US Army Corps of Engineers ®
Wilmington District

ENVIRONMENTAL ASSESSMENT MASTER PLAN SUPPLEMENT SNOW'S CUT

Atlantic Intracoastal Waterway,
Myrtle Grove Sound to Cape Fear River
New Hanover County, North Carolina

May 2015

ENVIRONMENTAL ASSESSMENT

SNOW'S CUT MASTER PLAN SUPPLEMENT
NEW HANOVER COUNTY, NORTH CAROLINA

May 2015

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1.0 INTRODUCTION

Snow's Cut is located in southeastern North Carolina about 12 miles south of Wilmington (Figure 1). A Master Plan (MP) was completed for Snow's Cut in1994, but this MP needs to be updated to reflect current conditions. A Master Plan Supplement (MPS) is used for this update when there are only minor changes and modifications to the original MP. The purpose of this Environmental Assessment (EA) is to identify and evaluate the environmental impacts associated with the Snow's Cut MPS.

1.1. Authorization

Snow's Cut was authorized by the Navigation Act of January, 1927 (P.L. 69-560; 44 Stat. 1010, Ch. 47 (Jan. 11, 1927)), as part of the Atlantic Intracoastal Waterway (AIWW) from Beaufort, North Carolina, to the Cape Fear River, North Carolina.

1.2 Project Purpose

The purpose of the MPS is to update changes since the last MP, which was completed in 1994. The changes are in land use classifications. This MPS provides for the orderly and coordinated development and management of the land and water areas of the project. It recognizes the dominant nature of the project (Navigation/Operations) and outlines the routine management requirements of the project for operation purposes and for the use and preservation of the project resources.

1.3 History of Project

In the Navigation Act, approved January 1927, provision was made for construction of an intracoastal waterway from Beaufort, North Carolina, to the Cape Fear River in accordance with a project as stated in, (P.L. 69-560; 44 Stat. 1010, Ch. 47 (Jan. 11, 1927) subject to the condition that, among other things, local interests furnish, without costs to the United States, a right-of-way, 1,000 feet wide.

The State of North Carolina, by legislative act, assumed the duty of fulfilling this condition and authorized its agencies to acquire and furnish the 1,000-foot-wide right-of-way required to the Federal government. Major William A. Snow was the U.S. Army Corps of Engineers District Engineer from 1926 to 1930, and it was during this period that the land cut portion of the AIWW was dredged. It became commonly known as Snow's Cut at that time.

The initial construction of the project began in 1929. The channel and a swing-truss bridge, necessitated by the cutting of U.S. Highway 421, were completed in 1931. The North Carolina State Highway Commission assumed the responsibility for operation and maintenance of the bridge in perpetuity at that time. In August 1950, the North Carolina State Highway Commission constructed SR 1100, known as River Road, across a portion of Government land. In 1961, the North Carolina State Highway Commission

completed a fixed bridge, and the swing-truss bridge was removed. During its history, Snow's Cut has served as a convenient safe inland navigation channel for both commercial and pleasure crafts moving northwardly and southwardly along the coast of North Carolina.

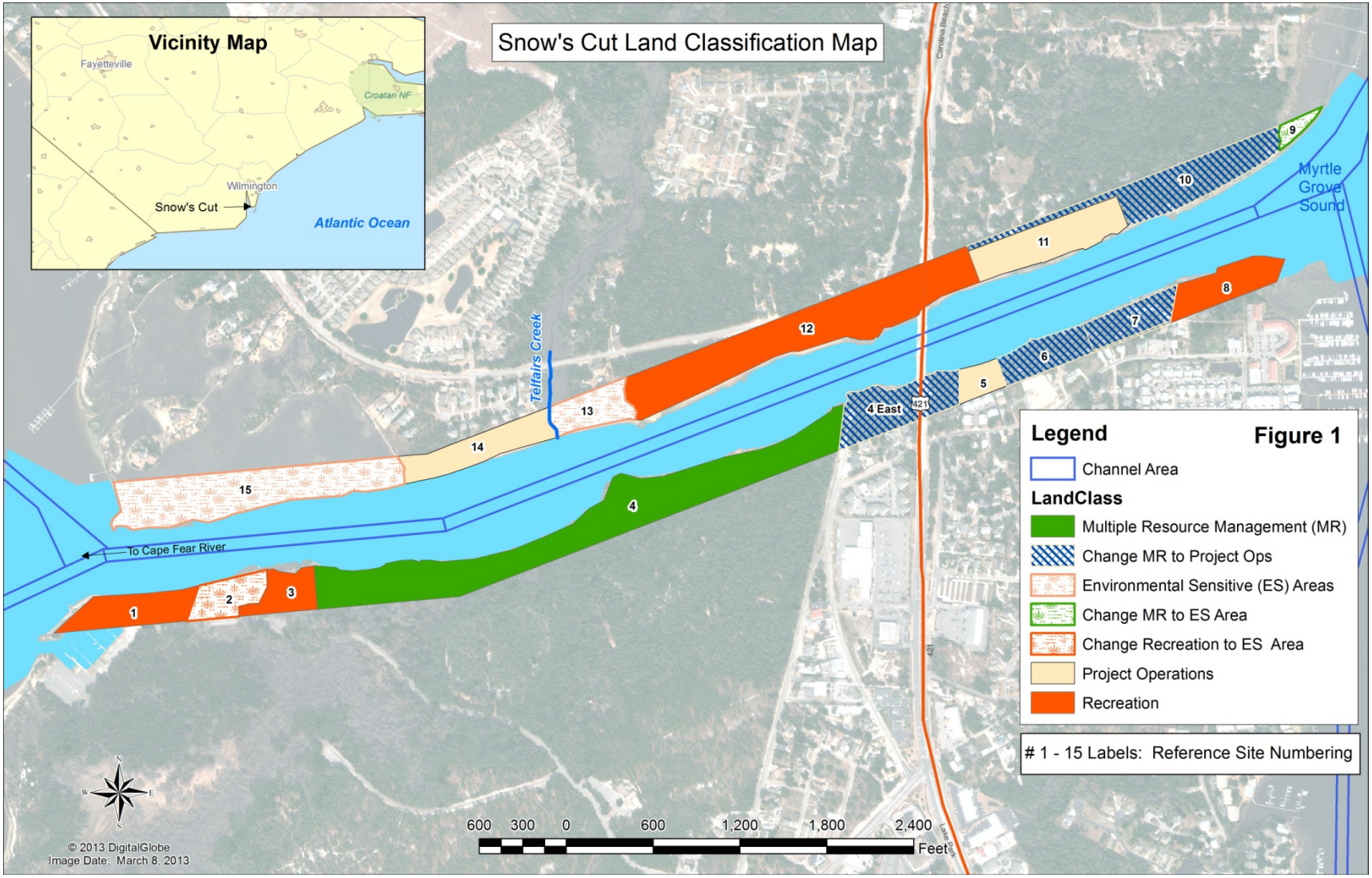


Figure 1. Snow's Cut Land Classification Map

1.4 Project Description

Snow's Cut, a part of the AIWW between Beaufort, North Carolina, and the Cape Fear River, North Carolina (Figure 1), is an authorized navigation channel, 90 feet wide and 12 feet deep, between the Cape Fear River and Myrtle Grove Sound, approximately 9,000 feet in length. The channel centers on a 1,000-foot, fee-owned right-of-way along its entire length. Although the authorized navigation channel is only 90 feet in width, erosion of the adjacent shoreline has increased the waterway to a width in excess of 400 feet. Strips of land lie within the right-of-way along each side of the project. These strips average 300 feet in width and range up to 25 feet above the average high tide elevation. Gentle upland slopes are the norm, except at the banks where frequent 10- to 25-foot escarpment has been formed by tides and tidal currents, boat wakes and wave action. These upland strips are generally heavily wooded and dominated by loblolly pines and various oak species, except for the previous used disposal sites which are dominated by shrubs, grasses and barren sand (Figure 1, sites 11 and 14).

