

**TESTIMONY OF GARY FRAZER,
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**BEFORE THE HOUSE NATURAL RESOURCES COMMITTEE, SUBCOMMITTEE
ON FISHERIES, WILDLIFE, OCEANS AND INSULAR AFFAIRS**

**REGARDING NINE BILLS TO REVISE THE BOUNDARIES OF CERTAIN UNITS OF
THE JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM: H.R. 187, H.R.
277, H.R. 1810, H.R. 1811, H.R. 2057, H.R. 3226, H.R. 3227, H.R. 3572, AND H.R. 4222.**

April 8, 2014

Good morning Chairman Fleming and Members of the Subcommittee. I am Gary Frazer, Assistant Director for Ecological Services with the U.S. Fish and Wildlife Service (Service). I appreciate the opportunity to testify today on nine bills related to the John H. Chafee Coastal Barrier Resources System (CBRS). My testimony provides the Administration's views on each of the bills and includes information on the Coastal Barrier Resources Act (CBRA), the Service's associated responsibilities, and program budget information. The attachment provides detail on each of the Coastal Barrier Resources System units affected by the bills.

Background

The CBRA established the CBRS, a defined set of geographic units along the Atlantic, Gulf of Mexico, Great Lakes, Puerto Rico, and U.S. Virgin Islands coasts. The 857 units of the CBRS are comprised of 3.1 million acres of coastal barrier habitat, including beaches, uplands, maritime forests, lagoons, mudflats, and coastal wetlands.

With the passage of the CBRA, Congress recognized that certain actions and programs of the Federal Government have historically subsidized and encouraged development on coastal barriers, resulting in the loss of natural resources, threats to human life, health, and property, and the expenditure of millions of tax dollars each year. The CBRA seeks to save taxpayers' money, keep people out of harm's way, and remove federal incentives to develop coastal barriers by restricting most new federal expenditures and financial assistance for areas designated within the CBRS. The CBRA does not prohibit or regulate development; however, it wisely removes the Federal incentives to build on these unstable and environmentally sensitive areas. Every Administration since that of President Reagan (who signed the CBRA into law in 1982) has strongly supported the CBRA and the common sense approach that risky private development on coastal barriers should not receive financial support from the American taxpayers.

Coastal barriers and their associated wetlands serve as important habitat for fish and wildlife and protect mainland communities from the full impact of hurricane winds and storm surges. Maintaining these natural storm buffers will be even more important as the Nation prepares for the more severe coastal flooding, erosion, and other anticipated effects associated with climate change and sea level rise. The United Nations Intergovernmental Panel on Climate Change (IPCC) projects that sea levels will likely rise between 10 and 32 inches by 2100 (IPCC Fifth

Assessment Report, September 2013). For South Atlantic coastal planning (southeast Virginia to the tip of Florida), projections of sea level rise being used by Landscape Conservation Cooperatives range from approximately 1.2 ft. to 6.6 feet by 2100, and similar projections are used for the Gulf Coast.

Coastal barriers also serve as popular vacation and recreation destinations, though developing and redeveloping these unstable areas is costly. The Federal Government spends millions of dollars each year on insurance payouts for homes located in high-risk coastal floodplains, pumping sand back onto eroding beaches, and armoring the shoreline to protect coastal development from the naturally occurring processes of erosion and accretion that continually change the coastal barrier profile. Such expenditures are further exacerbated following major storms. Flood insurance claims paid by the National Flood Insurance Program (NFIP) following Hurricanes Katrina, Wilma, and Rita in 2005 totaled \$17.7 billion (Lipton et. al 2012). Following Hurricane Sandy in 2012, Congress passed legislation to increase the NFIP's borrowing authority by \$9.7 billion, from \$20.7 billion to \$30.4 billion, to address claims from Hurricane Sandy and appropriated approximately \$50 billion to Federal agencies for response and recovery efforts (Government Accountability Office High-Risk Series: An Update, February 2013).

Development and redevelopment of coastal barriers is not only costly to the American taxpayers, but also puts people, homes, and infrastructure at risk, interferes with the natural movement of barrier islands, increases natural erosion processes, and disturbs important habitat for nesting sea turtles, migratory birds, and other fish and wildlife resources.

CBRS Map Modernization

The CBRA is a map-based law; most of the official CBRS maps were created more than two decades ago and are outdated technologically and in some cases difficult to interpret. Some maps contain errors that can have an adverse financial effect on property owners and project proponents.

Congress recognized the challenges associated with the existing maps and, in the 2000 reauthorization of the CBRA (Section 6 of P.L. 106-514), directed the Service to remap 50-75 CBRS areas using digital technology; and in the 2006 reauthorization of the CBRA (Section 4 of P.L. 109-226), directed the Service to prepare digital maps for the remainder of the CBRS. The Service agrees that the maps should be modernized. The Government Accountability Office and the Federal Interagency Floodplain Management Task Force have also recommended updating and modernizing the maps. To date, the Service has created comprehensively revised draft maps for approximately 12 percent of the CBRS (including those maps produced as part of the Digital Mapping Pilot Project).

Digital Mapping Pilot Project – The Service submitted its Digital Mapping Pilot Project report and accompanying draft maps for 70 units (approximately 10 percent of the total acreage within the CBRS) to Congress in 2008. In 2009 we conducted a public review of the draft maps. We are currently making adjustments to the pilot project maps, as appropriate, based on updated aerial imagery, information received through public comments, CBRA criteria, and objective

mapping protocols. The Service's final recommended maps will be included in a report to Congress, per the directives of the 2006 CBRA reauthorization (Section 3 of P.L. 109-226). The report will also contain the Service's official responses to the public comments received during the comment period and will describe any changes made to the draft maps transmitted to Congress in 2008. The Service anticipates the final recommended maps for the remaining pilot project units and the accompanying report to Congress will be completed in FY 2015.

Digital Conversion Project – Recognizing the need for updated and reliable CBRS data and maps, and the reality of resource constraints, the Service and the Federal Emergency Management Agency (FEMA) have established an interagency partnership to conduct a “digital conversion” of the CBRS maps which we anticipate will be completed for most of the CBRS by 2016. The purpose of the digital conversion project is to: (1) ensure that the CBRS boundaries depicted on FEMA's Flood Insurance Rate Maps (FIRMs) are consistent with the official CBRS maps; and (2) update the CBRS maps to account for natural changes (i.e., erosion and accretion) and to incorporate any voluntary additions and excess Federal property within the CBRS (as authorized under 16 U.S.C. 3503(c)-(e)). The CBRS digital conversion project is independent but complementary to the comprehensive map modernization effort and the two efforts are being pursued concurrently to accelerate the availability of more accurate and user-friendly CBRS data and maps for the public. The maps produced through the digital conversion effort are made effective administratively by the Service upon publication of a notice in the *Federal Register* and do not require enactment of legislation by Congress.

Hurricane Sandy Remapping Project – In October 2013, the Service was allocated \$5 million by the Department of the Interior through the Disaster Relief Appropriations Act of 2013 to support coastal resiliency and sustainability by comprehensively revising the CBRS maps for the eight states most affected by Hurricane Sandy: Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, Rhode Island, and Virginia. This project will result in comprehensively revised maps for about 370 units covering about 16 percent of the total acreage within the CBRS. The Service will prepare draft revised maps that correct mapping errors affecting property owners and add undeveloped coastal barriers that are appropriate for inclusion within the CBRS. The Service plans to prepare comprehensively revised draft maps for the eight states by 2017. The maps will then be submitted to Congress for its consideration and will only become effective through legislation enacted by Congress.

Technical Correction Review Process and Comprehensive Map Modernization – The bills that are the subject of today's hearing address potential technical mapping errors that cannot be addressed administratively through the digital conversion project, but rather must undergo a more thorough review process which requires: (1) research by the Service into the intent of the original boundaries and the development status on the ground at the time the areas were originally included within the CBRS; (2) development of draft revised maps by the Service; (3) public review of the draft maps; (4) preparation of final recommended maps by the Service that take into consideration information provided during the public comment period; and (5) Congressional enactment of legislation to make the revised maps effective. This effort is referred to as “comprehensive map modernization.”

When the Service is asked to determine whether a proposed change to remove land from the CBRS constitutes an appropriate technical correction, we consider whether the original intent of the boundaries is reflected on the maps (i.e. whether the lines on the maps appropriately follow the features they were intended to follow on the ground). We also consider the level of development that was on the ground when the area was originally included in the CBRS by Congress. The CBRA requires that we consider the following criteria when assessing the development status of a CBRS unit: (1) the density of development on an undeveloped coastal barrier is less than one structure per five acres of land above mean high tide; and (2) an undeveloped coastal barrier does not contain a full complement of infrastructure, which includes a road, fresh water supply, wastewater disposal system, and electric service to each lot or building site in the area. These criteria were originally published in a notice in the *Federal Register* by the Department of the Interior in 1982 and were later codified by Congress in the 2000 reauthorization of the CBRA (Section 2 of P.L. 106-514).

The Service has a significant backlog of requests to conduct technical correction reviews of more than 50 CBRS units (the earliest of which was received in 2002) and we have limited resources with which to conduct the reviews. The Administration does not support removing land from the CBRS unless there is compelling evidence that a mapping error was made. In cases where mapping errors are found, the Service supports changes to the maps and works with Congress and other interested parties to create comprehensively revised maps using modern digital technology.

When the Service finds a technical mapping error that warrants a change in one part of a CBRS map, we review all adjacent areas on the map to ensure that the entire map is accurate. The Service strongly believes that instead of pursuing targeted changes to CBRS maps, Congress should enact comprehensively revised CBRS maps. This comprehensive approach to map revisions, which was developed many years ago in coordination with the Subcommittee, treats all landowners who may be affected equitably. It is also more efficient and cost-effective in the long-run because it ensures that all legitimate errors are corrected and any new areas appropriate for inclusion within the CBRS are identified (per a directive in Section 4 in P.L. 109-226) at the same time so that the Service and Congress will not have to revisit the same map in the future. Two of the bills that are the subject of this hearing for units in South Carolina had targeted legislative fixes in the 1990's. Had the comprehensive approach been applied to those units in the past, the errors affecting property owners today could have been corrected more than 15 years ago.

One of the more time and resource intensive aspects of the technical correction review process is assessing claims that a full suite of infrastructure was present on the ground at the time a given area was included within the CBRS. As previously mentioned, the CBRA requires that we consider this when making recommendations on changes to CBRS maps. More than 30 years after the enactment of the CBRA, the Service is still receiving claims that an area should be removed from the CBRS based on the level of infrastructure that was present on the ground when the area was included within the CBRS. Such claims often require the compilation of historical records that can be difficult or impossible to obtain and validate many years later.

