partially submerged in shallow water. All construction personnel will be informed that they are responsible for observing water-related activities for the presence of manatees.
2. The project manager and/or the contractor will advise all construction personnel that

there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act and the Endangered Species Act.

3. If a manatee is seen within 100 yards of the active construction and/or dredging operation or vessel movement, all appropriate precautions will be implemented to ensure protection of the manatee. These precautions will include the immediate shutdown of moving equipment if a manatee comes within 50 feet of the operational area of the equipment. Activities will not resume until the manatee has departed the project area on its own volition (i.e., it may not be herded or harassed from the area).

4. Any collision with and/or injury to a manatee will be reported immediately. The report must be made to the U.S. Fish and Wildlife Service (ph. 919.856.4520 ext. 16), the National Marine Fisheries Service (ph. 252.728.8762), and the North Carolina Wildlife Resources Commission (ph. 252.448.1546).

5. A sign will be posted in all vessels associated with the project where it is clearly visible to the vessel operator. The sign should state:

CAUTION: The endangered manatee may occur in these waters during the warmer months, primarily from June through October. Idle speed is required if operating this vessel in shallow water during these months. All equipment must be shut down if a manatee comes within 50 feet of the vessel or operating equipment. A collision with and/or injury to the manatee must be reported immediately to the U.S. Fish and Wildlife Service (919-856-4520 ext. 16), the National Marine Fisheries Service (252.728.8762), and the North Carolina Wildlife Resources Commission (252.448.1546).

6. The contractor will maintain a log detailing sightings, collisions, and/or injuries to manatees during project activities. Upon completion of the action, the project manager will prepare a report which summarizes all information on manatees encountered and submit the report to the Service's Raleigh Field Office.

7. All vessels associated with the construction project will operate at "no wake/idle" speeds at all times while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

8. If siltation barriers must be placed in shallow water, these barriers will be: (a) made of material in which manatees cannot become entangled; (b) secured in a manner that they cannot break free and entangle manatees; and, (c) regularly monitored to ensure that manatees have not become entangled. Barriers will be placed in a manner to allow manatees entry to or exit from essential habitat.

Prepared by (rev. 06/2003):
U.S. Fish and Wildlife Service
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726
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Figure 1. The whole body of the West Indian manatee may be visible in clear water; but in the dark and muddy waters of coastal North Carolina, one normally sees only a small part of the head when the manatee raises its nose to breathe.

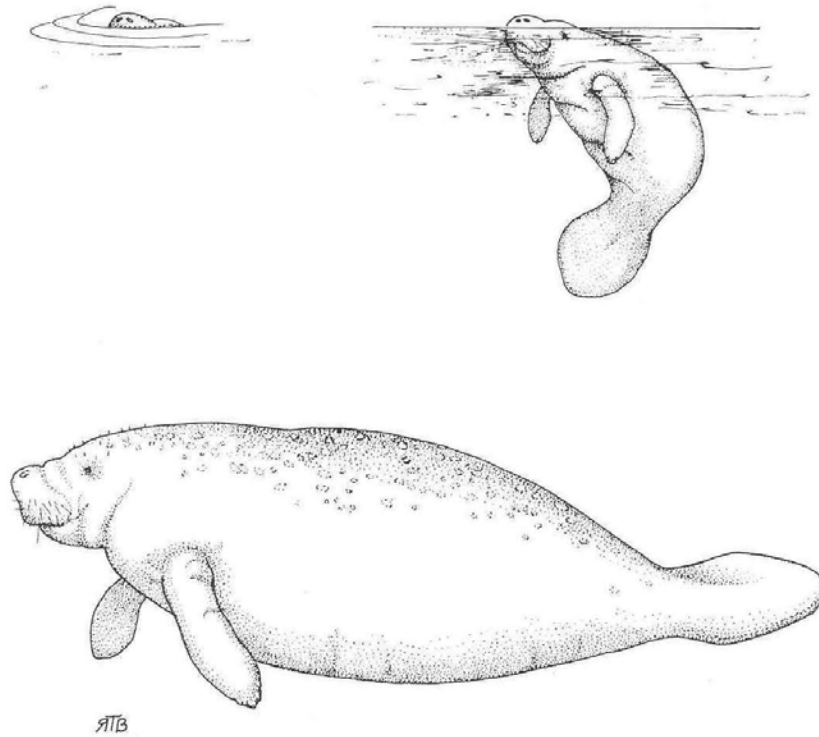


Illustration used with the permission of the North Carolina State Museum of Natural Sciences.
Source: Clark, M. K. 1987. Endangered, Threatened, and Rare Fauna of North Carolina: Part I. A re-evaluation of the mammals. Occasional Papers of the North Carolina Biological Survey 1987-3. North Carolina State Museum of Natural Sciences. Raleigh, NC. pp. 52.