An area is leased by New Hanover County (Figure 1 and Figure 2). Sanitary water and picnic facilities are available to the public at no charge. A boat launching facility exists at the southeast corner of the project and is operated by the North Carolina Wildlife Resources Commission (NCWRC, Figure 1 site 8 and Figure 2). New Hanover County has subleased a portion of the southern shoreline to Carolina Beach which is used as part of a Carolina Beach Greenway trail (Figure 1 sites 4 east through 7 and Figure 2). The trail in site 5 is near to the steep eroding shoreline. The State of North Carolina has two right-of-way easements for public roads on the Government property. Also, Southern Bell Telephone and Telegraph Company have a 20-foot-wide easement for a submerged cable across the channel and over Government lands. Finally, the Town of Carolina Beach has an easement on the south side of Snow's Cut just west of the bridge (Figure 2). The area contains the town's water supply well #10 which is an active part of the Carolina Beach water distribution system.

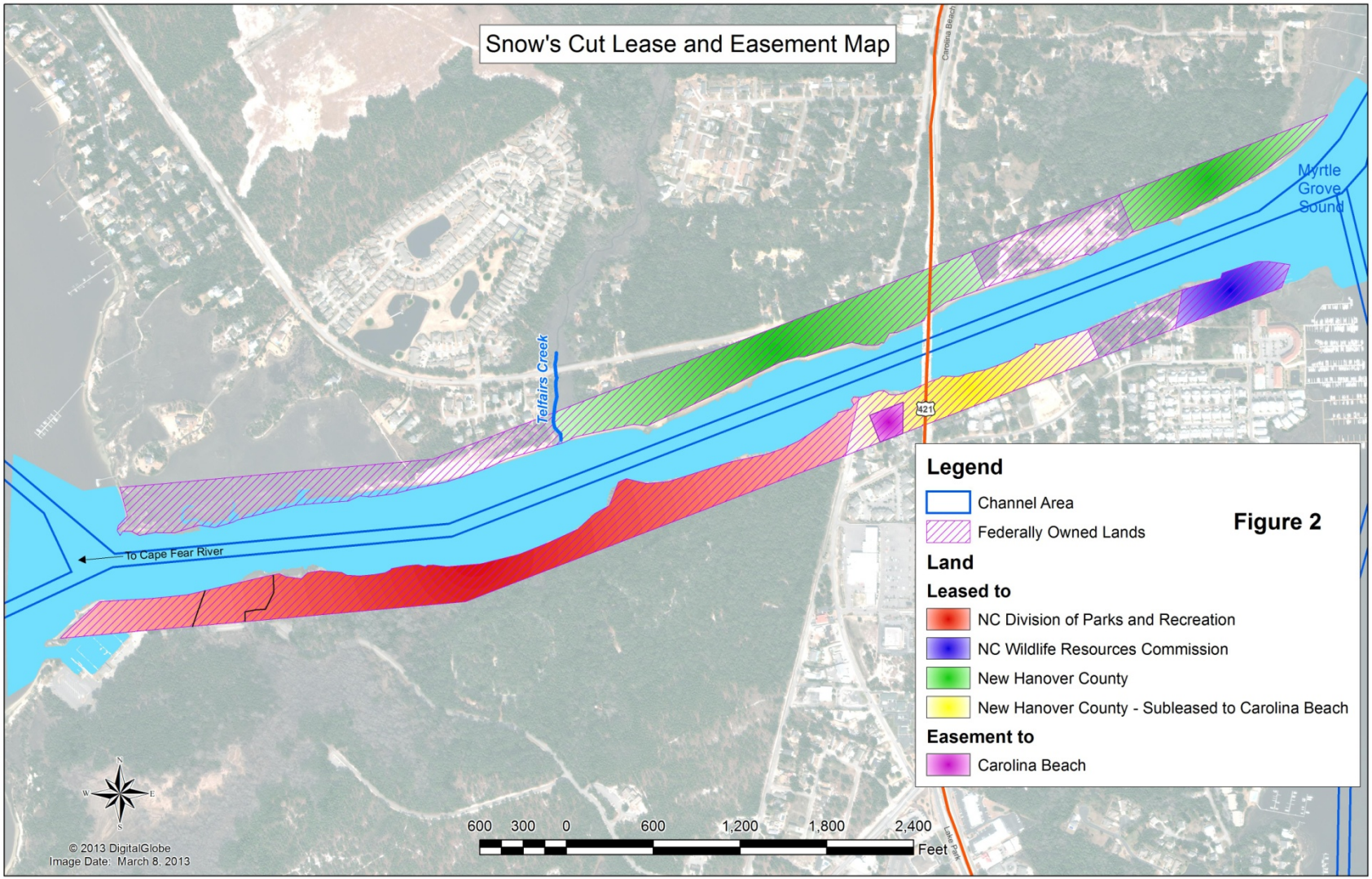


Figure 2. Snow's Cut Lease and Easement Map

1.5 Master Plan Supplement

The MPS provides for the orderly and coordinated development and management of the land and water areas of the project (USACE 2015). It recognizes the dominant nature of the project (Navigation/Operations) and outlines the routine management requirements of the project for operation purposes and for the use and preservation of the project resources.

A MP provides a programmatic approach to the management of all of the government-owned lands included within the Snow's Cut project boundaries. Therefore, for this Environmental Assessment (EA), the project area includes all of the area within the Snow's Cut fee-owned lands. Since the publication of the 1994 Snow's Cut Master Plan, USACE has updated its policies directing the development and implementation of Master Plans. Specific MP requirements are contained in *Engineer Pamphlet* (EP) *1130-2-550 Project Operations - Recreation Operations and Maintenance Guidance and Procedures*, which was last updated on January 30, 2013. The current guidance includes revised categories of Land Classifications used to define project lands. The current guidance also includes requirements for an interdisciplinary team approach to be used for the development, reevaluation, and supplementation or updating of MPs. Coordination with other agencies and the public is an integral part of the master planning process.

The MP is programmatic and identifies conceptual types and levels of activities, not designs, project sites, or estimated costs. Actions by USACE, North Carolina, New Hanover County and other management partners must be consistent with the MP. Therefore, the MP should be kept current in order to provide effective guidance in decision-making. MPs in need of only minor revisions and modifications may be supplemented. Supplements can be prepared as often as necessary to ensure that the MP continues to serve its intended purpose.

This EA addresses the proposed adoption and implementation of a MPS to the1994 Snow's Cut Master Plan. The EA analyzes the potential impact that implementing the MPS would have on the natural, cultural, and human environment. This document has been prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA); regulations of the Council on Environmental Quality (CEQ) (40 CFR 1508.9); and USACE regulations, including Engineer Regulation 200-2-2: Procedures for Implementing NEPA.

The typical focus of NEPA compliance consists of environmental impact assessments for individual projects, rather than for long-range plans. However, application of NEPA to MPS decisions not only meets the CEQ implementing regulations (40 CFR 1500-1508) and USACE regulations for implementing NEPA (ER 200-2-2), but allows USACE and management partners to begin considering the environmental consequences of their actions long before any physical activity is planned. Multiple benefits can be

derived from such early consideration. Effective and early NEPA integration with the master planning process can increase the usefulness of the plan to the decision maker, if environmental information can be provided to the correct individuals, at the right time, and in the right form. If such utility can be realized, organizational outcomes, such as support for the project mission and NEPA compliance can be improved. Environmental documents prepared concurrently with the MPS can influence and modify strategic land use decisions, whereas environmental documents prepared after the MPS would have little influence on strategic decisions already made.

The MPS and this EA were prepared in accordance with the following guidance:

- Engineer Regulation (ER) 200-1-5, Environmental Quality – Policy for Implementation and Integrated Application of the U.S. Army Corps of Engineers Environmental Operating Principles and Doctrine, 30 October 2003;
- ER 200-2-2, Environmental Quality – Procedures for Implementing the National Environmental Policy Act, 4 March 1988;
- ER 1105-2-100, Planning Guidance, 22 April 2000, 30 June 2004, 31 January 2007, 30 June 2004, 20 November 2007; and

1.6 Prior Documents

Over the past two decades the U.S. Army Corps of Engineers (USACE) has published two planning reports related to Snow's Cut. These reports are listed below and are incorporated by reference.

- U.S. Army Corps of Engineers, Wilmington District. January 1994. Snow's Cut, Atlantic Intracoastal Waterway, Myrtle Grove Sound to Cape Fear River North Carolina, Master Plan, Design Memorandum No. 2B. The purpose of this report was to serve as a guide to coordinate use and development of project lands at Snow's Cut in order to insure the maximum sustained benefit to the public may be attained.