In light of climate change and sea level rise, and the length of time since the CBRA was enacted, the Service believes that the level of scrutiny should be high before removing areas from the CBRS and that the CBRA should be amended to sunset the infrastructure criterion. Specifically, the Service recommends that Congress revise Section 2 of P.L. 106-514 to sunset the infrastructure review criterion after 10 years of an area's inclusion within the CBRS. Such a change would mean that requests for reviews based on infrastructure claims would be considered if they are submitted to the Service within 10 years of the area being included within the CBRS. Such a change would help improve timeliness and reduce costs associated with reviewing claims of technical mapping errors, while continuing to be fair to private parties who had invested in infrastructure on the ground by allowing up to 10 years for an infrastructure claim to be submitted to the Service for consideration. The Service originally used the infrastructure criterion when conducting the inventory of undeveloped coastal barriers to ensure that property owners and developers that had already made significant on-the-ground investments and commitments to the development of coastal barriers were treated equitably. Today, after several decades have passed, the original investors for most developments are long gone and no longer require such protection. This recommendation to amend the infrastructure criterion of the CBRA was not applied to CBRS units being assessed as part of this hearing.

Accomplishments and Priorities

The Service balances the need to modernize the CBRS maps with many other competing needs and limited resources available to administer the CBRA. In FY 2013, the Service took significant steps to improve efficiencies and effectiveness of CBRA administration including: (1) the release of an online CBRS Mapper that makes approximate CBRS boundary data more accessible to property owners, project proponents, and other stakeholders who need to know whether properties or project sites may be affected by the CBRA; (2) processing a record number of official determinations as to whether individual properties are located "in" or "out" of the CBRS which is important for the issuance of flood insurance policies and real estate transactions; (3) releasing the first batch of digital conversion maps for stakeholder review and comment; and (4) prioritizing CBRA consistency consultation reviews for disaster assistance and infrastructure projects following Hurricane Sandy.

The Service allocated \$890,000 in FY 2014 for CBRA administration. In FY 2014, the Service plans to make digital conversion maps effective for approximately 40 percent of the total acreage within the CBRS, including all of the CBRS units in Delaware, Maine, Maryland, New Jersey, North Carolina, South Carolina, Virginia, and Texas. Additionally, in FY 2014, the Service plans to prepare comprehensively revised maps for Unit P16 in Florida and Units SC-01 and SC-03 in South Carolina, which are the subject of H.R. 1811, H.R. 3226 and H.R. 3227, respectively.

The President's FY 2015 Budget Request includes \$890,000 for CBRA administration. If the President's Request for CBRA is fully funded, the Service will have the capability to produce new comprehensively revised draft maps for approximately six CBRS areas. Additionally, in FY 2015 the Service plans to complete final recommended maps for the remaining 64 units in the pilot project; make digital conversion maps effective for Alabama, Florida (panhandle region), Michigan, Minnesota, Mississippi, New York (Great Lakes region), Ohio, and Wisconsin;

(comprising about 8 percent of the total acreage within the CBRS); and conduct research and mapping efforts associated with the Hurricane Sandy project.

Legislation

In general, the bills that are the subject of this hearing seek to enact certain revised CBRS maps. Those revised CBRS maps would remove land from CBRS units and make that land eligible for Federal subsidies that encourage development, including Federally-backed flood insurance.

The nine bills are summarized below and Service's position on the legislation is provided. More detailed information about each bill and the affected CBRS units can be found in Attachment 1.

H.R.187: To correct the boundaries of the John H. Chafee Coastal Barrier Resources System Unit L06, Topsail, North Carolina

H.R. 187 addresses Topsail Unit L06 located in Onslow County, North Carolina. Unit L06 was designated with the enactment of the CBRA in 1982 and was expanded by the Coastal Barrier Improvement Act (CBIA) in 1990 to add associated aquatic habitat landward of the Intracoastal Waterway and add additional undeveloped uplands to the unit. H.R. 187 would replace the existing CBRS map for Unit L06 with a map dated “_____.” While the intent of H.R. 187 is unclear as there is no replacement map yet referenced by the bill, the Service is aware that the Town of North Topsail Beach has long advocated for the removal of most of the land currently within Unit L06 from the CBRS so that Federal funding for beach renourishment, flood insurance, disaster assistance, and other Federal financial assistance would be available to the community. Unit L06 is one of the most developed units in the CBRS. Most of the development within the Town of North Topsail Beach has occurred since the area was added to the CBRS in 1982.

Unit L06 is one of 68 units under review as part of a Digital Mapping Pilot Project that was directed by the 2000 CBRA reauthorization (Section 6 of P.L. 106-514). While most of the pilot project maps are still being finalized, the Service has expedited the completion of its final recommended maps for Unit L06 (including the southern segment of Unit L05) as well as the maps for Units L07, L08, and L09, which are also the subject of legislation being considered at this hearing.

The Service does not have a position on H.R. 187 at this time because the legislation does not reference a specific map. However, the Service would support H.R. 187 if the legislation were amended to reference the Service's final recommended maps for Unit L06 and a portion of Unit L05 dated November 20, 2013 (attached).

H.R. 277, to revise the boundaries of John H. Chafee Coastal Barrier Resources System Sachuest Point Unit RI-04P, Easton Beach Unit RI-05P, Almy Pond Unit RI-06, and Hazards Beach Unit RI-07 in Rhode Island

H.R. 277 would revise the boundaries of four units of the CBRS in Newport County, Rhode Island. These units are Sachuest Point Unit RI-04P, Easton Beach Unit RI-05P, Almy Pond Unit

RI-06, and Hazards Beach Unit RI-07. There have been no changes to the boundaries of these four units since their designation by the CBIA in 1990. The legislation replaces the existing map for these four units with a comprehensively revised and modernized map dated September 30, 2009. We have testified on similar bills in the 111th and 112th Congresses. The Service has updated the aerial imagery that serves as the base map and the new draft map is dated September 16, 2013. The CBRS boundaries depicted on the 2013 draft map are identical to those depicted on the 2009 draft map currently referenced in H.R. 277.

The Service supports H.R. 277 and recommends an amendment to the legislation to reference the Service's final recommended map for Units RI-04P, RI-05P, RI-06, and RI-07, which is dated September 16, 2013 (attached).

H.R. 1810, to revise the boundaries of John H. Chafee Coastal Barrier Resources System Gasparilla Island Unit in Florida

H.R. 1810 would revise the boundaries of Gasparilla Island Unit FL-70P in Lee County, Florida and add a new System unit, Unit FL-70, to the CBRS. Unit FL-70P was established as an OPA by the CBIA in 1990. No changes have been made to the boundaries of the OPA since it was established. The draft revised map referenced in H.R. 1810 and dated May 23, 2012, is a map prepared by the Service in response to a request for legislative drafting assistance by the Chairman of the Subcommittee in 2012. The Service has prepared a final recommended map which is identical to the drafting assistance map for Units FL-70/FL-70P except that it would include within the CBRS a 10-acre parcel owned by the Florida Power and Light Company (FPL).

The Service supports H.R. 1810 and recommends an amendment to the legislation to reference the Service's final recommended map for Units FL-70/FL-70P, which is dated May 11, 2012 (attached).

H.R. 1811, To remove from the John H. Chafee Coastal Barrier Resources System areas included in Florida System Unit P-16, and for other purposes

H.R. 1811 addresses Keewaydin Island Unit P16 located in Collier County, Florida. Unit P16 was established by the CBRA in 1982, expanded by the CBIA in 1990 to include wetlands as well as portions of Marco Island and Isles of Capri, and modified by the Service in 1997 to account for natural changes around Big Marco Pass. Section 1 of H.R. 1811 directs the Secretary of the Interior to prepare a revised map that would remove from Unit P16 the areas known as (1) Royal Marco Point on Marco Island and (2) La Peninsula of the Isles of Capri in Naples. Additionally, Section 2 of H.R. 1811 would modify Section 1316 of the National Flood Insurance Act of 1968 (42 U.S.C. 4023) to allow the availability of insurance under the NFIP for the properties that are in violation of state or local laws restricting land development or occupancy in flood-prone areas located that are removed from Unit P16 by Section 1 of the legislation. The Service believes that the intent of the legislation would be accomplished through a comprehensively revised map for this area.

The Service could support H.R. 1811 if the legislation were amended to reference a final recommended map that will be prepared by the Service in accordance with the comprehensive CBRS remapping protocols. The Service also recommends striking Section 2, which contains language that is not typically included within CBRA technical correction bills, from the legislation. The Service plans to conduct a comprehensive review and remapping of this area in FY 2014 and has allocated funds for this purpose. In accordance with the comprehensive mapping approach, we will review all adjacent areas on the maps to ensure that any other technical mapping errors are also addressed, and will identify any undeveloped coastal barrier areas that qualify for inclusion within the CBRS. We anticipate the draft revised maps will be ready for public review and comment by the end of FY 2014.

H.R. 2057, To remove from the John H. Chafee Coastal Barrier Resources System the areas comprising Bay County Unit P-31P in Florida

H.R. 2057 addresses St. Andrew Complex P31P, located in Bay County, Florida. Unit P31P was established as an OPA by the CBIA in 1990 and was revised in 1994 to remove private lands from the OPA. The OPA generally includes St. Andrews State Park and about 134 acres of private land and associated aquatic habitat that is located to the north of Grand Lagoon. H.R. 2057 would remove the map that depicts Unit P31P from the set of official maps of the CBRS, thereby removing the entire area comprising Unit P31P from the CBRS. This legislation could also affect the adjacent Unit P31, which is partially shown on the same map panel as Unit P31P. The Service believes that this bill differs from typical CBRA technical correction bills in that it does not adopt a revised map to address technical mapping errors; rather it completely removes an entire OPA, encompassing approximately 1,923 acres, from the CBRS.

As H.R. 2057 does not address a technical mapping error, the Service does not believe that the entire area located within Unit P31P should be removed from the CBRS, and therefore opposes the bill.

H.R. 3226, To remove from the John H. Chafee Coastal Barrier Resources System certain properties in South Carolina

H.R. 3226 addresses Long Pond Unit SC-01 located in Horry County, South Carolina. Unit SC-01 was established by the CBIA in 1990, was revised in 1993 to add private lands per the request of the property owner, and was revised again in 1996 to remove private lands from the unit. H.R. 3226 directs the Secretary of the Interior to revise the map of Unit SC-01 to remove two specific parcels from the CBRS. The two parcels in question are owned by the Myrtle Beach Travel Park and are located in the southwestern section of the unit. The portions of the two parcels currently within Unit SC-01 comprise about 11 upland acres.

The Service could support H.R. 3226 if it were amended to reference a comprehensively revised map to be prepared by the Service that addresses all technical mapping errors and adds any lands to the CBRS that meet the CBRA's criteria for an undeveloped coastal barrier. The Service plans to conduct a comprehensive assessment of Unit SC-01 and prepare a draft revised map of this area for public review by the end of FY 2014.

H.R. 3227, To remove from the John H. Chafee Coastal Barrier Resources System certain properties in South Carolina

H.R. 3227 addresses Huntington Beach Unit SC-03 located in Georgetown County, South Carolina. Unit SC-03 was established by the CBIA in 1990 and was modified in 1998 to remove private land that was developed prior to the establishment of the unit. H.R. 3227 directs the Secretary of the Interior to revise the map of Unit SC-03 to remove 21 specific parcels from the CBRS. The portions of the 21 parcels currently within Unit SC-03 comprise about 12 acres of primarily upland areas. We note H.R. 3227 contains potential drafting errors – our review of the legislation and of Georgetown County property records found 18 of the parcel numbers identified in the legislation appear to have the first two digits incorrect, and one of the addresses listed does not correspond to the parcel number that is listed.

The Service could support H.R. 3227 if it were amended to reference a comprehensively revised map to be prepared by the Service that addresses all technical mapping errors and adds any lands to the CBRS that meet the CBRA’s criteria for an undeveloped coastal barrier. The Service plans to conduct a comprehensive assessment of Unit SC-03 and prepare a draft revised map of this area for public review by the end of FY 2014.

H.R. 3572, To revise the boundaries of certain John H. Chafee Coastal Barrier Resources System units in North Carolina

H.R. 3572 would revise the boundaries of three units of the CBRS in Onslow, Pender, and New Hanover Counties, North Carolina. These units are Lea Island Complex L07, Wrightsville Beach Unit L08, and Masonboro Island Unit L09. All three units were included within the CBRS by the CBRA in 1982 and expanded by the CBIA in 1990, mostly to include additional associated aquatic habitat. Unit L07 was modified by the Service in 1997 to account for natural changes on the south side of Rich Inlet. Unit L09 was modified by the Service in 1997 to account for natural changes on the north side of Masonboro Inlet. The legislation replaces the existing maps for these three units with maps dated “_____”.

Units L07, L08, and L09 are among the 68 units under review as part of a Digital Mapping Pilot Project that was directed by the 2000 CBRA reauthorization (Section 6 of P.L. 106-514). These three units span three existing CBRS maps. Our review indicated that all three units warranted modifications to remove development that was on-the-ground before being added to the CBRS. The Service, therefore, would support H.R. 3572 if it were amended to reference the Service’s final recommended maps for Units L07, L08, and L09, which are dated March 12, 2014 (attached).

H.R. 4222, To correct the boundaries of John H. Chafee Coastal Barrier Resources System units in Florida, and for other purposes.

H.R. 4222 addresses Cape San Blas Unit P30, and Indian Peninsula Unit FL-92, located in Gulf County, Florida. Unit P30 was designated as a System unit by CBRA in 1982, and was expanded in 1990 to include open water and a few islands in St. Joseph Bay. Unit FL-92 was

designated as a System unit by the CBIA in 1990. Much of the area within Units P30 and FL-92 has been developed over the years despite CBRA's restrictions on Federal spending.

H.R. 4222 would replace the existing CBRS map for Unit P30 and FL-92 with a map dated "_____." The Service notes that there are some administrative errors in the bill text. Units P30 and P30P both appear on two map panels, and Unit FL-92 appears on a separate panel. However, the legislation refers to Units P30 and FL-92 as though they are on the same map. Additionally, Unit P30P is not identified in the legislation, though it is depicted on the same map panels as Unit P30. While the intent of H.R. 4222 is unclear, the Service is aware that Gulf County has long advocated for the removal of the application of the CBRA to these two units, so that Federal funding for beach renourishment, flood insurance, disaster assistance, and other Federal financial assistance would be available to the community. In the past, the Service has testified in opposition to legislation that would have done that.

H.R. 4222 was introduced on March 12, 2014. The Service has not yet conducted a comprehensive review or produced draft revised maps for Units P30 and FL-92. Our remapping priorities for FY 2014 have already been established and do not include a remapping of Units P30 and FL-92. However, we would be happy to work with the Subcommittee and the bill sponsor to determine the best way to move forward to conduct the necessary research and prepare comprehensively revised maps for these two units. Revised maps should address any legitimate mapping errors and propose the addition of undeveloped coastal barrier areas to the CBRS (in accordance with P.L. 109-226), while balancing the Service's many other CBRS mapping priorities. Because revised maps have not been prepared for Units P30 or FL-92, the Service does not have a position on H.R. 4222 at this time.

Conclusion

The CBRA is now more important than ever. Projected sea-level rise highlights the need for the CBRA as a common-sense policy that saves taxpayer dollars while also promoting smart coastal management practices. The Administration supports map modernization as an effort that will make administration of the CBRA more efficient, more transparent by making CBRS information more accessible to the public, and preserve the long-term integrity of the CBRS.

Thank you for the opportunity to testify today on the CBRA. I am happy to answer any questions and look forward to working with the Subcommittee as it considers these bills.

JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM
Description of Units Affected by Introduced Legislation

H.R.187: To correct the boundaries of the John H. Chafee Coastal Barrier Resources System Unit L06, Topsail, North Carolina

Unit L06 is one of 68 units under review as part of a Digital Mapping Pilot Project that was directed by the 2000 Coastal Barrier Resources Act (CBRA) reauthorization (Section 6 of P.L. 106-514). While most of the pilot project maps are still being finalized, the U.S. Fish and Wildlife Service (Service) has expedited the completion of its final recommended maps for Unit L06. In accordance with the comprehensive mapping approach, the Service also reviewed and revised the boundaries of the southern part of Unit L05, which is now located on one of the two final recommended map panels for Unit L06.

The Service's final recommended maps for Unit L06 and a portion of Unit L05, dated November 20, 2013, propose to remove from the John H. Chafee Coastal Barrier Resources System (CBRS) approximately 110 acres (72 acres of uplands and 38 acres of associated aquatic habitat) and add approximately 1,515 acres to the CBRS (86 acres of uplands and 1,429 acres of associated aquatic habitat). The revised maps would remove approximately 77 structures from the CBRS and add no structures to the CBRS. These completed maps correct legitimate mapping errors, propose the addition of undeveloped coastal barrier areas as directed by the 2006 CBRA reauthorization (Section 4 of P.L. 109-226), and are a significant improvement over the existing map for Unit L06 that was produced in 1990.

The Town of North Topsail Beach and several subdivisions within the Town submitted documentation to the Service during the 2009 pilot project public comment period concerning the development that was on the ground at the time Unit L06 was designated in 1982. The Service assessed the information submitted by interested parties, Onslow County property parcel data, and our background records for Unit L06. Our review found that though there were some structures on the ground and a main trunk line of infrastructure that ran along the length of the unit in 1982, the area still met the CBRA's criteria for an undeveloped coastal barrier when it was designated within the CBRS in 1982. Therefore, the Service does not recommend removing Unit L06 from the CBRS or remapping the unit to remove the majority of the land currently in the unit from the CBRS.

The Service's background record on Unit L06 contains information about the existence of a main road through North Topsail Beach and the basic availability of utilities along that road prior to the designation of the unit in 1982. A July 28, 1982, memo from the Coastal Barriers Task Force to the Secretary of the Interior on the Interim Proposed Undeveloped Coastal Barrier Designation for the Topsail Unit (L06), North Carolina states:

“structures were scattered over the unit in very low densities, primarily along Highway 210. The overall density is very much below the threshold of one structure per five acres of fastland used to consider an area developed...we find no evidence that a full complement of infrastructure, as defined in the definitions, exists at each lot or building site in...the unit.”

The Service's CBRS designation criteria published in the *Federal Register* on August 16, 1982, state that "the presence on a coastal barrier of a single road, or even through highway, plus associated electric transmission and water and sewer lines in this highway corridor does not constitute the necessary full complement of infrastructure necessary to support development." This is essentially the level of infrastructure that existed in North Topsail Beach at the time of the initial CBRS designation, with the exception of a couple of areas that had more extensive infrastructure and structures on the ground, which are either currently excluded from the unit or proposed for removal on the Service's final recommended maps.

Our review of Unit L06 also considered the density of development on the ground when the unit was designated in 1982. Unit L06 was comprised of approximately 797 acres of uplands and contained approximately 35 structures in April of 1982, therefore the density of development was about one structure per 23 acres of land above mean high tide, well below the density threshold to be considered developed. A July 28, 1982, memo from the Coastal Barriers Task Force to the Secretary of the Interior on the Interim Proposed Undeveloped Coastal Barrier Designation for the Topsail Unit (L06), North Carolina states:

"aerial photography taken April 30, 1982, verifies the existence of the components of a coastal barrier including a linear beach feature, sand dunes, and landward aquatic habitat within the area proposed for designation as an undeveloped coastal barrier. In addition, those aerial photographs confirm the lack of sufficient structures and other facilities or visible impacts to consider the area proposed for designation developed as defined in the statute."

Since 1886, 52 hurricanes and numerous tropical storms and nor'easters have affected the North Carolina coast (Pilkey and Neal, 2009). According to geologists Orrin Pilkey and William Neal (2009), "as a result of the natural setting plus poor development and management decisions, the Town of North Topsail Beach on Topsail Island, North Carolina, is the state's most vulnerable barrier-island community. It is [their] view that this very narrow, low, and duneless island community is the most hazardous on the U.S. East Coast."

In 2009, the Beach Erosion Study Team (BEST) Committee, established by the Board of Alderman of the Town of North Topsail Beach, published a report concerning the erosion of the Town's shoreline. The BEST Report indicates that the cost to nourish the 7.25 mile section of beach within Unit L06 without using Federal funds would be approximately \$39.5 million. The estimated cost to renourish the beach (beginning 13 years after the start of the original nourishment project) is projected to be about \$8.8 million every 4 years. If the area that currently comprises Unit L06 is significantly altered or removed from the CBRS, the Federal Government may be asked to assume this cost.

H.R. 277, to revise the boundaries of John H. Chafee Coastal Barrier Resources System Sachuest Point Unit RI-04P, Easton Beach Unit RI-05P, Almy Pond Unit RI-06, and Hazards Beach Unit RI-07 in Rhode Island

All four of these Rhode Island units were included within the CBRS by the Coastal Barrier Improvement Act (CBIA) in 1990. There are two types of units within the CBRS. System units

generally contain private lands and Otherwise Protected Areas (OPAs) generally contain lands held for conservation or recreation. The revised map contains two System units, RI-06 and RI-07, and two OPAs, RI-04P and RI-05P. The revised map, reflecting a comprehensive review process, removes lands that were inappropriately included within the CBRS in 1990 and adds lands that are appropriate for inclusion within the CBRS.