- U.S. Army Corps of Engineers, Wilmington District. January 2000. Snow's Cut, Atlantic Intracoastal Waterway, Myrtle Grove Sound to Cape Fear River North Carolina, Section 216-Review of Completed Project, Initial Appraisal Report. The purpose of this report was to present the results of an initial appraisal investigation to determine if a Federal interest existed in possible modifications of the Snow's Cut project. The focuses of the study were improved long-term resource management, and the need for measures to arrest continuing erosion and saltwater intrusion. No action has been taken on these issues since the report.

2.0 ALTERNATIVES

Development of the alternatives to update the Snow's Cut MP began in 2013. USACE collected information and coordinated with Federal, State, and local agencies with knowledge of the project resources. The data collection, public comments, and findings

of the planning team revealed that there was only one action alternative that would meet the purpose, need, and objectives of the master planning process. Based on these needs, the EA identified one action alternative, the adoption of the MPS, which is USACE's Selected Action. The MPS involves changes to land classifications relative to the 1994 Master Plan. The EA also analyzed a No Action Alternative.

2.1 Proposed Alternative, Adoption of the Snows Cut Master Plan Supplement

The proposed land classification for Snow's Cut is indicated in Figure 1. According to EP 1130-2-550, there are six available land classifications for Snow's Cut. Four of these are present at Snow's Cut and are described below. The classifications, Mitigation and Water Surface, are not present or applicable at Snow's Cut.

2.1.1 Project Operations

For Snow's Cut, site 7 in the 1994 MP was designated as Multiple Resource Management; however that site is proposed to be changed to the Project Operations classification. That approximately 3.1 acre site is currently surrounded on the upland portion by a chain link fence. Riprap was placed along the shoreline in 2003 to preclude erosion and a dock was constructed for periodic use by Corps of Engineers vessels. The upland portion of the site is being used for light industrial activities such as storage of equipment.

In addition, the eastern portion of site 4 (4 east), and all of sites 6 and 10 are proposed to be changed from Multiple Resource Management to Project Operations (see Figure 1). No alterations exist at those sites except for old chain link fencing along the northern border of site 10.

These proposed changes in land use would result in a continuous Project Operations area from site 4 east through site 7 and for sites 10 and 11. Project operations will not impact the Carolina Beach well #10 described in Section 1.4. Government vehicular access to the site is currently available via a locked gate at the east end of site 7, and additional access may be created into site 4 east via Dow Road.

A part of a Carolina Beach Greenway Trail extends through sites 4 east through 7, and the trail then continues south along Old Dow Road. The trail is used for hiking and biking. The trail on Corps property will be relocated along the south property line if potential future project operations would interfere with trail use.

As with the other Project Operation sites, there are no specific plans for sites 10 and 11, but the areas are not currently accessible to the public due to a chain link fence surrounding the upland portions. Government vehicular access to the site is currently available via a locked gate near the west end of site 11.

The areas to be changed from Multiple Resource Management to Project Operations include about 19.9 acres. The total acreage for both existing (12.4 acres) and proposed Project Operations (19.9 acres) is 32.3 acres.

If or when specific plans are developed for the use of project operation lands, an environmental assessment will be prepared and circulated for public review and comment before any construction activity is started.

2.1.2 Recreation

Snow's Cut sites 1 and 3 (Figures 1) are leased to the NC Division of Parks and Recreation as a part of Carolina Beach State Park. Site 1 is part of a marina and site 3 is part of a picnic area. Site 8 is leased to the NC Wildlife Resources Commission and contains a boat ramp and parking facilities. Site 12 is leased to New Hanover County for a day use recreation area (Snow's Cut Park). Recreation classifications include about 27.6 acres.

2.1.3 Multiple Resource Management

This classification allows for the designation of a predominate use with the understanding that other compatible uses may also occur on these lands (e.g. a trail through an area designated as Wildlife Management). Example uses include low density recreation, wildlife management, and future or inactive recreation areas.

Site 4 (Figures 1 and 2) is leased by NC Division of Parks and Recreation as a part of Carolina Beach State Park for low density recreation such as hiking and wildlife viewing. As indicated in section 2.1.1 above, 19.9 acres of existing Multiple Resources Management Areas are proposed to be converted to Project Operations. This leaves about 21.5 acres in site 4 that is classified as Multiple Resource Management.

2.1.4 Environmental Sensitive Areas

The classification involves areas where scientific, ecological and/or cultural features have been identified as especially sensitive to adverse environmental impacts. Development of facilities on lands within this classification is normally limited or prohibited to ensure that the sensitive areas are not impacted. At Snow's Cut, sites 2, 9, 13 and 15 are intertidal salt marshes and are protected from human disturbance and development activity. Site 2 was previously incorrectly included under the high density recreation classification and is now correctly classified as an Environmental Sensitive Area. Additionally, site 9 was included in with site 10 in the 1994 MP and was misclassified as Multiple Resource Management when in fact the area should have also been classified as an Environmental Sensitive Area. Environmental Sensitive Areas include a total of about 19.0 acres for the project.

2.2 No Action (no change to the 1994 master plan)

Under the No Action Alternative, an updated MPS would not be approved for Snow's Cut and USACE would fail to comply with its own regulations. The 1994 MP would continue to provide the only source of comprehensive management guidance and does not reflect the land classification changes. Also, the 1994 MP does not reflect the new guidance issued in 2008. Therefore, the no action alternative is not a reasonable alternative since a MPS is needed to reflect current conditions.

2.3 Selected Alternative

Based on the information above, the Proposed Alternative, Adoption of the Snow's Cut Master Plan Supplement (Land classification changes since 1994) is the only feasible alternative; therefore, it is the proposed action.

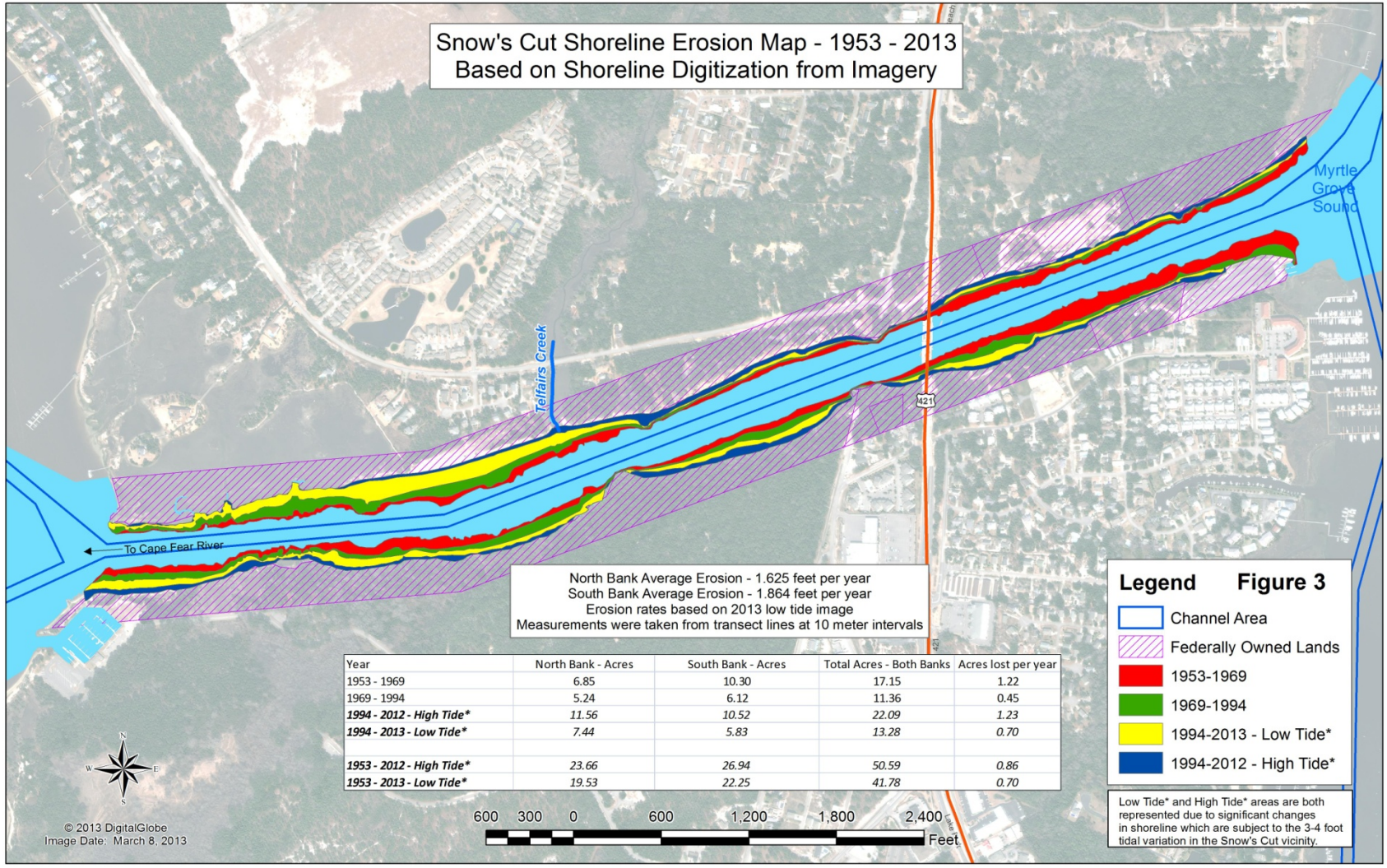
3.0 AFFECTED ENVIRONMENT

3.1 Geology, Sediments and Erosion

Snow's Cut is located in the coastal plain of North Carolina, which is confined between the Piedmont Plateau on the west and the Continental Shelf on the east.