The Service was first contacted about Unit RI-05P in 2004 by a property owner who sought to remove his property from the CBRS. Our review indicated that Unit RI-05P was originally intended to follow the boundaries of Easton Beach and Easton Pond which are owned by the City of Newport. Unit RI-05P is an OPA, and the existing boundaries do not precisely follow the underlying public lands boundaries and inappropriately capture adjacent private land that is not held for conservation or recreation; is not an inholding, and was not intended to be part of the OPA. The final recommended boundary of Unit RI-05P is modified to remove the property in question (as well as other private lands), add publicly owned beach and wetlands, and more precisely follow the boundaries of lands owned by the City of Newport and Town of Middletown.

In accordance with the comprehensive mapping approach, we also reviewed and revised the boundaries of Units RI-04P, RI-06, and RI-07, which are located on the same map panel as Unit RI-05P. The final recommended boundary of Unit RI-04P is modified to include portions of the Norman Bird Sanctuary, lands owned by the City of Newport Water Department, and lands owned by the Town of Middletown known as Second Beach and Third Beach. The final recommended boundary of Unit RI-06 is modified to remove private and public lands, add the remaining undeveloped portions of the privately owned Bailey's Beach, and follow the wetland/upland interface around Almy Pond. The final recommended boundary of Unit RI-07 is modified to include all of the privately owned Gooseberry Beach, most of the privately owned Hazards Beach, follow the wetland/upland interface around Lily Pond, and include a parcel that the Audubon Society of Rhode Island has requested be added to the CBRS as a System unit.

The Service held a public comment period on the draft map in 2012 and received no comments opposing the proposed changes to Units RI-04P, RI-05P, RI-06 and RI-07.

The final recommended map for Units RI-04P, RI-05P, RI-06, and RI-07 removes approximately 22 acres from the CBRS (20 acres of uplands and 2 acres of associated aquatic habitat) and adds approximately 67 acres to the CBRS (34 acres of uplands and 33 acres of associated aquatic habitat). The revised map removes eight structures (including a pump house) from the CBRS and adds no structures to the CBRS. This map corrects legitimate mapping errors, proposes the addition of undeveloped coastal barrier areas as directed by the 2006 CBRA reauthorization, and is a significant improvement over the existing map for these four Rhode Island units that was produced in 1990.

H.R. 1810, to revise the boundaries of John H. Chafee Coastal Barrier Resources System Gasparilla Island Unit in Florida

The Service was first contacted in 2010 by property owners who sought to remove a strip of 23 homes along Buttonwood Bay Drive from CBRS Unit FL-70P. The Service's review of this area

found that the original OPA was intended to follow the boundaries of Gasparilla Island State Park. In accordance with our comprehensive remapping protocols, we researched this area and prepared a comprehensively revised map that proposes the removal of private properties that were inappropriately included within the OPA and the addition of undeveloped land and associated aquatic habitat that meet the CBRA criteria for inclusion within the CBRS.

The Service held a public comment period on the draft map in 2012. We carefully assessed the incoming comments and prepared a final recommended map dated May 11, 2012, which makes appropriate adjustments to the earlier map based on information received through public comments, CBRA criteria, and objective mapping protocols.

The final recommended boundary of Unit FL-70P is modified to more precisely follow the boundaries of Gasparilla Island State Park; remove private lands that were not intended to be part of the OPA; and add adjacent conservation and recreation lands that are appropriate for inclusion within the OPA, including the Boca Grande Ballfield Site, lands owned by the Gasparilla Island Conservation and Improvement Association, and portions of the Gasparilla Island State Park that are not currently within the OPA.

The revised map for Unit FL-70P also includes a proposed new System unit, FL-70, that contains undeveloped coastal barrier lands and associated aquatic habitat that are adjacent to or in the vicinity of Unit FL-70P. The proposed new System unit contains parcels that are owned by Lee County, the Boca Bay Master Association, and Florida Power and Light (FPL). The Service's assessment indicates that these lands meet the CBRA definition of an "undeveloped coastal barrier" but do not meet the definition of "otherwise protected" and are therefore proposed for inclusion within new System unit, FL-70, instead of within the existing OPA.

The Service's final recommended map for Units FL-70/FL-70P removes approximately 6 upland acres from the CBRS and adds approximately 1,751 acres to the CBRS (including 83 acres of uplands and 1,668 acres of associated aquatic habitat). The revised map removes 27 structures from the CBRS. The properties proposed for removal from the OPA are mostly privately owned, are not inholdings, and were not part of the state park at the time they were included within the OPA in 1990. The revised map adds to the CBRS five structures, including four park-related structures and one structure owned by FPL which is used for storage. Park-related structures (e.g., visitors' center, restrooms, bathhouse, etc.) are exempt from the OPA prohibitions on Federal flood insurance, and would be allowed to carry Federal flood insurance regardless of when they were built or improved.

The drafting assistance map that is referenced in H.R. 1810 is identical to the Service's final recommended map for Units FL-70/FL-70P with one exception: it does not include within the CBRS a 10-acre parcel owned by the FPL. An April 20, 2012 comment letter from FPL to the Service stated "In 2002, FPL decided that the fuel oil terminal was no longer necessary and subsequently removed the equipment and remediated and graded the land in preparation for its next use." The addition of FPL's parcel to the CBRS would have no impact on FPL's legal rights to use or dispose of their property. The Service believes that the FPL parcel, which is currently not included within the CBRS, qualifies as an undeveloped coastal barrier and is appropriate for addition to the CBRS. This proposed addition is consistent with a directive in the

2006 CBRA reauthorization (Section 4 of P.L. 109-226) that the Secretary of the Interior recommend new areas for inclusion within the CBRS.

H.R. 1811, To remove from the John H. Chafee Coastal Barrier Resources System areas included in Florida System Unit P-16, and for other purposes

The Service was first contacted about Unit P16 in 2010 by a condominium association which sought to remove several condominium buildings from the CBRS, including the Royal Marco Point condominium complex on Marco Island and the La Peninsula and Twin Dolphins condominium complexes on the Isles of Capri.

The Service has not yet conducted a thorough review of Unit P16 or prepared a comprehensively revised map of this area due to the resource intensive nature of this work and a significant backlog of units we have been asked to review and remap. Unit P16 currently comprises about 15,133 acres and is one of the largest units in the CBRS.

The Service has, however, assessed the two areas identified in Section 1 of H.R. 1811 and our initial review of the information provided by the Royal Marco Point Condominium Association as well as Collier County records indicates that the six Royal Marco Point condominium buildings were constructed between 1990 and 1996. The three buildings that comprise Royal Marco Point I were constructed in 1990 and 1991, and were likely walled and roofed prior to their designation within the CBRS on November 16, 1990. The three buildings that comprise Royal Marco Point II and III were constructed between 1991 and 1996, however our review found that there was a full complement of infrastructure available to each of the lots or building sites prior to their designation within the CBRS on November 16, 1990.

Our initial assessment of the information provided by an interested party as well as Collier County records indicates that the La Peninsula condominiums were constructed between 1985 and 1988. The Twin Dolphins condominium was completed in 2002. There are an additional five structures that were built within the vicinity of these condominiums between 1982 and 2006. The majority of the buildings were constructed prior to their designation within the CBRS on November 16, 1990. Based on this initial assessment, and the existing criteria under CBRA by which the Service reviews the level of development at the time of designation, approximately nine structures within Royal Marco Point (including six condominium buildings and three pool related structures on about 30 acres of uplands) and approximately 11 structures on the Isles of Capri (including six condominium buildings, three smaller residential structures, one clubhouse, and one auxiliary condominium structure on about 16 acres of uplands), would be appropriate to recommend for removal from Unit P16.

H.R. 2057, To remove from the John H. Chafee Coastal Barrier Resources System the areas comprising Bay County Unit P-31P in Florida

The Service was contacted about Unit P31P in 2006 by a homeowner's association which sought to remove the Martinique, Finisterre, and Bonefish Pointe subdivisions from the CBRS. The private land that constitutes these three subdivisions is adjacent to, and is not an in-holding of, the State park. In 1994, Congress revised the northern boundary of the OPA via P.L. 103-461

to specifically exclude 306 acres of private land in the northern part of the OPA that was already developed at the time the OPA was designated in 1990; the land that was excluded is contiguous to the 134 acres of private land currently within the OPA. The portions of Martinique, Finisterre, and Bonefish Pointe subdivisions that are within Unit P31P contained 10 private structures in 1990 and now contain approximately 240 lots and approximately 80 houses. Construction of most of the houses began in 2001. When this area was included in the OPA in 1990, it was privately owned and constituted an undeveloped coastal barrier.

The Service has encountered cases in the past where private lands adjacent to a conservation or recreation area (e.g., State park) were inadvertently included in an OPA. In general, the Service believes that OPA boundaries are intended to mirror the exterior boundaries of the underlying conservation or recreation area. The Service has supported legislation to remove relatively small tracts of adjacent private lands that are not inholdings and that were inadvertently included in the OPA due to rudimentary mapping technologies used in the past to delineate OPAs. We note, however, that Unit P31P is different from these past situations because the area in question is a relatively large tract of private land, 134 acres, and it is unlikely that this area was inadvertently included in the OPA due to rudimentary mapping technologies. Congress specifically reconsidered the boundaries of Unit P31P after its original designation, and as a result, revised the boundary of Unit P31P through the enactment of P.L. 103-461 in 1994. This boundary revision removed private land from the OPA that was developed when the OPA was designated in 1990. This developed land is contiguous – it is directly north of – the area now in question; P.L. 103-461 left the area now in question within the OPA. If Unit P31P were comprehensively remapped, the private land within the OPA that is immediately north of Grand Lagoon may be recommended for reclassification from OPA to System unit status.

H.R. 3226, To remove from the John H. Chafee Coastal Barrier Resources System certain properties in South Carolina

The Service was first contacted in 2012 by interested parties who sought to remove the Myrtle Beach Travel Park parcels from the CBRS. The Service has not yet conducted a thorough review of Unit SC-01 or prepared a comprehensively revised map of this area due to the resource intensive nature of this work and significant backlog of units we have been asked to review and remap. We have, however, assessed the two parcels identified in Section 1(a) of H.R. 3226 and our initial review indicates that the two Myrtle Beach Travel Park parcels were incorrectly included within the CBRS in the past and should be removed from the CBRS in their entirety.

In 1992 the Meher Spiritual Center, which was partially included within the original extent of Unit SC-01, requested a voluntary addition of the remainder of their property to the CBRS. The Service produced a revised map dated October 15, 1992, to reflect the voluntary addition of lands belonging to the Meher Spiritual Center within the CBRS (in accordance with Section 4(e) of P.L. 101-591). The change went into effect administratively with the Service's publication of a notice in the *Federal Register* on November 15, 1993. The October 15, 1992, map was produced using the mapping conventions and data available at the time and did not include the full extent of the Meher Spiritual Center lands within the CBRS and incorrectly included within the CBRS a portion of the Myrtle Beach Travel Park, which is adjacent to the Meher Spiritual Center. In 1996, the southwestern boundary of Unit SC-01 was modified by P.L. 104-265 to

exclude development that existed prior to the establishment of the unit in 1990. This targeted technical correction did not address the Myrtle Beach Travel Park property that was inadvertently included within Unit SC-01 in 1992.

In 2012 the Meher Spiritual Center submitted a letter to the Secretary of the Interior requesting that the remainder of its property be added to the CBRS. The Service is currently preparing revised maps for all of South Carolina through the “digital conversion” project. The draft digital conversion map for Unit SC-01 includes the remainder of the Meher Spiritual Center within the CBRS. The change to remove the two Myrtle Beach Travel Park properties from the CBRS, however, cannot be made administratively by the Service through the digital conversion process, but rather must be made through the comprehensive map modernization process which requires Congressional enactment of the revised map.

H.R. 3227, To remove from the John H. Chafee Coastal Barrier Resources System certain properties in South Carolina

The Service was first contacted in 2005 by interested parties who sought to remove private properties located within the Inlet Harbour Subdivision from Unit SC-03. The Service has not yet conducted a thorough review of Unit SC-03 or prepared a comprehensively revised map of this area due to the resource intensive nature of this work and significant backlog of units we have been asked to review and remap. We have, however, assessed the parcels identified in Section 1(a) of H.R. 3227 and our initial review of this area indicates that the 21 parcels were incorrectly included within the CBRS in the past. Our assessment of information submitted by interested parties and the Georgetown County property records indicates that 17 of the parcels referenced in H.R. 3227 had structures on the ground prior to the establishment of Unit SC-03 on November 16, 1990. Our assessment also found that there was a full complement of infrastructure available to each of the remaining four parcels referenced in H.R. 3227 prior to their inclusion within the CBRS in 1990.

The majority of the land within Unit SC-03 is owned by Brookgreen Gardens and has been leased to the State of South Carolina as Huntington Beach State Park since 1960. In 1998, the landward boundary of Unit SC-03 was modified by P.L. 105-277 to exclude development that existed prior to the establishment of the unit. The northern boundary of the unit affecting Inlet Harbour Subdivision, however, was not modified by the targeted technical correction in 1998.

H.R. 3572, To revise the boundaries of certain John H. Chafee Coastal Barrier Resources System units in North Carolina

Units L07, L08, and L09 are among the 68 units under review as part of a Digital Mapping Pilot Project that was directed by the 2000 CBRA reauthorization (Section 6 of P.L. 106-514). These three units span three existing CBRS maps. While most of the pilot project maps are still being finalized, the Service has expedited the completion of its final recommended maps for Units L07, L08, and L09. Our review indicated that all three units warranted modifications to remove development that was on-the-ground before being added to the CBRS.

The Service's proposed maps for Units L07, L08, and L09 underwent a public review period in 2009. Modifications to the final recommended maps produced through the pilot project were made to address concerns from the local communities and property owners. The Service's final recommended maps add approximately 891 acres to the CBRS (73 acres of uplands and 818 acres of associated aquatic habitat) and remove approximately 127 acres from the CBRS (70 acres of uplands and 57 acres of associated aquatic habitat). The revised maps remove a total of 32 structures from the CBRS and add no structures to the CBRS. These three maps correct legitimate mapping errors and propose the addition of undeveloped coastal barrier areas as directed by the 2006 CBRA reauthorization (P.L. 109-226), and are a significant improvement over the existing maps for these areas.

H.R. 4222, To correct the boundaries of John H. Chafee Coastal Barrier Resources System units in Florida, and for other purposes.

The Service has been working with Gulf County since 2000, when the NFIP began revising its Flood Insurance Rate Maps which resulted in increased flood hazard zones for much of the area. Gulf County commissioned a report in 2002 which asserts that the Service misapplied the mapping criteria defining an "undeveloped coastal barrier." The Service has reviewed the County's report as well as historical CBRS maps, aerial imagery, and our background record for this area and found no evidence suggesting that Units P30 and FL-92 were inappropriately designated as part of the CBRS.

In the past, Gulf County has alleged that Unit P30 did not meet the density of development criteria when it was designated as an undeveloped coastal barrier. The Service has reviewed the density calculation submitted by Gulf County and found that they were not counting certain land above mean high tide that they did not consider to be "developable" based upon things like land use and ownership. The Service does not view this as a valid method for calculating acreage to determine the density of development under CBRA. The Service calculates density according to language in the statute, which requires that we consider whether the density of development was "less than one structure per five acres of land above mean high tide" in making any recommendation to Congress regarding whether an area was an undeveloped coastal barrier at the time of designation. By our calculations, the density of development was approximately one structure per 16 acres of land above mean high tide, well below the limit, and Cape San Blas was in fact an undeveloped coastal barrier at the time of designation.

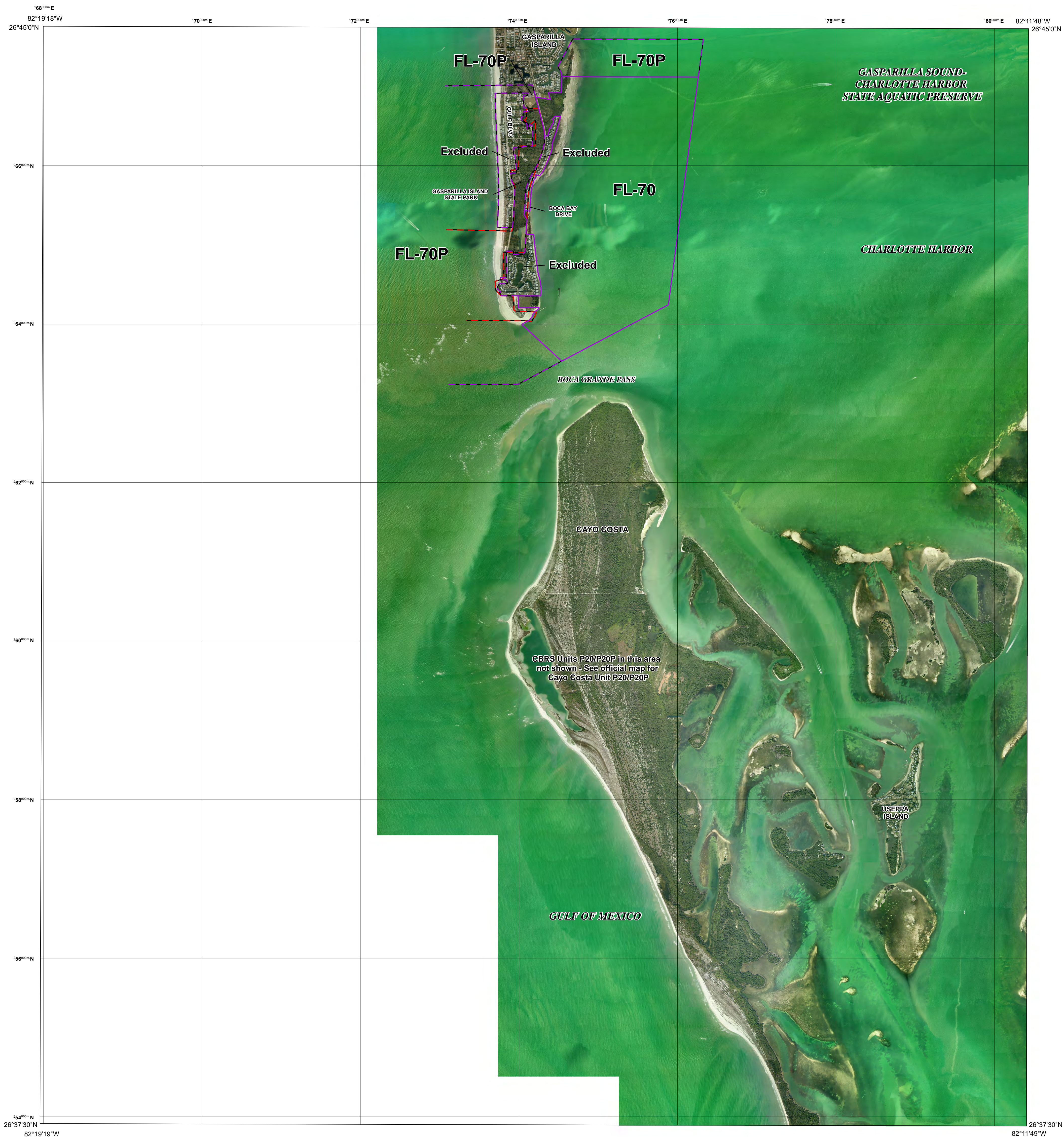
Between 2007 and 2009, Gulf County undertook a beach renourishment project on the St. Joseph Peninsula which is located within CBRS Unit P30. This project was damaged by Hurricane Gustav in 2008 and further impacted by subsequent storms, including Tropical Storm Debby in 2012. The Florida Department of Emergency Management applied to FEMA on behalf of Gulf County in 2012 for a reimbursement of \$15 million in Stafford Act funds for emergency beach renourishment. The primary purpose of the project was for "beach renourishment and dune installation", which would protect development that primarily occurred after the area was designated within the CBRS. The Service found that the project was not consistent with the purposes of the CBRA which are to minimize the loss of human life, wasteful expenditures of Federal revenues, and the damage to fish, wildlife and other natural resources associated with coastal barriers. FEMA agreed with the Service's assessment and denied reimbursable funding

for the project. The State of Florida has appealed FEMA's determination on this beach nourishment project twice and both times FEMA has denied funding for the project based on the Service's determination that the project is not consistent with CBRA.

Coastal barriers are dynamic systems that include an ever-changing mosaic of habitats. According to a 2012 study from the Florida Department of Environmental Protection, Cape San Blas is the most rapidly eroding beach in the State of Florida. Maintaining the current beach conditions on the peninsula is likely to require frequent, if not regular, beach nourishment at significant additional expense. Beach renourishment efforts on Cape San Blas not only support existing development but may also encourage further development within Unit P30, especially if Federal funds subsidize each future erosion event. There are several Endangered Species Act listed species located within Unit P30 and FL-92. There is nesting habitat for sea turtles and for several species of shorebirds including snowy plovers, least terns, and American oystercatcher. Critical habitat for the St. Andrew beach mouse is also present within the unit.