The coastal plain area of North Carolina was submerged in early Pleistocene times. With each emergence and subsequent submergence, increasingly larger areas were left above the sea. Several well-defined terraces have been recognized in North Carolina. The seaward part of the coastal plain was covered by a thin mantle of the lowest of these terraces, the Pamlico. This covering, composed almost entirely of sand, clays and some gravel was deposited by waves and currents during the floods attending the last interglacial State (Wisconsin); it never emerged again to a level higher than its present one. Deposits of recent age overlie the Pamlico formation. These are chiefly tidal marsh, beach sand, and dunes. In the marsh area, the soil consists largely of accumulations of peaty matter. The thickness of the deposits varies from 15 feet to 25 feet. Drainage within the area consists of sluggish creeks and drainage canals.

The 90-foot-wide authorized navigation channel has expanded to a width of over 400 feet along much of the length of Snow's Cut. This expansion has occurred due to wind-blown wave action, tidal currents, and boat wakes. Escarpments, 10 to 25 feet high, occur along most of the water frontage of both Carolina Beach State Park and New Hanover County Park. Root systems of large trees are continually being exposed and accelerated bank erosion occurs when these trees fall. Figure 3 illustrates the ongoing erosion problems along the entire length of Snow's Cut since 1953.



Year	North Bank - Acres	South Bank - Acres	Total Acres - Both Banks	Acres lost per year
1953 - 1969	6.85	10.30	17.15	1.22
1969 - 1994	5.24	6.12	11.36	0.45
1994 - 2012 - High Tide*	*11.56*	*10.52*	*22.09*	*1.23*
1994 - 2013 - Low Tide*	*7.44*	*5.83*	*13.28*	*0.70*
1953 - 2012 - High Tide*	*23.66*	*26.94*	*50.59*	*0.86*
1953 - 2013 - Low Tide*	*19.53*	*22.25*	*41.78*	*0.70*

Figure 3. Snow's Cut Shoreline Erosion Map - 1953 - 2013

3.2 Water Resources

3.2.1 Hydrology

Snow's Cut is subject to lunar tides that can exceed five feet and the Cut connects Masonboro Sound on the east to the Cape Fear River on the west. Tidal currents in the Cut frequently approach 1.8 knots (http://tidesandcurrents.noaa.gov/currents13/). As indicated above in section 4.1, this tidal fluctuation and strong tidal currents are one of the reasons for the high shoreline erosion.

3.2.2 Water Quality and Saltwater Intrusion.

NC Water Quality Classification by river basin can be found at: http://portal.ncdenr.org/web/wq/ps/csu/classifications. According to this website, all of Snow's Cut is classified SC. "SC" waters are all tidal salt waters protected for secondary recreation such as fishing, boating, and other activities involving minimal skin contact; fish and noncommercial shellfish consumption; aquatic life propagation and survival; and wildlife. The waters on either side of Snow's Cut are classified as SA; HWQ except for the Carolina Beach Yacht Basin at the eastern end of Snow's Cut which is classified as SB. SA waters are all tidal salt waters that are used for commercial shellfishing or marketing purposes and are also protected for all Class SC and Class SB uses. All SA waters are also HQW by supplemental classification. HQW waters are a supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through monitoring or special studies, as primary nursery areas (PNA) designated by the North Carolina Division of Marine Fisheries (DMF), Marine Fisheries Commission, and other functional nursery areas designated by the Marine Fisheries Commission. For example, the SA waters at the east end of Snow's Cut are PNA.

SB waters are tidal salt waters protected for all SC uses in addition to primary recreation. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis. In addition, Telfairs Creek, which enters Snow's Cut from the north (Figures 1, 2 and 3), is classified SC/Sw. Sw is a supplemental classification intended to recognize those waters which have low velocities and other natural characteristics which are different from adjacent streams.

The salinity in Snow's Cut frequently approaches sea strength (35 practical salinity units, psu) since Carolina Beach Inlet is only about 1.5 miles from the eastern end of the Cut. The salinity seldom drops below 25 psu because there is minimal input of freshwater and the salinity of the Cape Fear River to the west averages around 25 psu (McAdory 2000). As indicated in USACE 2000, saltwater intrusion into the Cape Fear River from Carolina Beach Inlet via Snow's Cut has led to timber die-off along the edge of the river and increased sedimentation in the river and nearby Military Ocean Terminal Sunny Point (MOTSU). The increased sedimentation is caused by increased flocculation of sediments due to higher salt content in the water.

Table 1. NC DENR Primary Surface Water Classifications for Snow's Cut

HWQ – High Quality Waters	Supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through Division monitoring or special studies, primary nursery areas designated by the Marine Fisheries Commission, and other functional nursery areas designated by the Marine Fisheries Commission.
SA	Tidal salt waters that are used for commercial shellfishing or marketing purposes and are also protected for all Class SC and Class SB uses. All SA waters are also HQW by supplemental classification.
SB	Tidal salt waters protected for all SC uses in addition to primary recreation. Primary recreational activities include swimming, skin diving, water skiing, and similar uses involving human body contact with water where such activities take place in an organized manner or on a frequent basis.
SC	All tidal salt waters protected for secondary recreation such as fishing, boating, and other activities involving minimal skin contact; fish and noncommercial shellfish consumption; aquatic life propagation and survival; and wildlife.
Sw – Swamp Waters	Supplemental classification intended to recognize those waters which have low velocities and other natural characteristics which are different from adjacent streams.

The salinity in Snow's Cut frequently approaches sea strength (35 practical salinity units, psu) since Carolina Beach Inlet is only about 1.5 miles from the eastern end of Snow's Cut. The salinity seldom drops below 25 psu because there is minimal input of freshwater and the salinity of the Cape Fear River to the west averages around 25 psu (McAdory 2000). As indicated in the 2000 USACE report: *Snow's Cut, Atlantic Intracostal Waterway, Myrtle Grove Sound to Cape Fear River North Carolina, Section 216 – Review of Completed Project, Initial Appraisal Report*, saltwater intrusion into the Cape Fear River from Carolina Beach Inlet via Snow's Cut has led to timber die-off along the edge of the river and increased sedimentation in the river and nearby Military Ocean Terminal Sunny Point (MOTSU). The increased sedimentation is caused by increased flocculation of sediments due to higher salt content in the water.

According to the NC Division of Water Quality latest ambient monitoring report for the Cape Fear River (NCDWQ 2009), the water quality in the lower Cape Fear River generally meets state standards. However occasionally near the mouth of the Brunswick (Cape Fear River Channel Markers 54, 56, and 61, about 9 miles north of Snow's Cut) dissolved oxygen (DO) values are below 5 mg/l and pH values are below 6.8. In the vicinity of Snow's Cut, there are no indicated DO or pH issues, but Snow's Cut and surrounding areas are closed to the taking of shellfish due to elevated fecal coliform levels (NC Division of Marine Fisheries 2014).

Due to the ongoing erosion indicated in section 4.1, turbidity due to suspended sediments is evident along the Snow's Cut shoreline.