Much of the area within Units P30 and FL-92 has developed over the years despite CBRA's restrictions on Federal spending. The removal of any significant portions of Units FL-92 and P30 from the CBRS would make residents of these areas eligible for subsidized Federal flood insurance and expose the deeply indebted NFIP to a significant amount of additional risk. The availability of numerous other Federal subsidies such as beach nourishment projects that encourage property owners to take financial risks would likely result in an increase in the density of development in this area and therefore further increase the cost of future disasters and put more people in harm's way at a time when the Nation is still reeling from the devastating effects of Hurricane Sandy.

Existing and Final Recommended Boundaries



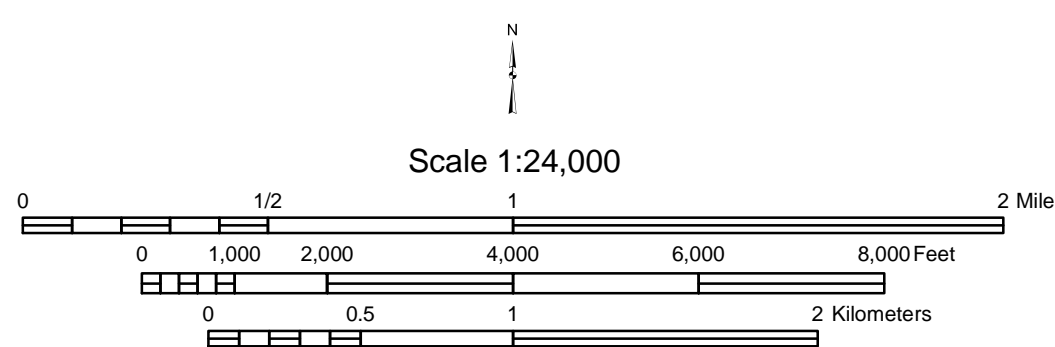
CBRS Units P20/P20P in this area not shown - See official map for Cayo Costa Unit P20/P20P

This draft map was produced by the U.S. Fish and Wildlife Service to show the Service's final recommended boundary changes to the John H. Chafee Coastal Barrier Resources System as directed by Section 4 of the Coastal Barrier Resources Reauthorization Act of 2005 (Pub. L. 109-226).

*The "Existing Boundary" shown on this map was digitized to approximately represent the location of the center of the roughly 80-100 foot thick controlling boundaries shown on the current official CBRS map for the area. The "Existing Boundary" has not been fit to the new underlying base map imagery, and should not be relied on as the official CBRS boundaries for this area. The official CBRS map for this area is available for viewing and download at www.fws.gov/cbra.

Date of Aerial Photography: 2011

JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM GASPARILLA ISLAND UNIT FL-70/FL-70P (Map 1 of 1)



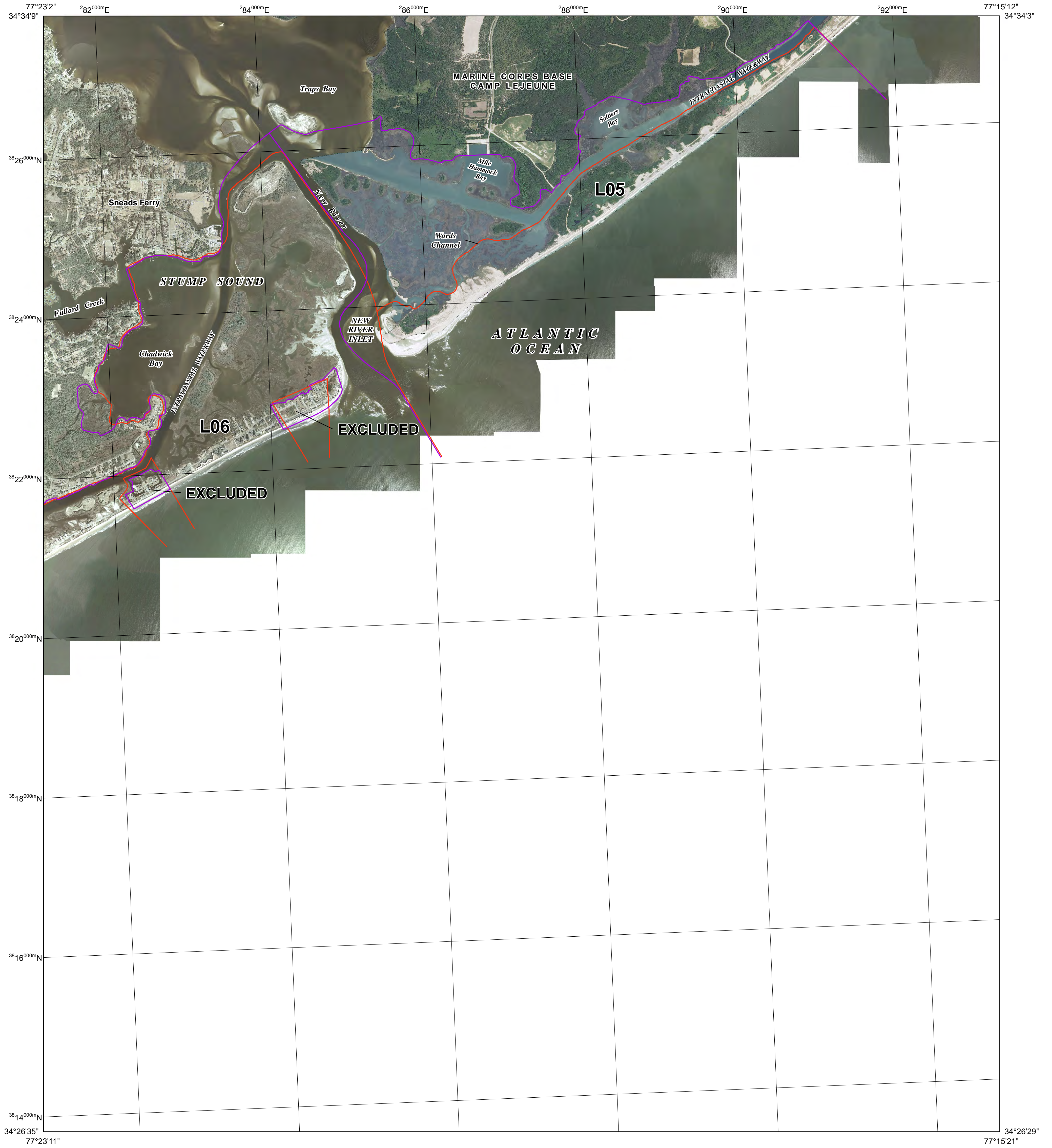
- Final Recommended System Unit Boundary
- Final Recommended Otherwise Protected Area (OPA) Boundary; OPAs are identified on the map by the letter "P" following the unit number
- Existing System Unit Boundary (approximate)*
- Existing OPA Boundary (approximate)*

90°45' Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

3240000N 2000-meter Universal Transverse Mercator grid values, zone 17N

Draft - May 11, 2012

Existing and Final Recommended Boundaries

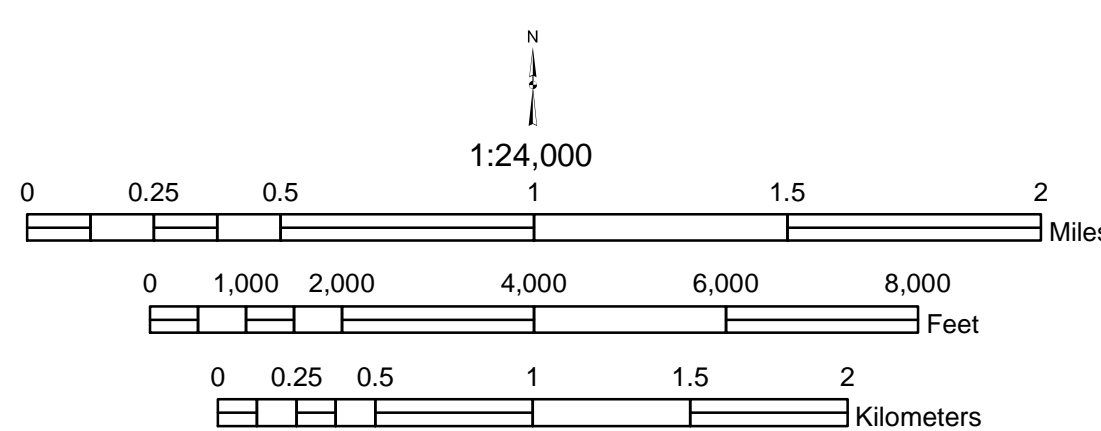


JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

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Onslow Beach Complex L05 (2 of 2) Topsail Unit L06 (1 of 2)



- Final Recommended System Unit Boundary
 - Final Recommended Otherwise Protected Area (OPA) Boundary; OPAs are identified on the map by the letter "P" following the unit number
 - Existing System Unit Boundary (approximate)*
 - Existing OPA Boundary (approximate)*
- 36°54'00"N 2000-meter Universal Transverse Mercator grid values, Zone 18 North
90°45'0" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- Imagery Date(s): 2010 and 2012
Imagery Source(s): State of North Carolina and United States Department of Agriculture National Agriculture Imagery Program
- Coordinate System: North American Datum 1983
North Carolina Statewide Mapping System
Lambert Conformal Conic Projection

November 20, 2013

Existing and Final Recommended Boundaries

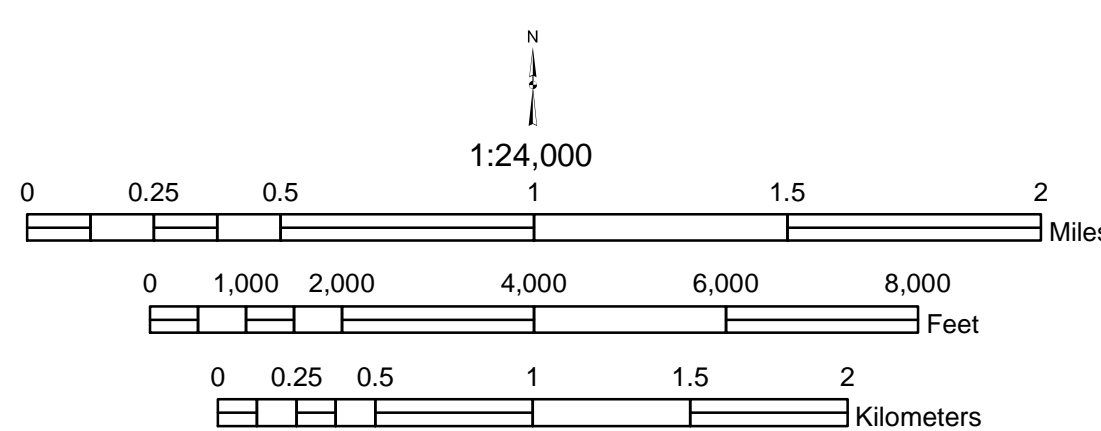


JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

Topsail Unit L06 (2 of 2)

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- Final Recommended System Unit Boundary
- Final Recommended Otherwise Protected Area (OPA) Boundary; OPAs are identified on the map by the letter "P" following the unit number
- Existing System Unit Boundary (approximate)*
- Existing OPA Boundary (approximate)*

3654000mN 2000- meter Universal Transverse Mercator grid values, Zone 18 North
 90°45'0" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
 Imagery Date(s): 2010 and 2012
 Imagery Source(s): State of North Carolina and United States Department of Agriculture National Agriculture Imagery Program
 Coordinate System: North American Datum 1983 North Carolina Statewide Mapping System Lambert Conformal Conic Projection

November 20, 2013

Existing and Final Recommended Boundaries

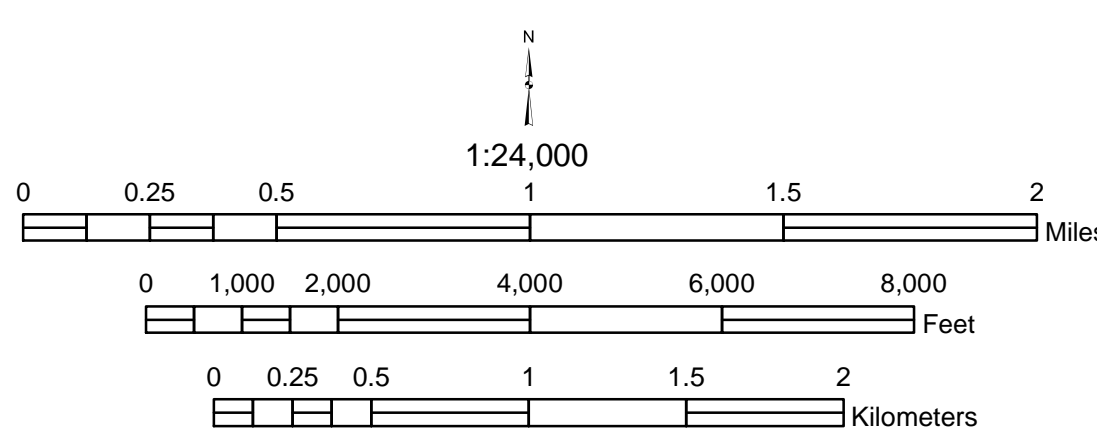


JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

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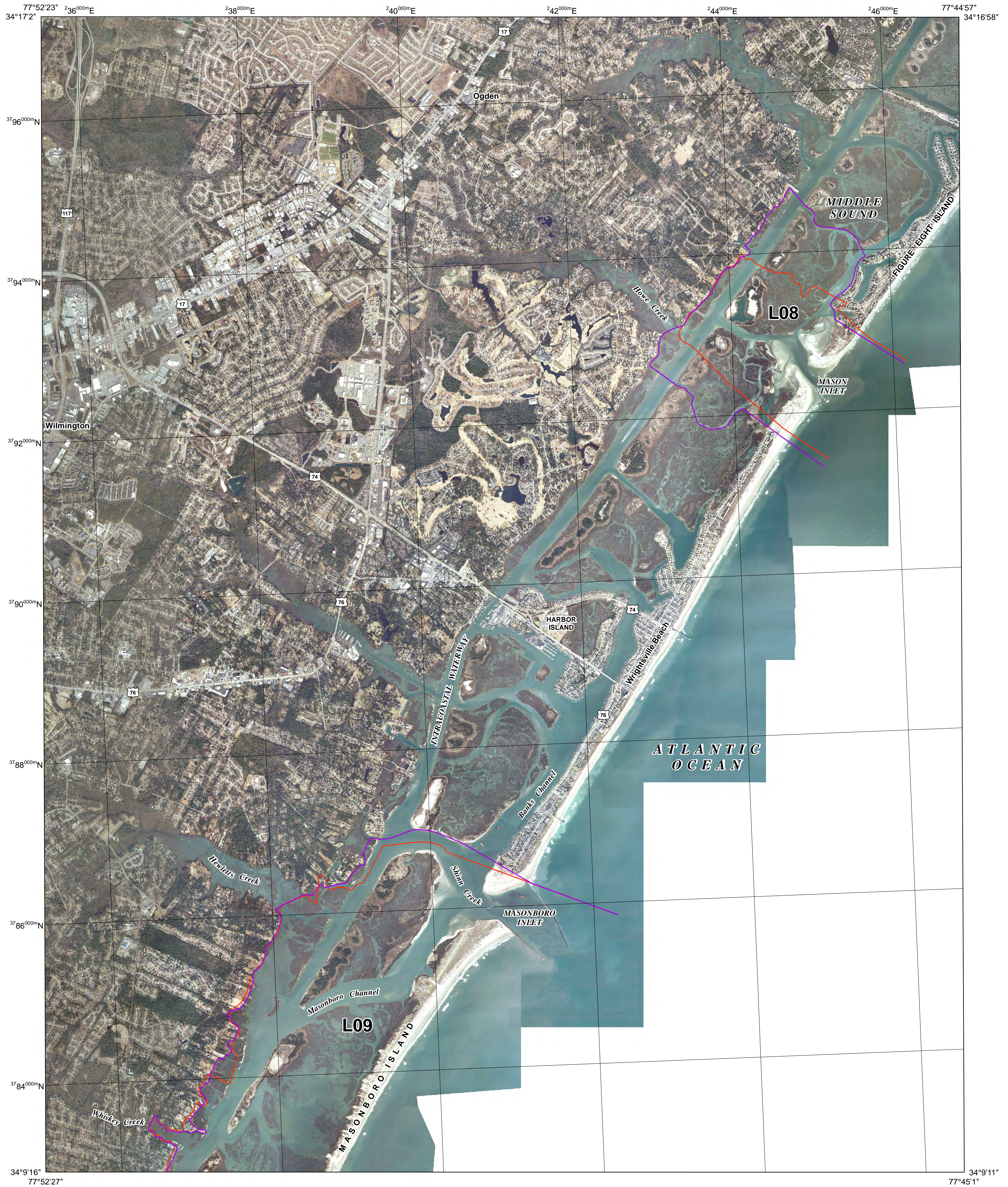
Lea Island Complex L07



- Final Recommended System Unit Boundary
 - Final Recommended Otherwise Protected Area (OPA) Boundary; OPAs are identified on the map by the letter "P" following the unit number
 - Existing System Unit Boundary (approximate)*
 - Existing OPA Boundary (approximate)*
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- Coordinate System: North American Datum 1983 North Carolina Statewide Mapping System Lambert Conformal Conic Projection

March 12, 2014

Existing and Final Recommended Boundaries

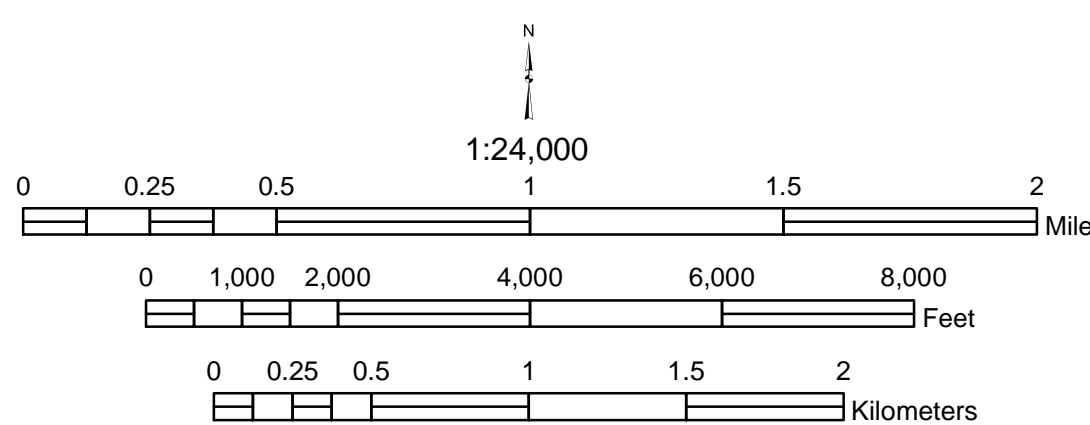


JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

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Wrightsville Beach Unit L08 Masonboro Island Unit L09 (1 of 2)