3.2.3 Groundwater

The surficial aquifer adjacent to Snow's Cut flows toward the Snow's Cut area and has lowered the adjacent groundwater table especially in areas where the pass is 10 to 25 feet from the original soil surface down to the water surface. However, the lowering has not hindered the establishment of terrestrial vegetation along the banks. Snow's Cut is not deep enough (12-14' below mean low water) to affect the Castle Hayne Aquifer.

3.3 Air Quality and Noise

The Wilmington Regional Office of the North Carolina Department of Environment and Natural Resources has air quality jurisdiction for the project area. The ambient air quality for the Snow's Cut area in New Hanover County has been determined to be in compliance with the National Ambient Air Quality Standards, and is designated an attainment area (http://www.ncair.org/planning/attainment.shtml).

The primary noise factors in the vicinity of Snow's Cut are from motor vessel traffic within Snow's Cut, vehicles crossing the Snow's Cut Bridge, and heavy traffic at the boat launching area. However in the wooded sections of the easement, these noise sources are generally not noticed.

3.4 Aquatic Resources

3.4.1 Fisheries

Common fish species in the vicinity of Snow's Cut include bluefish (*Pomatomus saltatrix*), trout (*Cynoscion regalis and nebulosus*), red drum (*Sciaenops ocellatus*), mullets (*Mugil cephalus or M. curema*), flounder (*Paralichthys dentatus*), croakers (*Micropogonias undulatus*), sheepshead (*Archosargus probatocephalus)* and spots (*Leiostomus xanthurus*).

No primary or secondary nursery areas designated by the NC Division of Marine Fisheries are present in Snow's Cut, but primary nursery areas are present in Masonboro Sound at the east end (**http://portal.ncdenr.org/web/mf/primary-nursery-areas**). PNA are defined by the State of North Carolina as tidal saltwaters which provide essential habitat for the early development of commercially important fish and shellfish (15 NC Administrative Code 3B 1405).

3.4.2 Benthos

The NC Division of Environmental Management performed benthic sampling at Snow's Cut in 1985. Of the 38 species collected, polychaetes, molluscs, amphipods, and decapods dominated the site (NCDEM unpublished data). Sediments ranged from coarse sand to fine silty clays. Common polychaete worms *were (Leitoscoloplos variabilis* and *Paraprionospio pinnata*) and molluscs *species were (Ilyanassa obsoleta* and *Crassostrea virginica)*.

3.5 Terrestrial Resources

Most of the project lands are dominated by mature loblolly (*Pinus taeda*) and longleaf pines (*Pinus palustris*) with a variety of canopy trees such as blackjack oak (*Q. marilandica*), live oak (*Q. virginiana*), water oak (*Q. nigra),* black gum (*Nyssa sylvatica*) and southern magnolia (*Magnolia grandiflora*). Understory frequently contains turkey oak (*Quercus laevis*), sweetbay (*Magnolia virginiana*), hawthorn (*Crataegys spp.*) common sassafras (*Sassafras albidum*) flowering dogwood (*Cornus florida*) and yaupon (Ilex vomitoria).

The above-named vegetation covers the entire upland project except for two disposal areas (Figure 1 sites 11 and 14) The disposal sites are dominated by barren sand and various grasses such as salt meadow hay (*Spartina patens*), and small trees such as loblolly pine, live oak, black cherry (*Prunus serotina*), and persimmon (*Diospyros virginiana*).

Numerous species of birds including waterfowl visit the project area. Common birds noted in the area near the water are herring gulls (*Larus smithsonianus*), laughing gulls (*Leucophaeus atricilla*) royal terns (*Thalasseus maximus*), brown pelicans (*Pelecanus*

occidentalis) and double-crested cormorants (*Phalacrocorax auritus*). Common woodland birds include the northern cardinal *(Cardinalis cardinalis)*, blue jay *(Cyanocitta cristata)*, wood thrush (*Hylocichla mustelina),* American robin (*Turdus migratorius*), and yellow-rumped warbler (*Setophaga coronata).* Terrestrial mammals common in the area are the eastern grey squirrels (*Sciurus carolinensis*), gray fox (*Urocyon cinereoargenteus*), white-tail deer (*Odocoileus virginianus*), and eastern cottontail (*Sylvilagus floridanus*).

In addition, the NC Natural Heritage Program was contacted about potential resources in the Snow's Cut area. Their email response is included in Enclosure A. The email listed several rare species that may occur in the area including coral snake (*Micrurus fulvius*), southern hognose snake (*Heterodon simus*), and painted bunting (*Passerina ciris*). If new development is proposed for Snow's Cut, a survey for rare species will be conducted during plan development.

3.6 Wetlands and Floodplains

3.6.1 Wetlands

The environmentally sensitive areas indicated on Figure 1 are wetlands. The lower portions of the wetlands are marshes dominated by smooth cordgrass (*Spartina alterniflora*), and the higher portions are dominated by shrubs including fetterbush (*Lyonia lucida*), buttonbush (*Cephalanthus occidentalis*), and groundsel-tree (*Baccharis halimifolia*). No other wetlands exist on the project area except for intermittent fringes of smooth cordgrass near the high water line near the water.

3.6.2 Floodplains

Portions of the project lands are within the 100 year floodplain especially near the western and eastern portions near the water (http://maps.nhcgov.com/viewer.html). The only developed areas are the Carolina Beach State Park Marina at the western end of Snow's Cut and the Wildlife Resources Commission boat ramp at the east end of Snow's Cut. However no permanent dwellings exist there.

3.7 Threatened and Endangered Species

An updated list of endangered and threatened (E&T) species for the project areas was obtained from National Marine Fisheries Service (NMFS 2014) and the U.S. Fish and Wildlife Service (USFWS 2014) web pages in September 2014. The actual occurrence of a species in the area depends upon the availability of suitable habitat, the season of the year relative to a species' temperature tolerance, migratory habits, and other factors. For Snow's Cut, the only species that may occur in the project area are two endangered sturgeon species [shortnose (*Acipenser brevirostrum*) and Atlantic (*Acipenser oxyrinchus oxyrinchus)*], loggerhead seaturtle *(Caretta caretta),* and Florida manatee (*Trichechus manatus*). The USFWS currently has proposed listing of the Northern

Long-Eared Bat with a rule under Section 4(d) of the ESA. Although the USFWS has not yet made a final determination for the northern long-eared bat, the USFWS published the 4(d) proposal in the event that the final determination is to list the northern long-eared bat as a threatened species. A final determination decision has not been made, and these dates may change due to public comments. During the summer, northern long-eared bats typically roosts singly or in colonies in a wide-variety of forested habitats, underneath bark or in cavities/crevices of both live trees and snags. Northern long-eared bats have also been documented roosting in man-made structures (i.e., buildings, barns, etc.) during the summer. Northern long-eared bats predominately winter in hibernacula that include caves and abandoned mine portals, and potentially large boulder areas. It should be noted that the general habitat types described above may not be all-inclusive, and additional habitat types may be identified as new information is obtained. The Corps is aware of the potential presence of the Northern Long Eared Bat, and with future consultation, the Corps will adopt necessary measures to implement our ESA responsibilities, to the extent that they are within the Corps' legal authorities, consistent with the Corps' missions and responsibilities, and are feasible from both a technological and economic point of view. The U.S. Fish and Wildlife Service, has also recently listed the rufa red knot (*Calidris canutus rufa*) as a threatened species under the Endangered Species Act of 1973, as amended. The red knot does over-winter in North Carolina but is not likely to be present in Snow's Cut due to lack of feeding habitat.

3.8 Cultural Resources

An intensive archaeological reconnaissance of the Snow's Cut right-of-way was conducted in 1981 by Dr. Michael Baker, Archaeological Research Consultants, Incorporated. Dr. Baker reported no sites within a 200- to 250-foot-wide area along the Cut. Dr. Baker recommended no further work unless erosion or changes in land use require expansion of the right-of-way beyond that of 1981.

Because of continued erosion, a second archaeological reconnaissance was conducted by a Corps' archaeologist in 2004. Although no significant sites were reported, the archaeologist identified two locations on either side of Snow's Cut where prehistoric material was eroding from the shoreline. A second surface survey that was performed in 2007 resulted in the discovery of a small amount of prehistoric material in the vicinity of the two locations identified in 2004. As recommended following the 2004 surface survey, the archaeologist again recommended annual surveys of selected portions of the shoreline.

The latest survey was conducted in 2013 when Corps personnel conducted a surface survey of the areas previously identified as producing prehistoric material from eroded shorelines. While no prehistoric or historic material was identified, annual surface surveys of these previously identified shoreline locations will be continued.

3.9 Socio-Economic Resources

Small recreational boaters to commercial vessels use Snow's Cut as a passage way between the Cape Fear River and Masonboro Sound. Yacht traffic is especially heavy in the spring going from the warm southern states to the north. The reverse occurs in the fall.

No Corps of Engineers operated recreational facilities exist at Snow's Cut. However, New Hanover County operates Snow's Cut Park along the northern shore of the Cut (Figure 1, site 12). The park has 9 picnic tables, 2 shelters, a playground and restroom facilities. From the spring through the fall, the park averages about 100 visitors per day during the week and about 200 visitors per day during the weekends.

The NC Wildlife Resources Commission Boat Ramp along the southern shore (Figure 1, site 8) has 84 vehicle and trailer parking spaces and 16 single vehicle spaces. Most of the activity occurs from the spring through the fall when the weather is warmer and fishing is the best.

The North Carolina Division of Parks and Recreation leases over half the shoreline on the south side of Snow's Cut (Figure 1 sites 1-4 and Figure 2). Available facilities include camping, picnicking, and a marina complex with boat launching lanes. Carolina Beach State Park is also located along the southern shore and the park averages about 500,000 visitors per year.

3.10 Safety

The steep eroded banks along much of both sides of the Cut pose a safety hazard. Even though signs are posted to discourage the public from accessing those areas, there is clear evidence from foot paths that the public is entering multiple spots for fishing and other activities.

4.0 ENVIRONMENTAL IMPACTS

This section describes the impacts of the proposed changes to the 1994 MP. As indicated previously the changes involve 1) reclassify sites 4 east, 6, 7 and 10 (Figure 1) from Multiple Resource Management to Project Operations, and 2) sites 2 and 9 were misclassified under Recreation and Multiple Resource Management, respectively, in the 1994 MP but are now being changed to the correct classification of Environmental Sensitive Areas since they are wetlands. No specific actions are proposed as a result of the MPS; therefore, no significant environmental impacts are anticipated. If specific actions are proposed in the future, then an EA would be prepared for that action and the environmental impacts would be addressed in that EA.

4.1 Geology, Sediments and Erosion

Since upland disturbance is not a component of this project at this time, no impacts are anticipated to geology with either the no action or the proposed alternative. Erosion is likely to continue at a similar pace as the current situation. Erosion control is not proposed because by guidance (EP1130-2-550, change 5, paragraph 3-2 d) MPs do not address shoreline management. In addition, erosion control would be costly and currently no private property or infrastructure is threatened.

4.2 Water Resources

4.2.1 Hydrology.

Erosion control or other actions that would affect hydrology are not proposed as a part of the MPS.

4.2.2 Water Quality and Saltwater Intrusion.

Since no in-water actions or upland development are proposed, water quality should not be impacted with either the no-action or alternative plan except for continued turbidity associated with ongoing erosion.

4.2.3 Groundwater.

Neither the proposed alternative nor the no action alternative would impact the Carolina Beach well #10 or any other groundwater sources in the surrounding area.

4.3 Air Quality and Noise

Neither the no action nor proposed alternative will contribute to emissions nor will noise increase in the surrounding area.

4.4 Aquatic Resources

4.4.1 Fisheries

Since no in-water actions or upland development are proposed, fisheries should not be impacted with either the no-action or alternative plan.

4.4.2 Benthos

Since no in-water actions or upland development are proposed, benthos should not be impacted with either the no-action or alternative plan.

4.4.3 Essential Fish Habitat

The 1996 Congressional amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) (PL 94-265) set forth new requirements for the National Marine Fisheries Service (NMFS), regional fishery management councils (FMC), and other federal agencies to identify and protect important marine and

anadromous fish habitat. These amendments established procedures for the identification of Essential Fish Habitat (EFH) and a requirement for interagency coordination to further the conservation of federally managed fisheries. No specific actions are proposed as a result of the MPS; therefore, there will be no effect on EFH. If specific actions are proposed in the future, then an EA would be prepared for that action and the environmental impacts on EFH would be addressed in that EA.

4.5 Terrestrial Resources

Since no upland development is proposed, terrestrial resources should not be impacted with either the no-action or alternative plan.

4.6 Wetlands and Flood Plains

4.6.1 Wetlands

The wetlands in the project area designated as environmentally sensitive areas and will not be disturbed. Therefore, no adverse impact is anticipated.

4.6.2 Floodplains

Since no additional development is proposed in the floodplain, no changes will occur with either the no-action or alternative plan.

4.7 Threatened and Endangered Species

No specific actions are proposed as a result of the MPS; therefore, there will be no effect on E&T species. If specific actions are proposed in the future, then an EA would be prepared for that action and the environmental impacts on E&T species would be addressed in that EA.

4.8 Cultural Resources

Since no specific development is proposed in association with the MPS, there are no anticipated impacts to cultural resources. However as bank erosion continues, unknown cultural resource sites may become exposed and damaged. Based on the request by the NC Division of Cultural Resources, Snow's Cut shoreline and eroding banks will be surveyed annually by a professional archaeologist. If significant remains are encountered or if it is deemed by the professional archaeologist conducting the reconnaissance that an adverse impact to unassessed or potentially eligible sites is imminent, data recovery will be implemented to mitigate damage to or loss of the cultural resources.

4.9 Socio-Economic Resources

Since no specific changes are proposed in association with the MPS, there will be no impact on socio-economic resources.

4.10 Safety

The steep eroded banks along much of both sides of the Cut will still pose a safety hazard under either the no-action or proposed alternative.

4.11 Comparison of alternatives

The Table 1 below provides a brief summary and comparison of impacts to the physical and natural environment for the alternatives considered.

Table 2. Environmental Impact Comparison of Alternatives

Resource	Alternatives	
	Proposed Alternative	**No Action**
Geology and Sediments	No Impacts	No Impacts
Water Resources	No Impacts	No Impacts
Air Quality and Noise	No Impacts	No impacts
Aquatic Resources	No Impacts	No Impacts
Terrestrial Resources	No Impacts	No impacts.
Wetlands and Floodplains	No impacts to either floodplains or wetlands.	No impacts to either floodplains or wetlands.
Endangered and Threatened Species	No Impacts	No Impacts
Cultural Resources	No impacts expected.	No impacts expected.
Socio-economic Resources	No Impacts	No Impacts
Safety	Safety hazard due to the steep eroded banks will still exist	Safety hazard due to the steep eroded banks will still exist

5.0 CUMULATIVE IMPACTS

The proposed alternative will have no cumulative adverse impacts, since no specific actions are proposed as a result of the MPS. If specific actions are proposed in the future, then an EA would be prepared for that action and cumulative impacts would be addressed in that EA.

6.0 COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS

Table 3 lists the compliance status of the major Federal Laws, policies and Executive Orders that were applicable or considered for the project. This project is considered in "Full compliance" once all the requirements of the NEPA process is complete.

Table 3 The relationship of the proposed action to Federal Laws and Policies

Title of Public Law	US CODE	*Compliance Status
Abandoned Shipwreck Act of 1987	43 USC 2101	Full Compliance
Anadromous Fish Conservation Act of 1965, As Amended	16 USC 757 a et seq.	Full Compliance
Antiquities Act of 1906, As Amended	16 USC 431	Full Compliance
Archeological and Historic Preservation Act of 1974, As Amended	16 USC 469	Full Compliance
Archeological Resources Protection Act of 1979, As Amended	16 USC 470	Full Compliance
Clean Air Act of 1972, As Amended	42 USC 7401 et seq.	Full Compliance
Clean Water Act of 1972, As Amended	33 USC 1251 et seq.	Full Compliance
Coastal Zone Management Act of 1972, As Amended	16 USC 1451 et seq.	Full Compliance
Endangered Species Act of 1973	16 USC 1531	Full Compliance
Estuary Program Act of 1968	16 USC 1221 et seq.	Full Compliance
Equal Opportunity	42 USC 2000d	Full Compliance
Farmland Protection Policy Act	7 USC 4201 et seq.	Full Compliance
Fish and Wildlife Coordination Act of 1958, As Amended	16 USC 661	Full Compliance
Historic and Archeological Data Preservation	16 USC 469	Full Compliance
Historic Sites Act of 1935	16 USC 461	Full Compliance
Magnuson Fishery Conservation and Management Act – Essential Fish Habitat	16 USC 1801	Full Compliance
National Environmental Policy Act of 1969, As Amended	42 USC 4321 et seq.	Full Compliance
National Historic Preservation Act of 1966, As Amended	16 USC 470	Full Compliance
National Historic Preservation Act Amendments of 1980	16 USC 469a	Full Compliance
Native American Religious Freedom Act of 1978	42 USC 1996	Full Compliance
Executive Orders		
Protection and Enhancement of Environmental Quality	11514/11991	Full Compliance
Protection and Enhancement of the Cultural Environment	11593	Full Compliance
Floodplain Management	11988	Full Compliance
Protection of Wetlands	11990	Full Compliance
Federal Actions to Address Environmental Justice and Minority and Low-Income Populations	12898	Full Compliance
Implementation of the North American Free Trade Agreement	12889	Full Compliance

* Full compliance once the NEPA process is complete.