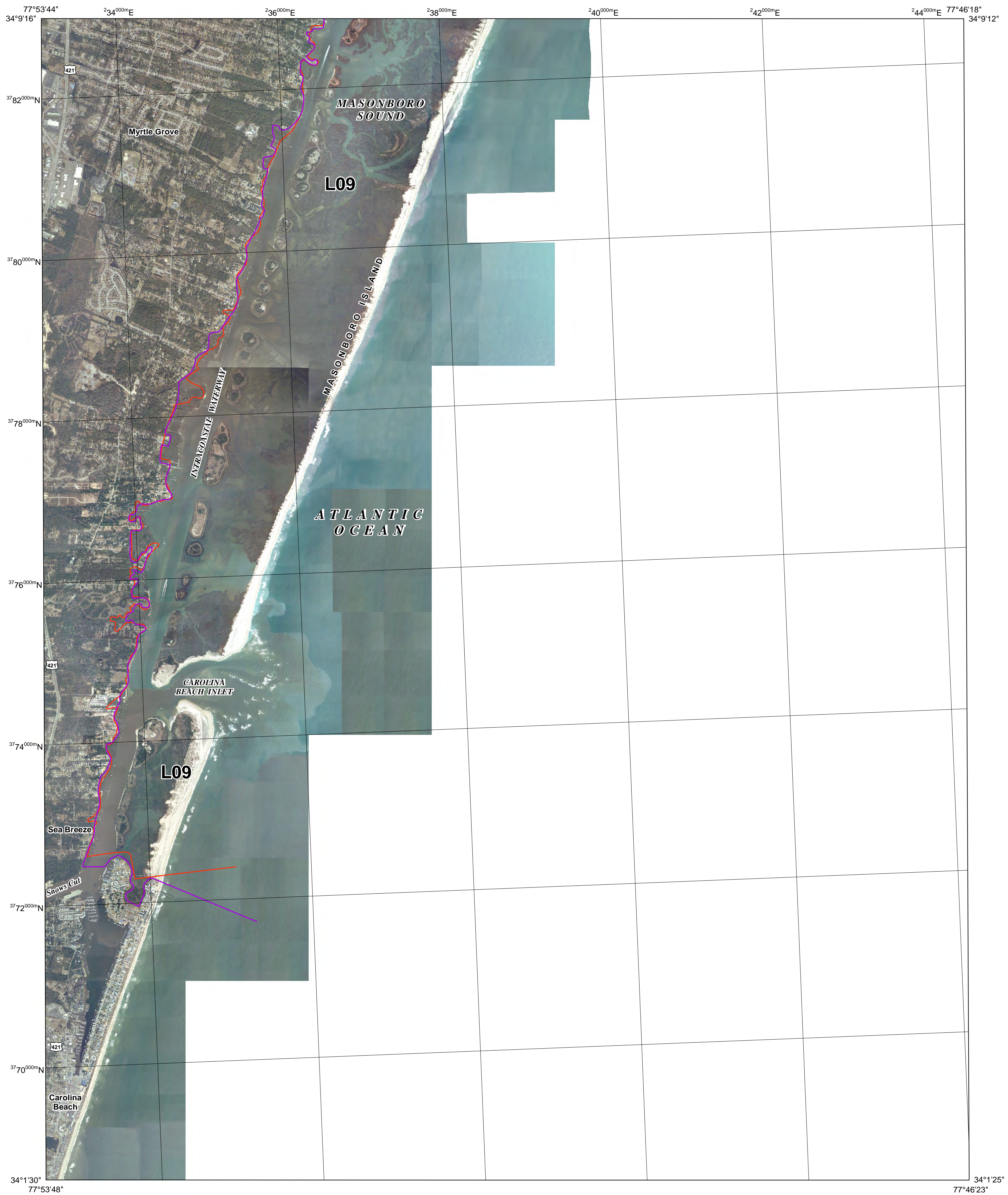


- Final Recommended System Unit Boundary
- Final Recommended Otherwise Protected Area (OPA) Boundary; OPAs are identified on the map by the letter "P" following the unit number
- Existing System Unit Boundary (approximate)*
- Existing OPA Boundary (approximate)*

36°54'00"N 2000- meter Universal Transverse Mercator grid values, Zone 18 North
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March 12, 2014

Existing and Final Recommended Boundaries

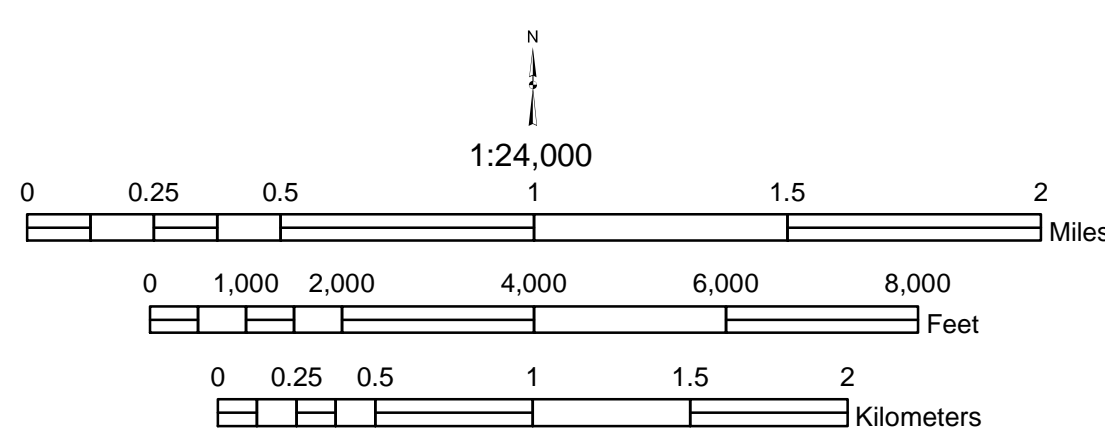


JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

Masonboro Island Unit L09 (2 of 2)

This draft map was produced by the U.S. Fish and Wildlife Service to show the Service's final recommended boundary changes to the John H. Chafee Coastal Barrier Resources System as directed by Section 3 of the Coastal Barrier Resources Reauthorization Act of 2005 (Pub. L. 109-226).

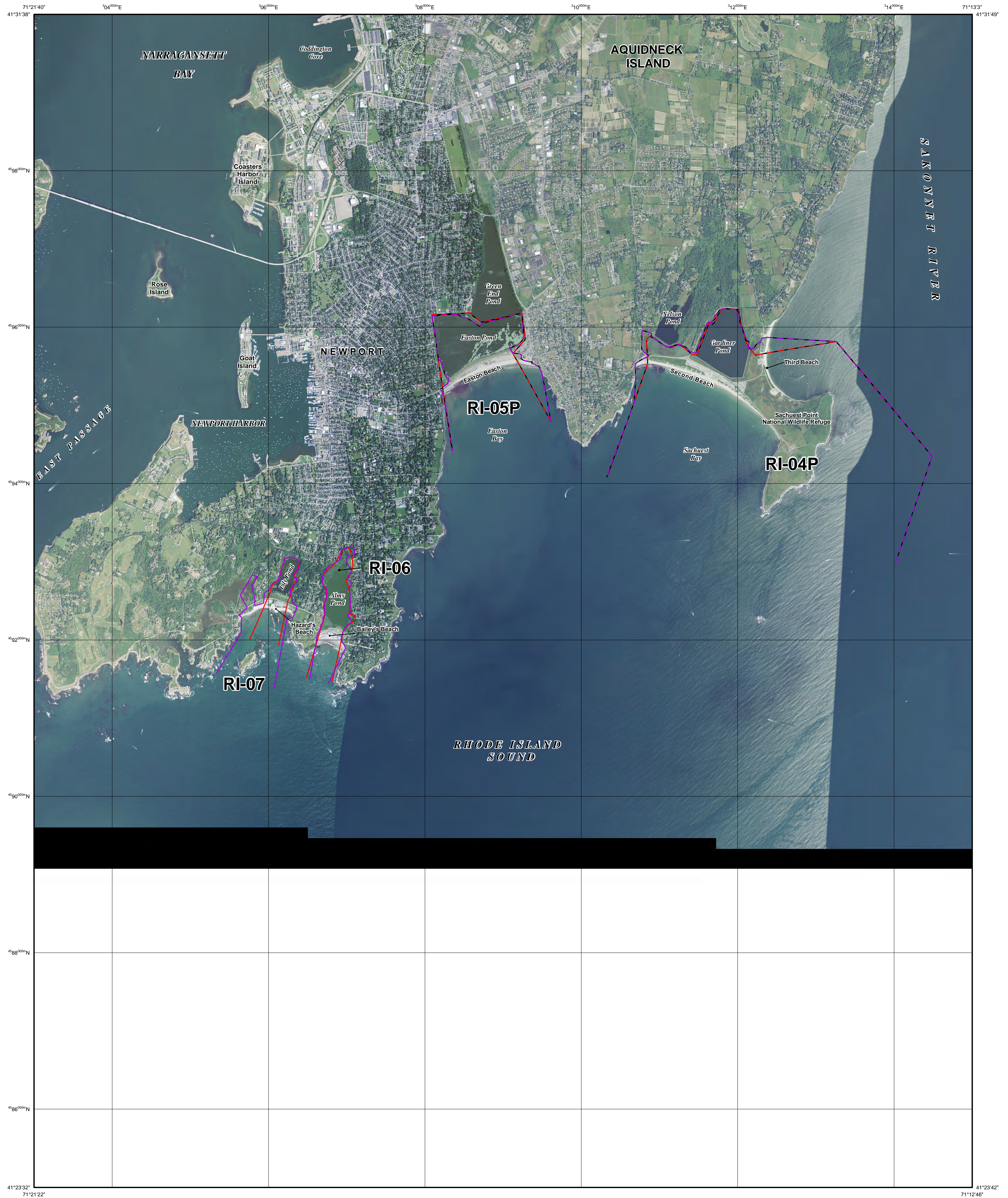
*The "Existing Boundary" shown on this map was digitized to approximately represent the location of the center of the roughly 80-100 foot thick controlling boundaries shown on the current official CBRS map for the area. The "Existing Boundary" has not been fit to the new underlying base map imagery, and should not be relied on as the official CBRS boundaries for this area. The official CBRS map for this area is available for viewing and download at www.fws.gov/cbra.



- Final Recommended System Unit Boundary
 - Final Recommended Otherwise Protected Area (OPA) Boundary; OPAs are identified on the map by the letter "P" following the unit number
 - Existing System Unit Boundary (approximate)*
 - Existing OPA Boundary (approximate)*
- 36°54'00"N 2000- meter Universal Transverse Mercator grid values, Zone 18 North
 90°45'0" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
 Imagery Date(s): 2010 and 2012
 Imagery Source(s): State of North Carolina and United States Department of Agriculture National Agriculture Imagery Program
 Coordinate System: North American Datum 1983 North Carolina Statewide Mapping System Lambert Conformal Conic Projection

March 12, 2014

Existing and Final Recommended Boundaries

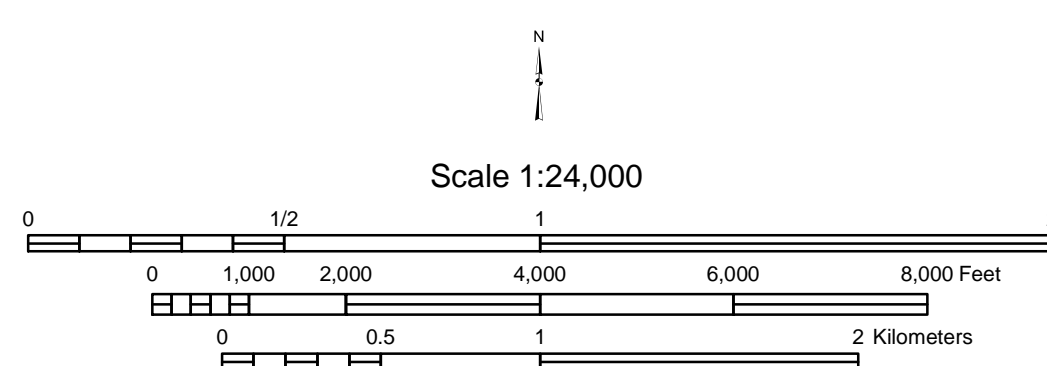


JOHN H. CHAFEE COASTAL BARRIER RESOURCES SYSTEM

SACHUEST POINT UNIT RI-04P (Map 1 of 1) EASTON BEACH UNIT RI-05P (Map 1 of 1) ALMY POND UNIT RI-06 (Map 1 of 1) HAZARDS BEACH UNIT RI-07 (Map 1 of 1)

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2000- meter Universal Transverse Mercator grid values, Zone 18 North

Imagery Date: 2011
 Imagery Source: Rhode Island Department of Environmental Management
 Coordinate System: State Plane Transverse Mercator
 Projection: Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
 Datum:

Draft Date: September 16, 2013