7.0 AGENCY AND PUBLIC INVOLVEMENT

7.1 Agency and Public Coordination

A scoping meeting was held with the Snow's Cut lessees and sublessees on July 29, 2013 at the Carolina Beach State Park Visitors Center to explain the purpose of the MPS. Representatives attending the meeting were from New Hanover County, City of Carolina Beach, Carolina Beach State Park, Wildlife Resources Commission and the Corps of Engineers.

On September 29, 2015 a public listening session was held at the V.F.W. Hall in Carolina Beach, NC on potential changes to the Master Plan. The listening session was presented by Wilmington District Command and staff. Public attendees included the general public, Town of Carolina Beach officials and Town Council members.

A scoping letter was sent on July 30, 2013 via email to the same representatives indicated above plus the US Fish and Wildlife Service, National Marine Fisheries Service, NC Division of Marine Fisheries and the NC Division of Cultural Resources. Only two comments were received during the scoping process. Both were received on September 9, 2013. The first was a first a letter from the NC Division of Cultural Resources and the second an email from the NC Wildlife Resources Commission. These scoping comments are included in Enclosure A along with information received from the Natural Heritage Program in April 2013 on rare species that may occur in the area. In summary, the NC Division of Cultural Resources "recommends that an annual archaeological reconnaissance of the Snow's Cut shoreline and eroding banks be incorporated into the revised MP. If significant remains are encountered or if it is deemed by the professional archaeologist conducting the reconnaissance that an adverse impact to unassessed or potentially eligible sites is imminent that a data recovery be implemented to mitigate damage to or loss of the cultural resources." The USACE will comply with this recommendation.

7.2 North Carolina Coastal Management Program

The proposed project is in New Hanover County which is a part of the designated coastal zone of the State of North Carolina. Since this EA is for a MPS involving only changes to land use classifications and no specific action is proposed, a consistency determination is not being provided to the North Carolina Coastal Management Program at this time. If specific actions are proposed in the future, then an EA would be prepared for that action and that action would be coordinated with the North Carolina Coastal Management Program.

7.3 Section 404 of the Clean Water Act

Since no discharge or dredged or fill material is proposed with either the no-action or alternative plan, a Section 404(b)(1) (P.L. 95-217) evaluation is not needed.

7.4 Coordination of this Document

The proposed action and the environmental impacts of the proposed action are addressed in this EA. The EA has been made available to an extensive list of local, State and Federal regulatory agencies and the public for a 30-day review and comment period. The EA has also been placed on the Wilmington District Website.

8.0 POINT OF CONTACT

Mr. Eric Gasch, CESAW-PE, U.S. Army Engineer District, Wilmington, 69 Darlington Avenue, Wilmington, North Carolina 28403-1343. Telephone (910) 251-4553, email eric.k.gasch@usace.army.mil.

9.0 DRAFT FINDING OF NO SIGNIFICANT IMPACT

The proposed action is not expected to significantly affect the quality of the human environment. Therefore, an Environmental Impact Statement will not be required, and a Finding of No Significant Impact (FONSI) will be signed. The signed FONSI will be made available to the public.

10.0 BIBLIOGRAPHY

Baker, Michael. 1981. An Intensive Archaeological Reconnaissance of Areas Bordering Snow's Cut, New Hanover County, North Carolina. Prepared by Archaeological Research Consultants, Inc. for the Wilmington District, U.S. Army Corps of Engineers.

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NMFS. September 2014. National Marine Fisheries Service, (http://sero.nmfs.noaa.gov/protected_resources/section_7/threatened_endangered/Documents/north_carolina_03052014.pdf)

North Carolina Division of Marine Fisheries. 2014. Shellfish Sanitation Maps - Southern Area. http://portal.ncdenr.org/web/mf/maps-south-shellfish.

U.S. Army Corps of Engineers, Wilmington District. January 1994. Snow's Cut, Atlantic Intracoastal Waterway, Myrtle Grove Sound to Cape Fear River North Carolina, Master Plan, Design Memorandum No. 2B.

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U.S. Army Corps of Engineers, Wilmington District. September 2014. Snows Cut, Atlantic Intracoastal Waterway, Myrtle Grove Sound to Cape Fear River North Carolina, Master Plan Supplement.

USFWS. September 2014. U.S. Fish and Wildlife Service, (http://www.fws.gov/raleigh/species/cntylist/new_hanover.html).

Enclosure A

Scoping Comments September 2013

North Carolina Department of Cultural Resources
State Historic Preservation Office
Ramona M. Bartos, Administrator

Governor Pat McCrory
Secretary Susan Kluttz

Office of Archives and History
Deputy Secretary Kevin Cherry

September 3, 2013

John Manning
US Army Corps of Engineers
69 Darlington Avenue,
Wilmington, NC 28403

Re: Snows Cut Master Plan, AIWW Myrtle Grove Sound to Cape Fear River, New Hanover County, ER 13-1609

Dear Mr. Manning:

We have reviewed the above public notice and would like to take this opportunity to comment.

A number of archaeological sites are recorded in the region. Within or near the proposed project area are sites 31NH79, 31NH496, 31NH540, 31NH541, and 31NH542. These sites remain unassessed with respect to their eligibility for listing in the National Register of Historic Places.

Field reconnaissance conducted by USACE archaeologist, Richard Kimmel, in March 2004 and August 2007, located both prehistoric and historic artifacts along both the northern and southern shorelines of Snows Cut. Prehistoric isolated finds were likely associated with sites 1 and 6 from a previous survey (Baker, 1981) still yielding artifacts indicating the source site may be nearby. Historic artifacts included modern debris but also Civil War period ceramics.

Our office concurs with Mr. Kimmel's conclusions that "Snows Cut channel has the potential to affect prehistoric and historic sites … there is a strong possibility that prehistoric features exist in the area … and there is no doubt that erosion along the southern shoreline will eventually impact potentially significant historic site 31NH496."

We therefore recommend that an annual archaeological reconnaissance of the Snows Cut shoreline and eroding banks be incorporated into the revised master plan. If significant remains are encountered or if it is deemed by the professional archaeologist conducting the reconnaissance that an adverse impact to unassessed or potentially eligible sites is imminent that a data recovery be implemented to mitigate damage to or loss of the cultural resources.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Location: 109 East Jones Street, Raleigh NC 27601 **Mailing Address**: 4617 Mail Service Center, Raleigh NC 27699-4617 **Telephone/Fax**: (919) 807-6570/807-6599

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or renee.gledhill-earley@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona M. Bartos

Yelverton, G F (Frank) SAW

From: Dunn, Maria T. [maria.dunn@ncwildlife.org]
Sent: Monday, September 09, 2013 12:48 PM
To: Yelverton, Frank SAW
Subject: [EXTERNAL] FW: Snows Cut Master Plan Update (UNCLASSIFIED)
Attachments: Snows Cut Scoping Letter 24 July 2013 SIGNED.pdf

Good afternoon Frank,
Bennett forwarded your email regarding the Snows Cut scoping request. I understand the deadline has passed, but would there be a way to state a comment for consideration? The only concern that maybe foreseen would be a user conflict if a bicycle route begins near the existing BAA. Parking at this facility is often full and individuals using the trailer spaces for bike route access may be problematic. Beginning the route at the opposite end or having it loop may remove some of this conflict.
Thank you for allowing our agency the opportunity to review the proposed project. If you have any comments or questions, or if there are other projects in the coastal area, please don't hesitate to give me a call.
Maria

Maria T. Dunn
Habitat Conservation Program
North Carolina Wildlife Resources Commission
943 Washington Square Mall, Washington, NC 27889
(252) 948-3916 / www.ncwildlife.org

Get NC Wildlife Update -- news including season dates, bag limits, legislative updates and more -- delivered to your Inbox from the N.C. Wildlife Resources Commission

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

-----Original Message-----
From: Wynne, Bennett
Sent: Monday, September 09, 2013 11:40 AM
To: Dunn, Maria T.
Subject: FW: Snows Cut Master Plan Update (UNCLASSIFIED)

FYI, Maria (what reminded me)...

-----Original Message-----
From: Yelverton, Frank SAW [mailto:Frank.Yelverton@usace.army.mil]
Sent: Monday, September 09, 2013 10:30 AM
To: Wynne, Bennett; 'Rohde Fritz'; 'Wicker, Mike'; Collier, Chip; Hughes, Tommy K
Cc: Payonk, Philip M SAW; Bond, William J SAW; Manning, John SAS@SAW
Subject: RE: Snows Cut Master Plan Update (UNCLASSIFIED)

Classification: UNCLASSIFIED

1

Caveats: NONE

We have not received any comments from you on the attached; therefore, I assume you have no comments.

Thanks for your consideration,

Frank Yelverton, Biologist
Environmental Resources Section
US Army Corps of Engineers, Wilmington District
69 Darlington Avenue
Wilmington, NC 28403-1343
Office phone: 910-251-4640
Mobile: 910-231-3914
Fax: 910-251-4744
Email: frank.yelverton@usace.army.mil

-----Original Message-----
From: Yelverton, Frank SAW
Sent: Tuesday, July 30, 2013 1:12 PM
To: Environmental.Review@ncdcr.gov; Bennett Wynne (Bennett.Wynne@ncwildlife.org); Rohde Fritz; Wicker, Mike; Collier, Chip; tduckworth@nhcgov.com; anjohnson@nhcgov.com; j.chris.helms@ncparks.gov; Tommy.Hughes@ncwildlife.org; eric.jelinski@carolinabeach.org
Cc: Payonk, Philip M SAW; Bond, William J SAW; Manning, John SAS@SAW
Subject: Snows Cut Master Plan Update (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

The Corps of Engineers is updating its Master Plan for Snows Cut near Carolina Beach, NC. The attached scoping letter explains the process and requests any comments you may have. This scoping process is informal and as such the scoping letter will not be circulated through the State Clearinghouse. However, you may forward this email to others who may have an interest in Snows Cut.

If you have any questions, you can contact me or Mr. John Manning as indicated in the attached scoping letter.

Thanks,

Frank Yelverton, Biologist
Environmental Resources Section
US Army Corps of Engineers, Wilmington District
69 Darlington Avenue
Wilmington, NC 28403-1343
Office phone: 910-251-4640
Mobile: 910-231-3914
Fax: 910-251-4744
Email: frank.yelverton@usace.army.mil

2

Yelverton, G F (Frank) SAW

From: Schafale, Michael [michael.schafale@ncdenr.gov]
Sent: Friday, April 05, 2013 9:09 AM
To: Yelverton, Frank SAW
Subject: FW: Info request for you....
Attachments: Snows Cut Map.pdf

Hello Mr. Yelverton:

The Natural Heritage Program has several records of rare species on or very near the Corps of Engineers lands along Snows Cut.

Manatees (Trichechus manatus) have been found in Snows Cut itself, as well as the nearby waters. This species is listed as endangered by both the federal and state governments.

Coral snakes (Micrurus fulvius) (state listed and endangered) and southern hognose snake (Heterodon simus) (federal and state species of concern) are known from the sandy uplands, including recent observations in Carolina Beach State Park and on or near Corps land on the north side.

Maybee's salamander (Ambystoma maybeei) has been found near Sea Breeze, at the eastern end, though it has not been found for several decades and may no longer occur there.

Painted bunting (Passerina ciris ciris)(state and federal species of concern) are known from Carolina Beach State Park and likely are present in shrubby areas elsewhere in the area.

The owlet moth (Zale declarens) has been found near the Cape Fear River end in Carolina Beach State Park, and may well occur elsewhere in the area where live oak is present.

In addition, other rare species that range in the area and may well be present, at least at times, include alligator (Alligator mississippiensis), diamondback rattlesnake (Croatalus adamanteus), black swamp snake (Seminatrix pygaea), coachwhip (Mastocophis flagellum), and pygmy rattlesnake (Sistrurus miliaris). Several rare plant species are known in Carolina Beach State Park, but most are associated with pond habitat that is not present on the Corps of Engineers lands.

In addition, where the land along Snows Cut was not covered with dredge spoil, intact examples of rare natural communities may remain. This is true in part of the area leased to Carolina Beach State Park, and may be true elsewhere. These communities may include Xeric Sandhill Scrub (Coastal Fringe Subtype), Pine/Scrub Oak Sandhill (Coastal Fringe Subtype), Coastal Fringe Evergreen Forest, and possibly others.

Please contact me if you have additional questions about our data in this area.

Mike Schafale

-----Original Message-----
From: Yelverton, Frank SAW [mailto:Frank.Yelverton@usace.army.mil]
Sent: Thursday, March 28, 2013 11:18 AM

1

To: Buchanan, Misty
Subject: Corps of Engineers Snows Cut Master Plan (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Misty,

As we discussed earlier today, attached is a map indicating the Corps of Engineers property on either side of Snows Cut near Carolina Beach, NC. Our 9 tracts are indicated in color on the map. Most of these tracts are leased to other agencies as indicated in the legend.

We are developing a master plan on how we should manage these tracts so any information you can provide us on resources on or near our property would be helpful. If possible, please provide specific coordinates and location maps by Friday April 12th.

Thanks and let me know if you need additional information.

Frank Yelverton, Biologist
Environmental Resources Section
US Army Corps of Engineers, Wilmington District
69 Darlington Avenue
Wilmington, NC 28403-1343
Office phone: 910-251-4640
Mobile: 910-231-3914
Fax: 910-251-4744
Email: frank.yelverton@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

2

Enclosure B

Compliance with Federal Statues

Compliance with Federal Statues

Title of Public Law	US CODE	*Compliance Status
Abandoned Shipwreck Act of 1987	43 USC 2101	Full Compliance
Anadromous Fish Conservation Act of 1965, As Amended	16 USC 757 a et seq.	Full Compliance
Antiquities Act of 1906, As Amended	16 USC 431	Full Compliance
Archeological and Historic Preservation Act of 1974, As Amended	16 USC 469	Full Compliance
Archeological Resources Protection Act of 1979, As Amended	16 USC 470	Full Compliance
Clean Air Act of 1972, As Amended	42 USC 7401 et seq.	Full Compliance
Clean Water Act of 1972, As Amended	33 USC 1251 et seq.	Full Compliance
Coastal Zone Management Act of 1972, As Amended	16 USC 1451 et seq.	Full Compliance
Endangered Species Act of 1973	16 USC 1531	Full Compliance
Estuary Program Act of 1968	16 USC 1221 et seq.	Full Compliance
Equal Opportunity	42 USC 2000d	Full Compliance
Farmland Protection Policy Act	7 USC 4201 et seq.	Full Compliance
Fish and Wildlife Coordination Act of 1958, As Amended	16 USC 661	Full Compliance
Historic and Archeological Data Preservation	16 USC 469	Full Compliance
Historic Sites Act of 1935	16 USC 461	Full Compliance
Magnuson Fishery Conservation and Management Act – Essential Fish Habitat	16 USC 1801	Full Compliance
National Environmental Policy Act of 1969, As Amended	42 USC 4321 et seq.	Full Compliance
National Historic Preservation Act of 1966, As Amended	16 USC 470	Full Compliance
National Historic Preservation Act Amendments of 1980	16 USC 469a	Full Compliance
Native American Religious Freedom Act of 1978	42 USC 1996	Full Compliance
Executive Orders		
Protection and Enhancement of Environmental Quality	11514/11991	Full Compliance
Protection and Enhancement of the Cultural Environment	11593	Full Compliance
Floodplain Management	11988	Full Compliance
Protection of Wetlands	11990	Full Compliance
Federal Actions to Address Environmental Justice and Minority and Low-Income Populations	12898	Full Compliance
Implementation of the North American Free Trade Agreement	12889	Full Compliance

* Full compliance once the NEPA process is complete.